

# Foods, Sex, and Drugs: Appetitive Desires and Subjective Well-Being

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## Abstract:

In their everyday environments, people spend a lot of time experiencing and dealing with appetitive desires of all kinds, including those for foods, sex, and drugs. In this chapter, we review the concept of appetitive desire and spell out its multifaceted link with subjective well-being. Our main conclusions are that, oftentimes, appetitive desires are quite unproblematic and adaptive, and enacting them is typically a source for affective and cognitive well-being. However, desires sometimes conflict with important long-term goal or moral values, and their mere experience can be aversive. More importantly, the enactment of such unproblematic desires appears to result in diminished hedonic gains, and is related to reduced cognitive well-being. Having identified motivational conflict as the main source for the sometimes problematic nature of appetitive desire, we conclude by discussing various ways through which individuals faced with the dilemma of problematic desire may be able to optimize their subjective well-being.

**Keywords: Desire, Self-Control, Well-Being, Motivational Conflict, Morality**

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Consider the last couple of hours before you started reading this chapter: Did you desire to consume or acquire something? Perhaps getting a good-looking donut when passing that bakery? Perhaps a coffee, if you are a regular coffee drinker, or a cigarette, if you are a smoker? Or did you desire to be close to someone<sup>3</sup>be it psychologically, or even physically? In their everyday environments, people spend a lot of time experiencing and dealing with appetitive desires of all kinds. These include innate desires such as for food, water, sex, and sleep, but also acquired desires such as for alcohol, cigarettes, and other (more or less harmful) drugs. Typically, such appetitive desires are quite unproblematic and adaptive. And so, enacting them is typically a source for short-term pleasure and happiness.

Things, however, can easily get more complicated: Sometimes a given desire conflicts with an important long-term goal or moral value. Consider the alcoholic spouse who is fully aware of the fact that giving in to the desire for another drink at the barbecue party will likely impair his ability to drive home safely (putting him/her and other people at danger), or make him/her more flirtatious (putting his/her spousal faithfulness to the test). The example illustrates that poor desire regulation may not only involve possible personal costs (e.g., being fined for drunk driving or getting divorced, respectively), but also costs to other people involved.

On an aggregate, societal scale, the consequences of poor desire regulation can be enormous. According to an influential study, 40% of deaths in the United States each year have been estimated to be attributable to behaviors that , directly, or indirectly, have to do with poor desire control, such as with regard to unhealthy foods, tobacco, alcohol, unprotected sex, aggressive urges, and illicit drugs (Schroeder, 2007). Therefore, it seems important to both gain a better understanding of the antecedents that contribute to successful and unsuccessful desire regulation, as well as of the consequences for health and well-being that result from the way people deal with their appetitive desires.

The present chapter, therefore, is centered on the concept of appetitive desire. We will begin with a brief definition of desire and desire regulation. In doing so, we will also touch on the neuropsychological literature on appetitive desires, as well as on some of the key antecedents of poor desire regulation. This

will lead over to our main question in this chapter: how is the enactment or non-enactment of appetitive desires such as for food, sex, and drugs linked to well-being?

## **Desire: Definition, Neuropsychological Basis, Similarity to Emotion**

In colloquial language, the term desire can refer to all kinds of wishes and wants. Therefore, it is important to more clearly define what we mean by desire in the context of this chapter: We use the term “desire” here to refer to the more narrow sense of *appetitive* desire. Appetitive desire can be defined as a “feeling of wanting that propels us to approach and consume objects or otherwise engage in activities that satisfy a need and, in doing so, yield a gain in immediate pleasure (or relief from discomfort)” (Hofmann & Nordgren, 2015, p. 5). Typically, appetitive desires are based in physiological need states; However, they can also be acquired through processes of reinforcement learning as in the case of drugs, media addiction, spending urges, etc. (Martin-Soelch, Linthicum, & Ernst, 2007). Moreover, we use the term “craving” to refer to desires across domains that are particularly high-intensity (e.g., drug craving, food craving).

How are desires represented in the brain? From a neuroscientific perspective, an often-replicated finding is that the emergence of desire appears to be rooted in activity in largely subcortical neural regions in the limbic system of the brain. The key region that lights up in dozens of desire-related studies is commonly referred to as the reward center in the brain. The reward center is part of the so-called mesolimbic dopamine system (Kelley, Schiltz, & Landry, 2005). Of particular interest is the so-called nucleus accumbens (NAcc) in the ventral striatum. This structure seems to be implicated in the generation of wanting experiences (Berridge, Robinson, & Aldridge, 2009; Peciña & Berridge, 2005). For instance, one study connecting laboratory brain data and everyday life desire experiences, showed that individual differences in NAcc activity during exposure to food cues in the scanner were reliably related to the average strength of food desires in people’s everyday environments, as measured via experience-sampling (Lopez, Hofmann, Wagner, Kelley, & Heatherton, 2014). Likewise, individual differences in NAcc responsivity to food and sexual pictures have been shown to be predictive of subsequent weight gain and sexual activity 6 months later (Demos, Heatherton, & Kelley, 2012).

In sum, appetitive desire experiences appear to have its roots in deep-seated structures in the brain that we share with most animals. However, the desire (i.e., reward-related) signals emanating from these structures are then integrated, cognitively enriched and regulated in higher-order, prefrontal structures in the brain, as the system needs to decide which course of action from the available options to take. This then becomes an issue of desire regulation which we will touch on below.

From a conceptual perspective, a parallel can be drawn between the concept of desire and the concept of an emotion (Hofmann & Kotabe, 2013). That is, like emotions, desires have an affective, motivational, and cognitive dimension. Regarding the affective dimension, both desires and emotions are accompanied a certain phenomenological feeling (the feeling of “wanting” in the case of desire). Regarding the motivational component, desires as well as emotions prepare and motivate behavior. Desiring something means wanting to have, consume, or do something that is expected to yield pleasure (or reduce discomfort).

Regarding the cognitive component, both desire and emotions are subject to appraisal processes and can thus be intricately linked to cognition (as reflected, for instance, in the affect-cognition debate of emotion). The most prominent theory linking desire to cognition is the so-called elaborated intrusion theory of desire (Kavanagh, Andrade, & May, 2005). According to this theory, desire is typically accompanied by intrusive thoughts (including fantasies) about the object of desire. Moreover, desire and cognition can reinforce each other in a dynamical way (see Hofmann & Van Dillen, 2012, for a related dynamical model of this process): As a person engages in more and more cognitive elaboration of a given desire, the strength of the desire typically increases. As the strength of desire increases, it captures more and more attention and thus more mental resources are allocated to it in working memory. This is one explanation for why desires can sometimes escalate to the point where, metaphorically, common sense goes out of the window. In other words, the sometimes all-consuming, highly ruminative nature of intense cravings makes it increasingly more difficult for conflicting goals and values to gain the upper hand in the struggle for limited working memory resources (Hofmann, Friese, Schmeichel, & Baddeley, 2011; Hofmann & Van Dillen, 2012; Kavanagh et al., 2005).

## **Desire Regulation (or, the Killjoy Society)**

Whereas many desires are unproblematic and adaptive, more often than we may wish, desires conflict with important self-regulatory or moral standards, goals, and values. This notion of intra-

psychological conflict turns a given desire into a special subclass, *temptation* (or problematic desire), defined as a desire that stands in conflict with an important higher-order goal, standard, or moral value. Examples include food (dieting; not eating animal food), sex (sexually transmitted diseases; remaining faithful), and drugs (health, doing something illegal). It is thus clear that “desire” and “temptation” are not synonymous terms (Hofmann & Kotabe, 2013; Hofmann & Van Dillen, 2012). Rather, “temptations” can be conceptualized as a subset of desires, namely those that conflict with an important higher-order goal or value. To put it in the words of philosopher Alfred Mele (2001), to say someone is “tempted” requires that the person *desires* to do X and simultaneously has a *good reason* not to do X. Whether a person has good reason not to do X will typically hinge on the “baggage” the person brings with him- or herself in terms of endorsed self-regulatory goals, internalized or introjected values, or other competing motives and goals (Kotabe & Hofmann, 2015).

At a general level, the unrestrained enactment of desire can either be self-harming or interfere with the well-being of fellow citizens (or both). For instance, excessive alcohol consumption may not only harm one’s own body, but also have a disintegrating effect on one’s family members (e.g., impulsive acts of family violence, failing to maintain a job). The capacity to regulate desire can thus be regarded as an important prerequisite for participating in society. Ignoring this necessity can be quite costly. As Sigmund Freud (1930) has so aptly put it in his seminal essay, *Civilization and its Discontents*, “An unrestricted satisfaction of every need presents itself as the most enticing method of conducting one’s life, but it means putting enjoyment before caution, and soon brings its own punishment.” Societies everywhere have developed multiple mechanisms to deal with those who repeatedly fail at controlling desires. For instance, repeated sexual offenders are typically removed from free society and confined to prison.

It is thus clear, that most people, most of the time, harbor good reasons against enacting problematic desires. But where do these “good reasons” come from? Not surprisingly, many of these reasons have become institutionalized as norms of proper conduct. That is, legal, religious, and educational systems have always played an active part in the regulation of desires as these norms are passed onto (most) members of society and ultimately internalized through the process of socialization. Presumably, the ideal goal of such regulative attempts is to establish a consensual balance between individual liberty and collective interests<sup>3/4</sup>including public safety, order, and health, even if it comes at the cost of sacrificing some individual pleasures (see Freud, 1930, for a classic treatment of this tradeoff).

In fact, the regulative power of morality runs deep, even beyond institutionalized normative influence. According to the well-established moral foundations theory (Graham et al., 2013), morality is based on several core moral principles: *Care* (i.e., “don’t harm other people”), *Fairness* (i.e., “don’t pursue your own advantage in disproportionate ways”), *Loyalty* (i.e., “don’t betray your in-group”), *Authority* (i.e., “don’t disrespect laws, rules, and authority figures”), and *Sanctity* (i.e., “don’t do something “impure” or “indecent”). Another, separable core moral principle may be *Honesty* (i.e., “don’t manipulate the truth”; Hofmann, Wisneski, Brandt, & Skitka, 2014). Each of these principles can serve as a moral reason of desire regulation in the sense of a moral “ought” (i.e., proscriptive morality; Janoff-Bulman, Sheikh, & Hepp, 2009). Accordingly, self-control goals often appear to be moralized (e.g., Haidt & Hersh, 2001; Mooijman et al., in press; Rozin & Singh, 1999). For instance, it is easy to see how harm (e.g., rape), disloyalty (e.g., infidelity), disrespect of authority/law (e.g., sex with a minor), impurity/disgust (e.g., sex with a sibling), or dishonesty (e.g., pretending to be a star when you are not) can all serve as good reasons or moral principles for why (people think) a person should think twice about advancing and enacting a given sexual urge.

## **Appetitive Desire and Well-Being**

Having thus laid the foundation for the concept of appetitive desire, as well as its tension with societal affordances that require the motivation and capacity for the control of certain desires, we now turn to the even more complex issue of how appetitive desires such as food, sex, and drugs relate to subjective well-being. To better understand this complex picture, and introduce some meaningful demarcations, we will distinguish between (a) *affective* (i.e., hedonic) well-being and *cognitive* well-being (i.e., life satisfaction), (b) the *experience* and the *enactment* of desire (and its consequences), and (c) between *unproblematic* and *problematic* desires (i.e., temptations). The resulting organizational scheme is presented in Table 1. In a nutshell, we distinguish between affective and cognitive well-being to acknowledge the well-established fact that these two facets of subjective well-being can be clearly separated, and have different predictors and consequences (Diener & Chan, 2011; Lucas, Diener, & Suh, 1996; Luhmann, Hofmann, Eid, & Lucas, 2012). This opens up the possibility that the two major dimensions of well-being may be differentially affected by appetitive desires and their regulation. We distinguish desire experience and enactment to suggest that even the experience of desire may, under certain conditions, be aversive and

thus reduce affective well-being. And we distinguish unproblematic and problematic desire because problematic desires may pose quite different challenges for well-being than unproblematic ones.

**Table 1. Organizational Scheme of the relationship between appetitive desire and well-being. The taxonomy distinguishes between desire experience and enactment, affective and cognitive well-being, and unproblematic and problematic desire. Parts printed in gray font are only briefly discussed in the present chapter.**

	Desire Experience	Desire Enactment
Affective Well-Being	Unproblematic Desire	Unproblematic Desire
	Problematic Desire	Problematic Desire
Cognitive Well-Being	Unproblematic Desire	Unproblematic Desire
	Problematic Desire	Problematic Desire

## Experiencing Desire and Affective Well-Being:

### The Role of Ambivalence and Conflict

How does the experience of appetitive desires such as for food, sex, and alcohol relate to in-the-moment affective well-being? As mentioned above, desires are characterized by a phenomenological state of wanting. This state has often been described as ambivalent (Kavanagh et al., 2005): On the one hand, there is tantalizing enchantment from anticipating pleasure (“imaginary relish”). On the other, there is frustration from not (yet) having had the opportunity to consume the source of the desire (“exquisite torture”; Kavanagh et al., 2005). So, even in the case of an unproblematic desire, the combined effect of experiencing a given desire on affective well-being may depend on the relative strength of the positive and negative ingredients of this “mixed” (ambivalent) emotional state (Larsen, Coles, & Jordan, 2017). If the positive ingredient of the anticipated reward is relatively larger, desire is likely to be positive in tone. However, note that in the case of unproblematic desire, the ambivalence emerges entirely within one given motivational stream of action (e.g., “longing for one’s partner”).

In the case of problematic desire, however, the ambivalence is arguably much more intense. The reason is that a major source of additional negativity enters the psychological scene: As mentioned above, problematic desires imply intra-psychological conflict between *motives*. There is the literal struggle between “two souls” within oneself: One part wants something and pushes for action, but another part inside urges caution and voices “good reason” for why one should not (Hofmann, Friese, & Strack, 2009; Milkman, Rogers, & Bazerman, 2008). Such motivational conflict has consistently been shown to be an aversive, unpleasant affective experience in a large body of research (e.g., Emmons & King, 1988; Nordgren, Van Harreveld, & Van Der Pligt, 2006; van Harreveld, Nohlen, & Schneider, 2016). Further evidence comes from the literature on cognitive conflict and error-related brain activity which likewise suggests that experiencing motivational conflict is aversive in nature (see Inzlicht & Legault, 2014, for a review). In a related vein, of course, the literature on cognitive dissonance has long suggested that holding conflicting thoughts in mind is an affectively negative experience (Festinger, 1957; Proulx, Inzlicht, & Harmon-Jones, 2012). A paper from a large experience-sampling project on self-control (Hofmann, Baumeister, Förster, & Vohs, 2012) has directly compared momentary levels of affective well-being for (non-enacted) unproblematic desires and (non-enacted) problematic desires (Hofmann, Kotabe, & Luhmann, 2013). The study found that the no-enactment baseline for problematic temptations was substantially lower than the no-enactment baseline for unproblematic ones, suggesting that the fact of being in a tempting, conflicting situation was experienced as considerably more aversive than when self-control demands were absent.<sup>1</sup>

In summary, the relation between experiencing appetitive desire and momentary well-being may depend on how problematic the desire is, that is, how much motivational conflict it entails. The available evidence consistently suggests that the experience of a desires that conflict with important self-regulatory goals or values is accompanied by higher levels of ambivalence and, hence, reduced affective well-being as compared with the experience of unproblematic desires. It was recently hypothesized that motivational conflict in desire control may be a function of desire strength, opposing goal strength, and their degree of incompatibility (Kotabe & Hofmann, 2015). Future research manipulating these or other aspects of motivational conflict may arrive at a more fine-grained picture of this relation.

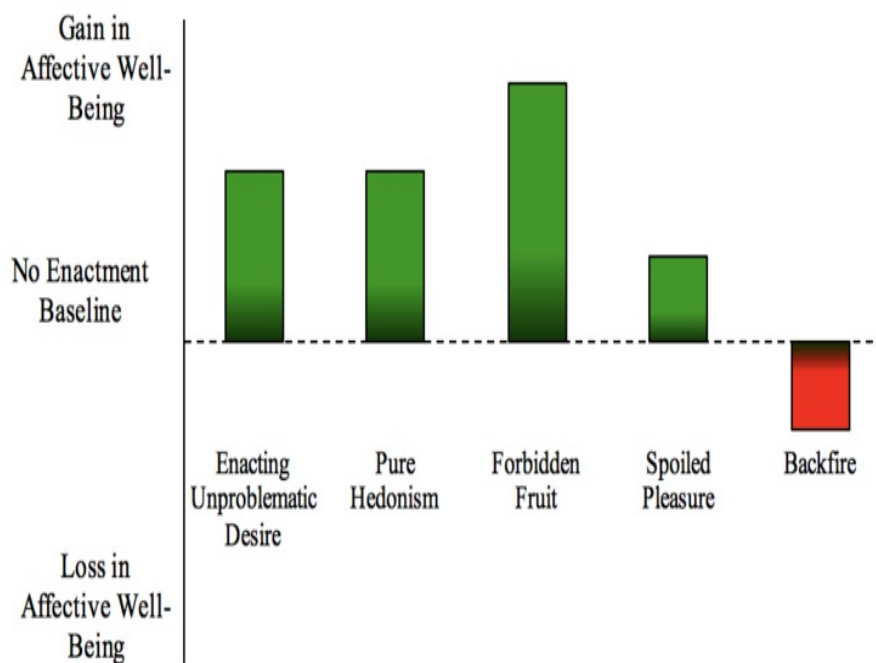
Throughout this section, we have avoided discussing the relationship between in-the-moment desire experiences and cognitive well-being/life satisfaction, a decision that was motivated by the absence of a substantial amount of literature that would speak to this possibly more remote connection. Perhaps the (repeated) mere experience of unwanted desire intruding into consciousness and sticking around may lower one's life satisfaction via self-attributions of low control and perceived helplessness as mediating mechanisms. Future research will have to clarify this largely unknown territory.

## Enacting Appetitive Desire and Affective Well-Being

What is the effect of enacting appetitive desires on affective well-being? The standard answer from motivation science is that the pursuit of pleasure (and avoidance of pain) is one of the most fundamental principles of motivation (Carver & Scheier, 1990; Hull, 1943; Lewin, 1935). That is, humans generally experience a temporary gain in affective well-being by fulfilling millennium-old basic needs such as the need to eat, rest, and reproduce, or acquired appetitive desires such as those for drinking alcohol or receiving likes on facebook.<sup>2</sup> For instance, large surveys as well as daily diary studies from relationship research have consistently found a positive effect of sexual activity on indicators of affective well-being (Blanchflower & Oswald, 2004; Hofmann, Finkel, & Fitzsimons, 2015; Muise, Schimmack, & Impett, 2016). Using the daily diary method, Oishi, Schimmack, and Diener (2001) found that people felt happier on days when they fulfilled physical desires such as for food or sex compared to days when they did not. Likewise, across several thousand observations from more than a dozen desire domains sampled from everyday life, a positive enactment gain on in-the-moment affective well-being was obtained, corresponding to a large effect size of about  $d = .90$  (Hofmann et al., 2013). With regard to unproblematic desire, the equation thus seems straightforward: enacting appetitive desire boosts affective well-being, at least in the short run.<sup>3</sup>

Concerning problematic desires, however, motivational conflict enters the scene, and a highly interesting question emerges: What gain in affective well-being does enacting problematic desire bring about? Scholarly and public opinions about the instant utility of giving in to temptation run deep among political, religious, and cultural divides (Veenhoven, 2003). Overall, four quite different “lay” hypotheses about the outcome of such a comparison can be found. Their respective predictions are summarized in Figure 1 (see Hofmann et al., 2013).

The *pure hedonism hypothesis* holds that the gain in affective well-being resulting from enacting a tempting desire would be no different from the gain in momentary happiness resulting from enacting a comparable unproblematic desire: A cake is a cake. Take two people, one harboring no dieting goal whatsoever, the other being hard-pressed to diet: in both cases, the basic principle of need satisfaction would predict that consuming the object of desire sets free the same amount of pleasure units (for cake, these are sometimes also referred to as “calories”). According to this view, temptations have their downside, or course, but these negative effects lie in the delayed and uncertain future.<sup>4</sup> The *forbidden fruit hypothesis* suggests that enacting problematic desires is accompanied by a special allure that may add an additional boost for affective well-being. In contrast, both the *spoiled pleasure hypothesis* and the *backfire hypothesis* predict that enacting problematic desire yields a *reduced* hedonic payoff when compared with the unproblematic desire case. This reduction may be due to the impact of self-conscious emotions: Humans are not only equipped with basic emotions but also subject to emotions of self-assessment, such as guilt, regret, and pride (Taylor, 1985; Tracy, Robins, & Tangney, 2007). Thus, according to this view, affective well-being results from the combination of primary, basic and secondary, self-conscious emotional experience. Yielding to temptation may thus be like a “mixed blessing” for affective well-being: a feeling of pleasure that adds to affective well-being, but *at the same time* a constellation of self-conscious emotions (e.g., heightened guilt) that subtracts from it. The resulting net effect differs for the spoiled pleasure and the backfire hypothesis. In the former, the pleasure derived from enactment still outweighs the effect of self-conscious emotions; in the latter, the net effect is negative (see Figure 1), hence, from a happiness-maximization perspective, temptations are not even worth it in the “here and now”.



**Figure 1.** Four hypotheses regarding the extent of gain or loss in affective well-being due to the enactment of problematic appetitive desire in comparison with the enactment of unproblematic appetitive desire. **Reprinted/adapted by permission from Springer: Copyright Springer; Journal: Motivation and Emotion, Authors: Hofmann et al., 2013, Figure 1.**

First empirical evidence seems to support the spoiled pleasure account (Hofmann et al., 2013). That is, enacting problematic desires resulted in a considerably smaller, but still positive, gain in affective well-being (only a small positive effect of  $d = .13$ ) as compared to unproblematic desires. Furthermore, the effect was not moderated by whether the desire domain in question is generally assumed to be addictive or not (Hofmann et al., 2013).

In sum, whereas there is strong evidence for a general boost in affective well-being for desire enactment, this effect has mainly been researched without a clear distinction between unproblematic and problematic desires. Given that the majority of appetitive desires are rather unproblematic in nature (Hofmann et al., 2012), this general positive effect is not surprising. However, distinguishing among unproblematic, and problematic (i.e., motivationally conflicting) desires reveals a considerably reduced hedonic gain for the latter type of desire. This novel finding from the field challenges the long-standing assumption underlying the “pure hedonism” hypothesis, according to which giving in to temptation would produce similarly rewarding immediate hedonic payoffs as the fulfillment of unproblematic desires, and would thus incur only delayed costs. Future experimental research will have to more closely investigate this intriguing possibility.

## Enacting Appetitive Desire and Cognitive Well-Being

The final question we want to address is how the enactment of appetitive desires relates to cognitive well-being. Cognitive well-being refers to global or domain-specific evaluations of life. The most central and important aspect is global life satisfaction (“life satisfaction” henceforth), a cognitive judgment about how well one’s life is going in general. The concept of life satisfaction is thus very similar to the Aristotelian notion of eudaimonic well-being, a sense that one is leading the “good” life, that one’s life is “well-lived.” So, in contrast to affective well-being which is experiential in nature, cognitive well-being requires that people “take a step back” to view and evaluate the way they lead their life (over larger time-spans) and cognitively weigh and integrate various sources of information.

Because the frequent fulfillment of unproblematic needs and desires adds to affective well-being, and since there is little reason to question whether enacting these desires is time and effort well spent, it is straightforward to assume that the evaluation of one's frequent rather than infrequent enactment of unproblematic desires would generally be positive and thus contribute as one (out of many) sources for life satisfaction. Accordingly, the above-mentioned diary study by Oishi and colleagues (2001) also found that the average pleasure from fulfilling basic, physical desires positively contributed to life satisfaction (see also Tay & Diener, 2011). Moreover, because what is judged to be good is ultimately a value judgment, it is possible, that the fulfillment of basic appetitive needs may receive a stronger relative weight in those who prioritize the value of hedonism over and above other values in life (such as, for example, security, power, or achievement; Schwartz & Bilsky, 1987). Some evidence for this conjecture comes from the finding that people high in sensation seeking showed a stronger relationship between physical pleasure fulfillment and daily social life satisfaction (Oishi et al., 2001). In plain terms, if you value the pleasures of life a lot, seeing yourself harvest many of them will generally give you the sense that you are living your life in an optimal, authentic way. The desire to experience pleasure and happiness is also one focus of consumer research: Hedonic consumption is defined as the purchase of products that fulfill fantasies and satisfy emotions (Hirschman & Holbrook, 1982). In contrast to utilitarian consumption, which is characterized by the purchase of functional and necessary products, hedonic consumption has the essential feature of simply bringing pleasure or fun (for a review, see Alba & Williams, 2013). Consuming hedonic products improves satisfaction with the relevant life domains, and thus, increases cognitive well-being, based on a longitudinal study (Zhong & Mitchell, 2010).

Again, since most desires are unproblematic, the above general findings may somewhat cloud what can be gleaned with regard to problematic desires. Note that, with regard to affective well-being, our conclusion was that enacting problematic desire results in spoiled pleasure, but still a *positive* gain in affective well-being. In contrast, there is converging evidence from multiple areas of research suggesting that things take on a more negative spin when it comes to the cognitive evaluation of one's life: First, as discussed in length above, problematic desires are problematic for a good reason, and their - repeated or just one-time - enactment may wreak considerable havoc such as serious or even lethal health problems due to overweight, sexually transmitted diseases, continuous substance abuse or drug overdoses, or other problems such as poor social integration (Moffitt et al., 2011; Mokdad, Marks, Stroup, & Gerberding, 2004; Schroeder, 2007; Shoda, Mischel, & Peake, 1990). One of the key insights from work on self-control and weakness of will is that lack of awareness of/knowledge about these negative consequences is often not the key issue – rather motivational and volitional problems are central (Kotabe & Hofmann, 2015); hence, it can be supposed that most people who are low in self-control, most of the time, are well aware of the fact that their giving in to temptation may have negative long-term consequences. Second, from the perspective of dual motive conflicts, temptations can be regarded as obstacles with regard to making progress on the competing long-term goal; Hence, overly frequent indulgence that goes beyond people's ideal balance between the two motives may go along with the perception of insufficient progress towards important goals and aspirations (Hofmann, Luhmann, Fisher, Vohs, & Baumeister, 2014a; Wiese et al., in press). Third, there is the social environment: People who overindulge in problematic desires may receive frequent negative feedback from close others, doctors and caretakers, observers, including negative moral judgment directed towards oneself (Nordgren, van der Pligt, & van Harreveld, 2007). And fourth, the repeated enactment of desires one better ought to control may give rise to the sense that one is lacking internal control of one's inner driving forces (i.e., desires) that instigate the problematic behavior. Lack of perceived control is a well-known negative correlate of life satisfaction (e.g., DeNeve & Cooper, 1998), and research in problem populations such as obese people (e.g., Greeno, Jackson, Williams, & Fortmann, 1998) or teenagers experimenting with cigarettes and alcohol (Adalbjarnardottir & Rafnsson, 2001) supports the role of perceived control as one possible mechanism.

In sum, knowledge about negative consequences, insufficient long-term goal progress, negative social feedback, and perceived lack of control over one's behavior may all contribute to a negative evaluation of the way one conducts one's life. Accordingly, there is strong and often replicated evidence that individuals who describe themselves as low in self-control, as typically measured via the brief trait self-control scale (Tangney, Baumeister, & Boone, 2004), score higher on life satisfaction than those who describe themselves as high in self-control (Hofmann et al., 2014a; Wiese et al., in press), and alternative measurement approaches in more specific domains such as obesity support this view (Stutzer & Meier, 2016).

Is the relationship between self-control and subjective well-being a monotonic, linear function, or can there be too much of a good thing? Recently, Wiese and colleagues (in press) have scrutinized the theoretical possibility that too much self-control may have harmful implications for subjective well-being which might be due to overregulation of cognition, emotion, and behavior or obsession with

accomplishment of long-term goals at the expense of happiness; However, across multiple studies, methods, and measures there was no support for an inverted-U effect of self-control on subjective well-being.

## Summary and Outlook

In this chapter, we have reviewed the link between appetitive desires such as for food, alcohol, and sex on subjective well-being. We set out by noting the dilemma between the ubiquity of appetitive desires as internal driving forces and the necessity for the regulation of “problematic” desires both for individual (e.g., health-related) reasons and for societal welfare. How individuals solve this dilemma appears to have important implications for subjective well-being. Our review of the connection between desire and happiness was guided by our proposal that a fine-grained analysis of this link needs to distinguish, at minimum, between affective and cognitive well-being, unproblematic and problematic desires, and the experience and enactment of desire. Our main conclusions from surveying the available evidence are that (1) the experience of problematic (as compared to unproblematic) appetitive desire seems to be associated with a temporary drop in affective well-being, (2) the enactment of problematic (as compared to unproblematic) appetitive desire provides only “spoiled” pleasure, that is, a substantially reduced boost in momentary affective well-being, and (3) the frequent enactment of problematic (as compared to unproblematic) appetitive desire is associated with reduced cognitive well-being (i.e., life satisfaction). A lot of empirical effort is still needed, however, to better understand the mechanisms that give rise to these effects, such as the mechanisms that mediate between repeated self-control failures and low life satisfaction.

From a practical perspective, the present analysis identified problematic desire as the main culprit. This view suggests that happiness may be optimized by either becoming a master at inhibiting the enactment of problematic desires through interventive self-control or by avoiding or even eliminating problematic desire experiences as much as possible through preventive strategies of self-control which, ultimately, may be more successful. (Fujita, 2011; Hofmann & Kotabe, 2012). Note, however, that problematic desires may also be eliminated through changes to one’s *mental landscape*, i.e., the types of goals, moral values, and viewpoints one endorses. Though existing ideologies and moral systems typically offer such viewpoints (for free), one need not necessarily buy into them. Luckily, as people keep questioning and reasoning about moral values, there is overall moral progress (Shermer, 2015). One of the major, continuing challenges of societies, therefore, is to identify and demarcate the truly morally problematic forms of desire enactment from those that may be in need of revision and, possibly, unmoralization. As the moral landscape changes, new and better equilibria for balancing individual happiness and societal welfare may emerge.

## Footnotes

<sup>1</sup> As an aside, an interesting question, inspired by Buddhist philosophy, is whether, given the ambivalence of desire, a life with substantially reduced desire or even without experiencing desire at all may be the peak of happiness? We believe that the answer may depend on the type of desire experienced: Desiring something unproblematic and attainable may be associated with levels of momentary affect that may lie above the “Buddha” baseline of no desire experience; such a finding would also be consistent with research on the lack of motivational drive, or anhedonia (Treadway, 2015); However, experiencing a problematic desire (temptation) may lie below that baseline for the above reasons of introducing aversive intrapsychological conflict.

<sup>2</sup> Even though not the focus of the present chapter, this general principle also entails the satisfaction of basic *psychological* needs (Tay & Diener, 2011), as spelled out, for instance, by self-determination theory (Ryan & Deci, 2000).

<sup>3</sup> Of course, such effects are temporary, as inherent in the idea that desire (needs) and desire fulfillment (need satisfaction) are parts of the cycle of homeostatic regulation. There is some dearth of longitudinal studies involving substantially longer time spans which would allow drawing conclusions about the extent to which being able to regularly fulfill important basic, hedonic needs is causally linked to increased general levels of affective well-being.

<sup>4</sup> Note that this is the standard utilitarian explanation for why people (sometimes) yield to temptation: They expect the immediate reward resulting from temptation enactment to outweigh the (temporally discounted) long-term reward resulting from resistance (Ainslie, 2001; Thaler & Shefrin, 1981).



## References

- Adalbjarnardottir, S., & Rafnsson, F. D. (2001). Perceived control in adolescent substance use: Concurrent and longitudinal analyses. *Psychology of Addictive Behaviors, 15*, 25.
- Ainslie, G. (2001). *Breakdown of will*. New York: Cambridge University Press.
- Alba, J. W., & Williams, E. F. (2013). Pleasure principles: A review of research on hedonic consumption. *Journal of Consumer Psychology, 23*, 2-18.
- Berridge, K. C., Robinson, T. E., & Aldridge, J. W. (2009). Dissecting components of reward: 'Liking', 'wanting', and learning. *Current Opinion in Pharmacology, 9*, 65-73.
- Blanchflower, D. G., & Oswald, A. J. (2004). Money, sex and happiness: An empirical study. *The Scandinavian Journal of Economics, 106*, 393-415.
- Carver, C. S., & Scheier, M. (1990). Principles of self-regulation: Action and emotion. In E. T. Higgins & R. M. Sorrentino (Eds.), *Handbook of motivation and cognition: Foundations of social behavior, Vol. 2* (pp. 3-52). New York, NY: Guilford Press.
- Demos, K. E., Heatherton, T. F., & Kelley, W. M. (2012). Individual differences in nucleus accumbens activity to food and sexual images predict weight gain and sexual behavior. *Journal of Neuroscience, 32*, 5549-5552.
- DeNeve, K. M., & Cooper, H. (1998). The happy personality: A meta-analysis of 137 personality traits and subjective well-being. *Psychological Bulletin, 124*, 197-229.
- Diener, E., & Chan, M. Y. (2011). Happy people live longer: Subjective well-being contributes to health and longevity. *Applied Psychology-Health and Well Being, 3*, 1-43.
- Emmons, R. A., & King, L. A. (1988). Conflict among personal strivings: Immediate and long-term implications for psychological and physical well-being. *Journal of Personality and Social Psychology, 54*, 1040-1048.
- Festinger, L. (Ed.). (1957). *A theory of cognitive dissonance*. Stanford, CA: Stanford University Press.
- Freud, S. (1930). *Civilization and its discontents*. London: Hogarth.
- Fujita, K. (2011). On conceptualizing self-control as more than the effortful inhibition of impulses. *Personality and Social Psychology Review, 15*, 352-366.
- Graham, J., Haidt, J., Koleva, S., Motyl, M., Iyer, R., Wojcik, S. P., & Ditto, P. H. (2013). Moral foundations theory: The pragmatic validity of moral pluralism. *Advances in Experimental Social Psychology, 47*, 55-130.
- Greeno, C. G., Jackson, C., Williams, E. L., & Fortmann, S. P. (1998). The effect of perceived control over eating on the life satisfaction of women and men: Results from a community sample. *International Journal of Eating Disorders, 24*, 415-419.
- Haidt, J., & Hersh, M. A. (2001). Sexual morality: The cultures and emotions of conservatives and liberals. *Journal of Applied Social Psychology, 31*, 191.
- Hirschman, E. C., & Holbrook, M. B. (1982). Hedonic consumption: Emerging concepts, methods and propositions. *The Journal of Marketing, 92*-101.
- Hofmann, W., Baumeister, R. F., Förster, G., & Vohs, K. D. (2012). Everyday temptations: An experience sampling study of desire, conflict, and self-control. *Journal of Personality and Social Psychology, 102*, 1318-1335.
- Hofmann, W., Finkel, E. J., & Fitzsimons, G. J. (2015). Close relationships and self-regulation: How relationship satisfaction facilitates momentary goal pursuit. *Journal of Personality and Social Psychology, 109*, 434-452.
- Hofmann, W., Friese, M., Schmeichel, B. J., & Baddeley, A. D. (2011). Working memory and self-regulation. In K. D. Vohs & R. F. Baumeister (Eds.), *The handbook of self-regulation: Research, theory, and applications* (Vol. 2, pp. 204-226). New York: Guilford Press.
- Hofmann, W., Friese, M., & Strack, F. (2009). Impulse and self-control from a dual-systems perspective. *Perspectives on Psychological Science, 4*, 162-176.
- Hofmann, W., & Kotabe, H. (2012). A general model of preventive and interventive self-control. *Social and Personality Psychology Compass, 6*, 707-722.
- Hofmann, W., & Kotabe, H. P. (2013). Desire and desire regulation: Basic processes and individual differences. In J. J. Gross (Ed.), *Handbook of emotion regulation* (2nd ed., pp. 346-360). New York:

Guilford.

Hofmann, W., Kotabe, H., & Luhmann, M. (2013). The spoiled pleasure of giving in to temptation. *Motivation and Emotion, 37*, 733-742.

Hofmann, W., Luhmann, M., Fisher, R. R., Vohs, K. D., & Baumeister, R. F. (2014a). Yes, but are they happy? Effects of trait self-control on affective well-being and life satisfaction. *Journal of Personality, 82*, 265-277.

Hofmann, W., & Nordgren, L. F. (2015). Introduction to The psychology of desire. In W. Hofmann & L. F. Nordgren (Eds.), *The psychology of desire* (pp. 1-16). New York: Guilford.

Hofmann, W., & Van Dillen, L. F. (2012). Desire: The new hotspot in self-control research. *Current Directions in Psychological Science, 21*, 317-322.

Hofmann, W., Wisneski, D. C., Brandt, M. J., & Skitka, L. J. (2014). Morality in everyday life. *Science, 345*, 1340-1343.

Hull, C. L. (1943). *Principles of behavior*. New York: Appleton-Century Crofts.

Inzlicht, M., & Legault, L. (2014). No pain, no gain: How distress underlies effective self-control (and unites diverse social psychological phenomena). *The control within: Motivation and its regulation*, 115-132.

Janoff-Bulman, R., Sheikh, S., & Hepp, S. (2009). Proscriptive versus prescriptive morality: Two faces of moral regulation. *Journal of Personality and Social Psychology, 96*, 521-537.

Kavanagh, D. J., Andrade, J., & May, J. (2005). Imaginary relish and exquisite torture: The Elaborated Intrusion theory of desire. *Psychological Review, 112*, 446-467.

Kelley, A. E., Schiltz, C. A., & Landry, C. F. (2005). Neural systems recruited by drug- and food-related cues: Studies of gene activation in corticolimbic regions. *Physiology and Behavior, 86*, 11-14.

Kotabe, H. P., & Hofmann, W. (2015). On integrating the components of self-control. *Perspectives on Psychological Science, 10*, 618-638.

Larsen, J. T., Coles, N. A., & Jordan, D. K. (2017). Varieties of mixed emotional experience. *Current Opinion in Behavioral Sciences, 15*, 72-76.

Lewin, K. (1935). *A dynamic theory of personality*. New York: McGraw-Hill.

Lopez, R. B., Hofmann, W., Wagner, D. D., Kelley, W. M., & Heatherton, T. F. (2014). Neural predictors of giving in to temptation in daily life. *Psychological Science, 25*, 1337-1344.

Lucas, R. E., Diener, E., & Suh, E. (1996). Discriminant validity of well-being measures. *Journal of Personality and Social Psychology, 71*, 616-628.

Luhmann, M., Hofmann, W., Eid, M., & Lucas, R. E. (2012). Subjective well-being and adaptation to life events: a meta-analysis. *Journal of Personality and Social Psychology, 102*, 592-615.

Martin-Soelch, C., Linthicum, J., & Ernst, M. (2007). Appetitive conditioning: Neural bases and implications for psychopathology. *Neuroscience and Biobehavioral Reviews, 31*, 426-440.

Mele, A. (2001). *Autonomous agents: From self-control to autonomy*. Oxford: Oxford University Press.

Milkman, K. L., Rogers, T., & Bazerman, M. H. (2008). Harnessing our inner angels and demons: What we have learned about want/should conflicts and how that knowledge can help us reduce short-sighted decision making. *Perspectives on Psychological Science, 3*, 324-338.

Moffitt, T. E., Arseneault, L., Belsky, D., Dickson, N., Hancox, R. J., Harrington, H., . . . Caspi, A. (2011). A gradient of childhood self-control predicts health, wealth, and public safety. *Proceedings of the National Academy of Sciences of the United States of America, 108*, 2693-2698.

Mokdad, A. H., Marks, J. S., Stroup, D. F., & Gerberding, J. L. (2004). Actual causes of death in the United States, 2000. *Jama-Journal of the American Medical Association, 291*, 1238-1245.

Mooijman, M., Meindl, P., Oyserman, D., Montereosso, J., Dehghani, M., Doris, J. M., & Graham, J. (in press). Resisting temptation for the good of the group: Binding moral values and the moralization of self-control. *Journal of Personality and Social Psychology*.

Muise, A., Schimmack, U., & Impett, E. A. (2016). Sexual frequency predicts greater well-being, but more is not always better. *Social Psychological and Personality Science, 7*, 295-302.

Nordgren, L. F., van der Pligt, J., & van Harreveld, F. (2007). Evaluating Eve: Visceral states influence the evaluation of impulsive behavior. *Journal of Personality and Social Psychology, 93*, 75-84.

- Nordgren, L. F., Van Harreveld, F., & Van Der Pligt, J. (2006). Ambivalence, discomfort, and motivated information processing. *Journal of Experimental Social Psychology, 42*, 252-258.
- Oishi, S., Schimmack, U., & Diener, E. (2001). Pleasures and subjective well-being. *European Journal of Personality, 15*, 153-167.
- Peciña, S., & Berridge, K. C. (2005). Hedonic hot spot in nucleus accumbens shell: Where do  $\mu$ -opioids cause increased hedonic impact of sweetness? *The Journal of Neuroscience, 25*, 11777-11786.
- Proulx, T., Inzlicht, M., & Harmon-Jones, E. (2012). Understanding all inconsistency compensation as a palliative response to violated expectations. *Trends in Cognitive Sciences, 16*, 285-291.
- Rozin, P., & Singh, L. (1999). The moralization of cigarette smoking in the United States. *Journal of Consumer Psychology, 8*, 321-337.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*, 68.
- Schroeder, S. A. (2007). We can do better - Improving the health of the American people. *New England Journal of Medicine, 357*, 1221-1228.
- Schwartz, S. H., & Bilsky, W. (1987). Toward a universal psychological structure of human values. *Journal of Personality and Social Psychology, 53*, 550-562.
- Shermer, M. (2015). *The moral arc*. New York, NY: Henry Holt.
- Shoda, Y., Mischel, W., & Peake, P. K. (1990). Predicting adolescent cognitive and self-regulatory competencies from preschool delay of gratification: Identifying diagnostic conditions. *Developmental Psychology, 26*, 978-986.
- Stutzer, A., & Meier, A. N. (2016). Limited self-control, obesity, and the loss of happiness. *Health Economics, 25*, 1409-1424.
- Tangney, J. P., Baumeister, R. F., & Boone, A. L. (2004). High self-control predicts good adjustment, less pathology, better grades, and interpersonal success. *Journal of Personality, 72*, 271-324.
- Tay, L., & Diener, E. (2011). Needs and subjective well-being around the world. *Journal of Personality and Social Psychology, 101*, 354.
- Taylor, G. (Ed.). (1985). *Pride, shame, and guilt. Emotions of self-assessment*. Oxford: Clarendon.
- Thaler, R. H., & Shefrin, H. M. (1981). An economic theory of self-control. *Journal of Political Economy, 89*, 392-406.
- Tracy, J. L., Robins, R. W., & Tangney, J. P. (Eds.). (2007). *The self-conscious emotions*. New York: Guilford.
- Treadway, M. T. (2015). Liking little, wanting less: On (lacking) desire in psychopathology. In W. Hofmann & L. F. Nordgren (Eds.), *The psychology of desire* (pp. 307-322). New York: Guilford.
- van Harreveld, F., Nohlen, H., & Schneider, I. K. (2016). You shan't always get what you want: The consequences of ambivalence towards desires. In W. Hofmann & L. F. Nordgren (Eds.), *The psychology of desire* (pp. 267-285). New York: Guilford.
- Veenhoven, R. (2003). Hedonism and happiness. *Journal of Happiness Studies, 4*, 437-457.
- Wiese, C. W., Tay, L., Duckworth, A. L., D'Mello, S., Kuykendall, L., Hofmann, W., . . . Vohs, K. D. (in press). Too much of a good thing? Exploring the inverted-U relationship between self-control and happiness. *Journal of Personality*.
- Zhong, J. Y., & Mitchell, V.-W. (2010). A mechanism model of the effect of hedonic product consumption on well-being. *Journal of Consumer Psychology, 20*, 152-162.



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