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### CHAPTER

## 11 Media Entertainment as Guilty Pleasure? The Appraisal of Media Use, Self-Control, and Entertainment (AMUSE) Model



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### Abstract

Using media, specifically those that offer entertainment, frequently conflicts with other goals and obligations in daily life. Users can manage these conflicts either by applying self-control and upholding their goals, or by giving in to media temptations, which elicits negative emotional appraisals such as guilt that potentially spoil entertainment experiences. Currently, a systematic integration of self-control and entertainment theory is direly needed to guide future work in this area. The goals of the present chapter are thus threefold: (1) It provides a theoretical explication of the central components of self-control and subsequently (2) introduces the appraisal of media use, self-control, and entertainment (AMUSE) model. The AMUSE model systematizes the available empirical evidence on the role of self-control for the selection, processing, and effects of (entertaining) media content and, on this basis, the chapter (3) provides testable propositions for future research.

**Keywords:** self-control, appraisal, media entertainment, hedonic, eudaimonic, self-conscious emotions, media selection, message processing, media effects

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MEDIA and communication technology use is among the most challenging temptations in daily life (Hofmann, Vohs, & Baumeister, 2012; Reinecke & Hofmann, 2016) and has long been recognized as a source of self-regulatory failure (e.g., LaRose, Lin, & Eastin, 2003). While some of these failures may be incidental and benign, evidence for negative effects of deficiently self-controlled media entertainment on health and well-being amasses. From being a sedentary “couch potato” (Kubey & Csikszentmihalyi, 1990; Marker, Gnambs, & Appel, 2019), to procrastinating with social media (Meier, Reinecke, & Meltzer, 2016), or “binge viewing” (Granow, Reinecke, & Ziegele, 2018; see Halfmann & Reinecke, this volume), a core theme of

deficiently self-controlled media use has emerged (Hofmann, Reinecke, & Meier, 2017; LaRose et al., 2003; Tokunaga & Rains, 2016). While entertainment is often associated with positive affect, a welcome contrast to work and stress, or recovery (see Luong & Knobloch-Westerwick, this volume; Reinecke & Rieger, this volume), this research clearly demonstrates that the appeal of entertainment fare may seduce users to prioritize media pleasure and to risk negative consequences in other domains of daily life, such as conflicts with family or friends, work or school underperformance, or sleep deprivation.

p. 206 Empirical research and prior reviews have studied this phenomenon by addressing specific ways in which (lack of) self-control can change the selection, processing, or effects of media (e.g., Hofmann et al., 2017; Tokunaga, 2015; van Koningsbruggen, Hartmann, & Du, 2018). However, a *theoretical synthesis* (DeAndrea & Holbert, 2017) that allows researchers to map their individual efforts systematically on a model of self-control in entertainment-related media use is currently missing from the literature. Accordingly, this chapter sets out to contribute to entertainment research, media psychology, and communication theory threefold. First, by drawing on psychological self-control theory (Hofmann, Friese, & Strack, 2009; Kotabe & Hofmann, 2015), we clarify the constructs relevant to the study of self-controlled media use. Second, we explicate an integrative model that distinguishes three phases of entertainment-oriented media contact and delineate components of these phases relevant to self-control. Third, alongside this model, we (a) review evidence on how self-control constructs relate to components of media contact in order to (b) derive testable propositions. We conclude by discussing strengths and limitations of the model as well as avenues for future research.

## What Is Self-Control?

In everyday life, self-control is required to direct behavior toward a higher-order, usually more long-term goal (e.g., academic success) instead of a conflicting, usually more short-term desire (e.g., relaxing on the couch) (Hofmann et al., 2017; Kotabe & Hofmann, 2015). In their *integrative self-control theory* (SCT), Kotabe and Hofmann (2015) have condensed the conceptually rich psychological and neuroscientific self-control literature into seven major *components* (i.e., desire, higher-order goal, desire-goal conflict, control motivation, control capacity, control effort, and enactment constraints) and two key *component clusters* (i.e., the activation and the exertion cluster).

The *activation cluster* consists of the desire, higher-order goal, and the desire-goal conflict components. *Desire* refers to a psychological driving force that first originates as a “wanting” state and then aims to direct a person’s behavior toward an immediate reward-related stimulus. Media-related desires may manifest as “wanting” to improve one’s current mood (see Luong & Knobloch-Westerwick, this volume) by consuming entertaining content (e.g., watching humorous videos) or by relieving boredom through the arousal resulting from interactive entertainment (e.g., gaming; see Bowman, this volume). A *higher-order goal* is a more abstract “cognitive construct [...] associated with an endorsed end state” (Kotabe & Hofmann, 2015, p. 623) that is typically pursued intentionally and with the expectation of a more long-term benefit. Higher-order goals usually resonate more with individual values and virtues than desires. Examples for commonly endorsed goals would be obtaining a degree, achieving professional fulfillment, or establishing and maintaining functioning relationships (for a recent taxonomy, see Veilleux et al., 2018). When both a desire and a (partially) incompatible higher-order goal are coactivated in a given behavioral episode, a *desire-goal conflict* ensues. Through this conflict, the desire is rendered a *temptation*, or problematic desire. To resolve this conflict, the individual’s behavioral guidance system must determine which motivational force—the desire or the higher-order goal—will dominate the behavioral response. Detecting a desire-goal conflict thus serves as the trigger activating self-control processes in the exertion cluster.

The *exertion cluster* consists of the control motivation, control capacity, and control effort components.

p. 207 *Control motivation* is activated first in the exertion cluster when individuals detect a desire–goal conflict. It chiefly entails the “aspiration to control desire” (Kotabe & Hofmann, 2015, p. 624). The strength of this motivation may be the function of several independent factors, such as the strengths of the desire or the higher-order goal. *Control capacity*, in contrast, refers to nonmotivational cognitive processes, so-called *executive functions* (Hofmann, Schmeichel, & Baddeley, 2012; Miyake & Friedman, 2012; Karr et al., 2018), that rely on basic cognitive resources such as working memory or directed attention. *Control effort* is the mental energy actually invested in the control of a problematic desire.

Desire strength and control effort finally compete for *behavioral enactment*. For instance, this may result in turning on the TV instead of finishing exam preparation (i.e., temptation enactment or *self-control failure*), or in resisting the TV and completing one’s work (i.e., goal enactment or *self-control success*). However, behavior is contingent on a final component, *enactment constraints*. These refer to “environmental factors often not under the person’s immediate control that constrain the range of available behavioral options in a given situation” (Kotabe & Hofmann, 2015, p. 628). For instance, even if the self-control episode was resolved in favor of switching on the TV, this behavior may be undercut by one’s partner walking in and reminding one of the benefits of preparing for the exam.

Finally, while not included in the SCT, research often distinguishes two conceptual and operational approaches to self-control, namely *trait self-control* (TSC) and *state self-control* (SSC). As a personality characteristic, TSC describes individuals’ trans-situational capacity “to override or change one’s inner responses, as well as to interrupt undesired behavioral tendencies (such as impulses) and refrain from acting on them” (Tangney et al., 2004, p. 4). TSC has been consistently related to increased well-being as well as greater academic and professional fulfillment (de Ridder, Lensvelt-Mulders, Finkenauer, Stok, & Baumeister, 2012; Tangney, Baumeister, & Boone, 2004; Wiese et al., 2018). Additionally, researchers have studied how situational self-control success or failure (i.e., SSC) varies as a function of core components of the SCT. Prominent lines of research have focused on the situational exhaustion of self-control capacity (i.e., ego depletion; for a recent critical discussion see Friese, Loschelder, Gieseler, Frankenbach, & Inzlicht, 2019), shifts in control motivation (Inzlicht, Schmeichel, & Macrae, 2014; Milyavskaya & Inzlicht, 2017), or situational strategies for managing enactment constraints (Duckworth, Gendler, & Gross, 2016).

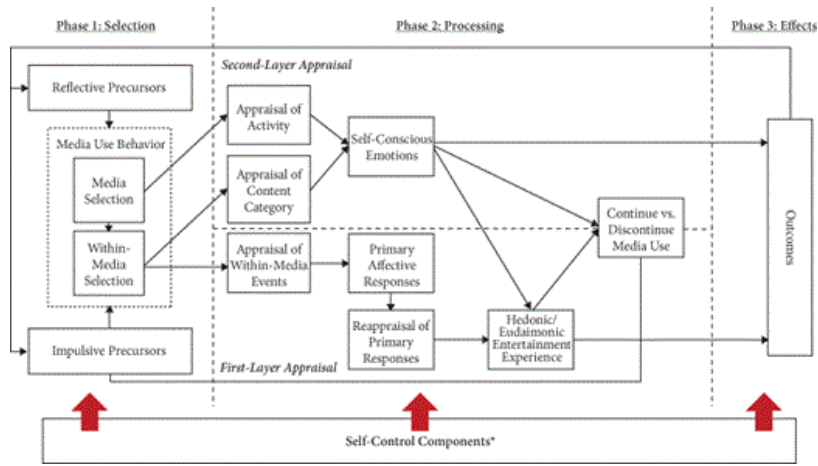
## Self-Control in Three Phases of Media Use

p. 208 The main goal of this chapter is to explicate the components and scope of the newly proposed *appraisal of media use, self-control, and entertainment* (AMUSE) model. The model connects self-control theory to the psychology of media entertainment. It is designed to apply to all types of noninteractive and interactive *media*, defined here as technological communication channels designed to transmit information from a human source to a human receiver, for instance in a one-to-one, one-to-many, or many-to-many fashion (e.g., Bolchini & Lu, 2013; Morris & Ogan, 1996). Hence, the AMUSE model applies to a wide array of current (and, possibly, future) mass, interpersonal, and masspersonal communication technologies (O’Sullivan & Carr, 2018), such as linear TV, nonlinear video streaming, video games, social media, or instant messengers.

The key principle the AMUSE model is based on is the classic distinction between three *phases* of media contact (e.g., Nabi & Oliver, 2009; Potter, 2011; Valkenburg, Peter, & Walther, 2016; see Figure 11.1). It posits that a media use episode starts with the *selection* (Phase 1) of a media technology, followed by the psychological *processing* (Phase 2) of any within-media events during contact, which may result in media *effects* (Phase 3) after contact has ceased. Surely, this distinction artificially simplifies episodes of media contact into an ideal type temporal sequence that draws lines between clear-cut phases unlikely to be perceived as such by users. However, the three phases have analytical merit, as they allow us to specify

systematically at which points of media contact self-control may be relevant for the experience of entertainment and for entertainment-related effects. In the following, we explicate our model along the three phases, in each phase by first delineating the core components and then discussing their potential relationships with components of self-control.

Figure 11.1



The appraisal of media use, self-control, and entertainment (AMUSE) model.

*\*Note:* The components encompass all those proposed by Kotabe and Hofmann (2015)—that is, desire, higher order goal, desire-goal conflict, control motivation, control capacity, control effort, and enactment constraints. These can be conceptualized and operationalized as trait or state variables. Note that our propositions mainly focus on desire-goal conflict, control capacity, and control motivation. However, this is not to say that the other components are not, in principal, relevant for the AMUSE model. Their roles in the model may be further specified by future research.

## Phase 1: Selection

### Distinguishing Media Selection and Within-Media Selection

We define *media selection* as the (un)intentionally and (un)consciously executed behavior of initiating exposure to or interaction with a media device or application, as well as avoiding to initiate said behavior. The selection phase “entails all of the processes necessary to describe and explain” such media (non)choices (Hartmann, 2009b, p. 2). In the context of self-control research, these specifically include all the reflective and impulsive precursors that compete to determine whether behavior is guided more strongly by a deliberate (reflective) or automatic (impulsive) guidance system (Hofmann et al., 2009). Common *reflective precursors* that may directly affect the success or failure of self-control in media selection are restraint standards (e.g., being on a “social media diet”) or deliberate evaluations (e.g., having a negative attitude toward watching TV), as championed by, for instance, the theories of reasoned action and planned behavior (Hartmann, 2009a). *Impulsive precursors*, in contrast, refer to automatic approach-avoidance reactions (e.g., habitually checking one’s smartphone) and automatic affective reactions (e.g., brief joy after receiving a social media notification).

When a media channel has been selected, this is usually followed by more complex second-order selections of content, features, or other interactive elements within the medium, coined here as *within-media selection*. In the overabundant and choice-rich environments of complex digital media (e.g., social media), within-media selections have become crucial to determine media effects (Knobloch-Westerwick, Westerwick, & Johnson, 2015), as user experiences now depend largely on the content (not) selected. Figure 11.1 depicts all basic components of the selection phase as well as their interconnections.

## Self-Control in Media Selection

As a first step to assess the relevance of self-control in media selection, we have to establish that individuals do in fact experience intrapsychic conflicts between media desires and higher-order goals. Indeed, findings from field studies point to this conclusion. Hofmann, Vohs, et al. (2012), for instance, measured the frequency of various desires (e.g., eating, sleeping, sex, media use) in daily life using the experience sampling method (ESM). Among all desires, adult participants were found to be the least successful in resisting media use during goal conflicts (i.e., 42% of media desires were enacted despite resisting). From another ESM study, Reinecke and Hofmann (2016) report that adult participants experienced conflicts between media use and personally important (e.g., work-related) goals in 62% of sampled media use episodes (for social media, see also Du, van Koningsbruggen, & Kerkhof, 2018).

We further observe that several cross-sectional and short-term longitudinal studies (Meier, Reinecke, & Meltzer, 2016; Reinecke & Hofmann, 2016; Schnauber-Stockmann, Meier, & Reinecke, 2018) find TSC capacity to negatively predict the frequency of *procrastination* with diverse media devices and applications (e.g., TV, smartphones, games, Facebook). Procrastination, the irrational delay of an intended task, represents a prototypical form of self-control failure, hinting at media selection under goal conflict (Steel, 2007). Additionally, survey research has found low SSC capacity to be associated with procrastinatory TV and video game use (Exelmans & van den Bulck, 2018; Reinecke, Hartmann, & Eden, 2014). Finally, Schnauber-Stockmann et al. (2018) find self-reported SSC motivation to predict less procrastination with the TV, computer, and smartphone. Together, these findings further corroborate that media are frequently selected despite goal conflicts (e.g., intended tasks) and that inter- and intra-individual variation of self-control capacity and motivation may directly affect the likelihood of making these “irrational” media choices, as they represent the self-control resources available. From this, in conjunction with the SCT, we derive

Proposition 1.1: Control capacity and control motivation negatively predict media selection during goal conflicts.

We continue by turning to the *impulsive precursors* of media selection, specifically *media habits*. Media use is often strongly habitualized, that is, characterized by automaticity in the initiation—but not necessarily execution and processing—of usage (Bayer, Dal Cin, Campbell, & Panek, 2016; Bayer & LaRose, 2018; LaRose, 2010). In accordance with Hofmann et al. (2009), the interplay between habit strength as an automatic approach tendency and self-control should determine the successful navigation of a media-related goal conflict. Several survey studies provide first evidence for a negative association between TSC or SSC and person-level habit strength or situation-level automaticity in media selection for social media, texting, and smartphones (Bayer et al., 2016; Berger, Wyss, & Knoch, 2018; Meier et al., 2016), as well as more traditional entertainment media such as TV (Exelmans & van den Bulck, 2017; Schnauber-Stockmann et al., 2018). Thus, higher self-control resources should enable media users to invest more effort into deliberate media choices and generally inhibit automaticity in media selection. From this, we derive

Proposition 1.2: Control capacity and control motivation negatively predict automaticity in media selection.

Survey studies have further shown impulsive precursors such as habits to be *directly* related to a higher incidence of media-related self-control failure for several media technologies (Exelmans, Meier, Reinecke, & van den Bulck, 2019; Meier et al., 2016; Schnauber-Stockmann et al., 2018). Beyond the strength of habits as *automatic approach reactions*, *automatic affective reactions* may also act as impulsive precursors for self-control failure in media selection (Hofmann et al., 2009). Frequent social media users (compared to less frequent social media users) showed stronger positive affective reactions to social media cues versus control cues in an affect misattribution procedure (van Koningsbruggen, Hartmann, Eden, & Veling, 2017). Similar



automatic affective reactions also appear plausible for typical entertainment content, such as positive affective reactions to the theme ↳ song of a favorite TV show or the logo of a favorite video game. Overall, frequent media use may come with a learned automatic activation of the appetitive motivational system, thus rendering self-control over media selection more challenging. The research on automaticity in media selection, in conjunction with the SCT and the reflective-impulsive model (Hofmann et al., 2009), thus suggests

Proposition 1.3: Impulsive precursors (e.g., automatic approach tendencies or positive automatic affective reactions towards a medium) positively predict media selection during goal conflicts.

*Reflective precursors* (e.g., attitudes, expected gratifications) for media selection have been studied extensively in communication research (Hartmann, 2009c). However, we note a dearth of research on such precursors in the context of goal conflicts (e.g., concerning the role of “media diets” or restraint standards, Rainie, Smith, & Duggan, 2013). Nonetheless, the reflective-impulsive model by Hofmann et al. (2009) clearly suggests that reflective precursors may counteract impulsive approach reactions, as they strengthen slow, deliberate processing that prioritizes higher-order goals over short-term desires. While explicit evidence on this relationship in the context of media selection during goal conflicts is still missing, we state

Proposition 1.4: Reflective precursors (e.g., negative attitudes about a medium, restraint standards concerning media use) negatively predict media selection during goal conflicts.

Finally, as suggested by Hofmann et al. (2009), self-control may represent a key *boundary condition* for the previously described direct effects of impulsive and reflective precursors on self-control success. Results by Schnauber-Stockmann et al. (2018) provide initial indirect support for this assumption in the context of media selection. Self-control motivation, but not capacity, moderated the translation of person-level habit strength into situation-level automaticity, such that those with stronger control motivation showed a slightly weaker effect of habit strength on automaticity in episodic media selection. While providing only first and tentative evidence, the models by Hofmann et al. (2009) and Kotabe and Hofmann (2015) suggest that control capacity and motivation may moderate the relationships between impulsive precursors and reflective precursors with self-control outcomes (i.e., self-control success or failure), as they free up cognitive and motivational resources that can be invested to uphold a higher-order goal against a short-term desire. We thus arrive at

Proposition 1.5a: Control capacity and control motivation moderate the relationship described in Proposition 1.3, such that under higher capacity and motivation, the positive relationship between impulsive precursors and media selection during goal conflicts will be weaker.

↳ Proposition 1.5b: Control capacity and control motivation moderate the relationship described in Proposition 1.4, such that under higher capacity and motivation, the negative relationship between reflective precursors and media selection during goal conflicts will be stronger.

## Self-Control in Within-Media Selection

Moving on in the sequence of model elements, we discuss potential influences of self-control components and precursors on within-media selection. The assumption here is that self-control may not only affect whether one chooses a medium or not (i.e., media selection), but also which content, features, or other behavioral options within the medium are chosen subsequently (i.e., within-media selection). While less frequently investigated than media selection, a number of studies provide evidence on the role of self-control for such selections. Results from a quasi-experiment, for instance, show that after switching to daylight saving time—a common source of self-control failure due to poor sleep quality—aggregate-level Google searches for entertainment related content increased (D. T. Wagner, Barnes, Lim, & Ferris, 2012). In a survey by Reinecke, Hartmann et al. (2014), respondents with low SSC capacity reported less inclination to select “challenging” TV content. Hartmann (2013) understands this notion of *challenge* as “a variety of cognitive, affective, visceral, and behavioral tasks imposed by the media environment” (p. 177). He proposes that users with fewer self-regulatory resources will be generally less likely to select challenging content or interactive environments (also see Hartmann & Eden, 2019, May). In two selective exposure experiments, Eden, Hartmann, and Reinecke (2015) indeed find that those with low SSC capacity showed stronger preference for low-challenge movies and avoided high-challenge movies in a rank order task. This finding was recently replicated using a variety of additional selection measures (Eden, Johnson, & Hartmann, 2018). From this, in conjunction with the SCT, we derive

Proposition 1.6: Control capacity and control motivation positively predict the selection of within-media challenges.

We further propose that the influence of self-control on both media selection and within-media selection (see Propositions 1.1–1.6) *indirectly* affects entertainment experience by predetermining how likely users are to process their media choices, for instance, through self-conscious emotions. These indirect consequences of the selection processes are systematically described next (see Phase 2).

## Phase 2: Processing

### First- and Second-Layer Appraisal Processes in Entertainment Experiences

p. 213 In the AMUSE model, the media processing phase refers to all cognitive processes and affective responses in immediate reaction to the media stimulus. As such, this phase covers all relevant processes that take place after the initialization of media use (Phase 1) and prior to the end of the media contact (Phase 3). Within a given media use episode, media users are likely to repeatedly go through Phases 1 and 2, for instance, when “zapping” through different channels while watching TV or browsing through a social media feed (i.e., within-media selection, see Phase 1). The AMUSE model therefore does not describe media exposure in a linear fashion. Rather, selection and processing steps are reiterated during a media use episode, forming a loop between Phases 1 and 2 (Figure 11.1).

In the following sections, we first describe the processing steps that are directly related to the formation of entertainment experiences. The AMUSE model follows previous theoretical approaches that have defined media entertainment as a meta-emotion (Bartsch, Vorderer, Mangold, & Viehoff, 2008; Oliver, 1993; Vorderer & Hartmann, 2009). *Within-media events*—represented, for instance, by the progressing narrative of a movie or the player actions and resulting consequences in a video game—are appraised and elicit *primary emotional responses*. The positive *reappraisal of these primary responses*, in turn, lays the ground for *hedonic or eudaimonic entertainment experiences* (see Janicke-Bowles, Bartsch, Oliver & Raney, this volume; Vorderer, this volume). The AMUSE model refers to this classic “route” to entertainment experience as *first-layer appraisal processes*.

The model then extends previous theoretical conceptualizations of media entertainment by proposing an additional layer of appraisal processes that are specifically relevant to self-control and thus indirectly influence entertainment experiences. In addition to the reappraisal of primary emotions triggered by within-media events, media users also engage in an *appraisal of media use as an activity per se* as well as of the *content category* chosen. These *second-layer appraisal processes* may result in self-conscious emotions that can impair entertainment experiences. Furthermore, self-conscious emotions and entertainment experience interact in guiding the individual's decision to *continue or discontinue media use*. After the mechanisms underlying first- and second-layer appraisal processes are delineated, the role of self-control for all components of the processing phase (see Figure 11.1) is discussed systematically.

## First-Layer Appraisal Processes: Entertainment Experience as a Meta-Emotion

*Primary emotions*, the direct affective responses triggered by media stimuli, are at the heart of most definitions of media entertainment (Bartsch et al., 2008; Vorderer, 2001). According to appraisal theories of emotion, such primary emotions are the result of the cognitive evaluation of several appraisal factors, such as the novelty, valence, controllability, and goal conduciveness of events or stimuli, or their congruence with social norms (Scherer & Moors, 2019).

Whether media users feel entertained by a specific media message, however, cannot be inferred directly from the primary emotions experienced during exposure. The same primary emotions, such as sadness experienced while watching a “tearjerker” movie, may positively contribute to entertainment experience for some media users but impair enjoyment for others (Oliver, 1993). The concept of *meta-emotions* has been used to explain how positive and negative primary emotions interact with individual differences on the person level and situational factors to create different forms of entertainment experience (Bartsch, Appel, & Storch, 2010; Bartsch, Mangold, Viehoff, & Vorderer, 2006; Bartsch et al., 2008; Oliver, 1993; Schramm & Wirth, 2010; Vorderer & Hartmann, 2009). Meta-emotions describe that individuals can experience evaluative thoughts and emotions about their emotions (Bartsch et al., 2008; Jäger & Bänninger-Huber, 2015; Mayer & Stevens, 1994). The underlying mechanisms that produce meta-emotions closely resemble the appraisal processes driving the experience of primary emotions (Bartsch et al., 2008; Mayer & Stevens, 1994). The meta-emotion framework helps to explain the seemingly paradoxical finding that negative primary emotions are frequently positively associated with entertainment experience: rewarding entertainment gratifications can be obtained despite negative emotional experiences if these primary responses are positively reappraised at a meta-level (Bartsch et al., 2006; Bartsch et al., 2008; Vorderer & Hartmann, 2009).

Recently, *two-factor models of entertainment* have further differentiated the concept of entertainment experience. The traditional *hedonic* conceptualization of entertainment as pleasurable *enjoyment* was extended by introducing a second, *eudaimonic*, dimension of entertainment experience (Vorderer, 2011; Vorderer & Reinecke, 2015), frequently referred to as *appreciation* (Oliver & Bartsch, 2010). Eudaimonia refers to more complex entertainment gratifications such as reflection on moral virtues and the purpose in life or the satisfaction of psychological needs such as relatedness (Oliver & Bartsch, 2010, p. 57; Tamborini et al., 2011; see Janicke-Bowles et al., this volume).

The appraisal processes that lead to the experience of hedonic versus eudaimonic facets of entertainment experiences are not fully understood yet. It is plausible to assume, however, that both are the product of different reappraisal patterns. Vorderer and Hartmann (2009) propose that the reappraisal of the primary emotions experienced in response to media stimuli can occur based on the evaluation of their consistency with short-term homeostatic mood and arousal regulation versus long-term psychological growth and self-realization goals of the media user (see also Hartmann, 2013). Accordingly, the two dimensions of hedonic versus eudaimonic entertainment experience may represent different forms of meta-emotions that



result from the reappraisal of primary emotional reactions as consistent with short-term mood optimization (resulting in hedonic entertainment) versus long-term personal growth goals (resulting in eudaimonic entertainment).

In the AMUSE model, this meta-emotion framework as well as the perspective of recent two-factor models of entertainment is adopted and represented by first-layer appraisal processes leading from the appraisal of within-media events to hedonic or eudaimonic entertainment experiences via primary affective responses and the reappraisal of primary responses (see Figure 11.1). Next, we explicate the role of self-control within these first-layer appraisal processes and the resulting consequence for entertainment experience.

### Self-Control in First-Layer Appraisal Processes

p. 215 In a first step, we propose that self-control has *direct* effects on the appraisal of within-media events as well as the reappraisal of the resulting primary emotions. Psychological research has linked reduced SSC capacity to impaired affect regulation (Muraven, Tice, & Baumeister, 1998; Schmeichel, 2007; Stucke & Baumeister, 2006; D. D. Wagner, Altman, Boswell, Kelley, & Heatherton, 2013; D. D. Wagner & Heatherton, 2013). In an experiment by Muraven et al. (1998), participants with depleted SSC showed significantly stronger positive affective reactions to a humorous video clip than nondepleted control group participants. Similar results were found with regard to emotional reactions to gruesome scenes in a movie clip (Schmeichel, 2007) and aggressive reactions to provocation (Stucke & Baumeister, 2006). This evidence suggests that low self-control capacity intensifies emotional responses to external stimuli, while under high capacity, individuals are better able to downregulate their emotional reactions. Affective responses to media entertainment, such as exhilaration (see Goldstein, this volume) or sexual stimulation (see Dillman Carpentier & Mazandarani, this volume), are thus likely to be stronger in users with low (state) self-control. While no empirical research on the effects of self-control motivation on media-related affect regulation exists, the SCT suggests similar effects as empirically observed for self-control capacity. Thus, we posit

- Proposition 2.1: Control capacity and control motivation negatively predict the intensity of both positive and negative primary affective reactions to within-media events.

Initial evidence that self-control capacity affects not only primary affective reactions to media stimuli but also the reappraisal of primary emotions during media use comes from a study by Johnson, Ewoldsen, and Slater (2015). In their experiment, reduced SSC was associated with higher levels of enjoyment and stronger audience responses (e.g., suspense, fun) to the narrative of a short-story. The authors suggest that the vicarious experiences provided by a narrative are particularly rewarding and entertaining for depleted individuals whose needs are currently thwarted (Johnson et al., 2015; see also Slater, Johnson, Silver, & Ewoldsen, this volume). Accordingly, low self-control intensified the primary response of depleted participants and affected the reappraisal processes by increasing the goal-conduciveness of these primary emotions for individuals' short-term mood regulation goals, boosting their entertainment experience.

In an experiment by Tamborini et al. (2017), participants were exposed to a video clip that featured either tendentious (i.e., sexist) or nontendentious humor. Participants whose self-control capacity had been depleted in an initial task showed higher levels of enjoyment in the tendentious humor condition than nondepleted participants. Importantly, both depleted and nondepleted participants evaluated the video clip with tendentious humor as less appropriate than nontendentious humor. This suggests that while both depleted and nondepleted individuals were aware of the socially undesirable quality of tendentious humor, only nondepleted participants engaged in emotional self-regulation and suppressed enjoyment of tendentious humor.

In terms of the AMUSE model, these findings suggest that self-control affects the prioritization of the short-term homeostatic mood regulation versus long-term psychological growth and self-realization goals

p. 216 underlying the reappraisal of primary emotions ↪ (Hartmann, 2013; Vorderer & Hartmann, 2009). Under conditions of low self-control capacity and motivation, primary emotions that support short-term mood management goals are more positively reappraised (due to their increased situational goal-conduciveness) as under conditions of high self-control (Johnson et al., 2015). Higher-order goals, such as being a moral person or meeting social norms, however, seem to have a lower priority in the reappraisal of primary emotions when self-control is low (Tamborini et al., 2017). Based on this, we suggest

- Proposition 2.2: Control capacity and motivation moderate the reappraisal of the primary affective responses to within-media events such that under conditions of low self-control, short-term mood management goals are prioritized over higher-order goals, and vice versa for high self-control.

In addition to the effects discussed earlier, we further propose that self-control affects the path from within-media events to entertainment experience *indirectly*, based on the selection processes situated in Phase 1. As discussed in more detail previously, self-control significantly influences within-media selection, with individuals low in SSC showing a preference for less cognitively and affectively challenging and more hedonically pleasant content (Eden et al., 2015; Eden et al., 2018; Reinecke, Hartmann et al., 2014), see Proposition 1.6. For the processing phase of the AMUSE model, this suggests that media users low in SSC are likely to experience more emotionally and cognitively unchallenging in-media events and, as a result, a stronger predominance of positive primary emotions than media users with higher levels of SSC. At the level of reappraisal, these positive primary emotions are likely to result in positive meta-emotions—and hence hedonic enjoyment—as they are conducive for depleted media users' short-term mood management goals (Hartmann, 2013; Vorderer & Hartmann, 2009). They may not, however, provide much opportunity for the long-term, higher-order growth goals of users (Eden et al., 2018), resulting in a lack of, or only a very limited, eudaimonic entertainment experience. From this, it follows

- Proposition 2.3: Control capacity and motivation are indirectly (a) negatively related to hedonic entertainment experience and (b) positively related to eudaimonic entertainment experience via the selection of within-media challenges (see Proposition 1.6).

## Second-Layer Appraisal Processes: Appraisal of Media Use Activity and Content Category

p. 217 In the previous section, we have focused on media users' affective reactions *to within-media events* and have laid out the assumptions of the AMUSE model regarding the role of self-control for the appraisal and reappraisal of the primary emotions elicited by those events. We further propose that for a comprehensive understanding of the effects of self-control in the context of entertainment, we also need to consider how users feel *about* their media use as a behavior. Media use in general, and the use of entertainment ↪ media in specific, is frequently associated with self-conscious emotions such as guilt (Reinecke & Meier, 2021). Importantly, these self-conscious emotions often are not elicited in reaction to the primary emotions experienced with regard to within-media events, but to media use as an *activity* per se (e.g., Reinecke, Hartmann et al., 2014; Reinecke & Hofmann, 2016). Self-conscious emotions are a subset of “moral emotions” that refer to how individuals evaluate themselves and their actions (Tangney & Dearing, 2002; Tracy & Robins, 2004). Negative self-conscious emotions, such as shame and guilt, are experienced as a response to actions or events that conflict with the individual's identity goals, whereas positive self-conscious emotions, such as pride, are elicited by actions and events that adhere to such goals (Tracy & Robins, 2004). It is likely that negative self-conscious emotions occur in reaction to media use as an activity for two reasons (Reinecke & Meier, 2021): Media use may generally be perceived as normatively undesirable and a waste of time that could be better spent on more valued activities (e.g., Himmelweit & Swift, 1976). Additionally, media use triggers feelings of guilt if it conflicts with higher-order goals (Reinecke & Meier, 2021) or is perceived as self-control failure (Granow et al., 2018; Meier et al., 2016; Reinecke, Hartmann et al., 2014; Reinecke & Hofmann, 2016).

In addition to guilt reactions with regard to media use as an activity, negative self-conscious emotions may also result from the use of specific *content categories*, or media genres, that violate the individual's personal standards (Reinecke & Meier, 2021). This is particularly likely in the case of content categories that conflict with social norms and are of low social desirability, such as pornography (Perry, 2018; Sabina, Wolak, & Finkelhor, 2008), graphic violence, or particularly unchallenging “lowbrow” forms of media entertainment (e.g., “cat content”; Myrick, 2015).

Crucially for the context of media entertainment, the available empirical evidence clearly suggests that negative self-conscious emotions such as guilt significantly impair entertainment experiences (e.g., Reinecke, Hartmann et al., 2014; Reinecke & Hofmann, 2016). Hofmann, Kotabe, and Luhmann (2013) refer to this phenomenon as the “spoiled pleasure effect” (p. 737): negative self-conscious emotions reduce the hedonic gratifications gained from an otherwise pleasurable and rewarding activity. The AMUSE model extends previous models of entertainment experience (Bartsch et al., 2008; Vorderer & Hartmann, 2009), by accounting for these second-layer appraisal processes and their effects on entertainment experiences via self-conscious emotions (Figure 11.1).

### Self-Control in Second-Layer Appraisal Processes

We propose that self-control affects the second-layer appraisal of media use primarily indirectly via the selections in Phase 1. As discussed in more detail earlier, under low self-control capacity or motivation, individuals are more likely to initiate media use despite existing conflicts with higher-order goals (Proposition 1.1 and 1.5) and should thus experience negative self-conscious emotions more strongly in reaction to media use as an activity. Additionally, as users low in self-control gravitate toward cognitively and emotionally unchallenging content (Proposition 1.6), they are more likely to experience conflict between their content selection and identity goals (e.g., choosing the unchallenging comedy program instead of watching the political talk show). They should thus experience negative self-conscious emotions more strongly as a result of the appraisal of the content category selected. In terms of entertainment experience, the activity and content-related appraisal processes described in the second layer should thus put media users with low self-control at a higher risk for a “spoiled pleasure effect,” that is, impaired entertainment experiences through negative self-conscious emotions. We thus suggest

Proposition 2.4: Control motivation and capacity negatively predict negative self-conscious emotions (a) via media selection (Proposition 1.1 and 1.5) and subsequent appraisal of the media use activity as well as (b) via within-media selection (Proposition 1.6) and subsequent appraisal of content category. As a consequence, (c) self-control is positively indirectly related to hedonic and eudaimonic entertainment experience via reduced negative self-conscious emotions.

## Behavioral Consequences of Appraisal: Self-Control and the (Dis)Continuation of Media Use

In the last part of the processing phase, the AMUSE model addresses the behavioral consequence of the affective responses resulting from the first-layer and second-layer appraisal processes described previously. More specifically, the model (see Figure 11.1) proposes that the affective reactions produced by first- and second-level appraisal are key drivers guiding users' decision to continue or discontinue media use. Emotions and meta-emotions represent a central feedback system between the individual and its environment that guides the preparation of goal-consistent behavior (Scherer & Moors, 2019). The experience of hedonic and eudaimonic entertainment gratifications signals successful satisfaction of homeostatic and/or personal growth goals via the ongoing stream of within-media events and the resulting primary responses (Hartmann, 2013; Vorderer & Hartmann, 2009). All things being equal, media users experiencing high levels of entertainment should thus have a low inclination to cease media use or adapt their content selection, as long as their respective goals have not been reached. Negative self-conscious emotions, in contrast, signal conflict between the ongoing behavior and identity goals, motivating the individual to realign behavior with personal goals or social expectations (Tracy & Robins, 2004). Media users experiencing negative self-conscious emotions over their content selection, or over media use as an activity per se, should thus show an increased tendency to change their within-media selections or discontinue media use altogether, respectively. Based on Propositions 2.1 to 2.4, the AMUSE model suggests that self-control influences both entertainment experience and negative self-conscious emotions, which in turn should predict (dis)continuation of media use. We thus suggest

Proposition 2.5: Control capacity and motivation are indirectly related to the (dis)continuation of media use via their influence on (a) entertainment experience and (b) negative self-conscious emotions (see Propositions 2.1 to 2.4).

p. 219 Besides its influence on the *level* of entertainment gratifications and self-conscious emotions experienced in a media use episode, self-control capacity and motivation may also have an impact on the *weight* assigned to both factors in the decision to continue versus discontinue media use. Previous research suggests that hedonically pleasant short-term gratifications, such as mood optimization, are prioritized over long-term goals when self-control capacity and motivation are low (Hofmann, Vohs et al., 2012; Sirois & Pychyl, 2013). Consequently, in media use episodes characterized by low levels of self-control, users are likely to prioritize entertainment gratifications over other long-term goals. Hence we suggest

Proposition 2.6: Control capacity and motivation moderate the effects of entertainment experience and self-conscious emotions on the (dis)continuation of media use (Proposition 2.5) such that (a) the influence of entertainment experience will be stronger under conditions of low self-control and (b) the influence of negative self-conscious emotions will be stronger under conditions of high self-control.

## Phase 3: Effects

The last phase of the AMUSE model considers the outcomes of entertaining media use. Following Valkenburg et al. (2016), media effects are defined as “deliberate and nondeliberate short and long-term within-person changes in cognitions (including beliefs), emotions, attitudes, and behavior” (p. 316). Effects thus materialize *after* media contact has ceased and the user has ended the processing phase. While we believe that the basic assumptions of the AMUSE model equally apply to various potential effects of entertaining media use, a systematic review of the entirety of these effects and their interaction with self-control goes far beyond the scope of this chapter. In the following, we thus focus on three relevant outcomes of entertaining media use that have already been addressed in relation to self-control processes.

## The Indirect Relationship Between Self-Control and the Outcomes of Entertaining Media Use

Previous research has identified *media-induced recovery* and *psychological well-being* as central *short-term* outcomes of entertaining media use that are at risk under conditions of low self-control (e.g., Reinecke, Klatt, & Krämer, 2011; Rieger, Reinecke, Frischlich, & Bente, 2014; also see Reinecke & Rieger, this volume). Several studies have linked self-control failure in the form of procrastinatory media use to impaired postexposure well-being and recovery experience (e.g., Meier et al., 2016; Reinecke, Hartmann et al., 2014; Reinecke & Hofmann, 2016). Both Reinecke, Hartmann et al. (2014) and Reinecke and Hofmann (2016) found that procrastinatory media use was associated with negative self-conscious emotions such as guilt which, in turn, were negatively related to media-induced recovery and well-being, respectively.

p. 220 A *long-term* effect that is frequently discussed in the context of entertaining media use and self-control is reduced academic achievement. Several studies have linked the insufficiently controlled use of entertaining media to negative effects on time spent on school work and academic performance (e.g., Meier et al., 2016; Panek, 2014). A recent meta-analysis on social network site (SNS) use and academic achievement found similar effects for SNS multitasking and general SNS use (Marker, Gnambs, & Appel, 2018; for effects of media multitasking, see also van der Schuur, Baumgartner, Sumter, & Valkenburg, 2015).

In combination, the research reviewed earlier suggests that self-control has an impact both on the short-term (recovery and well-being) as well as long-term (academic performance) effects of entertaining media use. Importantly, the influence of self-control on these outcomes of media entertainment materializes in different phases of the AMUSE model: The influence on the effects of media use on recovery and well-being is mediated through the affective reactions (i.e., entertainment experience and self-conscious emotions) to media content. It thus becomes manifest within Phase 2 of the model. The influence of self-control on the effects of media use on academic achievement, however, originates from the effects of self-control on media selection during goal conflict. Learning and studying is impaired if media use is initiated during goal conflict in Phase 1—irrespective of the within-media events selected by the user (except for learning-related uses, Marker et al., 2018) or the appraisal processes in Phase 2. We thus suggest

Proposition 3.1: Control capacity and motivation influence the outcomes of media use via (a) the Selection Phase (see Propositions 1.1 and 1.5) and (b) the Processing Phase (see Propositions 2.1 to 2.6).

## The Cumulative Relationship Between Self-Control, Outcomes, and Future Media Selection

We further propose that the relationship between self-control and the outcomes of entertaining media use are *cumulative*. More specifically, we suggest that the outcomes of media use may change the boundary conditions for future self-control effects by shaping the impulsive and reflective precursors of media selection in subsequent usage episodes. Repeated positive affective experiences with entertainment media use—either in the form of positive entertainment gratifications or in the form of positive postexposure effects such as increased well-being—should result in the formation of a positive associative cluster linking entertainment use to gratifying experiences (Hofmann et al., 2009; Zillmann, 1988; see Luong & Knobloch-Westerwick, this volume). As a result, the individual will show stronger automatic affective reactions and stronger automatic approach tendencies when confronted with entertainment-related media cues in the future (Hofmann et al., 2009; Hofmann et al., 2017; van Koningsbruggen et al., 2017). This reinforcement of impulsive precursors makes automatic media selection more likely, thus increasing the risk of self-control failure in future media use episode (Schnauber-Stockmann et al., 2018). Repeated negative experiences, such as negative self-conscious emotions due to media-related self-control failure, reduced levels of enjoyment due to the spoiled pleasure effect, or negative postexposure consequences, such as academic problems, should have the opposite effect and strengthen the reflective precursors of media use (Hofmann et al., 2009). In this case, users may change their restraint standards or form a stronger intention to avoid uncontrolled selection in the future. We thus suggest

Proposition 3.2: The outcomes of media use are cumulatively related to media selection via impulsive (see Proposition 1.3) and reflective precursors (see Proposition 1.4), exerting an indirect effect on media selection during goal conflicts over time.

## Discussion

### Summary and Utility of the AMUSE Model

The central goal of the present chapter was to provide a review and first theoretical integration of the multifaceted role of self-control in media entertainment. The newly proposed AMUSE model builds on an integrative understanding of self-control in psychology (Kotabe & Hofmann, 2015) and systematizes the role of self-control in three phases of media contact: (1) selection, (2) processing, and (3) effects.

In Phase 1, the model explicates the interaction of self-control capacity and motivation and the relative strength of impulsive and reflective precursors as crucial determinants of media selection versus nonselection in the face of goal conflict (Hofmann et al., 2009). The model further suggests that self-control should also affect within-media selection, resulting in a preference for more challenging media activities when self-control is high and vice versa. This may indirectly—via the default entertainment processing of within-media events during Phase 2 (Bartsch et al., 2008; Vorderer & Hartmann, 2009)—result in increased eudaimonic, but decreased hedonic entertainment, relative to low self-control conditions. Additionally, low self-control should intensify the primary affective reactions to media stimuli and result in a prioritization of short-term mood regulation over long-term growth goals in the reappraisal of these primary emotions. While low self-control may thus shift users' entertainment experiences toward hedonia, high self-control should facilitate more eudaimonic entertainment experiences via within-media selections and subsequent appraisal processes.

A further key contribution of the model that crucially extends previous theoretical models of media entertainment is the addition of a second-layer appraisal route in Phase 2. Beyond first-layer reappraisals of primary emotions, users' entertainment experience should be affected by two appraisals that are relevant



specifically to self-control: the appraisal of media as an activity per se and of the content category chosen during within-media selection. The model proposes that when these appraisals result in perceived incongruence with identity goals, they elicit negative self-conscious emotions — such as guilt, which then “spoil” the entertainment otherwise experienced during processing. While these identity goals may align with users’ currently activated higher-order goals (e.g., studying for a degree), they may also reflect other norms or personal standards that only become activated as a consequence of the content chosen during within-media selection (e.g., pornography or “lowbrow” entertainment).

Finally, the AMUSE model extends prior theory by explicitly considering the length of media contact as one crucial behavioral outcome relevant to self-control. Self-control dilemmas may often arise not only regarding whether one turns on the TV, or not, but rather whether one succeeds in turning it off again. Being able to *stop* media use at the right time may be equally, or even more, challenging for self-control than being able to resist starting it. Our model thus contributes to psychological self-control theory by moving beyond a dichotomous understanding of behavior (“Do I eat the cookie, or not?”) toward a differentiation between behavior *initiation* and behavior (*dis*)*continuation*.

In a last step, the AMUSE model proposes a cumulative relationship between self-control and media effects. Through its impact in the selection and processing phases of media use and the resulting entertainment gratifications and self-conscious emotions, respectively, self-control affects the short-term (e.g., recovery, well-being) as well as long-term (e.g., academic achievements) outcomes of media use. At the same time, the model suggests that these outcomes of media use may lay the ground for self-control success versus failure in subsequent media use episodes by changing the impulsive and reflective precursors of media selection. At worst, this may imply a “downward spiral” (Slater, 2007) for media users who sufficiently enjoy their “guilty pleasure” so that they may show an even stronger tendency to select media despite goal conflicts in the future. At best, however, this feedback loop may enable users to learn from their mistakes, develop stronger restraint standards and implementation strategies (Duckworth et al., 2016), and be better prepared for future goal conflicts during media use.

## Explanatory Power for Audience Behavior and Entertainment Experiences in Daily Life

While there is considerable variation in peoples’ TSC and SSC that affects media choice, processing, and effects, the AMUSE model can also help to understand large-scale patterns of audience behavior: For instance, the widespread use of television in the evenings—which primarily offers low-challenge entertainment such as crime drama and comedy—can be explained by low self-control motivation and capacity at this time of the day (e.g., after work or other depleting day activities; Exelmans & van den Bulck, 2017; Reinecke, Hartmann et al., 2014). The AMUSE model predicts that, under such conditions, audiences will prioritize entertainment goals and fail to uphold higher-order goals (e.g., investing in interpersonal relationships), making them susceptible to give in to media temptations such as TV viewing.

With regard to the prominent paradigms addressing selective exposure to media entertainment, such as mood management theory with its focus on hedonism — (Luong & Knobloch-Westerwick, this volume) and the uses-and-gratifications approach with its focus on goal-directed, rational media choice (Rayburn & Palmgreen, 1984), the AMUSE model follows a perspective in which both goal-directed and reflective audience behavior and spontaneous and impulsive entertainment choices can be explained. Self-control and its trait and state variations thus emerge as concepts necessary to understand why entertainment audiences make their decisions and end up with widely varying media experiences.

## Programmatic Perspectives

While we believe that the AMUSE model provides a useful step toward theoretical integration of the self-control and media entertainment literature, it faces a number of open questions that require further theoretical refinement and empirical testing.

Research in the context of media use and self-control is still characterized by a dearth of empirical evidence. Furthermore, previous research in the context of media use and self-control has largely neglected the distinction between self-control capacity and motivation (but see Schnauber-Stockmann et al., 2018). As a consequence, the propositions made in the AMUSE model differ widely regarding the breadth and depth of empirical findings supporting the proposed mechanisms. Additionally, the majority of available studies in the context of media use and self-control relies on cross-sectional self-report data providing little information regarding the causal direction of effects. A further challenge to the AMUSE model that also relates to questions of causality, is the fact that the model currently exclusively treats self-control as an independent variable. However, *reverse* effects of media entertainment on self-control may be equally plausible: a number of studies suggest that watching humorous content or engaging with familiar fictional worlds can restore depleted self-control resources (e.g., Derrick, 2013; Tice, Baumeister, Shmueli, & Muraven, 2007). A theoretical union of both perspectives is an important task for future research.

Further open questions pertain to the boundary conditions of the processes proposed in the model. For example, in the context of the appraisal processes, self-control is associated with antagonistic effects: with regard to first-layer appraisal, low self-control contributes to entertainment experience through intensified primary emotions and the prioritization of mood management goals. In the context of second-layer appraisal, however, low self-control increases the risk of negative self-conscious emotions and impaired entertainment experience through a spoiled pleasure effect. Which trait and state variables influence the relative dominance or salience of these antagonistic forces remains an important question for future research.

Future research would also benefit from a more nuanced theoretical explication of media desires. Traditionally, these are conceptualized as positively valenced, hedonically pleasurable “want goals” (Hofmann & van Dillen, 2012) that are pursued due to intrinsic motivation. Quite often, however, media use, particularly in the context of interpersonal or masspersonal interactions, is extrinsically motivated by social pressure and regulated by social norms (Halfmann & Rieger, 2019). How media users deal with conflicts between extrinsically motivated media use versus higher-order goals and how this affects entertainment experience is an open question for future research (but see Reinecke, Vorderer, & Knop, 2014).

Despite these open questions, we believe that the AMUSE model and its propositions provide numerous impulses and testable hypotheses for future research. Closing the gaps identified earlier will provide us with a more complete understanding of when and how entertaining media use represents a self-regulatory resource versus a self-control burden in everyday life. Furthermore, the second-layer appraisal processes identified in the AMUSE model extend our theoretical scope on entertainment experience beyond the context of primary affective reactions to media stimuli and their reappraisals. This extended perspective on the appraisal processes underlying entertainment gratifications may prove useful beyond the self-control context and further our understanding, for instance, of the entertainment potential of different media genres or the interplay of media entertainment and social norms. Finally, the implications of the AMUSE model are likely to go far beyond the effects on well-being and academic achievement discussed earlier and extend to numerous related areas of entertainment research, such as the involvement and identification with media characters (see Cohen & Klimmt, this volume), the processing of political information and communication (see Schneider, Bartsch, & Leonhard, this volume), and entertainment education (see Wang & Singhal, this volume). We hope that following these paths of research will be a fruitful endeavor for our discipline.

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