The interplay of intrinsic need satisfaction and Facebook specific motives in explaining addictive behavior on Facebook

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ABSTRACT

The present paper aims at exploring the new phenomenon of social network site (SNS) addiction and at identifying predictors of problematic SNS use. For this purpose, a scale measuring addictive behavior specifically with regard to SNS use was developed. The effects of intrinsic need satisfaction in the offline context and of SNS-specific motives on SNS addiction were tested in an online-survey among 581 SNS users in Germany. It was hypothesized that motives mediate the influence of thwarted intrinsic need satisfaction on addictive behavior on SNSs. More precisely, we assumed that a lack of autonomy leads to a higher motivation to use SNSs for self-presentation and escapism, a lack of competence predicts the motive to use SNSs for acquiring information and self-presentation, and a lack of relatedness fosters users' motives to use SNSs for self-presentation and meeting new people. These motives, in turn, were predicted to be associated with higher levels of SNS addiction. All proposed mediation models were supported by the data. The results emphasize the importance of incorporating both offline need satisfaction and gratifications sought through the use of SNS to provide a comprehensive perspective on addictive behavior on SNSs.

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1. Introduction

Using social network sites (SNSs) has become an integral part of the daily routine for many people around the world. Through these platforms, users are offered a variety of possibilities to post and share information, photos, and videos about themselves, others, their feelings, and their interests. At the same time, SNSs enable users to communicate via status updates, wall posts, or private messages and to seek a wide range of gratifications (Joinson, 2008; Papacharissi & Mendelsohn, 2011; Smock, Ellison, Lampe, & Wohn, 2011). Results of a recent survey conducted by the Pew Research Center (2013) demonstrate that the use of SNSs has continuously increased since 2005. By now, almost three quarters of American adults use some type of SNS. The same usage pattern can be seen in other countries. In Germany for example, 78% of the Internet users between 12 and 19 years use platforms such

as Facebook on a daily basis (MPFS, 2012). Just recently, Facebook reported to have more than one billion active users (Facebook, 2013), hence making it the largest SNS worldwide. As more and more people register on these platforms, a growing number of researchers have started to address the question whether originally unproblematic forms of SNSs usage may eventually become compulsive. As Greenfield (1999) denotes, the Internet and its applications may particularly enhance addictive behaviors as "the combination of stimulating content, ease of access, convenience, low cost, visual stimulation, autonomy (...) all contribute to a highly psychoactive experience" (p. 2). Until now, however, research on addictive behavior on SNSs has remained scarce. So far, most scholars in this field have investigated the somewhat broader and unspecific phenomenon of *Internet addiction* (Beard & Wolf, 2001; Caplan, 2002; Davies, Flett, & Besser, 2002; Hahn & Jerusalem, 2010; Kim & Haridakis, 2009; Meerkerk, Van Den Eijnden, Vermulst, & Garretsen, 2009; Young, 1996; Young, 1998, 2009). As Griffiths (1999) has criticized, however, the concept of Internet addiction does not determine a clear object of the addiction. It remains unclear whether an individual classified as an 'Internet addict' is addicted to the medium of communication, the information obtained or to specific applications or contents (Griffiths, 1999). Looking at the variety of possible Internet activities and applications today, there is a need for more specific

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concepts when examining online addictions. Reliable instruments to measure these diverse online addictions are still lacking.

The research presented here aims at complementing existing attempts to conceptualize addictive behavior on SNSs. Due to the interactive dynamics of the social web and the corresponding possibilities to satisfy specific needs such as self-presentation, entertainment, socializing, or escapism (Papacharissi & Mendelsohn, 2011) SNS users might be particularly at risk of becoming addicted (Kuss & Griffiths, 2011). Accordingly, our first goal was to develop a psychometrically sound scale to measure addictive SNS usage. However, scales assessing addictive behavior only measure the existence of specific addiction symptoms and enable researchers to classify users in terms of their addiction level. They cannot explain which factors may enhance or reduce addictive behavior. Based on prior research, two theory-based approaches can be differentiated. Some studies have found a strong impact of specific motives on addictive behavior on the Internet, suggesting that people become addicted because they seek specific gratifications through the use of the respective medium (Chen & Kim, 2013; Kim & Haridakis, 2009; Song, Larose, Eastin, & Lin, 2004). Other scholars have investigated the relationship between offline well-being, represented for example by intrinsic need satisfaction, and obsessive behavior (Przybylski, Weinstein, Ryan, & Rigby, 2009; Ryan, Rigby, & Przybylski, 2006; Sheldon, Abad, & Hinsch, 2011). A theoretical link between both approaches has not yet been established. In the current paper, we postulate that the interplay of both intrinsic need satisfaction in the offline domain and gratifications sought online through the use of SNSs might explain why some users become addicted to SNSs. We argue that people try to compensate thwarted intrinsic needs in their offline lives through the use of Facebook by gratifying corresponding needs online. The rewarding experience of obtaining these gratifications in the SNS context, in turn, might become compulsive and cause SNS addiction. More specifically, we assume that motives of SNS use mediate the influence of intrinsic need satisfaction on SNS addiction. The present study thus extends prior research by incorporating both offline need satisfaction and gratifications sought in the online context to provide a comprehensive theoretical understanding of addictive behavior on SNSs. For consistency, we have limited the focus of the present study on the use of Facebook, as it is the most popular SNS both in Germany (Statista, 2013) and in many countries around the world (Statista, 2012).

2. Theoretical background

2.1. Addictive behavior online

With the growing relevance of the Internet as an omnipresent tool for interaction, communication, and knowledge acquisition, scholars have shaped the term 'Internet addiction' (Griffiths, 1999; Young, 1996, 1998) to describe problematic forms of Internet use, arguing that some forms of behavioral addictions do not necessarily include substance abuse (Greenfield, 1999; Griffiths, 1999; Young, 1996). Contrary to substance-related addictions and some behavioral disorders (e.g., pathological gambling), however, no consensus exists on a clear definition of Internet addiction and related phenomena like online gaming addiction and SNS addiction. These new forms of addictive media use are not yet recognized as psychological disorders in official diagnostic manuals, such as the *Diagnostic and Statistical Manual of Mental Disorders* (5th ed.; American Psychiatric Association, 2013).

First attempts to define and explore online addiction date back almost two decades. Among the first researchers in this area, Kimberly Young started to critically and systematically examine the phenomenon of Internet addiction in diverse studies (Young, 1996, 1998). Analogously to pathological gambling (as specified

by the DSM-IV), Young defined Internet addiction as an impulse-control disorder and adopted modified criteria for pathological gambling to develop a first diagnostic screening instrument (Young, 1998). Since then, many instruments and psychometric scales have been developed in order to measure Internet addiction (Beard & Wolf, 2001; Caplan, 2002; Davies et al., 2002; Hahn & Jerusalem, 2010; Meerkerk et al., 2009). Although the existing measures show considerable variance in their specific definition of Internet addiction, a number of central defining criteria for Internet addiction can be distinguished: (1) a loss of control over the frequency and duration of usage and unsuccessful attempts to reduce the time spent online; (2) a continuous increase of usage time; (3) withdrawal symptoms such as nervousness, dissatisfaction, anxiety, and aggressiveness when the possibility to use the Internet is limited or after a longer interruption, along with a generally strong desire ("craving") to use the Internet; and (4) negative consequences of excessive Internet use on social relations and work performance (e.g., due to distraction and disregard). Accordingly, the measurement of Internet addiction is based on the assessment of these specific symptoms.

Scholars have criticized that Internet-induced psychopathologies manifest themselves very differently and the term Internet addiction "may already be obsolete" (Griffiths, 2012). They suggest examining problematic uses of different applications within the Internet separately. Concerning SNS addiction, more and more cases of anecdotal evidence seem to support this assumption, as people complain about spending too much time on SNSs or getting distracted from work due to their SNS use. Karaiskos, Tzavellas, Balta, and Paparrigopoulos (2010), for example, have described the case of a young Greek woman who spent more than 5 h per day checking her Facebook profile and consequently lost her job due to excessive Facebook use. Furthermore, a recent study by Rosen, Mark Carrier, and Cheever (2013) reveals that Facebook use can interfere with academic performance.

In accordance with recent calls for a more specific view on the addictive use of specific Internet applications (Griffiths, 1999, 2012) and preliminary evidence of the problematic potential of SNS use (Karaiskos et al., 2010; Kesici & Sahin, 2010; Kittinger, Correia, & Irons, 2012), the present study is focused on excessive Facebook use. To date, only a small number of scholars have examined addictive behavior on SNSs in specific (Andreassen, Torsheim, Brunborg, & Pallesen, 2012; Chen & Kim, 2013; Cock et al., 2013; Kittinger et al., 2012; Wilson, Fornasier, & White, 2010). Whereas Andreassen et al. (2012) developed a short six-item scale to measure Facebook addiction, Chen and Kim (2013) adapted the 20-item Internet addiction scale by Young (1998) with respect to the SNS context. A generally accepted scale is not yet available. Consequently, the first goal of the present study is to provide a reliable and valid psychometric measure of Facebook addiction. This measure will be presented in the method section.

The second central aim of the present research was to identify predictors of SNS addiction. In the following section, we will first introduce the satisfaction of three intrinsic needs identified in self-determination theory (Ryan & Deci, 2000) as a first set of influencing factors on Facebook addiction. Subsequently, we will refer to the uses and gratification approach (Katz, Gurevitch, & Haas, 1973) and identify different motives for the usage of SNSs as a second theoretical foundation in order to explain SNS addiction.

2.2. Intrinsic need satisfaction

Self-determination theory (Ryan & Deci, 2000) posits that people have inherent growth tendencies and innate psychological needs which constitute the basis for their motivation, behavior, and psychological well-being (Ryan, 1995; Ryan & Deci, 2000). According to that theory, people seek to satisfy three intrinsic needs: the need