Full length article

Social media ostracism: The effects of being excluded online

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ABSTRACT

In times of being always online and connected, cyberostracism—the feeling of being ignored or excluded over the Internet—is a serious threat to fundamental human needs: belonging, self-esteem, control, and meaningful existence. According to the temporal need-threat model, responses to ostracism lead to immediate and universal experiences of negative emotions as well as to thwarted need satisfaction. In two experiments ($N_1 = 105$; $N_2 = 85$), we investigated these effects using a new computerized tool, *Ostracism Online* (Wolf et al., 2015). In both studies we found that ostracism negatively affected emotional states, belongingness, self-esteem, and meaningful existence but not control. Furthermore, Facebook use as a coping strategy after being excluded had no significant impact on need restoration. In sum, our findings highlight that *Ostracism Online* is a useful tool to connect the research area of social media and ostracism.

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1. Introduction

The ever-increasing spread and permanent availability of mobile Internet technology enable people to access online content seemingly independent from time and space (Vorderer & Kohring, 2013). Nowadays, seeking connection with family and peer members primarily depends on the availability of communication technologies, which are carried along with us most of the time (Turkle, 2011). According to a recent survey by the Pew Research Center (Rainie & Zickuhr, 2015), 92% of U.S. adults now own a cellphone and 36% said they never turn their device off, suggesting that people are continuously spending their lives "permanently online [and] permanently connected" (Vorderer, Krömer, & Schneider, 2016; Vorderer et al., 2015).

In order to sustain this feeling of permanent connection and "always on life", social networking sites (SNS) such as Facebook, with over 1.49 billion active users every month (Facebook, 2015), offer users a plethora of features to approach and feel related to each other (cf. Smock, Ellison, Lampe, & Wohn, 2011). For example, previous studies have shown that an increase in Facebook status updates reduced individuals' levels of loneliness. The feeling of having a daily connection to friends mediated this effect (groβe Deters & Mehl, 2013). Further, general Facebook use has been linked to feelings of online social connectedness (Grieve, Indian, Witteveen, Tolan, & Marrington, 2013) and has been described as a coping strategy to deal with offline disconnections (Sheldon, Abad, & Hinsch, 2011). These findings indicate the potential of SNS to permanently connect its users to the (online) world. However, at the same time, another branch of research systematically deals with how social media may elicit feelings of being ignored or excluded by peers or groups in a mediated context (Vorderer & Schneider, 2017): These studies investigate a phenomenon that has been labeled *cyberostracism* (Williams, Cheung, & Choi, 2000). Previous research indicated that brief episodes and minimal signals of ostracism were sufficient to threaten fundamental human needs of belonging, self-esteem, control, and meaningful existence, and

were further linked to heightened negative affect (for overviews, see Williams, 2007, 2009). With regard to social media, for example, waiting for a response after the "seen" function in an instant messenger indicated that a message has been read (Mai, Freudenthaler, Schneider, & Vorderer, 2015), could elicit the feeling of ostracism if the respondents do not answer immediately. Similar effects have been found when individuals were waiting for a response after their status updates had been posted on the Facebook wall (Tobin, Vanman, Verreynne, & Saeri, 2014). Given these detrimental effects and the number of people that are almost permanently accessing social media, furthering the systematic knowledge on how these sites can trigger feelings of being ostracized is highly relevant.

Thus, the aim of the present work was to examine the effects of ostracism in a social media environment and extend previous investigations by using a new experimental paradigm to manipulate ostracism in such an environment—the *Ostracism Online* tool (Wolf et al., 2015).

In the first study, we were mainly interested in replicating Wolf et al. (2015) findings by investigating ostracism effects on human needs and mood—manipulated within a German version of the Ostracism Online tool.

The second study aimed to broaden the scope of Ostracism Online: First, as social media ostracism has shown to reduce well-being in previous research (Ruggieri, Bendixen, Gabriel, & Alsaker, 2013), we extended the dependent constructs from Study 1 by including emotional and psychological well-being. Furthermore, we added an ingroup/outgroup manipulation as second condition, because previous findings in the ostracism literature were controversial with regard to the role of in- and outgroups (e.g., Bernstein, Sacco, Young, Hugenberg, & Cook, 2010; Gonsalkorale & Williams, 2007; Sacco, Bernstein, Young, & Hugenberg, 2014). To delineate these findings and to practically test how feasible it would be to manipulate ingroup/outgroup within the Ostracism Online tool we added this second factor. Finally, recent research has shown that Facebook use might restore thwarted needs (große Deters & Mehl, 2013; Grieve et al., 2013; Knausenberger, Hellmann, & Echterhoff, 2015). Therefore, we were interested in the question if Facebook use could also function as a coping-mechanism after social exclusion.

2. Theoretical background

2.1. The temporal need-threat model

In the context of Baumeister and Leary's (1995) influential article discussing the important role of the need to belong and sociometer theory (e.g., Leary, Tambor, Terdal, & Downs, 1995), a "Zeitgeist" for ostracism developed (Williams, 2009). Since then, the phenomenon has been widely discussed in literature due to its negative consequences for the individual's physical and mental health. To explain the harmful effects of ostracism on fundamental human needs, Williams (1997, 2009) developed the *temporal need-threat model* consisting of three stages. 1) In the *reflexive stage*, having detected only minimal signs of ostracism, the affected individuals feel social pain in terms of negative affect, because they experience their belonging, self-esteem, meaningful existence, and control needs are threatened. 2) Afterwards, the individuals start to reflect on the meaning of the ostracism episode and try to fortify the threatened needs. During this so-called *reflective stage*, contextual factors and the individual's character play an important role for restoring need-levels. 3) In case of prolonged ostracism, the individuals' resources for coping with the effects of ostracism are depleted leading to a *resignation stage*. The inability to fortify the thwarted needs is likely to lead to alienation, depression,

helplessness, and unworthiness signifying a form of "social death" (Williams & Nida, 2011, p. 71).

In accordance with Williams (1997, 2009), many studies found that face-to-face ostracism threatens the fundamental needs of belonging, self-esteem, meaningful existence, and control (Gerber & Wheeler, 2009; Williams & Sommer, 1997; Williams et al., 2002). However, social exclusion can also occur in the online world as cyberostracism (Williams et al., 2000). For instance, both online and in-person experiences of ostracism affect people in the same way (Filipkowski & Smyth, 2012). A recent study examined the effects of lacking feedback on Facebook status updates (Tobin et al., 2014). Participants who did not receive any feedback on their status updates had lower levels on belonging, self-esteem, meaningful existence, and control.

2.2. Manipulating ostracism

Various paradigms have been applied to investigate the consequences of being ostracized, rejected, or socially excluded in social settings online as well as offline (for an overview, see Vorderer & Schneider, 2017; Wolf et al., 2015). By far the most applied paradigm to study the effects of ostracism is Cyberball (Hartgerink, van Beest, Wicherts, & Williams, 2015; Williams & Jarvis, 2006; Williams et al., 2000). In this paradigm, participants sit in front of a computer and are supposed to engage in a ball-tossing game in which they have to mentally visualize who they are playing with. Although participants are told that the researchers are not interested in who receives the ball, in actuality, participants either receive the ball throughout the game (inclusion) or do not receive the ball again after a couple of initial throws (exclusion).

Despite the great utility and success of Cyberball and other paradigms for assessing the effects of cyberostracism (for overviews see Vorderer & Schneider, 2017; Wesselmann & Williams, 2011), they fall short for investigating the effects of ostracism in a social media environment. For example, these paradigms lack the opportunity for providing social feedback in a way that is typical for social media such as "Like" buttons or comments, which are very popular tools on SNS (cf. Smock et al., 2011). Thus, Wolf et al. (2015) took an important step in introducing a new paradigm called Ostracism Online in order to allow researchers the manipulation of social media settings, to keep social interactions experimentally controlled, and to study subsequent within-group behavior. By applying the paradigm, the researchers were able to identify analogous effects on need-threats and mood. Nonetheless, to our best knowledge, no further studies have tried to implement Ostracism Online as a research tool yet.

Thus, as the present studies focus on ostracism effects in a social media environment, we used this new paradigm: In contrast to Cyberball, it features more possibilities of manipulation (e.g., content of summaries, social cues) and complements ostracism research methodology due to the researcher's ability to program and hence control social interactions.

3. Study 1

In Study 1, our aim was to replicate the findings of Wolf et al. (2015) for a German sample. In line with William's need-threat model and present research on ostracism (for meta-analytic overviews, see Gerber & Wheeler, 2009; Hartgerink et al., 2015), we derived the following hypotheses:

H1a. Excluded individuals experience lower levels of belonging, self-esteem, meaningful existence, and control than included individuals.

H1b. Excluded individuals experience a worse mood than