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Evaluating peers in cyberspace: The impact of anonymity

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ABSTRACT

This research examined the question of whether the anonymity found in most types of computer-mediated communication (CMC) impacted individual reactions to people who agreed or disagreed with their own opinions. Participants ($N = 256$) evaluated other respondents who voiced an attitude that was either similar or dissimilar to the one they endorsed. The social identity model of deindividuation effects (SIDE; Reicher, Spears, & Postmes, 1995), suggests that anonymous group members will experience a heightened sense of social identity and show an increased likelihood of protecting that group by disparaging those who disagree with their beliefs. However, in the absence of a salient ingroup, we fail to find support for this. In contrast, we provide evidence that the impact of anonymity on interpersonal evaluations of peers is moderated by individual difference factors. Only those participants with high self-esteem, low levels of social anxiousness, or an elevated sense of autonomy evaluated targets more negatively when anonymous rather than identifiable. The current research suggests that any models used to understand anonymity's effects in CMC situations will need to carefully consider both social and personal identity characteristics.

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1. Introduction

Since the rise of the internet in the 1990s, the use of computers has become an indispensable part of many people's daily communication. From work email to commenting on news stories to social networking, it is clear that many people increasingly rely on computer-mediated communication (CMC) to connect with their world. Indeed, a 2014 Pew study found that 87% of American adults are Internet users and data from the International Telecommunications Union (2015) shows that internet usage worldwide has increased from 6.5% to 43% of the global population between 2000 and 2015.

While it is evident that CMC has led to an increase in the available modes of communication for many, what is less obvious is how it is different from other forms of communication, both in terms of form and function. Some early research on CMC suggested that it can elicit asocial, unregulated behavior (Kiesler, Zubrow, Moses, & Geller, 1985). Concerns regarding an increase in hostility and aggression have been a major focus of research examining the influence of CMC on interpersonal interactions (Kayany, 1998; Lea, O'Shea, Fung, & Spears, 1992; Moor, Heuvelman, & Verleur, 2010). In an early review of the personality and social psychological implications of CMC, researchers McKenna and Bargh (2000) argued that:

> The Internet by itself is not a main effect cause of anything, and psychology must move beyond this notion to an informed analysis of how social identity, social interaction, and relationship formation may be different on the Internet than in real life. (p. 57)

Psychologists are not the only scholars grappling with how best to study CMC; scholars from a wide variety of disciplines have spent the past few decades considering this and related questions. Research on CMC can also be found in literature as diverse as information science, political science, and communication studies. Regardless of the philosophical differences in how scholars choose to study CMC, its pervasive and complex nature necessitates that it is researched from a number of perspectives.

1.1. Anonymity

One of the potential differences between CMC and face-to-face

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communication that draws the most attention in the literature is anonymity. However, anonymity can take many different forms in CMC. In the absence of a widely accept theoretical framework, Keipi, Oksanen, and Rasanen (2015) introduced a model which allows for an understanding of three different levels of online anonymity. Visual anonymity is the most common type found in CMC, wherein one's physical characteristics are hidden although other identifying information is known. Pseudonymity exists when people use avatars or usernames as indicators of their online identity. Full anonymity is said to exist "where users remain unknowable after interaction has concluded" (Keipi et al., 2015, p. 719), and occurs in the absence of any long-term usernames. Unless otherwise stated, the term anonymity as used in this paper refers to full anonymity.

Many forms of CMC rely on visual anonymity or pseudonymity, requiring participants to identify themselves in some way; however, other forms, such as blogs and news sites' comment sections, offer participants the opportunity to post their thoughts online in a fully anonymous fashion. A September 2013 Pew study found that 25% of adult internet users have posted anonymous comments online in order to avoid observation of their behavior by others. Online anonymity and its effects on discourse have drawn popular media attention as well. In September 2013, the magazine *Popular Science* made the decision to eliminate the pseudonymous user comments that traditionally had been allowed to accompany its online articles. Their decision was based in part on research done by Anderson, Brossard, Scheufele, Xenos, and Ladwig (2013) that showed that uncivil comments accompanying articles can skew perception of an issue. In its announcement, *Popular Science* explained that "… because comments sections tend to be a grotesque reflection of the media culture surrounding them, the cynical work of undermining bedrock scientific doctrine is now being done beneath our own stories, within a website devoted to championing science" (LaBarre, 2013; para. 8). Similarly, Santana (2014) examined online comments on news stories and found that anonymous commenters were significantly more uncivil than identifiable commenters.

A related concern about anonymous interactions online is a lack of accountability. Some research (DeAndrea, Tom Tong, Liang, Levine, & Walther, 2012) has found that a lack of accountability can contribute to distorted and deceptive self-presentation online. Similar work examining predictors of aggressive behavior within CMC has shown that the anonymity offered in digital communication can influence the likelihood of engaging in cyber aggression (Kowalski & Limber, 2007). The patterns of hostility shown in CMC environments have largely paralleled the results shown in non-CMC research linking anonymity and hostility, demonstrating that people are more likely to consider violent actions against their opponents if the act was anonymous (Wann, Haynes, McLean, & Pullen, 2003). Among young adults, the tendency to engage in cyberbullying is positively associated with the belief that lack of identifiability in online environments resulted in a lesser likelihood of punishment by authority figures or retaliation from the target of those aggressive behaviors (Wright, 2013).

Anonymity in CMC is not limited to solely negative influence. Tanis and Postmes (2007) found that people expressed greater dissatisfaction with a CMC task which provided identity cues about themselves and their interaction partner. In addition, these participants believed they performed better on the task when they were anonymous. Similarly, there is evidence that CMC helps young people explore their identities in ways that are perhaps not as easy in face-to-face communication (Maczewski, 2002). This is consistent with research examining the impact of anonymity in more traditional situations (Johnson & Downing, 1979) that has suggested that feelings of deindividuation brought on by anonymity

may lead people to engage in behaviors consistent with the salient norms of the situation rather than personal guidelines.

1.2. Deindividuation

The effect of anonymity on an individual's behavior in group settings has been studied repeatedly in different contexts long before the advent of CMC. One of the first frameworks put forth to understand anonymity effects comes from Gustave Le Bon's (1896/2001) work on crowd behavior. Le Bon proposed that when people gather together they lose their identities, thus becoming part of a new organism: the crowd. It becomes "a sort of collective mind which makes them feel, think, and act in a manner quite different from that in which each individual of them would feel, think, and act were he in a state of isolation" (p. 15).

The modern conceptualization of Le Bon's ideas can be traced to Zimbardo (1969) process of deindividuation. Zimbardo cites his classic Stanford Prison study (Hanley, Banks, & Zimbardo, 1973) as evidence that people in a crowd (or in otherwise deindividuated states, such as under the influence of drugs) will behave in ways inconsistent with their personal identities. People are less likely to monitor their behavior and are more likely to act upon impulses.

It is obvious how the issues related to anonymous CMC could be seen as examples of deinidividuation. However, many researchers have found the deindividuation theory to be insufficient to explain the effects of anonymity on behavior. Several studies have shown that situational factors have a significant impact on how deindividuated people behave, contrary to the original conceptualization of deindividuation (Carver, 1975; Diener, 1980; Prentice-Dunn & Rogers, 1982).

To explain some of what they felt was lacking with Zimbardo's theory of deindividuation, Reicher, Spears, & Postmes (1995) put forth the social identity model of deindividuation effects (SIDE). SIDE suggests that the self is not a unitary construct, but rather a complex interaction of two sub-systems: the personal identity and the social identity. When people feel as though they are part of a group, they shift emphasis from their personal identification to their social identification. Thus, SIDE predicts that anonymous members with salient ties to the group will experience a heightened sense of their social identity and will perform as their social identity dictates. Rather than lose themselves in a crowd, deindividuated persons will look more to the social aspect of their identities to guide their behaviors.

Because of the anonymous nature of many forms of CMC, SIDE has been a useful framework to study the effects of anonymity. Indeed, hundreds of studies have used a SIDE framework to understand CMC, resulting in varying degrees of confirmation of SIDE's tenets. Douglas and McGarty (2001) research on the strategic aspects of SIDE emphasized the importance of having an in-group audience for the expression of stereotypical views regarding outgroup targets. Reicher, Levine, and Gordijn (1998) found that prescribed social identities (i.e. identifying as pro- or anti-fox hunting) imposed in experimental conditions can be overwritten by participants' overriding social identities (i.e. identifying as student participants vs. staff experimenters). Research also suggests that not only the content, but also the forms that CMC takes, can be normative (Postmes, Spears, & Lea, 2000). Lea, Spears, and de Groot (2001) suggest that visual anonymity increases group-based self-categorization, increases attraction to the group, and enhances group-based stereotyping of others. These and many other studies have shown SIDE to be a useful framework for studying the effects of anonymity on CMC.

Although there is evidence from the SIDE model that anonymous members with salient ingroup ties tend to behave in ways which support their social identity, it is unclear whether those