

# Social Influence Online: The Impact of Social Validation and Likability on Compliance

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Text-based communication via the Internet has provided new opportunities to study social influence and persuasion. Specifically, Guadagno and Cialdini (2005) contend that the effectiveness of social influence attempts have yet to be thoroughly investigated online. To test Guadagno and Cialdini's contention, the present study examined whether the social influence principles of likability and social validation impacted individuals' willingness to comply with a request when the setting is online. Results revealed that social validation affected compliance, but communicator likability did not. Thus, our results indicate that contrary to previous work in offline contexts, not all social influence principles are effective online. Explanations for these differences are discussed.

*Keywords:* online persuasion, social influence, social validation, likability, Internet

Interpersonal interactions in contemporary society reflect the increasing use of technology, particularly text-based, stand alone, computer-mediated communication (CMC) such as e-mail, texting, blogging, and instant messaging. Among these interactions, the aforementioned types of CMC have become a modality for social influence attempts. Thus, the effectiveness of social influence—the scientific study of attitude and behavior change due to real or imagined pressure (Cialdini, 2009)—in computer-mediated environments has been of interest to research and influence practitioners alike. One such area of interest pertains to the effectiveness of Cialdini's six principles of influence—authority, reciprocity, scarcity, social validation, likability, and commitment and consistency—online, particularly in text-based interactions in which the communicator is distant from the target of influence. Guadagno and Cialdini (2005) conducted a literature review and concluded that, thus far, some influence principles (e.g., commitment and consistency)

are effective when using the aforementioned types of CMC, whereas some (e.g., authority) are not. Furthermore, they found that others (e.g., liking) are effective in some online contexts but not others. The present investigation builds on previous literature to examine the effectiveness of two different social influence principles: likability and social validation on compliance—behavior change without pressure—and whether these compliance tactics extend to an online context such as the types of CMC mentioned earlier in the text.

## Online Social Interaction<sup>1</sup>

McKenna and Bargh (2000) have long contended that there are four aspects of online social interaction that make it unique: time and place, anonymity, physical appearance, and physical distance. For instance, people are able to control when, where, how, and with whom they interact with online. As a result, individuals exert greater control over their interactions. Furthermore, unlike interactions through other media, instantaneous responses are not normative in CMC. With CMC, individuals may formulate and edit responses over any given

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<sup>1</sup> Because work on Facebook and other social networking sites is still emerging, we limit our literature review to CMC in the presocial networking era.

amount of time so that the target individual receives an articulate communication. With regard to anonymity, communicating with someone via CMC may create a buffer against actual knowledge of a person's identity. As a result, an individual can choose to present him-/herself genuinely or alter and/or conceal certain aspects of their identity. For instance, CMC allows for the creation of screen names and avatars that can provide a mask for the user because identifiers such as gender, age, and identity can be hidden or changed. Because of this greater ability to control visual anonymity online, it has been proposed as one of several factors that can lead to engagement in both more normative and antinormative behaviors (McKenna & Bargh, 2000; Postmes, Spears, Sakhel, & De Groot, 2001; Sassenberg & Postmes, 2002). Specifically, anonymity can lead to a deindividuated or disinhibited state (state of lowered self-awareness), leading to neglect of one's usual personal standards for behavior, and ultimately increased antinormative behavior (Mendels, 1999). In contrast, anonymity can also lead to more focus on group identity and relevant group norms, increasing group conformity (Postmes et al., 2001). For instance, it has been found that individuals who are identifiable may conform more to group norms compared with anonymous individuals via CMC if there are clear sanctions for breaking the norm (Sassenberg & Postmes, 2002).

Another unique aspect of online communication is the minimized importance of physical appearance, something that is traditionally a powerful determinant of initial attraction (Bargh & McKenna, 2004; Belmore, 1987). As a result, individuals may interact with others online while being unconcerned about their appearance. Additionally, status cues are often missing online, and therefore, there is no visible social hierarchy (McKenna & Bargh, 2000). This may produce more equal participation among members of an online group, regardless of their status. Thus, individuals are more likely to form impressions of people by the words written and not what they can see about a person. Finally, the fourth aspect of online communication, physical distance, illustrates that the geographical distance between individuals has less influence on their choice of communication partners or groups. Individuals can easily meet and interact with people anywhere in the

world without having to leave the comfort of their home.

Given that more and more people are communicating through CMC, it is also likely that the normative expectations for online interactions are unique, and therefore warrant further investigation. To some extent, these norms are still being established (Kiesler, Siegel, & McGuire, 1984; Bagozzi, Dholakia, & Pearo, 2007). Furthermore, online communication may lack nonverbal feedback, and this deficiency could make it more difficult to interpret messages communicated via CMC (Derks, Bos, & von Grumbkow, 2008). Also, social influence may be less affected by social hierarchy or attractiveness because such information can be hidden or is not as apparent online (Edinger & Patterson, 1983). Combined, these factors may make certain types of CMC less personal than other forms of communication because individuals are directed toward the message content rather than the speaker. Compared with more traditional forms of communication, social norms and social standards may be less salient among individuals communicating online (Chaiken & Eagly, 1983; Kiesler, Siegel, & McGuire, 1984; Guadagno & Cialdini, 2002, 2005, 2007). Taken together, these factors suggest that individuals process information uniquely when it is presented via CMC.

### **Social Influence Online**

Given the evidence presented earlier in the text pertaining to the unique characteristics of online communication, it seems likely that influence attempts may or may not be effective in online settings. However, there is a dearth of research examining this question. Work by Cialdini (2009) indicates that there are six universal principles of social influence: authority, reciprocity, scarcity, social validation (also called social proof), likability, and commitment and consistency. These principles serve as heuristic cues for decision making. When processing heuristically, individuals can use certain cues, rules of thumb, or surface features to determine whether to comply with a request. For instance, the personal characteristics of a communicator (e.g., attractiveness, expertise, likability) are factors that influence the extent to which individuals targeted for an influence attempt are swayed by the individual attempting

to influence them (i.e., the influence agent). It is noteworthy that these are some of the same features that are less salient in text-based CMC.

Guadagno and Cialdini (2005) reviewed the literature on social influence online, and they focused on two domains of social influence: compliance (i.e., behavior change without pressure)<sup>2</sup> and persuasion (i.e., attitude change without pressure). The purpose of this literature review was to investigate the extent to which compliance and persuasion had been examined in online environments. The review of the online compliance literature was framed by Cialdini's (2009) six principles of influence. Guadagno and Cialdini found that the effectiveness of some, but not all, of these six principles of influence had been examined in an online context. The researchers hypothesized that compliance tactics may be more or less effective online because these social influence attempts create a context in which the influence agent is more distant than he or she would be in attempts delivered in other contexts (Dubrovsky, Kiesler, & Sethna, 1991; Guéguen & Jacob, 2002).

After reviewing the literature, Guadagno and Cialdini (2005) concluded that the effectiveness of three of the six principles of influence—authority, commitment and consistency, and liking—on compliance had been examined solely in an online context (i.e., in the absence of a face-to-face condition). Specifically, research indicates that authority cues are largely ignored in online interactions, whereas commitment and consistency tactics such as the foot-in-the-door technique are effective online (Dubrovsky, Kiesler, & Sethna, 1991; Guéguen & Jacob, 2001; Markey, Wells, & Markey, 2001; Guéguen, 2002; Petrova, Cialdini, & Sills, 2007).

Research on the effect of liking on compliance in online contexts is less prevalent. Furthermore, the results of the limited existing literature are conflicting. For instance, Guéguen, Jacob, and Morineau (2010) demonstrated that if an e-mail solicitation is sent by someone with the same name as the recipient, the recipient is more likely to comply with the request. Thus, this study demonstrated that liking, operationalized as similarity, increases compliance to a request. Contrary to these results, Guadagno and Cialdini (2002, 2007) demonstrated that liking an influence agent was not always an effective means of influencing a target via e-mail. Specifically,

when liking was manipulated, women, but not men, were less swayed by a confederate through an e-mail interaction. Furthermore, this effect was stronger when the confederate was also unlikable. Because the latter study examined persuasion rather than compliance as the outcome measure, it may be that liking in online contexts is affected by the type of social influence under examination. However, given the limited number of studies available, the effect of liking on social influence online is still an open question.

Overall, considering that only three of the six principles have been examined online, and of those three, one produces contradictory evidence, more research should be conducted to further examine how the principles of influence affect compliance in an online context. The present study focuses on two of the Cialdini's (2009) six principles: likability and social validation, and examines how these principles influence compliance rates when the request occurs online.

### Liking

Research reviewed by Cialdini (2009) indicates that likable people are more influential. Factors that produce liking include physical attractiveness and/or similarity. Both of these factors are powerful determinants of initial liking but may not be as important with online interactions owing to the lack of visual and social cues. Compliments are also effective at increasing liking because flattery typically increases liking toward the flatterer. Other factors that can increase liking are familiarity and association. As indicated earlier in the text, Guadagno and Cialdini (2002) showed that liking was an important factor in the persuasiveness of an argument for women but not for men. The researchers explained this finding in terms of social role theory (Eagly, 1987; Eagly, Wood, & Diekmann, 2000) and argued that text-based CMC interfere with the ability of women to form a bond with the influence agent. Guadagno and Cialdini (2007) replicated this finding and also demon-

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<sup>2</sup> Please note that compliance is conceptually different from conformity because the former occurs willingly and the latter occurs under conditions of social pressure. Please see Cialdini and Goldstein (2004) for a review that thoroughly differentiates the two.

strated that cooperation or similarity eliminated this effect for women. Furthermore, their work demonstrated that text-based CMC actually facilitated influence between men who had recently competed with each other or were told they were highly dissimilar.

### Social Validation

Cialdini's (2009) principle of social validation concerns social norms and the idea that people often look to the behavior of others to decide how to behave across situations, especially ambiguous contexts. Specifically, this principle is based on social evidence (descriptive norms) indicating that individuals consider an action more appropriate when they see others reacting similarly to the situation. For example, Asch's (1951) conformity studies demonstrate that social validation of how others are behaving (many others publicly pick an incorrect answer) can then lead to others to conform to the same behavior (an individual picks the incorrect answer, even knowing it is incorrect). Postmes, Spears, and Lea (1998) studied the effect of anonymity on adherence to social norms and named the resulting processes the Social Identity Model of Deindividuation Effects (Lea & Spears, 1991). One of the key tenets of the Social Identity Model of Deindividuation Effects is that the depersonalization that is seen with CMC can cause users to be more sensitive to norms conveyed by salient groups. Under conditions of anonymity, individuals look more toward a group for normative direction rather than following their internal standards for behavior.

Postmes et al. (2001) demonstrated the aforementioned phenomenon pertaining to the conditions under which individuals adhere to group norms in an online environment. Specifically, they reported that when anonymous, group members displayed behavior consistent with the salient norm (efficiency or prosocial behavior). Group members interacting nonanonymously did not adhere to group norms. Their second study replicated and expanded this finding by illustrating that, within the group, the norms were also socially transmitted. This suggests that when individuals are interacting anonymously, as they often do online, they will be influenced by the group norms that are most salient. Because there will be no clearly specified sanctions for noncompliance, we predict in

our study that individuals will comply more when social validation suggests that many others are compliant.

### The Present Study

The purpose of the current study was twofold. First, we wanted to examine whether two specific influence principles, likability and social validation, would be effective in an online setting. Second, we sought to determine whether there would be evidence of an additive effect of both likability and social validation on compliance in a computer-mediated context. McKenna and Bargh's (2000) framework of online behavior and the work of Guadagno and colleagues (Guadagno & Cialdini, 2002, 2005, 2007; Okdie & Guadagno, 2008) suggest that the influence of a likable communicator may not be strong online (especially among women) owing to the decreased salience of the influence agent. This work and the work by Postmes and colleagues (e.g., Postmes et al., 1998) suggest that the influence of social norms will likely be effective online if participants feel anonymous. Furthermore, research indicates that when comparing audible or visually salient communications with a written communication, the audio or visual communication was more influenced by the characteristics of the communicator (Chaiken & Eagly, 1983). Thus, likability may not be a particularly powerful compliance tactic online because the communicator is less salient, and other message features may become more important.

Owing to fewer visual and aural cues, social validation may be particularly influential online. With increased anonymity online, deindividuation may occur. Deindividuated participants are not typically swayed by their internal standards (Matheson & Zanna, 1989). As discussed earlier, Postmes et al. (1998) found that when deindividuation occurs online, individuals tend to rely less on their individual standards of behavior and instead identify more with group norms. This suggests that social validation will be effective online because by identifying more with standards of their group, individuals are looking toward others for validation of their own actions. Thus, our first research question was: Does social validation information increase compliance with a request?

Based on the literature reviewed earlier in the text, we sought to examine the influence of social validation and likability on compliance when requests to volunteer were presented through online communication. Owing to the rationale described earlier in the text, we expected to find that social validation would be influential in an online context. Conversely, owing to the mixed results and McKenna and Bargh's (2000) work demonstrating that when interacting online, an individuals' personal characteristics are less salient, we predicted that likability may not be as influential. Specifically, the work reviewed earlier in the text suggests that, owing to decreased communicator salience inherent in text-based CMC, communicator likability cues may either be reduced or be less effective. However, given that there is conflicting evidence concerning the effectiveness of communicator likability in computer-mediated contexts, we sought to examine the effect of communicator likability on compliance. Thus, our second research question was: Does communicator likability increase compliance with a request?

## Method

### Design

The experimental design was a 3 (Likability of communicator: Likable vs. Unlikable vs. No Likability Control)  $\times$  3 (Social Validation: Willing to Help vs. Others Refusing to Help vs. No Response Control) between-subjects factorial. Participants were randomly assigned to read one of nine blog entries in which a fictitious student (the blog author) asked for volunteers to help with a university-related fundraiser. Because data were collected at a large Football University, communicator likability was manipulated by the presence of pro- or anti-football sentiments made by the blog author or the absence of such comments. Previous experiments on social influence and persuasion have used similar methods of manipulating communicator likability (Chaiken, 1980; Cialdini, 2009; Sinclair, Moore, Mark, Soldat, & Lavis, 2010). That is, likability can be successfully manipulated by portraying the communicator as one who is similar and/or who supports a majority opinion or group versus someone who is not similar and/or who does not support

a majority opinion or group. Thus, there were three levels of communicator likability (likable, unlikable, and no likability manipulation control). Social validation was manipulated by the presence of comments from other fictitious students in response to the blog author's request. There were either several students offering or those students refusing (based on social validation condition) to volunteer to help in their comments. In the control condition, comments from other students were absent. Thus, there were three levels of social validation (willing to help, unwilling to help, and no social validation information control). The primary dependent variable was a measure of willingness to volunteer time for a campus fundraiser.

### Participants

Participants were 249 (64 men, 185 women) introductory psychology students from a large public university. It is typical for most psychology experiments, including social psychology, to include a convenience sample containing mostly undergraduate students (Peterson, 2001). Students received partial course credit for participation in the study.

### Stimuli

**Blogs.** Participants read the blog online. Each participant was randomly assigned to one of the nine conditions. As stated earlier in the text, likability was manipulated by the fictitious blog author's comments pertaining to support of the University football team. In the likable condition, the request was for help with campus clothing drive for the needy and included a statement "ROLL TIDE," a commonly used statement of support for the University football and other athletic teams. An image of the University's sports logo was also included in the layout of the blog. In the unlikable condition, the sports logo and statement were not included, and the same request for help was included, but the fictitious blogger indicated that his blog was a place to share information about campus events unrelated to football. In the neutral condition, no such mention of football was made.

As described earlier in the text, social validation was manipulated by the presence or absence of comments from other fictitious students. When social validation was present, six comments from fictitious students either agreed

to volunteer time (e.g., “I’d like to help out! When will the clothing drive be?” and “I can volunteer and also bring clothes.”). When the social validation condition was low, the fictitious student comments indicated, for example, “Sorry wish I could help but I’m already involved in so much other stuff” and “I would if I had the time!” In the no social validation condition, there were no comments in response to the request for volunteers.

The user names for the fictitious students appeared as respondent’s first initial and last name. We selected this style to appear neutral so as not to be confounded with the likability condition (see Figure 1 for a picture of an example blog).

## Procedure

All participants completed this study by accessing the Internet from a location of their choice. Participants were told they would be participating in a study requiring them to evaluate a blog. Once participants gave consent, they were randomly assigned to one of the nine

conditions, read the corresponding blog, completed the dependent measures, and were then debriefed.

## Dependent Measures

**Likability manipulation check.** The participants rated the likability of the blog owner using a Likert scale (1 = not at all likable to 9 = very likable).

**Social validation manipulation check.** To examine perceived social validation, participants rated the extent to which they thought other students were willing to volunteer. The participants were asked to rate other students on a Likert scale (1 = extremely unwilling to 9 = extremely willing).

## Results

A series of univariate analyses of variance were conducted to examine the manipulation checks for blog owner likability and social validation, and to determine whether the independent variables had an influence on individuals’

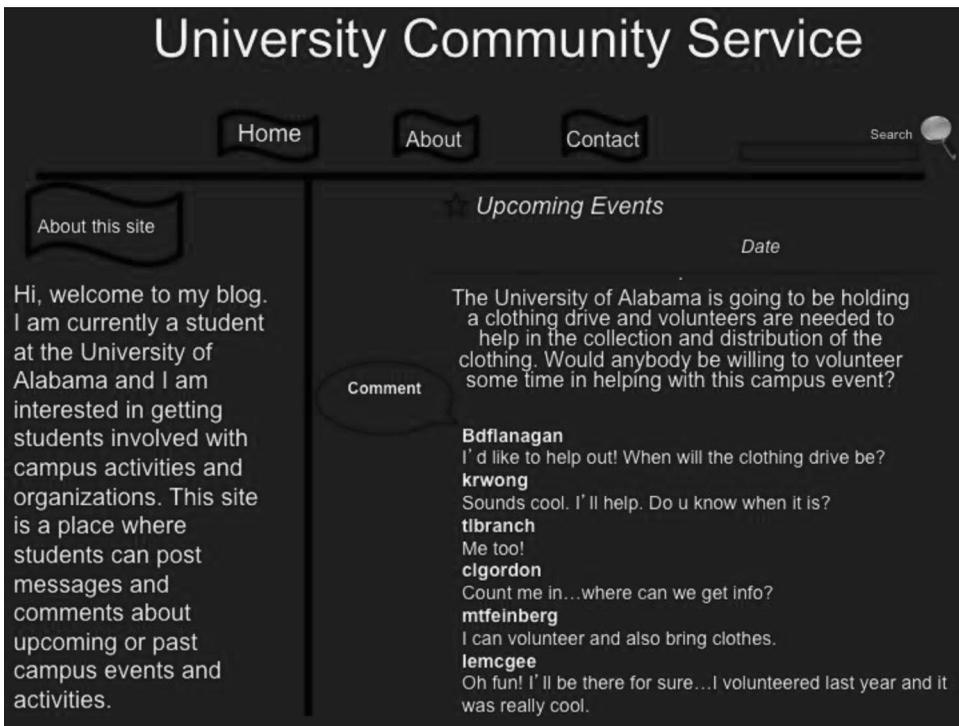


Figure 1. Example blog: neutral likability and high social validation.

willingness to volunteer. Participant gender was also examined, but no significant differences were found on any of our measures.

### Manipulation Checks

There was a significant main effect for communicator likability on likability ratings of the blog owner ( $F(2, 246) = 3.75, p = .025, \eta_p^2 = .03$ ). Post hoc tests using Fischer's Least Significant Difference (LSD) indicated that individuals in the likable condition rated the blog owner significantly higher in likability than those in the unlikable condition (see Table 1).

There was also a significant main effect of the social validation condition on how much the individuals perceived that others were willing to volunteer ( $F(2, 246) = 106.27, p < .001, \eta_p^2 = .464$ ). Post hoc tests using Fisher's LSD indicated that individuals in the high social validation condition perceived that others were more willing to help compared with those in the low social validation condition (see Table 2).

### Main Analyses

The impact of communicator likability and social validation on willingness to volunteer revealed a main effect of social validation ( $F(2, 240) = 3.31, p < .05, \eta_p^2 = .027$ ). Post hoc tests using Fischer's LSD indicated that participants in the high social validation condition were willing to volunteer for more hours compared with those in the low social validation condition. Both the main effect of likability ( $F(2, 240) = .62, p = .54, \eta_p^2 = .005$ ) and the interaction between social validation and likability ( $F(2, 240) = 1.54, p = .19, \eta_p^2 = .025$ ) were not significant in terms of their effect on participants' willingness to volunteer (see Table 3).

Table 1  
*Likability Manipulation Check: Ratings of the Likability of the Blog Owner*

Experimental condition	<i>M</i>	<i>SD</i>
Control ( $n = 81$ )	6.99 <sup>ab</sup>	1.37
Unlikable ( $n = 81$ )	6.60 <sup>a</sup>	1.56
Likable ( $n = 87$ )	7.20 <sup>b</sup>	1.30

<sup>ab</sup>Different superscripts denote significant differences.

Table 2  
*Social Validation Manipulation Check: Ratings of how Much Participants Were Willing to Volunteer*

Experimental condition	<i>M</i>	<i>SD</i>
Control ( $n = 88$ )	5.47 <sup>a</sup>	1.38
Low social validation ( $n = 82$ )	3.40 <sup>b</sup>	1.85
High social validation ( $n = 79$ )	6.99 <sup>c</sup>	2.13

<sup>abc</sup>Different superscripts denote significant differences.

### General Discussion

In the current study, we examined the influence of social validation and likability on compliance with a request presented online, focusing on text-based CMC in the form of a blog. We found that, similar to other communication contexts, social validation is also influential in online text-based contexts. Furthermore, participants in the study were influenced by the direction of the comments of others indicating a willingness or unwillingness to comply. Specifically, participants in the high and low social validation conditions were more likely to follow the comments of fictitious individuals and volunteer more or less hours respectively. Thus, participants who read a blog with comments from fictitious others agreeing to help, also agreed to volunteer more hours themselves compared with those who read the blog with comments refusing to help.

The results of this study also indicate that although likability of the fictitious blog owner was perceived, it did not impact compliance in willingness to volunteer. Participants reported the communicator to be likable or unlikable in accordance with their assigned experimental conditions, but communicator likability was not as influential. Thus, perceived likability did not affect participant compliance. This is consistent with the literature indicating that, online, a com

Table 3  
*Mean Number of Hours Participants Were Willing to Volunteer by Social Validation Condition*

Experimental condition	<i>M</i>	<i>SD</i>
Control ( $n = 88$ )	2.39 <sup>ab</sup>	2.06
Low social validation ( $n = 82$ )	2.06 <sup>a</sup>	2.36
High social validation ( $n = 79$ )	2.92 <sup>b</sup>	2.38

<sup>ab</sup>Different superscripts denote significant differences.

municator's perceived likability does not have the same effect as it would in interactions in which he/she is more salient (Guadagno & Cialdini, 2002, 2005, 2007). Therefore, one reason communicator likability may not have been influential is that in text-based interactions, the communicator is less salient. Future research should further examine this issue. The effectiveness of the social validation manipulation suggests that in online interactions, the influence of others affects our decisions. This supports ideas presented by Guadagno and Cialdini (2005) in their review of online persuasion and compliance and also with Postmes et al. (2001).

### Limitations and Future Directions

With the increasing popularity of various forms of CMC accessible via the Internet, it is important for researchers to understand how factors unique to online contexts affect individual's social interactions. The present investigation focused on furthering our understanding of online social influence processes, and suggests that some social influence principles may extend to some online contexts and produce changes in compliance rates, whereas others may not. It is important to note that it is an open empirical question as to whether these results would generalize to other more interactive online technologies such as Facebook (see Muscanell & Guadagno, 2012, for a description of how this generation uses social networking sites). Future research should continue to consider how delivering influence attempts via other online contexts, such as social networking sites, impact compliance with an influence attempt. This is a particularly important issue because Facebook advertisements often feature social validation information such as the name and/or number of friends who have pressed the "like" button. For instance, how many "likes" will it take before a person decides to visit a restaurant? Or on bookseller sites such as Amazon.com, how many positive reviewers are necessary to influence someone to buy a book or other product? Does the use of the "like" button provide social validation information? Has the "like" button changed the cultural meaning of the concept of liking something when online and offline? Moreover, does it create a virtual space where social democracy rules? Future research should examine these questions. Fi-

nally, there is a paucity of research on social influence online with the current generation of young adults. This makes the generalizability of much of the previous literature cited earlier in the text questionable. Future research should also examine whether this generation of Facebook-, Pinterest-, and Twitter-using young adults respond to the Internet in the way their predecessors did. Indeed, there is ample evidence that they do not (see Guadagno, Muscanell, & Pollio, in press).

The results of this study also have limitations that need to be addressed. First, it is unknown whether these results generalize to other forms of social influence such as persuasion and conformity. Second, given that we used mostly female college students as our sample, it is unknown whether our results will generalize to the global adult population. Certainly, the work of Larry Rosen would suggest our results might not replicate in different generations (Rosen, 2011). However, the work of Guadagno et al. (in press) suggest the results will generalize within generations. These issues should be addressed in future research.

There are also implications for clinical work over the Internet. For instance, Barak, Hen, Boniel-Nissim, and Shapira (2008) conducted a meta-analysis on therapeutic counseling online and found that the effects were quite similar to those found in more traditional face-to-face settings. Furthermore, Finn and Barak (2010) conducted a qualitative study of e-therapy and found it to be effective yet lacking in ethnical considerations. Applied to the present research, there remains an open question as to the role of counselor likability on therapy outcomes. Given that communicator salience is low online (Guadagno & Cialdini, 2002), our results suggest that liking in a one-on-one therapeutic interaction is not a mechanism for therapeutic success. Social validation in the sense of group counseling, however, may be quite successful online. Future research should further examine the issue of social validation and communicator likability in a clinical context.

Finally, the present investigation has implications for organizational behavior as well as the characteristics of the communicator. Our results suggest that when needing to influence in the real world, use of online communication will be successful if it is social validation based but will not if the influence attempt is liking

based. Thus, if a communicator has strong organizational support for his or her agenda, communicating it via asynchronous text-based CMC will likely be successful. Conversely, if the communicator is unlikable, although their attempts at influence may not be greatly impacted, they should probably use other means of social influence, as likability is still an important factor for online impression management and formation (Boyd & Ellison, 2007; Okdie, Guadagno, Bernieri, Geers, & Mclarney-Vesotski, 2011). Thus, these results have implications for social influence in the workplace and when and how technological influence attempts may trump interpersonal influence attempts. Future research should further explore these issues.

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