Attitude moderation: A comparison of online chat and Face-to-face conversation

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ABSTRACT

Face-to-face conversation and online chat were compared on their tendency to moderate attitudes through exposure to an opposing perspective. As predicted on the basis of the greater self-focus and reduced presence of the other in text-based chat, strangers who chatted online for 20 min about a divisive social issue on which they held opposing attitudes showed less movement toward their partner's position as a result than did those who spoke face-to-face for the same length of time. The potential limitation of text-based online communication for bridging attitude divides is discussed.

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1. Introduction

Online communication allows people to share ideas and hold each other's attention across the widest of physical and social divides. One feature that contributes to this democratic and cosmopolitan inclusivity is the absence of physical appearance as a hindrance to egalitarian dialogue in text-based exchanges (Joinson, 2001). This identifies online contact as a potential means of reducing social prejudice (Amichai-Hamburger & McKenna, 2006; Walther, 2009). Its success in this regard depends on the ability of the medium to promote attitude change through substantive discussion among dissimilar parties. Whether such attitude change occurs, however, appears to depend on the motivational context of the interaction. Walther, Van Der Heide, Tong, Carr, and Atkin (2010), for example, found evidence for attitude convergence when one online interlocutor was motivated to establish an affinity with the other, but not when otherwise motivated. What remains unclear is whether the compulsions of the online medium *on the whole* tend to promote relatively more or less affinity-seeking in dialogical encounters with strangers than is the case in face-to-face conversation, specifically with respect to negotiating the challenges of initial difference or disagreement.

From a uses-and-gratifications perspective, the primary function of informal, voluntary, and sustained online communication is the formation and maintenance of affinity groups. That said, there is good reason to believe that the medium is not as conducive as face-to-face communication to developing affinity among *strangers*. Despite the availability of digital voice and video interfaces, most online communicators opt for text-only platforms (Rainie, 2011; Shiu & Lenhart, 2004). This preference is telling. Face-to-face and voice encounters, real or virtual, are more taxing in that they require close attention to physical and auditory cues (Burgoon & Hoobler, 2002), and provide less expressive and editorial control. The greater reciprocal "transparency" (Gilovich, Savitsky, & Medvec, 1998) that is experienced face-to-face is associated with increased social accountability and risk. In contrast, purely text-based exchanges require less scrutiny of the other, less self-exposure, and less sustained attention. They are "lighter" in this sense, so much so that many online communicators feel free to multitask during conversations (Dresner & Barak, 2006). With less pressure to attend to the other, communicators are at liberty to focus more on their own intentions, desires, and beliefs (McKenna, 2007; Suler, 2004; Walther, 2007), and to reveal information in a self-prompted and unsolicited manner (Joinson, 2001; Valkenburg & Peter, 2007). With the increasing preference for synchronous forms of online communication such as instant messaging over traditional email and discussion boards, the pressure to respond quickly further diminishes nuanced consideration of the other and reduces willingness to engage in the time-consuming negotiation of disagreement. These qualities may be well-fitted to communicating with familiar interlocutors where there is considerable affinity and a rich background of shared experience and common understanding. They are, however, less suitable for the effortful reduction of stark difference or contention among strangers, where the value of closely reading the shifting mental states of interlocutors is at a premium. This, together with the reduced ethical presence of the other in text-based encounters, suggests that, on the whole, there is less

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impetus for attitude convergence between disagreeing strangers in online communication than in face-to-face conversation. If so, we can expect less moderation of attitudes through online discussion when there is clear initial disagreement, *ceteris paribus*. To test this idea, we compared the degree of attitude moderation produced by online chat with that produced through face-to-face dialogue. Where the conversing partners clearly disagreed at the outset, we predicted greater movement toward the partner's position in the latter than in the former condition. Where the conversing partners agreed at the outset, we expected no such difference. Nor did we predict attitude intensification in the case of agreeing partners, as the consistent attitude of a single interlocutor is unlikely to produce the "polarizing" shifts seen in *group* contexts where both informational and normative influence often loom large (Isenberg, 1986).

2. Method

2.1. Participants

Participants were 142 undergraduate students (86 women and 56 men) at the University of Toronto. The mean age was 19.01 years, with a range of 17–25. All participants reported regularly accessing the internet. Eighty-two percent of the sample reported at least some regular use of online instant messaging; 90% reported at least some regular use of social networking websites.

Participants were recruited by phone on account of their responses to a set of mass testing questions administered at the start of the academic term (1–3 months prior to testing). The criterion for recruitment was clear-cut but not extreme agreement or disagreement with any one of the following four statements:

(1) To become Canadian citizens, immigrants should be expected to conform to the basic values held by most Canadians.
(2) There is no sufficient justification for taking the life of another person.
(3) The main purpose of university education should be to prepare students to compete successfully in the job market.
(4) A Canadian who fails to vote in a federal election is letting down the country.

These statements had been selected as those with which roughly as many students agreed as disagreed in the pool from which the participants were selected. For purposes of recruitment, disagreement was defined as a rating of 3 and agreement as a rating of 8 on a scale of 1 (*strongly disagree*) to 10 (*strongly agree*). This strategy ensured participants with clearly "sided" pre-test attitudes, but with room for conversationally-induced attitude change in either direction. During phone recruitment, all participants were asked to confirm the pre-test response for which they had been selected. Only those who did so were retained.

Participants were randomly matched into either *consistent* or *opposing* same-sex pairs. Members of consistent pairs shared the same pre-test rating (3 or 8) on the attitude statement of selection. In opposing pairs, one member had a pre-test rating of 3 and the other of 8 on the attitude statement. This system of pairing effectively created conversation partners who could be expected to either agree or disagree on the issue represented by the statement. A total of 34 opposing and 37 consistent pairs were tested. The gender ratio was comparable for the two types of pairs, $\chi^2(1) = 1.20$, $p = .27$. All participants received either course credit or a modest cash payment in exchange for their time.

2.2. Procedure

Members of pairs were unfamiliar to each other prior to the study. Each pair was randomly assigned to either a *face-to-face*

(FTF) or *online chat* (OC) condition. The gender ratio was comparable in the two conditions, $\chi^2(1) = .17$, $p = .68$. In both conditions, participants were read the attitude statement that had been the basis of their selection for the study and instructed to discuss their thoughts and feelings on the subject with each other for 20 min. It was made clear that the conversation would be recorded. Members of the pair were not informed of each other's attitudes on the statement they would be discussing and had no reason to anticipate agreement or disagreement. In FTF, members of the pair were seated across from each other in a private room for the duration of the conversation. In OC, members of the pair were seated in separate rooms in front of desktop computers and instructed to converse in text for 20 min using Google Talk, a web-based instant messaging application. Only Google Talk's synchronous text-based capabilities were used. Participants unfamiliar with Google Talk were given a quick tutorial prior to the conversation. Members of OC pairs were prevented from seeing each other before, during, and after the conversation. In both conditions, anonymity was protected by asking all participants to refrain from revealing or asking for personal names. FTF conversations were digitally recorded and transcribed for analysis. OC conversations were automatically logged and downloaded.

Following the conversation, participants completed a short questionnaire consisting of demographic items, a set of experience-related questions that are not directly relevant here, and 12 attitude statements addressing a broad range of topics, one of which was the critical attitude statement on which members of the pair had been selected. Participants indicated their agreement with the critical statement on the same 1–10 scale used in pre-testing, thus providing a post-conversation index of attitude change. All participants were fully debriefed on the nature and purpose of the study before leaving the laboratory. The entire session lasted approximately 50 min.

The variable of interest here is the degree of change from pre-test to post-conversation on the attitude for which the participant had been selected. Specifically, we expected more movement *toward the opposite side of the attitude scale* after conversation with an opposing partner (where, presumably, one's views would be challenged and moderated) in FTF than in OC. No difference between FTF and OC was expected after conversation with a consistent partner (where, presumably, one's views would be echoed and thereby reinforced). To test these predictions, participants' pre-test rated agreement with the attitude statement was subtracted from their post-conversation rated agreement. For those participants selected for a pre-test rating of 3, a positive value for the resulting difference represents movement toward the opposite side of the scale. For participants selected on account of a pre-test rating of 8, the sign of the difference was reversed so that a positive value again represents movement toward the opposite side of the scale. For present purposes, we will refer to this change variable as *moderation* in attitude, despite the fact that a few participants (4.93% of the sample) moved to a position on the opposite side of the rating scale that was *more* extreme (relative to the midpoint) that their pre-test position.

3. Results

To accommodate the influence of participants within pairs on each other, participant-level outcome variables were analyzed according to Kenny, Kashy, and Cook's (2006) actor–partner interdependence model. This approach requires defining a multilevel or mixed model with individual participants as first-level units and dyads as second-level units. The covariance structure reflecting partners' response dependencies within dyads was specified as compound symmetric. Satterthwaite's (1946) approximation was

used to determine the degrees of freedom for mixed predictors. Mixed model testing was conducted using the SAS statistical package (see Campbell & Kashy, 2002). The initial model revealed no significant ($\alpha = .05$) main or interactive effects for dyad gender, which was therefore eliminated from the model to focus testing. In this final model, moderation was examined as a function of medium (FTF, OC) and partner match (consistent, opposing). Cell means and standard deviations are presented in Table 1.

The results revealed significant effects for medium, $F(1, 67) = 5.20$, $p = .03$, and the Medium × Match interaction, $F(1, 67) = 5.56$, $p = .02$. The former reflects a simple effect of medium among opposing partners, $F(1, 67) = 3.87$, $p = .05$, where those in the FTF condition showed more moderation ($M = 1.44$) than those in the OC condition ($M = .76$), as predicted, but not among consistent partners, $F(1, 67) = 1.91$, $p = .17$, where those in the FTF and OC conditions showed comparable levels of moderation ($Ms = .32$ and 1.25, respectively). If anything, the direction of the latter, nonsignificant difference indicates somewhat greater moderation in OC than in FTF when partners *agreed* at the outset, hinting at movement *away* from a consistent partner in OC as a result of the discussion. Finally, mean moderation was significantly ($p < .05$) greater than zero for all groups except consistent partners in the FTF condition.

The fourfold pattern of means gainsays the possibility that the greater attitude moderation in the face of an opposing FTF partner was due to the higher average number of words spoken than typed in the 20-min session ($Ms = 334$ and 1604, respectively). Namely, the degree of moderation *away* from a *consistent* partner in OC was in fact comparable to that seen among inconsistent partners in the FTF condition. This pattern argues against the possibility that not enough was typed in OC to induce the degree of attitude change seen in FTF. Clearly, there was significant movement in *both* FTF and OC conditions, but in an opposing pattern with regard to partner match. Furthermore, if the absolute number of words spoken or typed by an inconsistent partner is predictive of participants' attitude moderation, then we should see a corresponding significant correlation in the data. This, however, was not the case – neither in FTF, Pearson $r = .01$, $p = .95$, nor in OC, $r = .17$, $p = .35$.

4. Discussion

This study looked at the importance of medium for determining the degree to which discussion with a disagreeing partner moderates a strong attitude. Specifically, we predicted that the power of an opposing perspective to challenge and rationally temper one's initial position would be reduced in online chat as compared to face-to-face conversation. The invisibility and inaudibility of the other in online chat would, we argued, reduce the felt mental and ethical presence of one's partner and promote greater focus on one's own thoughts and feelings at the expense of understanding and acknowledging the validity of the partner's sentiments and position. This weaker interpersonal engagement would lead to less social influence in general and less attitude change in particular. Consistent with prediction, students matched with partners who

Table 1
Means and standard deviations for moderation as a function of medium and attitude pairing.

Medium	Attitude pairing	
	Consistent	Opposing
Face-to-face	.32 (2.18)	1.44 (1.96)
Online chat	1.25 (2.72)	.76 (1.74)

Note. Values represent degree of movement toward the opposite end of the 1–10 attitude scale. The possible range is −2 to 7. Standard deviations appear in parentheses.

clearly disagreed with them on the issue under discussion showed greater attitude moderation after 20 min of face-to-face conversation than after the same length of online chat. Also as expected, this pattern held only for disagreeing partners: There was no significant difference in moderation across medium in the case of partners who agreed at the outset.

The results point to the potential limitation of online chat among strangers for producing immediate attitude change through rational dialogue. Insofar as participants in online chat remain more attuned to themselves than to those who manifest as mere text on a screen, their susceptibility to dissuasion away from strongly held beliefs and commitments would be low. The visual, auditory, and physical confrontation that defines face-to-face conversation forces each speaker into a deeper engagement with the subjective world of the other, heightening the social impact of expressed thoughts and feelings, including those that contrast with one's own. Ironically, the very virtues that *protect* online denizens from those they interact with and provide them with greater freedom to be themselves (i.e., anonymity, invisibility, inaudibility, physical remoteness, reduced accountability) may also shield them in some contexts from socially harmonizing attitude change.

Of course, the limitations of this study – its exclusive use of student participants who were unknown to each other, a nonnatural context (laboratory experiment), a single, brief conversation, and a narrow selection of attitudes – invite caution in generalizing beyond the distinctive configuration of features represented here. At the same time, the results raise legitimate concerns about the ability of online chat to stand in for face-to-face conversation as an equipotent means of promoting moderation and mutual understanding where initial beliefs and convictions are not shared. Future research should address just how far this limitation extends and how best to overcome it.

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