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The effect of mediation on impression formation: A comparison of face-to-face and video-mediated conditions

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Abstract

It is suggested that communication mediated by video may have an important impact on the way in which individuals are perceived and this might be a result of an attenuation or distortion of visual signals. The current study aimed to test this further by employing a simple mind-reading task, which gave participants an opportunity to interact with one another. Participants completed the task in pairs either face-to-face or via video-mediated technologies. After completing the task, participants filled in a questionnaire which was designed to assess perceptions of how much they liked and how intelligent they believed their partner in the task to be. Results indicate that participants were regarded as significantly less likeable and intelligent in the video-mediated condition. This is probably a consequence of the attenuation of visual signals, in particular eye gaze, which has been shown to be important in impression formation. Findings from this study have practical implications for using this type of technology to assess performance, for example in interviews, especially if comparisons are made with face-to-face interviewees.

Keywords: Video-mediated communication; Impression formation

1. Introduction

While video-mediated communication (VMC) has been available for over 70 years, it is only comparatively recently that this type of technology has become a practical means for communicating from geographically dispersed locations. However, while there is little doubt that VMC is associated with a number of useful benefits, for example reducing costs (Strom, 1997), we only have a moderate understanding of its second-order effects (e.g. how using the technology affects persuasion) (Ferran-Urdaneta, 2001). While the literature concerning the use of video-mediated technologies in applied settings has increased almost exponentially, much of this has centred on how humans can adapt and apply emerging technologies. Examples of this are the repeated attempts to establish disassociations between video-mediated and face-to-face communication. Indeed, there has been a special focus on how users perceive the efficacy of using new technology from both a task base (e.g. problem-solving and simple negotiation), and a utility perspective (e.g. the effectiveness of VMC in comparison to other communication media). However, one area that has received far less attention is the psychological impact of using emerging technologies.

Video-mediated communication is said to duplicate the experience of face-to-face meetings as closely as possible (Campbell, 1998), and therefore it is assumed that interaction over video works in much the same way as communication in a face-to-face setting. As a consequence of this assumption, video-mediated technologies are often used in situations where it is important to get a feel for another person. For example VMC is increasingly used in order to conduct interviews from a distance (Chapman, 1999; Kroeck and Magnusen, 1997). Many studies in the literature however seem to indicate that there is a difference in the way in which impressions are formed over video in comparison to face-to-face contact. This is one clear indication then that video-mediated interactions are different from face-to-face interactions.

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Chapman and Webster (2001) noted that participants rated candidates in face-to-face interviews as having more "natural" language and being better at conveying verbal and nonverbal cues compared to candidates in a video-mediated interview. Chapman and Rowe (2002) concluded that applicants were less attracted to organisations which used video interviews in comparison to face-to-face interviews, perhaps an indication that participants felt in some way disadvantaged when using this form of technology to communicate. Furthermore, Chapman et al. (2003) noted that face-to-face interviews were regarded as more fair than video-mediated interviews and this resulted in a higher level of job acceptance. Chapman et al. (2003) assert that this effect may have something to do with varying richness of modes of communication. According to Daft and Lengel (1986), communication media vary in richness, and richer mediums allow for the use of "natural" language and are better equipped to transmit verbal and nonverbal cues. Accordingly, if the quality and accuracy of a message is degraded by a particular communication medium then this may result in negative views (Fulk, 1993; Rice, 1993). Furthermore, it is evident that during the interview process, interviewees judge their performance based upon feedback given to them by the interviewer(s) (Martin and Nagao, 1989). Consequently, communication barriers may result in an increased difficulty in picking up feedback, and therefore applicants may feel at a disadvantage (Chapman et al., 2003). Straus et al. (2001) however noted that interviewees (in this case MBA students) were rated as favourably when communicating via video-mediated technologies as when communicating face-to-face. This indicates that interviewees are not always at a disadvantage when communicating via video-mediated technologies. However, the interviewees themselves made less favourable evaluations of using the technology and the interviewers were rated as less friendly during the video-mediated interviews (in comparison to face-to-face and telephone interviews).

The effect of mediation on impression formation is not only limited to interview situations. Interactions that take place at a distance are also associated with a number of other pitfalls. For example, there is a growing body of support for the notion that proximity benefits group interaction. Kiesler and Cummings (2002) suggest that it is likely that any form of collaboration that takes place at a distance is going to be less successful than face-to-face collaboration. Handy (1995) noted that remote teams were less effective and reliable than face-to-face teams because 'trust needs touch.' This seems to indicate that individuals can get a better feel for someone when they meet them in a face-to-face context. Indeed, Rocco (1998) noted that people who met face-to-face before video-mediated meetings were better at establishing trust with other group members than those who had not met beforehand. Derrer et al. (2006) also indicate that initial face-to-face contact can benefit subsequent video-mediated interactions. Findings from their study demonstrated that interviewees were rated more favourably after a video-mediated interview on measures of friendliness, honesty, job suitability and employability if they were met face-to-face before the interview took place. There is also empirical evidence to indicate that teams that are geographically distributed experience high levels of conflict. Hinds and Bailey (2003) propose that this is a consequence of being distant from other members of the team, and having to rely on technology in order to communicate with them.

A number of explanations can be proffered for the differences between face-to-face and video-mediated impression formation. Chen (2003) argues that even though nonverbal behaviours (e.g. hand gestures, lip movements, eye contact) can be communicated through the video medium, technological factors result in them being distorted, and therefore they cannot be picked up. Because nonverbal cues are key to impression formation, when they are removed from communication, people tend to be less influenced by personalities and therefore decisions are more likely to be based on facts (Williams, 1977). Morley and Stephenson (1969) noted that when completing a negotiation task, in comparison to audio-only interactions, face-to-face participants focused more on interpersonal considerations than the objective facts of the debate. This may explain why less favourable attitudes about people have been reported over video. More specifically, difficulties with eye contact (often a result of camera placement) can also result in negative perceptions. Storck and Sproull (1995) argue that the lack of direct eye contact caused by video-mediated communication causes less positive impressions, with individuals often being viewed as unfriendly. Although problems with eye contact are not inevitable in VMC (for example, 'videotunnels' can be utilised to replicate eye contact through the use of strategically placed 'half-silvered' mirrors), many video systems still place limitations on the ability of the user to make eye contact and use gaze awareness effectively (for example, see Monk and Gale, 2002). Such constraints contribute to the inability of VMC to fully portray nonverbal signals, and according to Angiolillo et al. (1997) is one of the major causes of the weakness of video to provide value to remote conferencing.

Advancements in technology may help to alleviate many of the difficulties associated with video communication (for example, delay and problems with eye contact); however, even with perfect videoconferencing it would still seem that the subtleties of nonverbal communication will be lost. Researchers such as Heath and Luff (1991) and Rutter (1987) indicate that nonverbal behaviours do not have the same performative impact over video as they do in face-to-face communication; in other words, we do not react to them in the same way. According to Heath et al. (1995), although the speaker can monitor the actions of the person with whom he/she is communicating "the resources upon which a speaker ordinarily relies to shape the ways in which a co-participant listens and attends to the talk appear to be interfered with by the technology" (Heath et al., 1995,