The Effect of Paralinguistic Cues on the Perception of a Person's Pre-existing Personality

by

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Abstract

The study involves looking at the relationship between paralinguistic cues and CMC communication and whether there is a relationship between the two and the effect it has on a people's perceptions of a person's pre–existing personalities. The aim of this experiment was to determine whether or not there is a change in pre-existing personalities if text-based paralinguistic cues are used in CMC communications. (Social context cues) It was hypothesized that the participants exposed to the emoticons in the interview, will not rate any different in an extraversion rating test of the person who's profile was viewed on the social network site. (Social information processing): It was also hypothesized that the participants exposed to emoticons in the interview, will give a higher score in an extraversion rating of the person who's profile was viewed on the social network site. The method involved participants sitting on separate computers where they were all exposed to a web page of a friend/mentor on an online social networking site, 'Mingle'. The participants would proceed onto the next page where participants in the experimental group were exposed to an online interview of the online friend/mentor imbedded with paralinguistic cues. Where as the control group were exposed to the same online interview but only contained basic-text. After participants read the online interview they preceded onto the next page where a personality (introvert/extrovert) quiz was answered based on the interview just read. Results showed that participants who were exposed to paralinguistic cues had a mean extraversion rating of 41.35, and those who were not exposed to the paralinguistic cues had a mean extraversion rating of 37.08. These results show that those who were exposed to paralinguistic cues in CMC, perceive an unknown person as being more

extroverted as compared to those who were only exposed to basic-text which perceived the person as being more introverted. Application of this data can be used in selecting compatibility of online dating partners, as well as using it in crime syndicates to gain the trust of online predators in order to catch them.

Paralinguistic cues and computer-mediated communications (CMC) have become very significant part in communication between children through to adults. CMC is the means of communication between people or groups, by using technology such as hand held devices and computers, which memos or conversations are carried out by e-mail, Instant messenger and other forms of non face-to-face commutations. Due to the advancement and frequent use of CMC, there is a lack of expression missing, such as a belly-warming laugh, or a smile, when meeting someone. This is why paralinguistic cues have been developed and created, in order to be able to be more expressive on non-face-to-face conversations. The eyes are the main source of sensory relay when engaging with CMC. The eyes are apart of the peripheral nervous system (PNS), which includes all of the nerves that extend out side of the central nervous system. The PNS includes the somatic nervous system, which controls voluntary behaviour and the autonomic nervous system, which control non-voluntary body functions (Lilienfeld, Lynn, Namy, Woolf, 2009). Paralinguistic cues vary from abbreviations presented as actual words, such 'lol', which stand for laughing out loud, and 'brb', meaning be right back. The other form, is emoticons, a visual image of how the person is feeling such as, ☺ and ☹. The way in which people interpret such cues is based on one's social information processing. This means based on such paralinguistic or even basic text, is based on how a person perceives the emotions or underlying messages relayed by the person using CMC and paralinguistic cues. The reason for the research into paralinguistic cues and CMC is because of the such wide use of it through out the world, and trying to develop a better understanding of how the use of paralinguistic allow an

unknown person to perceive what another person's personality may be like based on the limited use of paralinguistic cues.

Previous research by Kiesler and Sproull (1986) found that reducing social context cues in computer-mediated communications, within an organization has a profound effect on the deregulation of communication with in the organization. These results suggest that interpretation of messages being relayed between people isn't being properly understood as compared to messages that do contain social context cues. The fact that this experiment is based on the understanding of information and instructions between people in an organization, it is hard to project those results on this experiment as it focuses on paralinguistics cues, and the effect it has on a person's perception of one's pre-exisitng personality. Other research involving user satisfaction with CMC systems (Hiltz and Johnson, 1990), found that those who used the CMC interface, weren't concerned with poor the spelling or punctuation by other users on the system. Participants who weren't familiar, or hadn't used CMC before, found it hard to show expressiveness via the network. The results suggest that language that isn't properly used didn't effect the communication between the network users, which mean words such as 'lol' and 'brb' shouldn't be a concern in this experiment being conducted, unless of course the participants aren't familiar with such words. Of the 935 involved of the sample in this experiment, the age of participants was between 18-60. These results are hard to make compare to the results of this experiment due to the fact this experiment only involved a majority of participants being under the age of 21. Thompson and Vignovic (2010), found that in their study of computer-mediated cross-cultural collaboration, that those who received emails with more grammatical errors in the text, reported the e-mail to be from a person of a

foreighn language, as compared to those who didn't receive an e-maill without or less erros contained within it. These results are useful in that if the online interview contained errors, and no profile picture, participants may be bias towards someone of ethnicity who uses words such as 'lol' and 'brb', which can be perceived as grammatical errors, as compared to the online interview not providing a profile picture but paralinguistic cues. Limitations for the experiment conducted on The Effect Paralinguistic Cues Have On the Perception of Person's Pre-existing Personality, is that it mainly focuses on people within a certain age demographic, and the online interview doesn't provide alternative languages other than English for participants. This can be problematic in that international participants may not be able to under stand the text, let alone paralinguistic cues making it difficult to distinguish between the unknown person's types of personality.

The aim of this experiment was to determine whether or not there is a change in pre-existing personalities if text-based paralinguistic cues are used in CMC communications. (Social context cues) It was hypothesized that the participants exposed to the emoticons in the interview, will not rate any different in an extraversion rating test of the person who's profile was viewed on the social network site. (Social information processing): It was also hypothesized that the participants exposed to emoticons in the interview, will give a higher score in an extraversion rating of the person who's profile was viewed on the social network site.

Method

PARTICIPANTS

Having used convenience sampling the sample was taken from a population of students enrolled at Monash University, Clayton, Caulfield, Peninsula, South Africa and Malaysia campuses, from the tutorial classes of first year undergraduate psychology students. The sample consisted of 1005 participants made up of 721 females and 284 males, which had a mean age of 20.85 years and a standard deviation of 5.47 years.

DESIGN

The design used for this experiment was convenience sampling for the selection of participants who were first year psychology students. A blind procedure was used in organizing the sample into the control and experimental groups, where people whose birthday was on an odd date were exposed to the condition and those who's birthday was on an even number were not exposed to the condition.

MATERIALS

- Online site "Mingle"
- Personality Questions
- Computer
- Online Interview With Emoticons
- Online Interview Without Emoticons
- Permission Slip

PROCEDURE

Participants were selected by the use of convenience sampling. Students in a first year undergraduate psychology class were asked to participate and fill in permission form to be part of the experiment. Participants were then designated to groups based on the date of their birthday. Those who were born on an even number day were placed in the control group, and those who born on an odd numbered day were placed in the experimental group. Participants were then asked to proceed to a separate room with computers. They followed a set of instructions to not talk or look at anyone else whilst on the computer. Participants followed the prompts to an online social interaction site called "Moodle", where they greeted with a person's profile space filled with information about them and a display picture. After viewing the person's profile space, they proceed to an online interview that had been typed up, where simple questions had been asked and responded to (E.g. What do you like to do in your free time?). Those who were in the control group read the online interview with out emoticons such as "☺", whilst the experimental group were exposed to emoticons in the online typed interview. Following the interview participants were then asked a number of personality based questions about the person they had just viewed and read about on the social network site. Once participants finished their extraversion-rating test, participants were debriefed. Results were collaborated and a mean extraversion rating score was determined for the control and experimental group.

Results

Data was collected by an online questionnaire, by a rating system based on personality. Having used the eyeballing method, the data in table 1 shows us that participants who were exposed to paralinguistic cues had a mean extraversion rating of 41.35, and those who were not exposed to the paralinguistic cues had a mean extraversion rating of 37.08.

Table 1

Mean extraversion ratings after viewing CMC text with, or without paralinguistic cues.

	Mean	SD	N
Paralinguistic cues present	41.35	6.97	532
Basic text	37.08	7.24	473

The purpose of the experiment was to determine weather or not CMC paralinguistic cues has an effect on the way people perceive a person as being extroverted. (Social context cues): It was hypothesized that the participants exposed to the emoticons in the interview, will not rate any different in an extraversion rating test of the person who's profile was viewed on the social network site. (Social information processing): It was hypothesized that the participants exposed to emoticons in the interview, will give a higher score in an extraversion rating of the person who's profile was viewed on the social network site. Results appear to be conclusive with the hypothesis that extraversion will be higher if paralinguistic cues are present as compared if there are no

paralinguistic cues present, as those exposed to the cues had a mean rating of 41.35, where as those who were exposed to text alone had an extraversion rating of 37.08.

The results have suggested that those who were exposed to paralinguistic cues in the text found the unknown person to be more extroverted as compared to those who exposed to just basic-text. In comparison to previous research results it can be see that they run in accordance to that of Kiesler and Sproul (1986). Those who weren't exposed to social cues in an organization didn't understand the instructions as well as they did when social context cues were present. This shows there is relationship between understanding a person who uses paralinguistic cues better as compared to those who weren't exposed to such cues. This illustrates that paralinguistics provide a means of understanding of a person as well as their personality through CMC. . In comparison to Hiltz and Johnson (1990) who's results showed that grammatical erros didn't create a discrepancy in communication between two people via CMC. The results for the experiment conducted shows that words such as 'brb' and 'lol' did have an effect on the participants pre-existing personality of the unknown person. This is to say that these paralinguistic cues are classed as grammatical errors as they aren't proper or formal language. Thompson and Vignovic (2010) found that grammatical errors with in text via CMC caused a person to believe that someone produced it that was foreighn to them in ethnicity. These results aren't concordant to the results discovered from this experiment. This was due to the fact, no grammatical erros were present in the text other than paralinguistic cues, as well as, a profile picture was present, of what is presumed to be a white Caucasian male from an English speaking background. No results can be

compared to that of Thompson and Vignovic's study of Computer-Mediated Cross-Cultural Collaboration

Possible limitations to this experiment could be a conflict of interests between the participant, and the “potential friend” on the online site ‘Mingle’. If the online friend had on their home page that was publically viewed had interests that were, poetry, classical music or reading, these activities may appear unappealing to a participant who isn’t interested in such activities. This means they may develop a preconceived idea that this friend who wants to be the participants mentor, may not be compatible. This results in, participants giving false testaments of the person in personality test of this unknown person. In result this will give an inaccurate result of the mentor being more likely perceived as an introvert/extrovert based on their interests rather than whether or not paralinguistic cues were present. To prevent this from future experiments and studies it would be a good idea to hand out a questionnaire to participants interested in taking part in the experiment, that asked general questions relating to hobbies similar to that of the mentor on the online social site ‘Mingle’. Those who have a relatively similar likes to that of the friend on the Mingle would be selected for the experiment. This way no clash of interests will effect the out come of the mentor/friend being perceived as an introvert/extrovert based on their interests, and will be more focused on whether or not the paralinguistic cues cause participants to perceive the mentor as an introvert/extrovert.

Another possible error for this experiment could be whether or not participants have been exposed to paralinguistic cues before. If some participants aren’t familiar with terms such as ‘lol’ and ‘lmao’, participants may be confused as to what the friend/mentor is saying in the online interview. This may have given

the impression to participants that the person in the interview is illiterate and careless. This may have been seen as having a negative association with a person's character, such as laziness. This may have given the idea to participants that the person in the interview can be seen as an introvert, that is careless, and has no consideration to others that aren't familiar with current paralinguistic cues of today. To avoid this, in future studies, participants should be screened and asked if they are familiar with some paralinguistic cues or not, and the one's that are should be selected, to avoid confusion if some participants are confronted with the paralinguistic cues during the experiment. In comparison to Hiltz and Johnson (1990) who found that

The findings used for this experiment show, that people who use paralinguistic cues are perceived as being more extroverted rather than introverted. The use of this data, criminologists working with online predators, may use paralinguistic cues to gain the trust of potential sex offenders online, causing them believe that that the officers are trust worthy and nice in not telling anyone of their relationship in order to trick them into being caught. Another possible application of this data could be using a legitimist mentoring system at university for first year students that don't know anyone. During the match up process it will be helpful to know that using paralinguistic cues, help people appear kinder and more easy going than what they are when no paralinguistic cues are used at all. Making it easier for matching first year students with say second or third years.

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