

Impact of social media on the trait of empathy

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ABSTRACT

With steady rise in the use of social networking sites, Changes in the behavior of people are evident, especially in the psychological characteristic or trait of empathy. The current study is a quantitative study which explores two variables, i.e. the influence of SNS (Independent Variable) and empathy (Dependent Variable). For the fulfillment of the aim, a total of 100 responses were recorded and the data was compared between two groups, i.e. Male and Female. The age of the sample ranges from 18 to 40. The data was collected by using Davis's Interpersonal Reactivity Index which scores on four constructs (empathetic concern, personal distress, fantasy, perspective taking) and the questionnaire was distributed through the medium of various social media apps and sites such Facebook, WhatsApp, Instagram, and Others. The data was compared by dividing it into two categories, i.e. usage of SNS for less or more hours. Furthermore, T-test was applied to check the same. Thus, our study laid a groundwork for understanding empathy's role in facilitating interactions on social media.

Keywords: Social media, empathy, social psychology, t-test, Davis's IRI

Social media is a form of computed-mediated communication. Just like e-mail and online chat forums that enable content to be exchanged among people via internet (Ahlqvist, Back, Halonen, & Heinonen, 2008), virtual media sites like Facebook, WhatsApp, etc. give users a platform to form connections and have interactions online. With steady growth of social networking sites, changes in face-to-face interactions have apparently declined with people investing more time communicating online than in person. One limitation of such an accelerated use of SNS is that individuals may corner themselves; selecting to talk and form relationships primarily virtually rather than developing meaningful, on-hand relationships. Support for such a possibility comes from a recent report that indicates social media participants are less likely to engross or privately know their neighbors. Nevertheless, empathy is a significant factor of social cognition that contributes to one's ability to apprehend and retort to the emotions of others, to succeed in emotional communication, and to promote pro social behavior (Spreng, 2009). Till date, empathy has obtained little curiosity from social media and human factor researchers.

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In this study, we conceptualize empathy as an attribute, operationalizing it within the background of our study. Hence, the goal of this study is to traverse the correlation between social media and empathy of people of different age groups.

DAVIS' IRI

The past decade has seen developing movement toward a view of empathy as a multidimensional construct. The Interpersonal Reactivity Index (IRI; Davis, 1980), explores four different aspects of empathy which describes its relationships with measures of social functioning, that is, self-esteem, emotionality, and sensitivity to others is assessed. Davis's IRI consists of four subscales- empathic concern (EC), fantasy subscale (FS), perspective taking (PT) and personal distress (PD)-was assessed with seven items on a five-point Likert scale (1=doesn't describes me well to 5= describes me very well). The subscales that persist to cognitive dimensions of empathy are the FS and the PT subscale. They measure the tendency to get stuck in fictional stories and imagine oneself in the same circumstances as fictional characters, and the tendency to take the psychological point of view of others' respectively. The EC and PD subscale measure the affective dimensions of empathy. Specifically, the EC measures sympathy and concern for others and is typically considered as an other-oriented emotional response in which attention is given to the person in distress (Schroeder, et al, 1988). The PD scale considers a self-oriented emotional counter in which attention is given at one's negative emotions of distress and the reduction of these negative emotions. The IRI has depicted good intra-scale and test-retest reliability along with convergent validity which is indicated by correlations with other foundational empathy scales (Davis, 1983).

Empathy in Social Media

Empathy is viewed as one's ability to reciprocate their feelings with others, to share in their happiness and hardships. In psychology, it has been defined as a multidimensional construct, comprising both cognitive and behavioral states. As with many desirable prosocial traits, people are not born with such innate ability, but they learn to become empathic through conditioning methods. Yet, if one is not exposed to the necessary nurturing to develop empathy into a habit, they may not be able to relate to others, which can impact their social aptness.

Therefore, when we try correlate empathy and SNS, then the query arises 'How can social networking technology facilitate the development and expression of empathy as a virtue?' First, it must be noted that assertions of empathy are a widespread practice on non-commercial virtual media; on any given day, at least one of one's friends or relative on Facebook or Twitter is likely to mouth a hangover, a bad day at work, a promotion, a severe illness, the achievement of a personal goal, the birth or the death of loved one. Such announcements are typically followed by a flood of sorrow, joy, regret, congratulations, encouragement, or offers of comfort and consolation. Depending on the nature of the event, these may range from a quick 'hang in there' to more literally empathetic confessions of having been moved to tears with grief, or spontaneous leaps of happiness. Some of these confessions, of course, may not be actually genuine, that is, accompanied by actual feelings of empathy; but it seems miserly to assume that none are. Furthermore, the extension of the above practices suggests that people who receive these replies find some gratification or comfort in them; and the practice does seem to be one that grounds the site's abstract display of connections and pronounce them as concrete, 'real' social bonds.

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Current findings on the impact of SNS on empathy are mixed. Wright and Li (2006) found that the time invested on online activities was related to prosocial behavior, such as saying nice things, offering help, cheering someone up, and letting someone know that one cares about them. Thus, increased exposure to SNS could provide entry to situations that foster empathic concern. Another study by Konrath and colleagues (2010) examined changes in empathy levels in college students between 1979 and 2009, they found a significant decline in empathic concern and view-point taking, particularly in the last decade, which coincides with the notion of rise in SNS use. They suggested that the shift in empathy levels could be driven by a more individualistic and self-centered attitude, as indicated by the label of “Generation Me”.

METHODOLOGY

Hypothesis

In this study, six hypotheses were formed which are as follows:

1. The first hypothesis was to check the relation between the numbers of hours invested on social media to empathy.
2. The second hypothesis was the significant difference presence between levels of empathy of people according to the number of hours.
3. The third hypothesis was to check the relation between numbers of hours invested on SNS to perspective taking subscale.
4. The fourth hypothesis was to check the relation between numbers of hours spent on SNS to fantasy subscale.
5. The fifth hypothesis was to check the relation between numbers of hours invested on SNS to empathic concern subscale.
6. The final hypothesis was to check the relation between numbers of hours spent on SNS to personal distress subscale.

Participants

The final number of participants in the study was 100. The age ranged from 16-45. Out of the sample of 100, 76 (76%) were females and 24 (24%) were males. Furthermore, 82 participants were single and 18 were married. The sample was recruited online (by using certain virtual sites like Facebook, Instagram and so on) through snowball sampling and were randomly selected.

Design of the study

The purpose of the study was to scrutinize the impact of social media on the trait of empathy. A quantitative research design was followed where we tried to explore and seek answer to our given hypothesis. The material used for the collection of the data was Davis' IRI questionnaire and laptop since the questionnaire was sent through online networking sites. According to Davis (1983), empathy is defined as the “reactions of one individual to the observed experiences of another”. There were 28-items answered on a 5-point Likert scale ranging from “Doesn't describe me very well” to “Describe me very well”. The measure has four subscales, each made up of 7 diverse items. These subscales are: perspective taking, fantasy, empathic concern and personal distress.

The sample was selected on the basis of snowball sampling method from the online population with the help of a standardized tool (Davis, 1980). Each individual collected the data of 50 randomly. The data was later pooled to make a sample size of 100. After the accumulation of data, t-test and Pearson correlation was applied on the sample through the tool of SPSS to get the results.

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Procedure

During the study, a consent form was made online through Google Forms and was circulated to the participants through different mediums of SNS. Once the permission was given, then the questionnaire (Davis'IRI) was sent to the participants through Google Forms respectively. The participants were guaranteed that their responses would be kept confidential and all the data was recorded respectively. Later, the participants were debriefed after the completion of the questionnaire.

Tools Description

To measure the role of empathy with regard to social media, the psychological tool used was Interpersonal Reactivity Index (IRI) - Self Report Measures for Love and Compassion Research: Empathy given by Davis (1980) was used. It is a 5-point Likert scale with 28 items and the measure has 4 subscales, each made up of 7 diverse items.

The statistical tool used in study are t-Test which was used to calculate the independent groups and check the significance between the variables (number of hours invested on SNS & empathy), and Pearson correlation was used to calculate to check the positive or negative relation between the number of hours spend and the 4 subscales individually. The software tool used here was SPSS. The data was collected through Google Forms and was converted to Microsoft excel sheets for easy calculations.

RESULTS AND DISCUSSION

Participants used social media generally for 5 hours per day. However, the online networking site usage of participants depicted negative correlation to empathy. The result was non-significant and $p < 0.01$ (with total score: 1 and hours spent: -0.040). In a study by Vossen, H. & Valkenburg, P. (2016), they tried explore whether social media has an impact on affective and cognitive - empathy and sympathy in adolescents. They surveyed 942 Dutch adolescents with age range of 10-14 years (both male and female adolescents). They linked the usage of social media sites and immediate messaging applications (hours and minutes) to empathy and sympathy by using The Adolescent Measure of Empathy and Sympathy (AMES) at two different timings (T1&T2). The results were non-significant in affective empathy at T1 to social media use at T2 and cognitive empathy did not influence social media use at T2. Meanwhile, social media use and sympathy were both not significant.

The second hypothesis was to check through significant difference between level of empathy of people and number of hours invested on SNS which was examined using T-Test. The result came out to be non-significant, i.e., $p < 0.05$. Therefore, null hypothesis (Ho) was accepted and alternate hypothesis (Ha) was rejected.

This result can be supported by a study on the comparative relationship between online site use and social capital among Australian and Korean youth by Lee, J., Park, S., Na, E. & Kim, E. (2016). They conducted an on-hand survey of adolescents (12-15 years old) in major cities in Australia (N=401) and Korea (N=644) in 2013. Although the result showcased positive relation for the given hypothesis, however, they found no significance difference in time invested on SNS between the youths of both the countries.

The remaining hypotheses were to check the correlation between the number of hours invested on social media and the four subscales individually: perspective taking (PT), fantasy subscale (FS), empathic concern (EC) and personal distress (PD). Interestingly, there was correlation among each of the subscales ($p > 0.01$), but in case of the hypotheses, there was

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negative correlation among all the subscales with the number of invested spent on social media ($p < 0.01$). This can be supported by a study of De Corte, K., Buysse, A., Verhofstadt, L. & Roeyers, H. (2007) on measuring empathic tendencies: reliability and validity of the Dutch version of the interpersonal reactivity index. The researchers in this study administered IRI (Davis, 1980) upon a Dutch sample of 651 normal functioning adults in order to check whether the empathic subscales or empathy is present among the individuals. They used confirmatory factor analysis to check the same. The results came to be statistically insignificant for all 4 subscales. But, they proved the reliability and validity Davis's IRI by using different psychological tools such as EQ-I (Bar-on, 1997) and so on.

Finally, in a study on empathy and online interpersonal trust by Feng, J., Lazar, J., Preece, J. (2004), the relationship between empathic accuracy, response type and online interpersonal trust was investigated. A total of 12 subjects were included in the study. Six were male and six were female. The average age of participants were 25.5 years old and their age ranges from 18-45 years old. All the participants had several years of online communication experience. The results suggested that both empathic accuracy and response type have quite a significant influence on online interpersonal trust, however, the interaction effect between empathic accuracy and scenario, and the interaction effect between response type and scenario were both non-significant. Overall, our research accepted null hypothesis and rejected alternative hypothesis (Table 1); this means that individuals who use social media are neutral to emotions and the aspect of empathy wasn't that relevant to the participants when they liked or showed certain expression to someone's comment, picture, or any announcement on social media.

Table 1: Correlation between Number of hours Spent by participants and empathy of participants as well as different subscales of empathy

	Number of Hours	Fantasy subscale (FS) Score	Empathic Concern (EC) Score	Perspective taking (PT) Score	Personal Distress (PD) Score	Total Empathy Score
Number of Hours	1					
Fantasy subscale (FS) Score	.025	1				
Empathic Concern (EC) Score	-.092	.310**	1			
Perspective taking (PT) Score	.064	.267**	.566**	1		
Personal Distress (PD) Score	-.148	.236**	.385**	.274**	1	
Total Empathy Score	-.040	.685**	.794**	.745**	.606**	1

** - Correlation is significant at 0.01 level (1-tailed)

CONCLUSION

Given the unprecedented scale of human connectivity realized through social media, with unforeseeable consequences on a global scale, it is timely to study the relationship of online interactions with such an important human characteristic as empathy. In this paper, we explored correlations between SNS and empathy. We learned that the relationship between

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participants' social media usage in association with the four subscales and their levels of trait empathy is rather complex. While we began with hypotheses grounded in previous literature, we observed some unexpected correlations, that is, the research was broken down into many hypotheses, and however, all the hypotheses were eventually rejected. Therefore, Null hypothesis (Ho) is accepted and alternative hypothesis (Ha) is rejected.

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Conflict of Interest

The author declared no conflict of interest.

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