

**APPLICATIONS OF SOCIAL AND PERSONALITY
PSYCHOLOGY TO COMPUTER
MEDIATED COMMUNICATIONS**

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Chapter 5

**APPLICATIONS OF SOCIAL AND
PERSONALITY PSYCHOLOGY TO
COMPUTER MEDIATED COMMUNICATIONS[♦]**

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ABSTRACT

It is estimated that 400 million people have access to the Internet; about 10% of the world's population. Among one of the more frequent online activities of Internet users is the use of chat rooms. While chat rooms are a relatively new form of text-based communication that allow individuals to interact with each other over the Internet, traditional psychological theories can still be used to explain the behaviors of people within this medium. To demonstrate the utility of social and personality theories in understanding Internet communications, three studies are presented. Study 1 suggests that the theoretical framework proposed in Latane and Darley's theory of bystander intervention (1970) can be utilized to explain and predict intervention in computer-mediated interactions. Study 2 uses Funder's (1995) Realistic Accuracy Model to examine the reliability of personality judgments made in chat rooms. Finally, Study 3 exhibits the use of the Foot-in-the Door technique (Freedman & Fraser, 1966) to examine compliance in chat rooms. Together, these studies suggest that psychologists are equipped with theories capable of explaining interactions in Internet chat rooms.

The number of Internet users around the world topped 400 million in the year 2000, and is predicted to surpass one billion by the year 2005 (etForecasts, 2001). Many of these users

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employ the Internet at home as an alternative method to communicate with others. Such interpersonal communication can take the form of e-mails, message boards, instant messages, listservs, and news groups. One of the more popular methods of interpersonal communication available to Internet users is chat rooms. Chat rooms are relatively new forms of text-based communication where two or more users can get together and exchange synchronous remarks in virtual space. Chat rooms are available on the Internet from major services such as America Online, individual Web sites, and the Internet Relay Chat (IRC) system. Many chat room users employ this medium to keep in touch with family and friends when physical proximity is not possible. People also use chat rooms to conduct business, seek emotional support, or search for romantic partners. While the public has been quick to adopt this technology, social scientists have been slower to investigate interactions within this new medium.

The social scientists who have used this technology have primarily employed it as a tool to collect data (e.g., Bailey, Foote, & Throckmorton, 2000; Barry, 2001; Best, Krueger, Hubbard, & Smith, 2001). Such researchers have found the Internet to be a valuable means of collecting data quickly with little expense, while also providing the opportunity to sample from more diverse populations than normally found on university campuses. Frequently these data have been used to examine how the Internet impacts aspects of an individual's life outside of cyberspace (e.g., Dominiguez & Ridley, 2001; Kandell, 1998; Tikkanen & Ross, 2000). For example, one study found that Internet use was related to loneliness and depression as well as decreases in the number of friendships that people had (Kraut, et al, 1998). Although use of the Internet in this kind of research has been very informative for examining its impact on factors measured outside of cyberspace, only a few researchers have examined actual interpersonal interactions within this medium (e.g., Markey, 2000; Thomas, 2000; Waskul, Douglass, & Edgley, 2000). Such researchers are not interested in linking Internet use to measurements outside of cyberspace. They are simply interested in studying interactions within the culture of cyberspace.

This cyberspace culture is unique and worthy of study in its own right. In some ways it is similar to our traditional world, and in other ways it is very different. Like traditional cultures, cyberspace culture has its own unique norms, values, and a history that tends to be passed on from one user to the next. Unlike the traditional world, chat rooms afford individuals the opportunity to be completely anonymous (McKenna, & Bargh, 2000), where they may choose to adopt distinct identities. Traditional social psychology stresses that such anonymity can drastically alter the way a person might normally behave (Zimbardo, 1969). Additionally, in cyberspace physical appearances and non-verbal cues are virtually non-existent (Markey & Wells, in press; McKenna, & Bargh, 2000). In face-to-face interactions these cues are used by others to make personality judgments about individuals (Funder, 1999). In chat rooms people can only use the text sent by an individual to make such interpersonal judgments. It is therefore plausible that interactions within chat rooms could be radically different from interactions in the traditional world. Nevertheless, in cyberspace humans are responsible for producing the text that others read. Because of this, psychological theories and models of human behavior that are believed to be universal should continue to find support when investigated in this medium.

In an effort to demonstrate how traditional psychological theories can be applied to interactions within chat rooms, this chapter presents three studies. Study One¹ applies the theoretical framework proposed in Latane and Darley's theory of bystander intervention (1970) to explain intervention in chat rooms. Study Two² examines personality perception within chat rooms using the Realistic Accuracy Model (Funder, 1995). Finally, Study Three demonstrates that Freedman and Fraser's (1966) Foot-in-the-Door (FITD) technique can be used to predict and increase compliance within chat rooms. Taken as a whole, these studies demonstrate that social and personality psychologists can use traditional theories to help explain interactions within Internet chat rooms.

STUDY ONE: BYSTANDER INTERVENTION ON THE INTERNET

[In 1998,] Larry Froistad, a member of Moderation Management, an online support group for people wanting to reduce their drinking, made a startling confession to members of his mailing list. He revealed that during a bitter divorce and custody dispute [in 1994], he got "wickedly" drunk, set his Bowman, North Dakota, house on fire, listened to his five-year-old daughter scream, and leaving her to die, went outside and practiced looking tortured for the police... Some members of the group dismissed Froistad's posts as delusional or metaphorical...Some were confused or didn't want to get involved...But a handful of members decided they had no choice but to notify the police.

(Katz, 1998)

While the murder confession of Larry Froistad was read by over 200 news group members, only 3 people reported the crime (DeCarlo, 1998). Following this incident, it was speculated that the lack of intervention occurred because the confession was given over the Internet (Parger, 1998). This explanation implies that the anonymity and alienation afforded by this form of communication caused the group members to become apathetic and unlikely to get involved. While personal anonymity and lack of physical cues may partially explain the lack of intervention, there is an interesting parallel between this incident and the murder of Kitty Genovese that occurred almost four decades ago.

Kitty Genovese was murdered in 1964 as she was returning home one evening. While entering the parking lot of her New York apartment, a man drove up, jumped out of his car and began to stab her. The brutal attack lasted over 45 minutes. After Genovese was dead, the assailant calmly got into his car and drove away. When the police arrived a short time later, they found that 38 witnesses had watched the event from beginning to end, but none of them had intervened or even called the police during the attack. After the murder of Kitty Genovese, it was argued that the lack of intervention was caused by the alienation and apathy of modern city dwellers (Hunt, 1993).

Does this mean that both modern city dwellers and Internet users are indifferent or "morally confused" (Parger, 1998)? Following the murder of Kitty Genovese, Latane and Darley (1970) formulated a theory of bystander intervention to help explain why individuals may be unlikely to help in such situations. It is hoped that by using this commonly recognized social psychological theory, a better understanding of behavior in chat rooms can be

¹ Portions of the data used in this study were previously presented in Markey, 2000.

² The data discussed in this study were previously presented as part of a larger study in Markey and Wells (2002).

achieved. This may give a more plausible explanation for the lack of intervention concerning the Internet murder confession of Larry Froistad.

The Theory of Bystander Intervention

The core of Latane and Darley's theory of bystander intervention, more simply called the "bystander-effect," stresses that the presence of other witnesses to an emergency makes a bystander more passive and less likely to help. To help explain this phenomenon, three group characteristics have been identified as possible inhibitors of intervention: audience inhibition, social influence, and diffusion of responsibility. Audience inhibition refers to the idea that people often fear their behaviors will be judged by others. This fear of being judged may cause people to not act in ambiguous situations if others are present. In cyberspace, where communication is completely text-based, it may be difficult for individuals to interpret situational cues. Therefore, bystanders in chat rooms may be less apt to intervene when others are present because they fear they might misinterpret these frequently vague situations. In the case of Larry Froistad, the desire of the group members to make the situation less ambiguous is apparent in the dozens of e-mails sent to each other asking, "What can we do?" and pleading "Help me here!" (DeCarlo, 1998, p. 40). Such inquiries seem to indicate their wishes to clarify the situation before taking action.

Social influence, in which people look to others for cues about how to behave in a situation, may also play a role in bystander intervention. If a bystander is around others who appear unconcerned, either by a lack of action or by looking as though there is nothing to worry about, the bystander may interpret the situation as a nonemergency that does not require intervention. After Larry Froistad confessed to the murder, the vast majority of individuals who read the confession did not publicly respond. This lack of response may have caused group members to interpret the confession as a situation not needing intervention. For example, after reading the confession, one group member concluded that Froistad was delusional and even doubted that his daughter ever existed (Kratz, 1998).

Another characteristic of groups that may make bystanders less likely to help is diffusion of responsibility. When people are in groups, they are typically aware that others in the group are available to intervene. Therefore, the more people present, the less responsible a single individual feels to give assistance. In group chat rooms, where users are aware that other people are present, it is probable that a single individual does not feel the burden of responsibility rests solely on him or her. This likely causes an individual in a group chat room to behave more passively, believing that others are responsible for providing assistance.

Expanding on the notion of diffusion of responsibility, researchers have demonstrated that, in face-to-face interactions, intervention is more likely if responsibility for action is focused on a single member rather than diffused among all present bystanders (e.g., Shaffer, Rogel, & Hendrick, 1975; Valentine, 1980). For example, Ross (Ross, 1971; Ross & Braband, 1973) performed a series of experiments examining whether increased responsibility to act decreased reaction time when responding to an emergency. In one of these experiments, college students were placed into one of three conditions: alone, with two other college students, or with two children. In all conditions participants heard what they believed was a person falling down, screaming, and moaning in an adjacent room. Consistent with the theory of bystander intervention, participants with other college students provided

help more slowly than when they were alone (see Figure 1). However, if the participant was made to feel responsible for helping, by having only children present, this difference was substantially reduced, supporting the notion that when responsibility is focused on a single bystander, the effects of having others present are virtually eliminated.

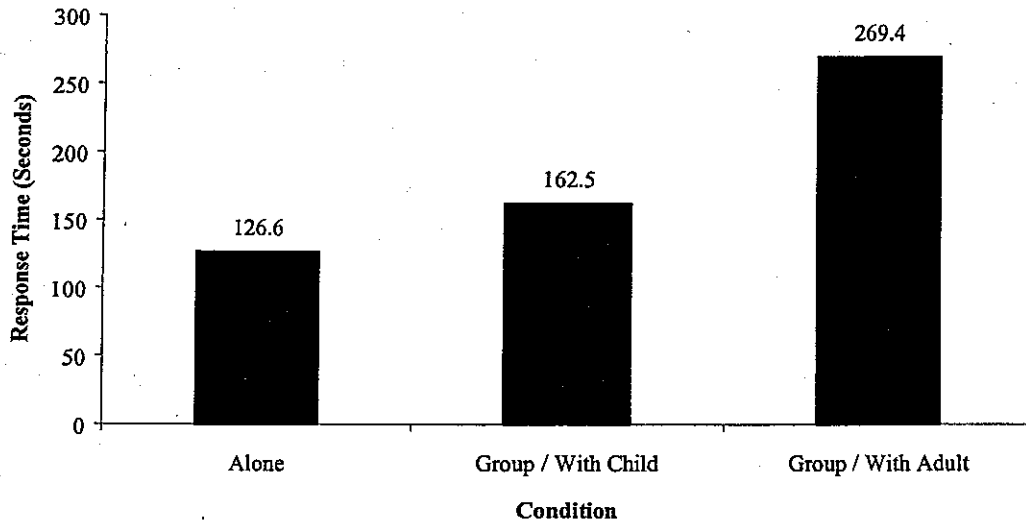


Figure 1. Average Bystander Response Time from a Study using Face-to-Face Interactions (Ross, 1971)

The theory of bystander intervention has been supported across many emergency (e.g., Latane & Darley, 1970) and nonemergency situations (e.g., Hurley & Allen, 1974; Latane & Dabbs, 1975). The current study will demonstrate that the traditional social psychological theory of bystander intervention can be used to explain and predict helping behavior during non-emergencies within chat rooms. It is expected that these results will mirror the findings discussed earlier, showing that bystanders are less likely to help in larger groups unless they are made to feel responsible. Specifically, it is hypothesized that in chat rooms it will take longer for a group of bystanders to give assistance than when a bystander is alone. Second, it is speculated that assistance will be received more quickly when a specific bystander in a group is asked for help than when help is asked from a group without specifying a single person.

METHOD

The current study observed 780 individuals in 60 different chat rooms. Participants were observed in chat rooms hosted by YAHOO! Chat (located on the World Wide Web at <http://chat.yahoo.com>). YAHOO! Chat is a free service that allows individuals to interact with each other in various chat rooms.

To examine the effects of responsibility and group size on the likelihood of receiving assistance, data were collected in three different conditions. In the first condition (alone), 20 chat rooms that only contained a single participant were randomly selected. Upon entering the

chat room, a confederate asked the sole participant, "Can anyone tell me how to look at someone's profile?" A profile contains information (e.g., age, gender, hobbies, etc.) provided by a chat room user that is publicly available to other users. This information is easily accessed through several different methods on Yahoo! Chat. In the second condition (group / no name), 20 chat rooms that contained 19 participants were randomly selected. After entering the chat room, a confederate asked, "Can anyone tell me how to look at someone's profile?" In the final condition (group / name), 20 chat rooms that contained 19 individuals were again selected. A participant was then randomly selected and the confederate asked the stimulus question, "(name of participant), can you tell me how to look at someone's profile?" In all conditions the stimulus question was repeated every 60 seconds until a response was received. A response was defined as any acknowledgment to the stimulus question. The amount of time it took to receive a response was recorded, and the confederate then left the chat room.

RESULTS AND DISCUSSION

In this study, the social psychological theory of bystander intervention was examined within chat rooms. Figure 2 presents the mean response times for each condition. An overall one-way ANOVA revealed a significant mean difference between these three conditions ($F(2, 57) = 6.51, p < .05$). The theory of bystander intervention stresses that the presence of others makes a bystander less likely to give assistance. Consistent with this idea, it was found that when others were present in chat rooms (group/no name), it took longer for a bystander to provide help than when the bystander was alone ($t(57) = 3.46, p < .05$).

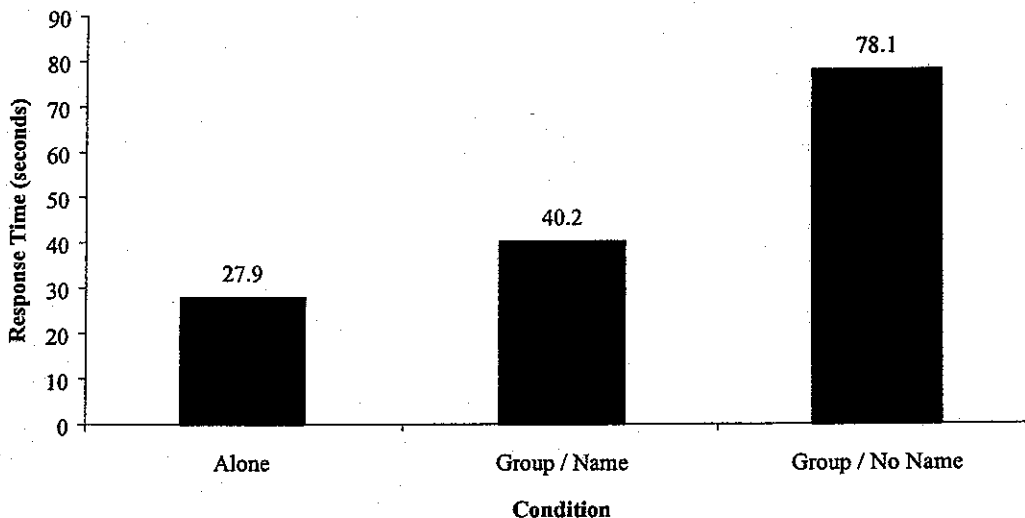


Figure 2. Average Bystander Response Time in Computer Chat Rooms

One explanation frequently given for this decrease in helping behavior is that a bystander in a group feels less personal responsibility to provide assistance. It was speculated that one

way to reduce this diffusion of responsibility would be to focus responsibility on a single bystander. Consistent with this notion, the current study found that when help was asked for by specifying a bystander's name (group/name) there was no significant difference in response time than when a bystander was alone ($t(57) = .84, p = .40$). This indicated that in chat rooms, the effects of having others present were virtually eliminated when a bystander was made to feel responsible for providing assistance.

As can be seen in Figures 1 and 2, the results from this study directly parallel Ross' (1971) results discussed earlier. Even though these findings were obtained from two different studies, examining drastically different types of situations, and using different forms of communication, the results from both studies are remarkably similar. Such empirical findings, as well as the case of Larry Froistad, support the notion that the traditional theory of bystander intervention can be used to explain and predict helping behaviors within chat rooms.

STUDY TWO: PERSONALITY PERCEPTION IN CHAT ROOMS

All Trevor Tasker wanted to do was fly to . . . South Carolina, meet up with his Internet love and get married. Instead, he finds himself still single and in the sights of an aggressive media campaign in his native England. It turns out that the 30-something woman he met and wooed over the Internet is really a 65-year-old woman jailed earlier this month after authorities found the body of her former roommate in a freezer at her home.

(Burns News, 2001)

Accurately assessing information about people is an important part of successful interpersonal interactions. We must be able to discern relevant information about the people we interact with in order to know if we should acknowledge them, rely on them, stand by them, or avoid them. Unfortunately, not everyone is a good judge of personality. Obviously Trevor Tasker was not a very good judge of his Internet love. News stories commonly show how con-artists use their "charm" to get what they want, often at the expense of an unwitting person. This may be even more problematic when interactions occur in chat rooms, because the person is not directly visible, and important information about aspects of their personality may be less apparent. It is unlikely that Trevor Tasker would have believed that the 65-year-old convict was a charming 30-something-year-old had he met her in person.

The anonymity afforded by chat room environments may affect the accuracy of personality judgments. It has been suggested that people using the Internet are less concerned about social sanctions than people in face-to-face interactions and may act counter to the way they normally behave (McKenna & Bargh, 2000). Such individuals may even adopt distinct on-line identities that bear little resemblance to their actual personalities. For example, people who are normally shy may feel less inhibited and less accountable for their behavior in chat rooms, making them appear more extraverted. Since accurate personality judgments are important for successful social activities, and because millions of people use the Internet everyday to create and maintain interpersonal relationships, it is important to examine personality judgments in this type of environment. To explore the reliability of these judgments, the current study will employ the Realistic Accuracy Model (RAM; Funder, 1995) to examine interpersonal judgments in chat rooms.

The Realistic Accuracy Model

To gain a better understanding of how accurate judgments come about in face-to-face interactions, Funder (1995) has proposed the RAM. The RAM suggests that personality traits can be judged accurately only if behaviors *relevant* to a particular trait are *available* to, *detected* by, and *utilized* correctly by a judge. This model can be expressed in the form of a mathematical equation:

$$\text{Accuracy} = \text{Relevance} \times \text{Availability} \times \text{Detection} \times \text{Utilization}$$

The above model presupposes that the processes work in a multiplicative fashion. Therefore, if any of the four processes equal zero (e.g., if a person does not do anything relevant to the trait of interest, or if the judge utilizes the information incorrectly), then accuracy must necessarily be zero. It is only when all four processes are strong that any degree of accuracy can be expected.

Several moderators have been shown to influence the accuracy of personality judgments, including the judge, target (i.e., the person being judged), trait, and information available. Since behavior cannot be directly observed in chat rooms, it is particularly interesting to determine if the type of trait being judged and the type of information presented moderate interpersonal judgments in this environment. In face-to-face interactions highly observable traits (e.g., extraversion) tend to be rated more accurately than traits that are less observable (Borkenau & Leibler, 1993; John & Robins, 1993). From a RAM perspective, behaviors associated with the highly visible trait of extraversion are more available to a judge than behaviors associated with less visible traits. However, when people are not directly visible, such as when interactions occur in chat rooms, it is unclear whether this trend will persist.

Another important moderator of accuracy is the amount and type of information displayed in interactions. Different situational contexts can limit both the quality and quantity of information made available to a judge. Yet, even under conditions that limit the quantity of information, judges are surprisingly accurate (Blackman & Funder, 1998). Ambady and Rosenthal (1992; 1993) suggest that people rapidly and often unintentionally communicate a substantial amount of information to others through nonverbal behavior. However, when an interaction is completely text-based, people are not given the opportunity to view nonverbal behaviors. Thus, chat room environments may hamper the quality of information that is revealed by a target due to this removal of social-context cues (Rintel & Pittman, 1997).

Characteristics of an interaction may also be related to the quantity and quality of information provided to judges. It has been found that judges who interact face-to-face in groups, tend to have greater agreement in their ratings of targets' personalities than judges who interact one-on-one (Kenny, Albright, Malloy, & Kashy, 1994). This likely occurs because judges in group interactions have the exact same information available to them to make a personality judgment about a target. This renders the availability term in the RAM equation to be equivalent for each judge. However, group interactions in chat rooms are often chaotic environments, in which the text of the conversations scrolls by quickly. This chaos may limit the amount of information detected by a judge. Thus, in chat rooms consensus may be lower during group interactions than in one-on-one interactions.

Estimating Accuracy

Personality traits can never be directly measured; they must be inferred from behavior. Thus, knowing whether judgments of personality are accurate can be problematic. One way researchers have estimated accuracy is by examining agreement between two or more judges' assessments of a target individual's personality (often referred to as consensus). Unfortunately, this method does not give an exact estimate of accuracy. It is possible to have perfect consensus and still have an inaccurate judgment. For example, just because a mother and father agree that their child is funny does not mean that their child is going to earn a living as a comedian. In this sense, consensus and accuracy are similar to the psychometric properties of reliability and validity, in that consensus does not imply accuracy, however accuracy implies consensus (Funder, 1999). Just as an instrument must be reliable if one wishes to draw valid conclusions, consensus must be achieved if one wishes to conclude that judgments are accurate.

The simplest design used to examine consensus is to have multiple targets rated by the same judges. Consensus can then be calculated by examining the amount of variation in the judge ratings determined by a target. This variance is computed by first calculating each target's mean rating by averaging across judges. If there is variance in these mean ratings there is evidence of consensus. The ratio of target variance to total variance can then be used as a measure of consensus, and can be interpreted like a correlation. Unfortunately, in more complicated designs where a person serves as both a judge and a target, issues of nonindependence complicate the computation of these variance components. To help control for this type of dependency, Kenny and his colleagues (1994) have employed the Social Relations Model (SRM). The SRM provides researchers with a statistical tool for analyzing dependent data dealing with interpersonal perceptions.

The SRM will be used to analyze data in this study, and the RAM will be used to help interpret our findings. The RAM suggests that the more information detected by judges, the better their assessments of personality. Because the text-information presented in group chat rooms tends to move quickly, it is speculated that judges will have more difficulty detecting this information and consensus will therefore be greater in one-on-one interactions than in group interactions. Additionally, the RAM model speculates that visible traits are easier to judge because they make cues easily available to judges. However, because chat rooms provide no visual cues, it is hypothesized that the type of trait being judged will not alter consensus. Finally, the results from this study will be compared to results found in studies using traditional face-to-face paradigms.

METHOD

Data were collected using two different conditions. The first condition used one-on-one interactions and the second condition used group interactions. Participants in Condition 1 were 84 undergraduate students (60 females; 71%). Data in Condition 1 were collected in 14 groups of six. Participants in Condition 2 were 72 undergraduate students (52 female; 72%). Data in Condition 2 were collected in 12 groups of six.

To keep interaction partners from seeing each other, the participants met in two separate rooms; half reporting to Room A and the other half reporting to Room B. While in the two

separate rooms, participants were given an overview of how to use chat rooms. They were then placed into private computer booths. Each booth had a partition so that participants were not able to see each other or the experimenter during their interactions. The booths were equipped with a Pentium class computer running an Internet Relay Chat (IRC) program mIRC. mIRC is a multi-user chat system, where people meet in "channels" (i.e., chat rooms) to talk in real time either privately or in groups (mIRC, 2000).

Once participants were in the booths, they were told they would be interacting in chat rooms where they could discuss anything they would like. However, they were asked not to reveal their names; each participant was assigned a color to use as his or her name during the interaction. All communications in Condition 1 occurred in private dyads, with each participant in Room A interacting with each participant in Room B for 15 minutes. This was done in a block design (Kenny, 1994) where each participant served as both a judge and a target during three different interactions. After each interaction, participants rated the partner that they just interacted with using the Big Five Inventory (BFI; John, Donahue, & Kentle, 1991). The BFI is a set of 44-Likert type items used to assess the Five Factor Model (FFM) of personality. The FFM contains personality dimensions including extraversion (e.g., talkative, energetic, sociable), agreeableness (e.g., helpful, considerate, cooperative), conscientiousness (e.g., thorough, persevering, efficient), neuroticism (e.g., anxious, despondent, lack of confidence), and openness (e.g., original, imaginative, clear-thinking).

Procedures in Condition 2 were identical to Condition 1, with half the participants reporting to Room A and the other half reporting to Room B. The only exception was that rather than interacting with each partner one-on-one, all six participants interacted in a single chat room for 15 minutes. After the interaction, the three participants in Room A rated the three participants in Room B, using the BFI (John, et al., 1991), and vice versa. Again, this allowed data to be collected in a block design (Kenny, 1994) with each participant serving as a target and judge three times.

RESULTS AND DISCUSSION

Because the Internet is quickly becoming a universal communication tool, it is important to examine interpersonal perception within Internet environments. The current study examined consensus on the FFM among judges in chat rooms. Figure 3 presents the amount of consensus found in each condition. Significance testing was done by estimating the variance component of each group and the mean of these estimates was tested to see whether it was different from zero (Kenny, 1994). It was found that consensus among judges in the one-on-one condition was significant ($p < .05$) for the traits of extraversion (.23), agreeableness (.18), and openness (.16). None of the traits produced significant consensus in the group condition. As hypothesized, the average level of consensus was more than twice as high in the one-on-one condition than the group condition (.13 versus .05). Interestingly, no significant differences in the average number of text lines sent by those in the one-on-one versus group condition were found ($M = 44.23$, $SD = 14.83$ and $M = 39.73$, $SD = 9.33$ respectively; $t(24) = -.91$, $p = .38$). In keeping with the RAM, this suggests that the same amount of information was available to judges in the two conditions. However, in the group condition judges may have been unable to detect the relevant information.

Studies using face-to-face interactions tend to find that more visible traits, such as extraversion, are easier to judge. However, because chat rooms provide no visual cues, it was hypothesized that the type of trait being judged would not be related to the amount of consensus. Counter to this prediction, across both conditions the average amount of consensus for extraversion (.17) was almost twice as high as the average consensus for agreeableness (.09), conscientiousness (.04), neuroticism (.02), and openness (.08). Since chat rooms provide no physical or nonverbal cues, it is unlikely that this greater consensus for extraversion was a result of behaviors being more available to judges. According to the RAM, the greater consensus for extraversion may have occurred because behaviors associated with this trait can be utilized more efficiently by judges than behaviors associated with other traits in the FFM. This conclusion is consistent with face-to-face research showing that people tend to be very knowledgeable about which behavioral cues are associated with extraversion (Sneed, McCrae, & Funder, 1998).

Finally, Figure 3 compares the results from this study to the results of a meta-analysis of interpersonal perception using face-to-face interactions by Kenny and his colleagues (1994). As can be seen, higher consensus was found in one-on-one chat room interactions than in one-on-one face-to-face interactions for every trait except neuroticism. Almost the exact opposite trend was found with regard to group interactions; higher consensus was found for every trait in group face-to-face interactions than in the group chat room interactions. These differing results demonstrate that while traditional theories (e.g., the RAM) may be useful in understanding chat room interactions, the results found in the traditional world may not always generalize to cyberspace.

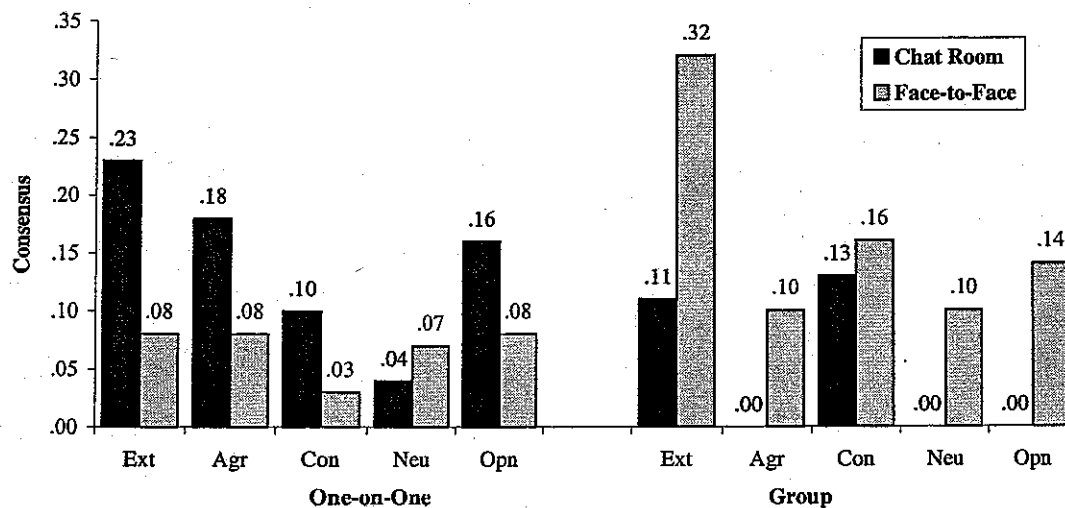


Figure 3. Comparison of Judge Consensus in Chat Rooms and Face-to-Face Interactions

It should be noted that this study is limited by its definition of accuracy as consensus between judges. As discussed previously, while consensus is an important element in accurate judgments, when used alone it is not necessarily evidence for accuracy. The only way to examine such accuracy is to use multiple forms of data (Funder, 1995; 1999). Future researchers might employ the RAM to examine the relations between personality judgments of targets in chat rooms with actual behaviors exhibited in this environment and judgments of these targets outside of chat rooms. For example, researchers could investigate whether people judged high on extraversion tend to type more lines of text, use emoticons³, or type faster than people who are judged low on extraversion. The importance of personality perception within the culture of cyberspace, made apparent by stories such as Trevor Tasker's, provides incentive for additional research in this area.

STUDY THREE: THE FOOT-IN-THE-DOOR ON-LINE

4 Free Tickets to Hawaii, London, Paris, Vegas, Cancun, Orlando!

That's right! We'll reserve 4 FREE Airline Tickets to your choice of select destinations. They're yours just for trying a 30-day Risk Free, No Obligation membership in our world class Travel & Entertainment Club. You can claim the 4 FREE Airline Tickets as our special gift just for signing up. Why are we doing this? Because we're confident you'll love getting Cash Back so much for traveling, dining out and saving 50% on hotels during your free trial, that you'll continue your membership.

(Mathews, 2001)

The above quote comes from an email advertisement sent to one of the authors of this chapter. Frequently, individuals' receive emails encouraging them to become part of cyberspace clubs such as this travel club. What is responsible for the apparent surge in these infamous "junk emails"? The solicitor claims to be interested in providing a valuable travel service to consumers, complete with substantial savings, but is it really that simple?

Everyday we interact with countless individuals in social contexts that extend beyond our conscious awareness. Among these interactions are efforts by others to influence us, and increasingly many of these efforts occur in cyberspace. However, long before the Internet became pervasive, social psychologists were documenting techniques by which people were routinely influenced.

The Foot-in-the-Door Technique

Sequential requests represent an easily applicable strategy used to influence others' behaviors, or to enlist cooperation (Brehm & Kassin, 1996). For the most part, these requests involve a two-step process. The Foot-in-the-Door (FITD) technique is among the most popular of the sequential request techniques (Brehm & Kassin, 1996; Cialdini, 1993). It involves first making a small request of an individual, followed by a larger request. The beauty of the FITD technique is that it is "deceptively simple" (Burger, 1999, p. 303).

³ Emoticons are an expression of emotion typed into a message using standard keyboard characters (e.g., :-), ;), :()

Because of this straightforwardness, the FITD has become a staple strategy among salespeople, economists, research marketers, and even health care workers interested in implementing interventions (Burger, 1999; Cialdini, 1993; Dolin & Booth-Butterfield, 1995). Although the proverbial salesman cannot stick a foot in an open door on-line, two-step compliance techniques abound on the World Wide Web.

Sequential requests, such as the FITD, "set up" an individual by first requesting cooperation on a task which is not the real interest of the requester. In the above quoted email, the solicitor asks potential clients to merely sign up for a "world class Travel & Entertainment Club." After the initial cooperation, the real request is made. In the case of the Travel and Entertainment Club, the real request (apparent when you visit the club's web page) comes in the form of a monthly fee in exchange for regular emails concerning so-called travel deals. As many who have been a victim of this sales technique know, an enticingly simple and potentially beneficial primary offer, often lands us committed to more than we bargained for. Because of the subtle influence involved, and lack of direct threat to the individual enlisted for cooperation, these techniques are sometimes referred to as *compliance without pressure techniques* (Freedman & Fraser, 1966).

But how does the FITD work? Are people really so simple-minded that they can be suckered into performing behaviors that they don't really want to? Bem's self-perception theory has been discussed as the primary explanation for the FITD (Cialdini, et al., 1975; DeJong, 1979; Snyder & Cunningham, 1975). Central to self-perception theory is the idea that individuals' perceive themselves via their behaviors. In other words, in order to learn about our internal states (i.e., attitudes, beliefs, emotions, etc.) we observe our own behaviors. In the case of Freedman and Fraser's (1966) original research on the FITD technique, California homeowners were asked to display a small, three-inch sign reading "be a safe driver." Next, they were asked to allow a very large public-service billboard to be installed on their front lawn that read "drive carefully." Although the billboard was unattractive and homeowners were aware that it would undoubtedly obscure a large portion of their homes, 76% of those who agreed to the initial request consented. The reason most often cited for such startling compliance is the idea that the original request (displaying the 3 inch sign) conveyed information to the participants about the sort of people they were. Participants' self-perception was influenced by the act of accepting and displaying the small sign, thus when the larger request was made, individuals viewed themselves as people interested in promoting safe driving and consented to have the larger billboard placed in front of their homes. Freedman and Fraser (1966) explain that an individual, "...may become, in his own eyes, the kind of person who does this sort of thing, who agrees to requests made by strangers, who takes action on things he believes in, who cooperates with good causes" (p. 201), thus leading a person to consent to requests as extreme as having a billboard placed on his or her front lawn.

Similar to the self-perception explanation of the FITD technique is the idea that individuals' strive for consistency in their thoughts and behaviors, thus seeking to avoid inconsistency at almost any cost (Cialdini, Trost, & Newson, 1995). Utilizing a two-step procedure to influence individuals encourages consistency across the two situations. Once the first commitment is elicited, individuals are less likely to deny a second request in an attempt to maintain behavioral consistency (Cialdini, 1993).

In the more or less anonymous world of cyberspace, where individuals interact with unknown partners on a regular basis, it is questionable whether the FITD technique would

have the same persuasive power as in face-to-face encounters. It probably would not surprise you that none of the authors of this manuscript joined the Travel & Entertainment Club mentioned earlier. However, with our earlier research suggesting that social psychological theories (e.g., the bystander effect) can be applied to Internet interactions, we wanted to examine the utility of the FITD technique in cyberspace. Specifically, it will be investigated whether using a sequential request technique, a small request followed by a larger request, will increase cooperation among individuals in chat rooms.

METHOD

The current study observed 200 participants in 200 different chat rooms. As in Study One, participants were observed in chat rooms hosted by YAHOO! Chat.

To determine whether a small initial request would produce greater compliance to a second larger request among chat rooms users, data were collected in two different conditions. In the first condition (small initial request), 100 participants were randomly selected and sent a private message asking the small request, "I am sorry to bother you, but I am new to this whole computer thing. Is there any way you can tell me how to look at someone's profile?" After 60 seconds, participants in this condition were sent a private message asking for a larger request, "I am sorry to bother you again, but I can't get my email to work. Is there any way I can get you to send me an email? My address is terryhathaway@hotmail.com." In the second condition (no initial request), 100 participants were randomly selected and only asked to perform the larger request, "I am sorry to bother you, but I can't get my email to work. Is there anyway I can get you to send me an email? My address is terryhath@hotmail.com." In both conditions participants were given one hour to respond to the request. After an hour, email responses from both accounts (terryhathaway@hotmail.com and terryhath@hotmail.com) were examined to determine compliance rates for each condition.

RESULTS AND DISCUSSION

According to previous research addressing the FITD phenomena, the small initial request condition was expected to produce a higher rate of compliance to the second, larger request than the no initial request condition. As can be seen in Figure 4, results from chat room data were consistent with this notion. When participants were initially asked for compliance to a small request, 16% ($n = 16$) complied with a larger request and sent an email. Only 2% ($n = 2$) of the participants who had only been asked to send an email (i.e., just the larger request) complied. Differences in these compliance rates were statistically significant ($\chi^2 (1, n = 200) = 10.31, p < .05$).

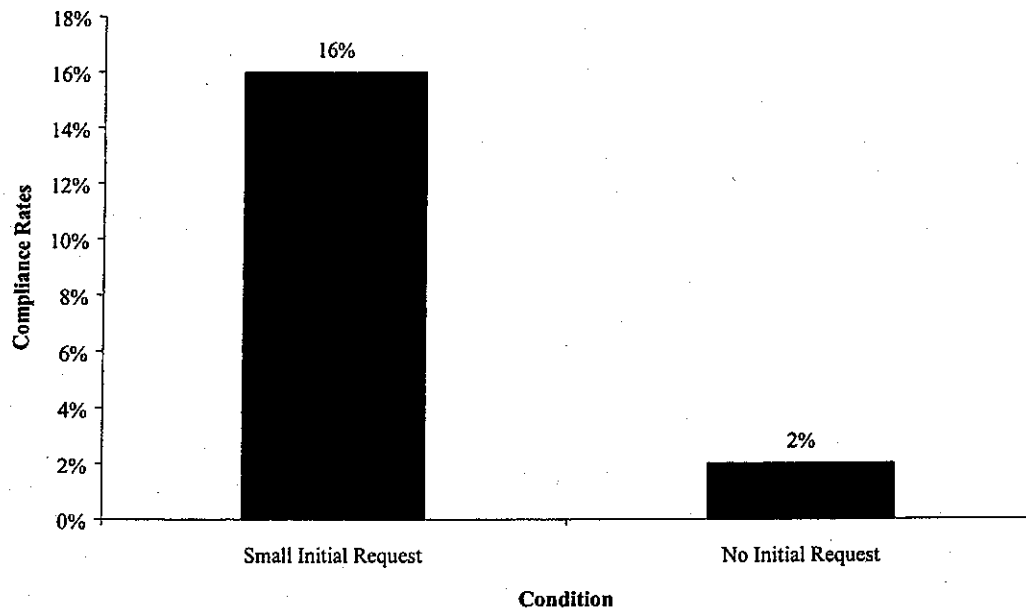


Figure 4. Percentage of Participants Complying with a Larger Request in Chat Rooms

This study sought to replicate previous research demonstrating the utility of the FITD technique for obtaining compliance without pressure. Specifically, we were interested in determining if the FITD proved useful in eliciting cooperation in chat rooms. Results suggest that the FITD technique is effective in provoking cooperation in this environment. However, response rates were relatively low in both conditions. It is possible that the anonymity of Internet chat rooms provides individuals with a lesser sense of obligation to the requester. In spite of the relatively low response rate, it is important to note that a smaller initial request more than doubled the number of cooperative responses to the second, larger request. So, why aren't we all members of "world class Travel & Entertainment Clubs"?

While the FITD technique produced a significant effect in this study, the overall low response rate may help to explain why email advertisements, such as the one mentioned earlier, are not unequivocally successful. In addition, subtle characteristics of a request have been found in past research to be important in determining the effectiveness of the FITD technique. For example, Burger (1999) suggests that the FITD technique is more effective when different individuals deliver the first and second request, and that compliance is likely to increase if the person is addressed as a helpful, cooperative person. Future research efforts could examine whether the variations in the FITD technique that are more effective in face-to-face interactions are also more effective in computer-mediated interactions.

CONCLUSION

Although hundreds of millions of individuals world wide use the Internet, few research findings are available to clarify the norms of interaction in the culture of cyberspace. This chapter reviewed three studies that sought to explore the utility of traditional psychological

theories in Internet chat room interactions. Our findings suggest that the theory of bystander intervention, the Realistic Accuracy Model of personality perception, and the Foot-in-the-Door technique are all relevant and useful in explaining interactions in cyberspace.

The first study examined bystander intervention in chat rooms and found that bystanders were slower to give assistance when they were in a group chat room than when they were alone in a chat room. However, the effects of having others present were reduced when a bystander in a chat room was made to feel responsible for helping. These results are not only consistent with Latane and Darley's (1970) theory of bystander intervention but also mirror results found from traditional social psychological experiments (e.g., Ross, 1971).

Study Two used Funder's (1995) Realistic Accuracy Model to explore interpersonal perception when communication is completely text-based. Results indicate that in group chat rooms, personality judgments are more difficult to make than in one-on-one interactions. This likely occurred due to the chaotic nature of group chat rooms, where text scrolls quickly making it difficult for judges to detect available information. Additionally, even though physical and non-verbal behaviors are not available in chat rooms, the trait of extraversion was judged the most reliably. It is possible that this occurred because judges were able to more effectively utilize the cues associated with this trait than other personality traits.

Study Three examined the Foot-in-the-Door technique in cyberspace. Specifically, individuals in chat rooms were asked to first help the experimenter look at someone's profile. The second, larger request asked individuals to send the experimenter an email. In the control group, individuals were only asked to cooperate with the second request. Findings revealed that a smaller initial request substantially increased the number of cooperative responses to the larger request, suggesting that the FITD is capable of eliciting cooperation in chat room environments.

Taken together these findings provide evidence for consistency in human interactions in multiple contexts – from face-to-face interactions to computer-mediated interactions. This research also suggests the potential importance of examining other psychological theories in the culture of cyberspace. As computers become as common in households as telephones and televisions, the effects that this new technology will have on individuals is still largely unknown.

It has long been argued that “theories of social behavior are primarily reflections of contemporary history” (Gergen, 1973, p. 309). Throughout the history of psychology, contemporary events have sparked interesting research endeavors. For example, World War II and the holocaust inspired decades of researchers to try to make sense of the mechanisms producing obedience to authority (e.g., Milgram, 1974). The civil rights movement spawned research attempting to comprehend prejudice and racism (e.g., Jones, 1972). The Bay of Pigs invasion led psychologists to try to understand group processes and groupthink (e.g., Janis, 1982). As our society changes and embraces computer technology with open arms, it becomes necessary to reevaluate these traditional theories in the culture of cyberspace. This time, it is not a single event or movement that is prompting new psychological research. Rather, a new way of life is emerging, and psychologists are again called to document general principles of human interactions.

AUTHOR NOTE

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