PERSONAL AND CONTENT CHARACTERISTICS’ INFLUENCE ON REAL AND PARASOCIAL INTERACTION

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By

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This study examines the influence of personal (sociability and loneliness) and content (perceived reality) characteristics on people's social interaction and parasocial interaction (the "interaction" with characters in media). After a comprehensive literature review, 4 hypotheses are put forward related to social interaction and parasocial interaction, which are expected to interact with each other rather than function independently. The survey method is used, and all of the measurements (except for social interaction) in the questionnaire have been reliably used in a wide range of social science research. Results suggest that loneliness and parasocial interaction are not associated with the discrepancy between sociability and social interaction. The extent of loneliness exerts no influence on the association between social and parasocial interaction. Perceived reality is positively correlated with parasocial interaction.
Dedicated to my grandmother, Peiying Chen
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INTRODUCTION

Television began to earn its popularity in the 1950s. Since then, watching TV has really become a part of our daily life (Briggs & Burke, 2002). According to a report in 1995, 99.5% of American people own a television (Zhang & Gao, 1996). One major attractive component of TV programs may be those characters in them. A “communication” between the audience and the TV characters, called para-social interaction (PSI), has been suggested (Horton & Wohl, 1956). According to the PSI perspective, most of us have our favorite TV newscasters, talk show hosts or sitcom stars. We feel happy to see or hear them, we intentionally seek information about them, and furthermore, we regard them as our friends although we never really meet them. When we feel happy, we may have an incentive to share with our favorite media characters. When we feel lonely, we may try to get in touch with them to gain comfort, just like what we do with our friends in real life.

Human beings are social animals who are reluctant to be lonely. In his basic need hierarchy theory, Maslow says, “if both the physiological and the safety needs are fairly well gratified, there will emerge the belonging needs and love needs” (1987, p.20), and if these needs are unsatisfied, “a person will feel hunger for relations with people in general—for a place in the group or family—and will strive with great intensity to achieve this goal” (p.20).
According to the new interpretation of uses and gratifications theory (Rubin, 1983; Rubin & Rubin, 1985; Rubin & Perse, 1987), people may regard social and parasocial interaction as functional alternatives to deal with loneliness. Due to the specific characteristics of parasocial interaction, the unsatisfied need for social interaction can be met in this illusive interpersonal communication between audiences and media characters. The satisfaction with parasocial interaction and dissatisfaction with social interaction for sociability may influence their preference for one of these two alternatives to sociability.

This study attempts to investigate whether people’s own characteristics and the perceptions on the external world will influence their interaction with characters on screen (PSI) and people in real life (social interaction), and in addition, the study investigates whether these two interactions will “interact” with each other despite their apparent differences.
LITERATURE REVIEW

Loneliness

Loneliness is always a concern for psychologists and sociologists. There has been a widespread assumption stating that the more social interaction a person participates in, the less lonely he will be. In other words, a person's loneliness is decided by how much a person socializes with others. Lemon, Bengtson and Peterson (1972) stated that all the interaction variables are negatively related to loneliness. However, researchers later found that it is not necessarily the case, and there were studies even reporting some cases of positive relationship between the frequencies of a person's social activities and his feeling of loneliness (Jones, 1981).

Peplau and Perlman (1979) defined loneliness as a subjective experience in which the individual's relationships are fewer or less satisfying than desired. Young (1982) stated that loneliness is the absence or perceived absence of satisfying social relationships. Williams (1983) said loneliness is not the same as aloneness or isolation but represents feelings of dissatisfaction with current interpersonal relationships. Wheeler, Reis and Nezlek (1983) pointed out loneliness is strongly predicted by how meaningful one's interactions are, rather than just the amount of those interactions. Researchers began to realize that loneliness is decided by two factors: the social interaction a person desires and acquires. When a person's social interaction is inadequate, or more
specifically, assumed by himself to be inadequate, so much so that it cannot meet his psychological need, the feeling of loneliness will occur.

An individual's need for social interaction actually reflects his preference to be involved with others. It is "a tendency to affiliate with others and to prefer being with others to remaining alone", which is "a standard definition" of sociability "accepted by virtually all psychologists" (Cheek & Buss, 1981, p. 330).

Sociability

Cheek and Buss (1981) reported that most previous researchers had indicated low sociability is no different from shyness. Accordingly, with regard to sociability's measures, they normally included items concerning shyness. The two scholars conducted 2 studies, attempting to prove that sociability and shyness are two opposite ends of the same psychological dimension. However, factor analysis suggested that the two variables are distinct personality dispositions. In other words, shy people are not necessarily unsociable. One limitation in this research is that all subjects were women, and the authors suspected whether same results could be obtained for men. In addition, men-women dyads are reported to behave differently from same-gender dyads, so male and female interaction may also produce different results.

In contrast, Gifford (1981) argued that the studies of sociability should not only be limited to person-based characteristics, but also incorporate physical setting variables. He pointed out that few studies of sociability adopted persona and environment measures simultaneously in one investigation. His research results suggest that sociability (defined as verbal participation) is significantly related to personality traits (affiliativeness and exhibitionism) and environment measures (seat setting variables of pleasure and arousal).
However, few researchers point out the consistency between "social interaction desired" and "sociability." Therefore, in this study, it is assumed that loneliness originates from the difference between a person's sociability and his or her actual social interaction, and accordingly, the first hypothesis is:

H1: The discrepancy between a person's sociability and social interaction will be positively correlated with the extent of loneliness.

Considerable research has been done to investigate the factors that lead to human loneliness. The negative evaluation of the interpersonal relationship may be one of them (Jones, Sansone, & Helm, 1983). Lonely people not only give negative ratings to their relationships with others but also expect negative ratings of themselves by other people. In contrast, many other scholars point out that the lack of communication competence will also lead to loneliness (Jones, Hobbs, & Hockenbury, 1982; Page, Frey, Talbert, & Falk, 1992; Spitzberg & Canary, 1985; Zakahi & Puran, 1982). They found that lonely people perceive themselves as generally incompetent in relationships and are also perceived as generally socially incompetent by others. Their research results suggest that there is a positive relationship between loneliness and social skill deficits. More insightfully, a reciprocal cycle that perpetuates loneliness is put forward: Avoidance of social interaction leads to lack of interpersonal/relational experience and therefore deficits in the social skills required to sustain successful interaction. Young's (1982) research on children indicates that lonely children may lack the social and/or physical skills necessary to effectively interact and function in group settings.

Findings from psychology show the possible outcomes of loneliness. It is negatively associated with measures of self-esteem (Jones, Freeman, & Goswick, 1981), depression,
anxiety (Hanson, Jones, Carpenter, & Remondet, 1986), impatience (Rubinstein & Shaver, 1982), feelings of emptiness, awkwardness and boredom (Russell, Peplau, & Ferguson, 1978), aggressiveness (Zilboorg, 1938), and rejection by other peers (Cassidy & Asher, 1992).

Negative evaluation of interpersonal relationships and assumed incompetence in communicating with others make people feel lonely, and the subsequent outcomes of loneliness further prevent them from socializing with others. However, the desire to interact is always there as it is a basic need of human being, or part of human nature. Nordlund (1978) pointed it out that “man is assumed to have a basic need for social interaction. In practice, many difficulties can prevent that need from being fully satisfied in a ‘natural way.’ An alternative way of partly fulfilling this need is to use mass communicated fare for media interaction” (p.168). How can media meet lonely people’s sociability? This is question the scholars try to explain who make study of “parasocial interaction.”

*Parasocial interaction*

Para-social interaction (PSI), a term first used by Horton and Wohl (1956), refers to “simulacrum of conversational give and take (p.215)” between the audience and characters in mass media. These characters are called “personae” (the single form is “persona”). Obviously, the two psychologists point out a widely existent social phenomenon when mass media, especially electronic media, start to play a more and more important role in people’s daily life. However, the idea did not arouse great interest in communication research until the wide recognition of uses and gratifications theory (McQuail, Blumler, & Brown, 1972; Rosengren & Windahl, 1972). From late the 1970’s
and early 1980’s, the concept of parasocial interaction began to receive extensive examination.

Based on Horton and Wohl’s work, subsequent researchers gave different but similar definitions to this construct according to their respective research subjects. Rubin, Perse and Powell defined parasocial interaction as “interpersonal involvement of the media user with what he or she consumes” (1985, p. 156). Cohen (1999) thought of parasocial interaction as one in which “the viewer is engaged in a role relationship with a television persona” (p. 329). Sood and Rogers (2000) explored an alternative conceptualization parasocial interaction, on the basis of their content analysis of audience letters written to a popular soap opera in India. They defined parasocial interaction as the “degree to which an audience member develops a perceived interpersonal relationship with a media character” (p.387). Some other scholars explored the same concept with different labels. For instance, Nordlund called it “media interaction”, which “implies that the consumer can develop a growing interest in, experience various forms of interaction with, and, at certain levels, strongly identify with, persons and characters appearing in the mass media” (1978, p. 156). Although the author emphasized that media interaction resembles but differs from the parasocial interaction, these two concepts actually overlap greatly. Parasocial interaction is also called a kind of “media simulated interpersonal communication” (Cathcart & Gumpert, 1983). Literally, this name sounds like an explanation of parasocial interaction.

Sood and Rogers (2000) traced the origin of parasocial interaction to pseudogemeinschaft developed by Merton, Fiske and Curtis (1946). They observed and analyzed an 18-hour radio marathon, broadcast by CBS Radio in 1943, resulting in $39 million in
pledges for US War Bonds. They concluded that pseudo-gemeinschaft is a false friendship between an audience and a media character. It is the feigning of personal concern for another individual in order to manipulate that individual more effectively (Rogers, 1994).

Despite the different definitions in different studies over decades, researchers agree with the main characteristics of parasocial interaction outlined by Horton and Wohl. This sort of “interaction” is an assumed one only existing in the audience’s illusion, which “characteristically is one-sided, non-dialectical, controlled by the performer, and not susceptible of mutual development” (Horton & Wohl, 1956, p. 215). That is why parasocial interaction is also called “pseudo-interaction” (Hansen, 1988), “imaginary social relationship” (Alperstein, 1991), and “pseudo-friendship” (Perse, 1990). However, in parasocial interaction, audiences are not simply regarded as passive viewers, rather they seem to be more involved and active in the process. Meanwhile, the audiences keep high level of independency and freedom, as the relationship has no obligation and responsibility. If the audiences are not satisfied with the relationship, they can withdraw at any time. Levy (1979) stated that parasocial interaction is based on an effective tie established by both audience and communicators, and “even though this affective tie is completely the subjective invention of the audience, para-socially interactive viewers regard it as genuine and they interpret the behavior of the news personae as reciprocating this ‘real’ bond” (p. 71).

In most early studies, parasocial interaction is regarded as a single dimension and unitary construct, which is only affection-oriented, perhaps because of Horton and Wohl’s (1956) original interest in intimacy between audiences and personæ. However,
some later scholars argued that it is inadequate to think that parasocial interaction only occurs in terms of affection (Gleich, 1997; Nordlund, 1978; Rubin & Perse, 1987; Sood & Rogers, 2000).

Rubin and Perse (1987) divided parasocial interaction into 3 dimensions: cognitively, affectively and behaviorally oriented parasocial interaction. The first one is the degree to which audiences pay attention to a particular media character and think about the character’s actions. The second one reflects the degree to which an audience identifies with a particular media character, and believes that his or her interests are joined. The last one suggests the degree to which individuals overtly react to media characters, for example, by “talking to these characters or by conversing with other audiences about the personae.

Sood and Rogers (2000) combined Rubin and Perse’s findings with Liebes and Katz’s (1986) ideas and synthesized 5 dimensions of PSI. Besides the 3 mentioned above, referential involvement and critical involvement were added. Referential involvement describes an individual relating the media content with his own daily life. It happens when an audience discusses the message in the context of their own life and experience. As for the critical involvement, it means how much an audience is involved in the aesthetic construction of a certain media message. For instance, some audiences may think of reorganizing the plots of a certain TV program.

Auter and Palmgreen (2000) found four factors of PSI from a high school sample, which are identification with a favorite character, interest in a favorite character, interaction with a group of favorite characters, and a favorite character’s problem-solving abilities.
It is arguable whether such dimensions as referential involvement, and critical involvement are parasocial interaction itself or its outcome and function. According to Horton and Wohl’s (1956) initial criterion, these interactions lie outside the parasocial interaction itself. However, the attempts to develop it into a multi-dimensional concept will definitely be theoretically constructive to the enrichment of parasocial interaction. The contribution lies in specifying the forms of parasocial interaction, such as “seeking guidance from a media persona, seeing media personalities as friends, imagining being part of a favorite program’s social world, and desiring to meet media performers” (Rubin, Perse, & Powell, 1985, p.157). Parasocial interaction evolves from an elusive idea into perceivable and observable reality.

The efforts in developing dimensions of parasocial interaction are not limited in North America. German scholars Bente and Vorderer proposed, “On the conceptual level, at least 3 perspectives on parasocial interaction or parasocial relations could be distinguished” (1997, p. 134). The first perspective is “persona concept”, which means virtual interaction with a person on the screen. The second one is “mood-machine concept,” referring to the interaction with the screen as a virtual person. The last one is “virtual reality concept,” meaning the interaction with a virtual person on the screen. However, in this research, the authors did not seem to clarify the difference between the first and the third perspectives, and in addition, neither did they effectively explain the mechanism of the second perspective in television context (why and how people can simply interact with machines, but not the people in the machines). In contrast, according to Giles’s (2002) report, another two findings from German scholars are more note-worthy. Gleich (1997) used a German sample and found 3 factors accounting for
most of the variance: companionship, person-program interaction, which concerns items that are directly related to program content, and empathetic interaction, referring to items that imply some degree of behavioral or affective response. Vorderer (1996) found a three-factor solution, too, explaining the data obtained from a modified version of the PSI, whose item loadings in analysis were similar to the Gleich’s study. They are “quasisocial relationship” (items relevant to those similar to social interaction), unique media relationship” (items related to mediated interaction), and “star relationship” (items that were more indicative of relationships with celebrities). (Giles, 2002, p.282)

Consistent with its various conceptual definitions, parasocial interaction is operationally defined and measured differently. Levy (1979) conducted a series of focus interviews concerning people’s parasocial interaction with their TV newscasters. A 42-item prepositional inventory was devised based on the discussion, and 7 positions were selected as possible indicators of PSI. Such positions include “The newscasters are almost like friends you see every day,” “I like to compare my own ideas with what the commentators say,” and “I feel sorry for the newscasters when they make mistakes,” and so on. This scale sets a mainstream tone for the measurement on PSI of subsequent studies.

Rubin, Perse and Powell (1985) developed a 29-item scale based on their research exploring PSI, loneliness and local television viewing. Three hundred and twenty nine participants were involved. In order “to create a useful and reliable empirical scale” (p. 186), 9 non-salient and redundant items were eliminated, and a 20-item scale with quite a satisfactory Cronbach alpha of 0.93 is the final version, which is later referred to as PSI Scale and perhaps the most widely used one in PSI measurement. The above-mentioned
Levy's 7 items were all used in this scale except for some slight wording change. The limitation of this study is that Rubin and his colleagues just followed Levy's exploration on parasocial interaction in audiences' viewing process of television news. It remains unknown whether their research results concerning parasocial interaction can be applied to other types of programs and media.

Rubin and Perse (1987) used the 20-item scale and presented their respondents statements reflecting perceptions of and dispositions toward a favorite television soap opera character. Their item analysis indicated that the original 20-item scale could be reduced into a 10-item revised PSI scale. This new scale also has a high internal reliability (α=0.88) and has been used in a number of studies (Auter, 1992; Giles, 2002).

Auter and his colleagues have done a series of studies to validate the existent (both 20-item and 10-item) PSI scales (Auter, 1992; Auter & Davis, 1991). They challenged the validity of survey research by questioning the possible inconsistency between people's perceptions of media use and their actual media use. Therefore, they put the respondents in an experimental setting where the "PSI characteristics" within the media component could be manipulated. Their results confirm that content variables that contribute to content interactivity level affect audience parasocial interaction. Furthermore, they developed a new measurement of PSI: Audience-Persona Interaction Scale (Auter & Palmgreen, 2000). Forty seven items based on open-ended questions were later abstracted into a 22-item scale with a Cronbach alpha of 0.84. Giles (2002) reports that a notable difference of this scale is the incorporation of "group identification' as one characteristic of PSI," represented by such item as "the characters' interactions are similar to mine with my friends" (p. 283).
Horton and Wohl (1956) have asserted that as an accumulation of knowledge and intensification of loyalty, parasocial interaction appears to be a kind of growth without development, "for the one-sided nature of the connection precludes a progressive and mutual reformulation of its values and aims" (p.216). However, Rubin and McHugh (1987) made a constructive attempt to examine the development of parasocial interaction, by applying principles of uncertainty reduction and relational development theories in interpersonal communication research. In this study, parasocial interaction is defined as a one-sided interpersonal relationship that television viewers establish with media characters. A set of hypotheses were put forward to examine the connection between this variable and other factors such as TV exposure, the degree of the perceived attraction of TV characters, and the perceived importance of relationships with them. The survey results revealed that parasocial interaction was related strongly to perceived attraction, and to the perceived importance of relationship development with the characters. In addition, the development of the interaction with media characters follows a path from attraction, parasocial interaction and a sense of relationship importance. However, the length of exposure to the television character was not related to parasocial interaction in the path model.

The study confirmed that although uncertainty reduction theory is a well articulated theory in interpersonal communication that connecting motives to behaviors and relationship development, some of its principles also function in media relationships. One could expect that information seeking and nonverbal affiliation are valid in mediated relationships as well as in interpersonal ones.
In the whole PSI literature, however, the research on the motivational factors that lead to PSI always occupies a big proportion. Researchers have never stopped their efforts in exploring how PSI happens. After reviewing the studies in this branch, McDonald and his colleagues summarized two categories of variables that may result in PSI: personal traits and content characteristics (McDonald, Lin, & Hu, 2004).

Among the personal characteristics related with PSI, loneliness can be a plausible one. Rosengren and Windahl (1972) have concluded that PSI’s most important function is companionship. And loneliness is also key example of psychological factor with which Horton and Wohl initiated their study on PSI. There are a number of studies that examine the relationship between parasocial interaction and loneliness (Conway & Rubin, 1991; Rafaeli, 1990; A.M. Rubin, Perse & Powell, 1985; Turner, 1993). As it is mentioned above, “when interpersonal possibilities for such interaction are limited, the individual turns to the mass media for the satisfaction of this need, and hence, may develop parasocial relationships with media personae” (Rubin, Perse, & Powell, 1985, p. 157).

As for people’s use of social or parasocial interaction channels to solve their problem of loneliness, a new interpretation of uses and gratifications theory (Rubin, 1983; Rubin & Rubin, 1985; Rubin & Perse, 1987) provides a systematically theoretical platform. Uses and gratifications theory is initially applied to mass communication area, trying to explain audiences’ motivations to select different media content, wherein communication behavior is guided by expected gratifications and attitudes toward a medium and its content (Rubin & Perse, 1987). Rubin (1983) and his colleagues extended this theory to the whole communication area, because they concluded that personal communication also involves the seeking of goals or the actualizing of needs and
motives. This commonality builds an ideal bridge connecting social interaction with para-social interaction. Based on the new interpretation of uses and gratifications theory, para-social interaction is treated as a functional alternative to social interaction (Rosengren & Windahl, 1972; Rubin & McHugh, 1987). Consequently, the lonely people who fail to find satisfied relationships in social interaction may make use of media to get such a need fulfilled in para-social interaction. The basic logic is like this: The lonely people will prefer whatever channel, social or para-social interaction, which can better meet their need for social relationship.

Thus, parasocial interaction may work as a remedy for lonely people, and a group of researchers making study of the relationship between loneliness and parasocial interaction have proposed a positive correlation between the two variables (Rafaeli, 1990; Rubin, Perse, & Powell, 1985), but the results are mixed. In this study, this hypothesis is tested to with new definition of loneliness, the difference between sociability and social interaction:

H2: There is a positive correlation between an individual's parasocial interaction and the difference between his sociability and social interaction.

Schramm and Porter (1982) mentioned one formula in their studies on information channels: 
\[ \text{Probability of selection} = \frac{\text{Promise of reward}}{\text{Effort required}}. \]
From this formula, there are actually two categories of factors influencing audiences' selection: reward and cost, which are positively and negatively related with the probability of selection behavior respectively.

Lonely people suffer from the negative evaluation of the social relationship, inadequate competence of interpersonal communication, rejection from others, and so on.
If they want to overcome such barriers existing in social interaction, additional efforts are needed, which can be regarded as a sort of “cost”, but this cost in para-social interaction is so low. As there is no “actual” or “real” feedback from the personae to the audience, the lonely people don’t need to worry about the efforts to overcome the discomfort due to the lack of communication competence or others’ rejection. Therefore, considering the fulfillment of the need for social relationship (expected reward), which cannot be acquired in social interaction, and no worry about inadequate communication competence and rejection from others (expected difficulty), which do exist in social interaction, the lonely people choose para-social interaction. Thus, the lonely people may develop dependency on parasocial interaction, and then stay further away from real social interaction.

Therefore, a variety of researchers proposed that there is a negative relationship between the person’s social interaction and parasocial interaction, however, few of them could find significant result despite its plausibility.

Levy (1979) hypothesized that “the more opportunities an individual has for social interaction, the less likely he or she will engage in a parasocial relationship with news personae” (p. 70). He used Gregariousness Index and whether participants watch TV alone or with others as the operationalization of social interaction. The result was that Gregariousness Index is weakly related with parasocial interaction, and TV viewing habits (watching TV alone or with others) are not related with parasocial interaction. Miyasaki’s developed two hypotheses based on her survey (1981) to Japanese housewives. One is people participating in social activities would be low viewers of TV serials and show low involvement with them. The other is people with high social
interaction potential are expected to view less and have low involvement with TV serials. However, the result was also disappointing: Social participation does not show any significant association either with serial use or with involvement. Similarly, Nordlund’s (1978) hypothesis on negative relationship between social interaction as well as variety of leisure activities and mass media exposure was not supported according to the outcome of his survey.

In our point of view, it can be the level of loneliness that influences the association between social interaction and parasocial interaction. This proposition may be supported by Tsao’s (1996) two paradigms of media use: Deficiency Paradigm and Global-Use Paradigm. The former one “assumes that para-social interaction acts as a surrogate for face-to-face interpersonal relationships and sees it as catering to individuals who, because of environmental or psychological limitations, lack such relationship (p. 89)”. “The Global-Use paradigm, on the other hand, assumes that para-social interaction is a more universal experience in which all individuals may readily engage, regardless of whether they’re satisfied with their orthosocial relationships (p. 89)”. In other words, for those people who feel extremely isolated, their para-social interaction behavior is more like a pathological act, as it is exclusive with social interaction. In contrast, for the majority of ordinary people, they don’t treat the media and face-to-face channels as mutually exclusive, but as complementing each other in satisfying their interaction needs (Rafaeli, 1990; Rubin & Rubin, 1985).

Actually, in Horton and Wohl’s (1956) initial study, they pointed out the different relationships between social and parasocial interaction in different human groups. “For the great majority of the audiences, the para-social is complementary to normal social
life”, while “the existence of a marginal segment of the lonely in American society has been recognized by the mass media themselves…they represent the extreme development of the parasocial interaction” (p. 223).

Therefore, we would assume that the reason why researchers are not able to find the negative relationship between social and parasocial interaction is that they don’t tell the difference of such relationship under the two paradigms proposed by Tsao. For the majority of the normal persons, social interaction and parasocial interaction are complementary, so the increase of one of them may not necessarily result in the decrease of the other. While for those extremely lonely, social interaction and parasocial interaction are mutually exclusive, so the increase in one of them may lead to the decrease of the other. In other words, the negative relationship is expected to be more obvious in those who are extremely or even pathologically lonely, but for normal people, it is hard to predict such a negative relationship over there. However, loneliness is more like a spectrum, rather than a simple dichotomy of “extreme” and “normal. "It is not a problem of “this or that”, but “how much”. Therefore, the third hypothesis in this research is:

H3: The lonelier a person is, the stronger the negative relationship is between his social and parasocial interaction.

Giles (2002) summarized the findings concerning the similarities between social interaction and PSI. A.M. Rubin and Perse (1987) stated PSI originates from human being’s instinct to interact with others. Reeves and Nass (1996) used a term “media equation” explaining that people may respond to any cues with human characteristics including personae. Similarly, Rafeali (1990) argued that the distinction between mass
and interpersonal communication is problematic. He proposed that when people communicate with the external world sources generally don’t matter that much. In addition, the classification of “mass” and “interpersonal” channels may be “an artifact generated by the self-perception of the sources themselves” (p. 132). Giles further proposed that PSI is “an extension of normal social cognition” (p. 287). He reported Perse and R.B. Rubin (1989) had found people use basically the same cognitive processes in both mass and interpersonal communication. In addition, there are examples of elements of PSI in interpersonal context and interpersonal communication components in PSI. Thus, Giles stated that PSI and social interaction may be two ends of one continuum and there is even great potential to redefine social interaction.

Besides the personal characteristics, content factors may also partly account for how PSI happens. Horton and Wohl examined this point in their initial study. In their eyes, one possible explanation could be the “tricks” used by TV personalities. They make every attempt to “duplicate the gestures, conversational style, and milieu of an informal face-to-face gathering” that mirror interpersonal communication and invite interactive responses (Horton & Wohl, 1956, p. 217). As for this point, Auter and his colleagues (1991, 1992, 2001) used the term “interactivity” as a conclusion. In addition, they “treat their supporting cast as a group of close intimates” (p. 217). Furthermore, the personae may “leave the stage and mingle with the studio audiences” (p. 218). In their point of view, all the personae’s efforts are to make the whole program more interactive with audiences and get them involved, or in other words, engender more parasocial interaction.

Besides those “tricks” played by personae, “the technical devices of the media themselves are exploited to create illusions of intimacy” (Horton & Wohl, 1956, p. 218),
and "this relationship is magnified by production techniques, such as close-up shots and camera zooms, which promote a sense of intimacy" (Rubin, Perse, & Powell, 1985, p. 156). The outcome of these tricks is to "eradicate, or at least to blur, the line which divides him and his show, as a formal performance, from the audience both in the studio and at home" (Horton and Wohl, 1956, p.217).

Therefore, it is obvious that the producers are trying hard to incorporate as much interpersonal communication components as possible into their TV programs. They care about how "real" the content in screen is perceived to be by audiences, in comparison to the "content" in their daily life. Thus, the most basic factor that should to be studied is perceived reality.

*Perceived Reality*

Perceived reality is a hot topic in mass communication studies, and most of the research is in the television effects process (Potter, 1988). Probably because of this context, few researchers directly or specifically explore the concept of perceived reality, rather on a majority of cases, they regard it as an intervening variable between media content and its effect. Or in other words, attention is paid more to viewers' behavior difference or change caused by certain stimuli, but less to their psychological mechanism in processing those stimuli, such as how real audiences will perceive several scenes in a movie. Eron and his colleagues (1983) stated "perceived reality is of a social and scientific interest only if it explains consequent behavior" (p.95). Greenberg and Reeves (1976) suggest, "The maximum utility of perceived reality is likely to be as a mediating variable" (p. 96). Studies of perceived reality follow one of two paths, primarily due to their emphases on either "reality" or "perceived". The former path discusses perceived
reality from the perspective of the message, while the latter one focuses on audiences.

In the "message" category, a large number of studies related to perceived reality examine media violence and human (especially children) aggressive behavior (Bandura, Ross, & Ross, 1963; Noble, 1973; Thomas & Tell, 1974), but "none of these studies displays a clear conceptual definition of perceived reality" (Potter, 1988, p.24), rather the studies are typically constructed in a common sense way. This is reflected most obviously in the design of the stimulus in these experiments. In most cases, researchers divide their stimulus into "real" and "fictional" ones, while the materials representing these two categories vary study by study.

Bandura, Ross and Ross (1963) use video clips played by real people and cartoon characters as "real" and "fictional" stimuli in their early Bobo-doll experiment. They noted "aggressive models can be ordered on a reality-fictional stimulus dimension with real-life models located at the reality end of the continuum, non human cartoon characters at the fictional end, and films portraying human models occupying an intermediate position"(p.3). Some other studies (Noble, 1974; Thomas & Tell, 1974) put TV news and films at the two ends of reality-fiction continuum. As most of the studies explore aggression, the researchers think the violent scenes in TV news are "more real" than those in films. In contrast, Schramm, Lyle and Parker (1961) refer to perceived reality differently. "By reality-oriented, we mean material is at least as useful for its information content as for its entertainment content, if not more so"(p.98). In their work, they regard TV as entertainment media, or "fantasy media", while newspapers as information media, or "reality media". This trans-media comparison has a strong flavor of McLuhan's "hot-
cold media” discussion, in the sense of epistemology, and suggests that the perceived reality research is not necessarily limited to the domain of electronic media.

The hypotheses and relevant results are similar in most of these studies. Generally speaking, they suggest that “real” media content will have a stronger effect on audiences than “fictional” ones. In Bandura and the colleagues’ (1963) above-mentioned “reality-fictional model”, they predicted, “on the basis of saliency and similarity of cues, the more remote the model was from reality, the weaker would be the tendency for subjects to imitate the behavior of the model” (Bandura, Ross, & Ross, 1963). Thomas and Tell (1974) found the overall results of the experiment provide support for the view that exposure to real violence may be a more potent elicitor of aggressive behavior than fantasy violence, especially after provocation.

In comparison to the “message” category, studies in “audience” category point out individual differences when people “perceive” the “reality” of TV programs or films. Studies in this category reveal that reality or fantasy is not a property of the stimulus message, but is the perception on the part of receiver (Atkin, 1983; Berkowitz, & Alioto, 1973). In other words, “perceived reality is treated as an attitude that varies across people rather than a characteristic of media content” (Potter, 1988). Some researchers examining TV’s effect on children began to put forward the conceptual definition of perceived reality. Eron and his research team (1983) used the term “TV realism” and defined it as a “measure of the degree to which the youngster believes one gets a realistic picture of life from various TV programs” (p. 74). Rubin (1981) regarded perceived reality as how true to life television was perceived as being. Reeves and Garramone specifically referred to TV reality as one aspect of young audiences’ impression on media characters, “the extent
to which children perceive television people to be similar to their real-life counterparts” (1982, p.319).

Rubin (1979, 1981, 1983) studied perceived reality’s relationship with 8 TV viewing motivations (e.g., information, entertainment, arousal, et al.), from the perspective of uses and gratification theory. He also developed a 5-item scale to operationalize perceived reality. Reeves and Garamone (1982) measured perceived reality by having their experiment participants circle from a list of 19 names of characters they thought were like people in real. Slater and Elliott (1982) combined perceived reality with specificity by using special sort of stimulus, 6 popular crime/law enforcement programs. In this study, perceived reality was specified into a) image of societal safety, b) understanding of law enforcement, and c) acceptance of TV portrayal of law enforcement activity.

Despite researchers’ different conceptions and operationalizations, the majority of their research has focused on TV in a very general sense. Typical measures include: “The people I see on television are just like people I meet in real life,” “The programs I see on television tell about life the way it really is,” “The same things that happen to people on television happen to me in real life,” and “The places I see on TV are just like places in real life” (Potter, 1988).

Some of the findings in this category are similar to those in the “message” category. Atkin (1983) found that a “violent incident presented as realistic news has greater impact on aggressiveness than the same scene portrayed as fantasy entertainment” (p.619). In Greenberg’s (1974) experiment among 9, 12, 15 year old school children, he proved perceptions of TV reality are significantly related to aggressive attitudes and to watching
violent shows. Feshbach (1972) also concluded that real violence will more easily arouse aggressive behavior in comparison to fictional violence.

Some other findings, however, are beyond the above-mentioned format. Greenberg and Reeves (1976) realized the long-term influence of perceived reality, as "the child's perception of what is real and what is less real plays a role in development and socialization" (p.87). "If the child perceives program information to be realistic, to be socially useful, to be assimilated equitably with information from non-television sources, then TV may blur the child's distinction between real and play" (p.86). After confirming that realism was a basic dimension in viewers' perceptions of program content, Howitt and Cumberbatch (1974) pointed out that realistic program content could influence the popularity of the program.

From the above review of studies on perceived reality, it is apparent that perceived reality is treated as a global and one-dimensional construct, both conceptually and operationally. It is generally regarded as a reflection on how "real", accurate or similar media content is compared to the picture of people's daily life. However, a group of scholars have argued that perceived reality should include a couple of sub-components or proposed it is a multi-dimensional concept.

Atkin (1963) stated that perceived reality should be composed of perceived actuality and perceived similarity. The former one refers to whether the media reality can truly exist or occur in real world, while the latter one means whether it is similar to the viewers' contemporary social and physical environment.

Hawkins (1977) said "the general concept of perceived reality might in fact be masking a number of subsidiary concepts, each of which could conceivably develop
differently, respond differently to manipulations, and intervene differently in television effects” (p. 313-314). He developed 4 dimensions for perceived reality. They include magic window (the continuum of television-reality perception ranging from pure fiction to a clear and unadorned window), expectations (ranging from a perfect fit between TV and expectation about life to no fit), specificity (children's responding differently to specific types of shows or characters), and “a fourth possible way to characterize children’s responses to TV’s reality, maybe located by whether the child is responding to people and events on TV, or the usefulness of people and events on TV for everyday life” (p.304). He then admitted that the last one might not properly be a dimension at all.

Potter (1988) found 3 dimensions for perceived reality by using subjects ranging in age from 12 to 77: magic window, instruction, and identity. The first dimension is little different from Hawkins's and the most general and common sense “perceived reality” construct used in early studies. “Instruction addresses viewers’ feelings about TV as an instructional aid that augments and expands direct experiences. Identity focuses on the degree of similarity the viewer perceives between TV characters and situations, and the people and situations experienced in real life” (p. 26)

“An individual connects to a media world because it seems vividly real” (Caughey, 1986, p. 222). Researchers found that people evaluate and “interact” with people in media along with similar rules in their interpersonal communication (R.B. Rubin & McHugh, 1987; R.B. Rubin & A.M. Rubin, 2001). Nordlund (1978) stated that the extent to which a medium approximates reality affects the extent of media interaction. Therefore, it is viable that the more real the media content is perceived to be, the more PSI will happen, so here is the fourth hypothesis.
H4: There is a positive correlation between perceived reality of TV content and parasocial interaction.
METHOD

Sample

The sample was drawn from the course enrollments on the campus of a large Midwestern university. The data were collected in the spring of 2004. A total of 277 students completed the questionnaires in paper form during class time. The sample ranged in age from 18 to 38, with average age of 20.27 (SD = 2.20), with 55.2% female and 44.8% male.

Instruments

The questionnaire is divided into 7 different sections. The first section includes such demographic questions as age, gender, and race. The next section is about the extent of loneliness. The third section deals with the audiences’ parasocial interaction with a variety of TV characters. The following asks the participants about their likelihood to adopt social interactive ways when they are lonely (e.g., family, friends, etc.). The last two sections are about perceived reality and sociability.

Loneliness was measured with the revised UCLA loneliness scale (Russell, Peplau, & Cutrona, 1980). This instrument contains 20 items, 10 expressing dissatisfaction and the other 10 expressing satisfaction with social relationships. Russell et al. (1980) reported a 0.94 alpha reliability and construct validity for the scale. Respondents were asked about their feelings with each of the 20 items on five response options ranging
from "never" (1) to "always" (5); for instance: "I feel in tune with people around me," "I am an outgoing person," "there is no one I can turn to," and "I lack companionship." Responses were summed and averaged, and the mean score was 2.08 (SD = 0.50). The scores of items reflecting satisfaction with social relationships were reversed when data were input so that a higher reply on the scale suggests a less feeling of loneliness. The Cronbach alpha of the scale in this study is 0.88, which retests its high reliability (See Table 1).

Parasocial interaction was measured by Parasocial Interaction Scale (PSI), which was developed by Rubin et al. (1985) to test audiences' involvement with newscasters in TV news. Respondents were asked to indicate their attitude toward 20 questions, according to five response options ranging from "strongly disagree" (1) to "strongly agree" (5). Such items include "I like to compare my ideas with what my favorite newscaster says," "The newscasters make me feel comfortable, as if I am with friends," "I look forward to watching my favorite newscaster on tonight's show", and so forth. Rubin and colleagues reported a Cronbach alpha of 0.92.

Undergraduate students have a heavy load of study and work, and they may not have that much time to watch TV news and then develop an involvement with the newscasters, which the scale was originally designed to test. Therefore the "newscasters" in the items were changed into more general "TV characters." They could be talk show hosts, sitcom stars, or newscasters. The efforts are trying to make the scale more applicable to the participants. Previous researchers also have done the adaptation of this scale according to their respective research goals. For instance, in Rubin and Perse's (1987) study examining people's involvement with soap opera, the media characters referred to the
roles in popular soap opera. The average score of PSI is 3.22 (SD = 0.53). The Cronbach alpha of PSI scale in this study is 0.87 (See Table 1.).

Social interaction was measured with a 6-item scale based on two dimensions. The first dimension is intimacy, and according to this dimension, people around an individual are divided into family members, friends, and strangers. The second dimension is the ways an individual uses to contact others, and along with this dimension, three contacting methods, direct face-to-face communication, telephone and internet use, are listed. Such items include: “go back home and stay with family members,” “call my friends and chat with them,” “Get in touch with my friends via internet use”, and so forth. This scale evolves from an 8-item scale used in a study done in the spring of 2003. In the questionnaires, almost all the participants had indicated they could never or seldom contact strangers when they feel lonely. Therefore, the relevant two items were removed, “go to public places and enjoy chatting with people” and “go to electronic chatrooms and chat with people that I’ve never touched before.” The average score of social interaction scale is 3.83 (SD = 0.70). The Cronbach alpha of social interaction scale was 0.79 (See Table 1.).

Perceived reality was measured by Perceived Realism Scale developed by A.M. Rubin (1981), which has been widely used in a variety of studies. Participants were asked to indicate their feelings toward 5 statements with each one of them using 5-point Likert responses from “Strongly disagree” (1) to “Strongly agree” (2). The mean score was 2.45 (SD = 0.60). The Cronbach alpha of Perceived Realism Scale was 0.62 (See Table 1.).

Sociability was measured with a 5-item scale devised by Cheek and Buss (1981). Respondents were asked to indicate their attitude to 5 statements, according to five
response options ranging from "strongly disagree" (1) to "strongly agree" (5). Items include "I welcome the opportunity to mix socially with people", "I like to be with people", and so forth. The mean score was 4.03 (SD = 0.58). The Cronbach alpha of Sociability Scale was 0.74 (See Table 1).
RESULTS

The first hypothesis is concerned with the association between loneliness and the discrepancy between social interaction and sociability. A Pearson correlation is used to test the hypothesis, but it was not supported (See table 2). As it is evident in the table, there is no significant correlation between loneliness (LO) and the discrepancy between social interaction and sociability (DISOFSOSI) \( (r = -0.063, p = 0.299) \).

The second hypothesis asks whether parasocial interaction (PSI) is positively related with the discrepancy between sociability and social interaction (DISOFSOSI). A Pearson correlation is used to test it, but it was not supported, either (See table 2). As is indicated in the table, there is not significant correlation between parasocial interaction and the discrepancy between sociability and social interaction (disofsosi). \( (r = -0.057, p = 0.352) \).

The third hypothesis is about the impact of loneliness on the negative relationship between social (SI) and parasocial interaction (PSI). A multiple regression equation model was used to test the hypothesis, but it was not supported (see table 3). There is no significant interaction (INTERLOSI) between social interaction (SI) and loneliness (LO) \( (t= 1.469, p =0.143) \).

A positive correlation between perceived reality (PR) and parasocial interaction (PSI) is proposed as the fourth hypothesis. Again, Pearson correlation is used to test it and it was well supported. There is significant association between perceived reality and
parasocial interaction ($r = 0.274, p < 0.01$) (see table 2.).

The low reliability of perceived reality scale ($r=0.62$) is noticed. Therefore, a factor analysis of this 5-item scale was done. Item 2 (If I see something on TV, I can’t be sure it really is that way) turns out to exert most negative influence on the reliability of the scale. This item is removed and the reliability coefficient is increased from 0.62 to 0.70. With the adapted scale, the same data analysis procedure was done to retest hypothesis 4 (as hypotheses 1, 2, and 3 have nothing to do with perceived reality). The results are reflected in Table 4. With the adapted scale, perceived reality becomes more strongly positively related with parasocial interaction ($r=0.325, p<0.01$).
DISCUSSION

This study tries to explore the relationship among people’s parasocial interaction with TV characters, their personal characteristics and the TV content they are exposed to. The first hypothesis assumes there is a positive relationship between loneliness and the discrepancy between social interaction and sociability. Lack of support may be because either loneliness doesn’t originate from the discrepancy between social interaction an individual desires and acquires, or the concept of sociability does not adequately represent the social interaction desired. The second hypothesis is based on the first hypothesis, so its not being supported is not surprising.

Realizing the negligence of possible influence of loneliness on their pattern of sociability alternatives choice, loneliness variable is added into the exploration of the association between social and parasocial interaction and come up with hypothesis 3. A multiple regression model is used.

The results of the regression do not support the hypothesis. The finding is consistent with previous research that demonstrates the insignificant association between the parasocial interaction and social interaction as functional alternatives to deal with loneliness.

One possible explanation may lie in the characteristics of the sample in terms of loneliness. This hypothesis is actually testing Tsao’s Deficiency and Global-use
paradigms concerning the relationship between social and parasocial interaction, along with the dimension of loneliness, with extremely loneliness at the Deficiency end and no loneliness at all at the Global-use end. The research participants are college students, they probably are so close to the Global-use end and meanwhile so far away from the Deficiency end. Their range of loneliness occupies such a short section pretty close to the Global use end in the whole dimension of loneliness and that no negative association between social and parasocial interaction is testable.

Another reason is there maybe some other alternatives besides social and parasocial interaction to deal with loneliness, and these alternatives’ roles in people’s behavior to deal with loneliness are significant, so much so that they may “distract” the predicted negative relationship between the two variables this study intends to examine. Such “intrapersonal” ways as reading, jogging, listening to music can not be categorized into either social or parasocial interactions, but they are effective ways to deal with loneliness for some people.

The fourth hypothesis is supported, and it indicates that parasocial interaction is influenced by the extent on how real the TV content is perceived by the audiences. It may also support Rubin and his colleagues’ proposition that audiences parasocially interact with TV characters in the same psychological way they interact with real people in real life (R. B. Rubin & McHugh, 1987).

Parasocial interaction has received extensive attention for over 5 decades from communication researchers. Quite a few models and theories have been used to investigate its mechanism in terms of how it happens, and develops. Seeing the series of fruitful studies, some scholars also point out the lack of the insight into basic process and
characteristics of PSI (Giles, 2002; Isotalus, 1995). For example, Isotalus referred the variety of definition of parasocial interaction as “various kinds of description which are not rigorously discussed” (p.63), and moreover, he asked for an “unambiguous definition” (p. 63). However, in our point of view, ambiguity is a component of parasocial interaction, just like the abundant meanings of the term’s prefix “para-.“ If we take parasocial interaction as a general concept, perhaps the initial description of this phenomenon and the summary of its features from Horton and Wohl (1956) best help us understand it: at a distance, non-dialectical, lack of reciprocity no obligation, risk free. While if we have to give it an “unambiguous” definition, a viable way is to put it in a specific context and develop our exploration, just like what most researchers have done since the 1980’s in this area. Therefore, when those definitions are quoted or used, it should be kept in mind that in what contexts those definitions work, and in what contexts they don’t, or maybe not that accurate.

However, the suggestion of rethinking or further examination of basic process and characteristics of PSI is worthy of attention. One necessary step in this path could be the differentiation between parasocial interaction (PSI) and parasocial relationship (PSR). When Horton and Wohl describe “the intimacy at a distance”, they did not point out the difference between PSI and PSR because this is just the first academic research on this social phenomenon. Therefore, the terms parasocial interaction and parasocial relationship were used in the same article without specifying “when to use which.” However, subsequent researchers didn’t point out the mixing use of these two constructs and continue to mix using them and then eventually lead to the current situation of wide misuse of them. Parasocial interaction seems to be emphasizing the behavioral level,
although sometimes this sort of interaction is not that observable. In contrast, parasocial relationship seems focus on the psychological affective tie between audiences and persona, “the bond of intimacy”, in Horton and Wohl’s language. If the fact is realized that PSI and PSR are different, great chances are many theoretical disputes could be resolved, such as whether PSI only exists in the TV viewing process or can go beyond the viewing process. By using the above-mentioned typology, it is reasonable to say PSI only exists in the viewing process, while PSR can exist and go on outside the viewing process. Quite consistent with the mechanism in interpersonal communication, audiences’ interaction with persona reflects their relationship, and the relationship depends on such interaction. A couple of Auter and his colleague’s research on the validation of PSI scale are the representative studies of parasocial interaction (Auter, 1992; Auter & Davis, 1991), while Rubin and his colleagues who examine “development” and “attribution” are obviously exploring parasocial relationship (Perse & Rubin, R.B, 1989; Rubin, R. B. & McHugh, 1987; Rubin, R.B. & Rubin, A.M., 2001).

We can also answer the widely existent question on whether PSI can happen “at the first glance,” as opposed to the traditional view regarding it as an ongoing process. In terms of parasocial interaction, it is possible we have a sense of affection or even intimacy and while first touching certain personae on screen. With respect to parasocial relationship, it is a developing process based on repetitive parasocial interactions.

To distinguish between PSI and PSR will also help to develop accurate dimensions for each of these constructs. In this study, 2 of the dimensions of parasocial interaction have been challenged, which are developed by Sood and Rogers (2000), referential involvement and critical involvement. Now it seems to be more appropriate to regard
them as dimensions of parasocial relationship.

This differentiation is not only conceptually but also operationally constructive, especially in terms of research design and developing scales. Overtime experiment seems to be a viable method to explore the relationship between PSI and PSR, which is seldom used in current studies in this area (McDonald, Lin & Hu, 2004). With regard to parasocial interaction study, we suggest use of combining survey and observation based on Rubin and Perse’s 3 dimensions of PSI. With regard to cognitive and affective dimensions, which are not so perceivable, we can use questionnaires for the audiences to describe their internal world activities. As for the behavioral dimension, video cameras can be set while the viewers are watching the programs to record any behavior change, such as facial expressions, gestures, language (or even the murmuring, the movement of lips), and then compare them with the style of speaking, gestures, language of the personae on screen, to test whether the audiences behavior changes (behavioral dimension of PSI) are aroused by the “tricks” played by those personae, which is mentioned by Horton and Wohl in their initial research (1956). New scales for parasocial interaction and parasocial relationship respectively are needed for different research purposes, so that we can end the current situation of mixing use of the scales (e.g., the item “when I’m watching the newcast, I feel as if I am part of their group” and the item “I look forward to watching my favorite newscaster on tonight’s news” are in the same scale of PSI.)

In his literature review of PSI, Giles developed 3 orders of PSI based on the authenticity of the media figures (2002). First order PSI is where the TV character is a really authentic figure, such as a talk show host addressing directly to the audiences.
Second order PSI refers to encounters where the TV characters are not so authentic, such as a soap opera role played by a certain actor. The third order PSI means encounters with fantasy or cartoon figures, such as *Tom and Jerry*. This way to divide PSI according to the realism of identities is constructive but also inadequate and controversial. It discusses 3 situations as if they were independent and therefore does not well explain the their influence on each other. An individual may have multiple roles. For instance, today Mr. Tom Cruise may appear in a movie as a soldier, while tomorrow he is shown being interviewed as real Tom Cruise by an entertainment reporter. If there is PSI happens in both cases, according to Giles’ hierarchy, the former situation is first order while the latter one is the second order PSI. Quite possibly these two orders of PSI are not separated but interdependent, so what’s their relationship? Do the audiences establish PSI with each of them respectively or these two viewing process (movie and interview) together construct a kind of “comprehensive” PSI. As for the third order PSI with cartoon characters, one fact of those figures is they are highly humanized. They have abundant characteristics of real people despite their cartoonized appearance and features (e.g. Jerry’s interest in cheese as a mouse and Tom’s interest in Jerry as a cat). In some cases, the human beings flavor in those cartoon characters is so intense that we even feel they ARE human beings with cartoon masks, such as *the Lion King*. Is this sort of PSI really in the lowest level, especially to children?

Another direction for future research could be the relationship between PSI and other relevant constructs, such as homophily, identification, telepresence, media involvement and so forth. The relationship here refers to the similarities, differences, and how they influence each other.
Anderson and de Mancillas (1978) referred to the term homophily as "the degree to which interacting individuals are similar in certain ways, such as attitudes, beliefs, background, education, language and so on. There are normally two approaches to interpret homophily, objective interpretation, indicating the observable similarity between 2 communicators, and subjective interpretation, suggesting the degree of perceived similarity between the 2 communicators. They also devised a 61-item scales consisting of two factors, attitude similarities and background similarities, to measure homophily.

Identification is also a big research body and has a longer history than PSI studies (Giles, 2002). It is defined as "a process by which viewers take on abstract psychological characteristics of a model such as values, personality, traits or social roles. As a cognitive process, identification is hypothesized to occur before imitation which usually refers to behavior modifications resulting from exposure to modeling stimuli" (Reeves & Miller, 1978, p.71). And two key items to measure identification are "how much do you want to be like character A" and "are there things that character A does that you would like to."

Lee (2004) made some review work of telepresence in his critical study of presence, and he agreed the mainstream definition of telepresence, which is the audiences' feeling of being in the environment in electronic media (e.g., TV screen) although they are physically in the real world.

We may get surprised that our daily TV watching may include so many concepts. All of them, despite their difference, may appear during the short time we turn on and off our televisions. Homophily indicates how similar the audiences and TV characters are. Identification reflects how much the audiences want to be similar to the TV characters. Parasocial interaction stresses a process of give and take, although this sort of process is
not observable sometimes. Therefore, in contrast to PSI, identification lacks such interaction element. “Identification with television a character is based on a psychological attachment between a viewer and the character, but rather than leading to interaction with the character” (Cohen, 2001, p.253). Telepresence deals with the relationship among 3 environments: the environment in media, the physical environment of audiences, and the psychological environment of the audiences. So obviously, it mainly refers to the whole environment but not necessarily only the people in the environment.

We need to clarify the relationship among these confusing constructs, so that we can end the current situation of studying them separately. By examining them connectively, we are able to draw a big picture of the mechanism of media use, and then make a further step toward its nature. Some researchers have made some efforts in this aspect (Cohen, 2001; Eyal & Rubin, 2003).

Current parasocial interaction studies were overwhelmingly made in the United States, and the research participants are mostly Americans with exposure to American TV programs. Only a few PSI studies have been done in such countries as Sweden (Rosengren, Windahl, Hakansson, & Johnsson-Smaragdi, 1976), India (Sood & Rogers, 2000), Germany (Gleich, 1997; Vorderer, 1996), Finland (Isotalus, 1995), and so on. These international researchers have reported different research findings in comparison to American studies, especially the findings that people in other nations have a lower extent of PSI than that of Americans (Gleich, 1997; Isotalus, 1995). However, these studies do not arouse adequate attention from American scholars. These findings are normally attributed to culture difference, and few people systematically explore them. Therefore, the PSI research in nations other than the States is necessary. The first step could be
designing a PSI scale suitable to the local people exposed to local TV programs.

Parasocial interaction derives from Horton and Wohl’s (1956) observation on the characteristics and social impact of electronic media, and subsequent studies seldom mainly focused on TV. However, whether can such an illusive interaction happen in other media forms, such as radio and even printing media, as almost all of us have the experience of involvement with the main characters in novels, poems, dramas (We may still remember those days when we read Shakespeare’s works and how much we assumed *Hamlet* was talking to us). The articles that investigate the parasocial interaction in printing media context are very few. Probably it is because the clues (such as conversational styles, gestures and tones) in printing media that can arouse parasocial interaction are not so obvious. Therefore, the exploration of this phenomenon in print media is more likely to be the job of psychology. However, since parasocial interaction is regarded as an accumulative and long-term process based on the repetitive and regular appearance of media characters to audiences, whether columnists of magazines or newspapers can be regarded as “personae in print media context”? 
BIBLIOGRAPHY


APPENDIX A

SCALES' RELIABILITY AND DATA ANALYSIS RESULTS
<table>
<thead>
<tr>
<th>Measure</th>
<th>Loneliness</th>
<th>Parasocial interaction</th>
<th>Social interaction</th>
<th>Perceived reality</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>r</strong></td>
<td>.88</td>
<td>.87</td>
<td>.79</td>
<td>.62</td>
</tr>
</tbody>
</table>

Table 1: Scales and their reliabilities (Cronbach alpha)

<table>
<thead>
<tr>
<th></th>
<th>LO &amp; DISOFSOISOI</th>
<th>PSI &amp; DISOFSOISOI</th>
<th>PR &amp; PSI DISOFSOISOI</th>
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</thead>
<tbody>
<tr>
<td>Pearson correlation (R)</td>
<td>-.063</td>
<td>-.057</td>
<td>.274 *</td>
</tr>
<tr>
<td><strong>P value</strong> (2-tailed)</td>
<td>.299</td>
<td>.352</td>
<td>.000</td>
</tr>
</tbody>
</table>

Table 2: Pearson correlation of variables examined (R)

*Correlation is significant at the 0.01 level.

<table>
<thead>
<tr>
<th>INTERLOSI</th>
<th>Beta</th>
<th>t</th>
<th>P value</th>
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<tr>
<td></td>
<td>.443</td>
<td>1.469</td>
<td>.143</td>
</tr>
</tbody>
</table>

Table 3: Multiple regression predicting the influence of loneliness on the negative relationship between social and parasocial interaction
<table>
<thead>
<tr>
<th></th>
<th>PR &amp; PSI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson correlation (R)</td>
<td>.325*</td>
</tr>
<tr>
<td>P value (2-tailed)</td>
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</tbody>
</table>

Table 4: Reexamination of Pearson correlation among variables with the adapted scale of perceived reality.

*Correlation is significant at the 0.01 level.
APPENDIX B

SURVEY QUESTIONNAIRE
INSTRUCTIONS
Please answer the following questions as openly and honestly as possible. However, feel free not to answer any questions that may make you uncomfortable. Before you hand in the questionnaire, please make sure that you've answered the questions in all SIX sections. Thank you.

SECTION 1. Please answer the following background questions.

Age__________________ Gender (please circle one): Male Female

Race or Ethnic background__________________

Class Standing (please circle one):
Freshman Sophomore Junior Senior Grad

SECTION 2. Following is a list of things people have said about how they feel about themselves and others. Indicate how often you feel the way described in each of the following statements and circle the corresponding choice.

1. I feel in tune with the people around me.
   Never Rarely Sometimes Often Usually

2. I lack companionship.
   Never Rarely Sometimes Often Usually

3. There is no one I can turn to.
   Never Rarely Sometimes Often Usually

4. I feel I am alone.
   Never Rarely Sometimes Often Usually

5. I feel part of a group of friends.
   Never Rarely Sometimes Often Usually

6. I have a lot in common with the people around me.
   Never Rarely Sometimes Often Usually

7. I am no longer close to anyone.
   Never Rarely Sometimes Often Usually

8. My interests and ideas are not shared by those around me.
   Never Rarely Sometimes Often Usually
9. I am an outgoing person.
   Never  Rarely  Sometimes  Often  Usually

10. There are people I feel close to.
    Never  Rarely  Sometimes  Often  Usually

11. I feel left out.
    Never  Rarely  Sometimes  Often  Usually

12. My social relationships are superficial.
    Never  Rarely  Sometimes  Often  Usually

13. No one really knows me well.
    Never  Rarely  Sometimes  Often  Usually

14. I feel isolated from others.
    Never  Rarely  Sometimes  Often  Usually

15. I can find companionship when I want it.
    Never  Rarely  Sometimes  Often  Usually

16. There are people who really understand me.
    Never  Rarely  Sometimes  Often  Usually

17. I am unhappy being so withdrawn.
    Never  Rarely  Sometimes  Often  Usually

18. There are people around me but I don’t feel very close to them.
    Never  Rarely  Sometimes  Often  Usually

19. There are people I can talk to.
    Never  Rarely  Sometimes  Often  Usually

20. There are people I can turn to for help if I need it.
    Never  Rarely  Sometimes  Often  Usually

SECTION 3. Think for a moment about your favorite TV character or favorite person on TV; then please indicate your attitude toward the following statements about your favorite TV character, and circle the corresponding choice.

1. The shows starring my favorite TV character show me what he or she is really like.
   Strongly disagree  Disagree  Not sure  Agree  Strongly agree
2. When my favorite TV character jokes around others, it makes the show easier to watch.
   Strongly disagree  Disagree  Not sure  Agree  Strongly agree

3. When my favorite TV character shows me how he or she feels about an issue, it helps me make up my own mind about the issue.
   Strongly disagree  Disagree  Not sure  Agree  Strongly agree

4. I feel sorry for my favorite TV character when he or she makes a mistake.
   Strongly disagree  Disagree  Not sure  Agree  Strongly agree

5. When I am watching the show starring my favorite TV character, I feel as if I am part of the show.
   Strongly disagree  Disagree  Not sure  Agree  Strongly agree

6. I like to compare my ideas with what my favorite TV character says.
   Strongly disagree  Disagree  Not sure  Agree  Strongly agree

7. My favorite TV character makes me feel comfortable, as if I am with a friend.
   Strongly disagree  Disagree  Not sure  Agree  Strongly agree

8. I see my favorite TV character as a natural, down-to-earth person.
   Strongly disagree  Disagree  Not sure  Agree  Strongly agree

9. I like hearing the voice of my favorite TV character in my home.
   Strongly disagree  Disagree  Not sure  Agree  Strongly agree

10. My favorite TV character keeps me company when his or her program is on television.
    Strongly disagree  Disagree  Not sure  Agree  Strongly agree

11. I look forward to watching my favorite TV character on tonight's shows.
    Strongly disagree  Disagree  Not sure  Agree  Strongly agree

12. If my favorite TV character appeared on another television program, I would watch that program.
    Strongly disagree  Disagree  Not sure  Agree  Strongly agree

13. When my favorite TV character tells a story, he or she seems to understand the kinds of things I want to know.
    Strongly disagree  Disagree  Not sure  Agree  Strongly agree
14. I sometimes make remarks to my favorite TV character during the programs where he or she is in.
   Strongly disagree    Disagree    Not sure    Agree    Strongly agree

15. If there was a story about my favorite TV character in a newspaper or magazine, I would read it.
   Strongly disagree    Disagree    Not sure    Agree    Strongly agree

16. I miss seeing my favorite TV character if he or she has not been shown on TV for some time.
   Strongly disagree    Disagree    Not sure    Agree    Strongly agree

17. I would like to meet my favorite TV character in person.
   Strongly disagree    Disagree    Not sure    Agree    Strongly agree

18. My favorite TV character is like an old friend.
   Strongly disagree    Disagree    Not sure    Agree    Strongly agree

19. My favorite TV character is attractive.
   Strongly disagree    Disagree    Not sure    Agree    Strongly agree

20. I am not as satisfied when my favorite TV character is not on the show.
   Strongly disagree    Disagree    Not sure    Agree    Strongly agree

SECTION 4. Everyone feels lonely at certain times. We're interested in what people do when they feel lonely. Please indicate your likelihood of doing the following things when you feel lonely.

1. Go back home and stay with family members.
   Not at all likely    Not likely    Not sure    Likely    Very likely

2. Talk with family members by telephone.
   Not at all likely    Not likely    Not sure    Likely    Very likely

3. Contact family via the internet or e-mail.
   Not at all likely    Not likely    Not sure    Likely    Very likely

4. Call my friends and chat with them.
   Not at all likely    Not likely    Not sure    Likely    Very likely

5. Pay a visit to my friends.
   Not at all likely    Not likely    Not sure    Likely    Very likely
6. Get in touch with my friends via the internet or e-mail.
   Not at all likely  Not likely  Not sure  Likely  Very likely

SECTION 5. Here are some statements people have made about television. For each statement please circle the option that best expresses your own feelings.

1. Television presents things as they really are in life.
   Strongly disagree  Disagree  Not sure  Agree  Strongly agree

2. If I see something on TV, I can't be sure it really is that way.
   Strongly disagree  Disagree  Not sure  Agree  Strongly agree

3. Television lets me really see how other people live.
   Strongly disagree  Disagree  Not sure  Agree  Strongly agree

4. TV does not show life as it really is.
   Strongly disagree  Disagree  Not sure  Agree  Strongly agree

5. Television lets me see what happens in other places as if I were really there.
   Strongly disagree  Disagree  Not sure  Agree  Strongly agree

SECTION 6. In this section, we'd like to know how you feel about people and your interactions with them. For each statement please circle the option that best expresses your own feelings.

1. I welcome the opportunity to mix socially with people.
   Strongly disagree  Disagree  Not sure  Agree  Strongly agree

2. I prefer working with others rather than alone.
   Strongly disagree  Disagree  Not sure  Agree  Strongly agree

3. I find people more stimulating than anything else.
   Strongly disagree  Disagree  Not sure  Agree  Strongly agree

4. I like to be with people.
   Strongly disagree  Disagree  Not sure  Agree  Strongly agree

5. I'd be unhappy if I were prevented from making many social contacts.
   Strongly disagree  Disagree  Not sure  Agree  Strongly agree

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