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Third-party imagined interactions: expanding imagined interactions as false memories in understanding interactions

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THIRD-PARTY IMAGINED INTERACTIONS:
EXPANDING IMAGINED INTERACTIONS AS FALSE MEMORIES IN
UNDERSTANDING INTERACTIONS

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Abstract

Previous studies have found imagined interactions (IIs) help individuals recall past interactions and plan for future interactions. Those studies have not investigated what occurs when individuals imagine the interactions of others (third-party imagined interactions hereafter TPIIs), how the II varies with the party imagined or what happens when those imagined interactions create false views of what happened.

To fill this research gap, this study proposed one research question and nine hypotheses investigating TPIIs, how they vary with the individual in the TPII, if they contribute to false memories and how they affect communication plans. A survey was conducted to gain information about the use of TPIIs and IIs to investigate the similarities. An experiment using an induced TPII, with a prisoner's dilemma and an iterated chicken game was conducted to learn the effect of the TPII on plans to communicate.

The research question found that TPIIs exist and are mostly similar to IIs in topics, imagined targets characteristics and functions. *T*-tests indicated a difference in frequency, valence, and variety characteristics and the catharsis function. Equivalence testing found other characteristics and functions to be equivalent.

Based on social identity theory a multivariate analysis of variance (MANOVA) found TPIIs do vary in valence and specificity with the individual's group status. The odds of planning to cooperate with the other party in the prisoner's dilemma when the other party was visualized cooperating was 5.6 times the odds of not.

T-tests indicated greater mental effort in the TPII among individuals who developed false memories. Those with false memories were 1.8 times more likely to be competitive in the manner they communicated than those who did not have a false memory in the TPII, while a

logistic regression showed people who had greater positive valence in the TPII were more

likely to communicate with the other party.

These results indicate in-group members are harder to imagine if no relational history is

present. The more involved the TPII is the more likely the person will develop a false memory.

TPIIs are used in planning for future interactions. The implication for conflict resolution is

discussed.

Chapter 1: Introduction

<u>The Vignettes</u>

Mary, the mother of a college student, sits up late waiting to hear about her daughter's date. As she waits, she starts to imagine him putting an arm around her daughter in a movie. As time draws on the mother visualizes them talking together as they leave the movie and stop for shakes. Eventually, she imagines him saying goodnight and giving her a kiss.

Jack, a student in an intercultural communication class, was busy studying for his upcoming test. He came across a study question about Hofsteade and recalled the professor answering another student's question about how Hofsteade had so many subjects with, "Hofsteade collected his data while doing consulting for IBM. He gave his survey to all IBM employees as part of that work."

Matt, a television reporter, waited as his News Director and Assignment Editor discussed a potential story. He imagined the News Director saying, "We will be sued if we broadcast this."

<u>Introduction</u>

These stories illustrate a type of social cognition known as a *third-party imagined interaction* (TPII), which results when an individual experiences through mental imagery an interaction between other individuals as an observer. TPIIs can be brief, as Jack and Matt's recollections were, or long as Mary's creation of the conversation between her daughter and a date was. TPIIs can also be accurate as Jack's likely was or inaccurate as Matt or Mary's may turn out to be. These mental interaction may recall events that happened as Jack's did or create possible communication events as Mary's did. The common element in all TPIIs is mentally experiencing the interaction of others.

This phenomenon can influence behavior in all areas of one's life. These stories were set in family, school and work environments, but the same process of thinking about what others might be saying can occur in any setting with human communication. Across all types of relationships, individuals think about what others might be saying.

This dissertation seeks to promote understanding of what occurs when an individual recreates others' communication events. Specifically, there are four pursuits: (A) The work examines the functions and characteristics of TPIIs and compares them with what is known about *imagined interactions* (IIs), phenomena that occur when an individual mentally creates, or recreates a communication event involving himself or herself as a participant in the interaction (J. M. Honeycutt, 2003; 2010). (B) The work explains the manner by which TPIIs can lead individuals to insist on the occurrence of events that never truly occurred by becoming a part of an individual's version of reality through the development of false memories (Greenberg, 2004; Hyman & Pentland, 1996; Loftus, 1997). (C) The work examines the effect on TPIIs of thinking about known in-group members, unknown in-group members and out-group members and (D) the work concludes with how the TPII affects plans for future interaction.

This chapter introduced the phenomena of TPIIs and the purpose of the current study. Chapter 2 introduces the relevant literature regarding the three concepts that inform this study: IIs, false memories, and social identity. As IIs involve imagining one's own communication—instead of another's—they are similar to TPIIs. Whereas false memories inform the discussion of how TPIIs become a part of an individual's reality, social identity theory (SIT) informs the discussion of intergroup interactions. Chapter 3 presents the study rationale and hypotheses, chapter 4 describes the methodology, and chapter 5 presents the results. Chapter 6 concludes the study by discussing the results, the limitations of the study, and directions for additional research.

Chapter 2: Review of Literature

TPIIs are mental phenomena that result when an individual creates or recreates an interaction between other individuals through mental imagery. Although Honeycutt (2003, 2010) has noted that participants in previous studies of IIs reported on interactions they had observed but in which they had not participated, there is no known literature that directly addresses the subject. Because the concept of TPIIs was developed from previous research into IIs, the two concepts share many features, with their primary difference being that IIs involve interactions involving the actor whereas TPIIs involve interactions of parties besides the actor. Thus, the first section of the literature review is devoted to IIs, and then the second proposes the new construct.

The third section of the literature review introduces false memories to provide background on the process by which an idea that only exists within the actor's mind can be confused for reality and influence future interactions. This is followed with a discussion of the interaction of mental imagery with false memory. The fifth section of the literature review describes social identity theory concluding with the difference in imagining different groups. The sixth section introduces game theory and competitive communication before concluding the chapter with the final research step, looking at the plan to engage in communication.

<u>Imagined Interactions</u>

<u>Defining IIs</u>

Twenty years of II research have provided a useful approach to intrapersonal communication and helped explain how individuals visualize communication encounters (Honeycutt, 2010). IIs, as defined by Honeycutt (2003), are a type of mental imagery and

intrapersonal communication where communicators experience communication encounters through cognitive representations. The social cognitive processes by which individuals mentally represent anticipated or recalled encounters with others (J. M. Honeycutt, 2010) allow them to maintain relationships with others through the mental recollection of their encounters with other parties (J. M. Honeycutt & Ford, 2001). IIs allow individuals to engage in situations as they see them by trying out different communication tactics before reaching a conclusion about how a particular tactic will be received (J. M. Honeycutt, 2003). It is a vital part of the process of planning a communication encounter (Berger, 1995; Renee Edwards, Honeycutt, & Zagacki, 1988). Other uses of IIs include allowing one to recall an encounter that had previously occurred (James. M. Honeycutt, 2003-2004) and understanding that encounter better.

Not all imagined events are classified as IIs. An II must involve either recalling a real interaction in which the actor participated, although the event could be rewritten, or represent an encounter the actor could have possibly experienced. Researchers have taken care to exclude the experience of fantasy from the definition of IIs (Renee Edwards, et al., 1988). Because "communication fantasies involve highly improbable or even impossible communication encounters" (J. M. Honeycutt, 2003, p. 10), these types of encounters are clearly not IIs, as IIs concern encounters that have or are likely to occur. For example, it would be a fantasy to imagine talking to the President of the U.S. if one did not personally know him or her and there was a low probability that one would ever meet him face-to-face or correspond with him or her via e-mail. Common fantasies also occur among so-called "groupies" who follow a celebrity and believe that they intimately know the celebrity. Edwards et al. (1988) also excluded monologues, defined as rehearsals for activities similar to actual speeches during which actors are imagining that they are engaged in a communication activity although there is no interaction between parties, from the concept of IIs.

<u>Characteristics of IIs</u>

Rosenblatt and Meyer (1986) reported that in clinical settings, IIs have all the features of regular conversations. Previous research into IIs identified eight characteristics that describe how individuals experience and use them (J. M. Honeycutt, 2003). Understanding the characteristics of IIs can provide important information and answer questions regarding their accuracy, frequency, and level of detail. Much research has focused on the way individual characteristics affect IIs that occur during the course of romantic relationships, marriages, homelessness, and forensic competitions, as well as how IIs differ by gender and among cultures (J. M. Honeycutt, 2003).

<u>Discrepancy</u>

The concept of discrepancy pertains to the difference between the real events of an interaction and how the individual imagines the interaction (J. M. Honeycutt, 2003). A discrepant II is one in which the individual envisions the event differently from what actually occurred. The more the individual's recall varies from the actual events, the more discrepant the II. This is the easiest to see with a retroactive II; as the individual recalls the situation, discrepancy exists if he or she imagines the event differently from how it had actually occurred. With proactive IIs, the discrepancy is determined by the extent to which an individual's expectations are not followed or met in the actual interaction. Highly discrepant IIs are not as helpful as less discrepant IIs when planning for a future interaction (Allen & Honeycutt, 1997).

Previous research found discrepancy occurred equally across cultural groups (McCann & Honeycutt, 2006). The amount of interaction is a factor that can predict the level of discrepancy in IIs. Those who are lonelier tend to have more discrepant IIs (Renee Edwards, et al., 1988; J. M. Honeycutt & Ford, 2001). Because lonely individuals have lower levels of interaction with

others, they have fewer communicative experiences upon which to base IIs, leading to greater discrepancy in their IIs (J. M. Honeycutt, 2003). Greater discrepancy in one's II leads to a less pleasant experience of the interaction and more anxiety in the interaction (Zagacki, Edwards, & Honeycutt, 1992). However, individuals who use IIs to rehearse an interaction reduce the anxiety in the actual interaction, even if the IIs they used in planning for the encounter were highly discrepant (Allen & Honeycutt, 1997). Honeycutt (2003) suggested that verbal IIs tend to be more discrepant, and since the imagery of IIs in which individuals imagine interpersonal conflict tends to be verbal, IIs about conflict are often more discrepant.

Frequency

The characteristic of frequency refers to how often one engages in IIs. The more one interacts with others, the more likely one is to experience IIs (Renee Edwards, et al., 1988). About 75% of individuals report having an II each day (J. M. Honeycutt, 2003). Most individuals engage in multiple IIs per day. When Edwards et. al. (1988) asked subjects to report an II, 10% reported one experienced the same day, 30% reported one experienced the previous day, and about 50% reported one experienced the previous week. These figures indicate that at least 90% of individuals have had an II during the past week and 40% during the past day. These figures should be considered conservative estimates because the researchers only asked the participants to recall any II, not necessarily the most recent one (J. M. Honeycutt, 2003).

Research shows individuals who seek to manipulate others make a greater use of IIs as part of a planning function by which the individual thinks through an encounter in order to control it. Allen (1990) found individuals who score high in Machiavellianism tend to engage in more IIs than those who score low in Machiavellianism. Edwards et al. found that individuals who are lonely have fewer IIs (1988), and that females engage in more IIs than do males (1989).

Proactivity and Retroactivity

Honeycutt (2003) indicated IIs can cover events that have happened in the past, termed retroactive IIs, or might happen in the future, termed proactive IIs, and be either offline or online. An offline II occurs when an individual plays an interaction out inside of his or her mind but outside of the physical presence of the other party. The offline II can be either proactive or retroactive, whereas an online II occurs during the individual's encounter with the other party, and thus are neither proactive nor retroactive. Online IIs are used to imagine a response that a particular communication or action will yield during an interaction with the other party or to envision past encounters in the relationship (Honeycutt, 2003). Retroactive IIs, during which individuals replay an event from the past, either as they believed it had happened or as they wish it had happened (Renee Edwards, Honeycutt, & Zagacki, 1989), are more strongly associated with negative emotions (Zagacki, et al., 1992). As proactive IIs precede the event, they can be used to practice for an encounter with another individual, such as imagining a job interview prior to the interview (Renee Edwards, et al., 1988; J. M. Honeycutt, 2003).

Research has established that slightly over half (53%) of IIs are proactive and just less than a third (30%) are retroactive (J. M. Honeycutt, 2003). Further, 17% of IIs are either online IIs, occurring as one is in a conversation, or a mixture of proactive and retroactive IIs (J. M. Honeycutt, 2003). This finding supported the original finding that IIs are more likely to occur before an interaction (Renee Edwards, et al., 1988).

Self-Dominance

Self-dominance pertains to who controls the interaction in the imagined conversation. The individual in control is either the individual having the imagined interaction, who would have high self-dominance, or if the other party controls the conversation, the actor would have

low self-dominance (J. M. Honeycutt, 2003). In 69% of IIs, the individual begins the

interaction, whereas in 54% of IIs, the other party ends the interaction. The individual tends to

speak more in an II than the other party; although the self speaks only about 8% more lines than

the other, the self speaks almost twice as many total words (Renee Edwards, et al., 1988; Gotcher

& Edwards, 1990). Similar findings in a follow-up study confirm that the self speaks slightly

more lines but almost twice as many words (J. M. Honeycutt, Zagacki, & Edwards, 1990). This

effect is even more pronounced for females, who imagine themselves saying a greater amount of

words than do males (Renee Edwards, et al., 1988). This characteristic reflected a cultural norm

toward individualism as individuals from collectivistic cultures (e.g. Japan and Thailand)

reported lower self-dominance (McCann & Honeycutt, 2006).

Specificity

Specificity describes the extent to which the individual includes details in the II. An II

can be very fragmented and lacking in detail, with the mental process simply producing a few

words, or highly detailed with not only strong words but also strong images of the other party

and the surroundings where the imagined conversation occurs (J. M. Honeycutt & Ford, 2001).

Because greater specificity appears to help in the functional use of IIs in improving a

communication situation, greater specificity is correlated with communication competence and

sensitivity (J. M. Honeycutt, 2003).

Valence

Valence describes the type of emotional affect, whether positive or negative, produced by

the II. High emotional affect and strong intensity are typical characteristics of interactions that

are remembered (J. M. Honeycutt, 2003). Positive and negative emotions occur during IIs at

about the same rate. Several factors influence the valence of an individual's IIs. The chronically

lonely tend to have more negative IIs than individuals who are not lonely (Renee Edwards, et al., 1989), and individuals high in Machiavellianism tend to have less positive affect during their IIs (Allen, 1990). Individuals who have discrepant IIs experience less positive affect during their IIs (Zagacki, et al., 1992) and women tend to experience more positive IIs than men (Renee Edwards, et al., 1989).

Variety

The characteristic of variety pertains to the number of different topics and people imagined by the individual in the II (J. M. Honeycutt, 2003). College students report that they engage in the largest percentage of IIs with a romantic partner (32%), followed by family (18%), and friends (17%), and that the largest percentage (25%) of their IIs involve dating situations, followed by conflicts (17%), activities (12%), and work (9%) (Renee Edwards, et al., 1988; J. M. Honeycutt & Ford, 2001).

Functions of IIs

Previous research identified six functions of IIs. Catharsis, compensation, maintaining relationships, conflict-linkage and resolution, rehearsal, and self-understanding are discussed in the following sections.

Catharsis

Catharsis releases anxiety and tension. Individuals who engage in cathartic IIs report greater communication satisfaction (McCann & Honeycutt, 2006). Catharsis increases in cultures where self expression is discouraged (J. M. Honeycutt & McCann, 2008). Rosenblatt and Meyer (1986) described using IIs in therapy as an alternative to engaging in face-to-face encounters when family members were unavailable. IIs allow one to express ideas to others that might be dangerous, such as when confronting an abuser or impossible, such as making peace with a

deceased parent. An II can be used for catharsis to tell the individual what one would like to say but cannot. College students have indicated using IIs as a means of dealing with norm violations by professors (Berkos, Allen, Kearney, & Plax, 2001). These students use IIs as a substitute for actually confronting teachers engaged in behaviors that are insulting or unacceptable to them.

Compensation

Compensation is a function of IIs allowing one to maintain a relationship with an individual who is not physically present, such as a loved one on a trip or an elderly family member in a nursing home (J. M. Honeycutt, 2003). At the root of this function is replacing actual encounters that one desires but cannot have with IIs that one can have with the other party. This function does not include the aspect of releasing emotions, a function of catharsis. IIs with departed spouses are a means by which surviving spouses can cope with the loss and adjust to the partner's death (S. G. Ford, 2003). IIs are also used to compensate for a lower level of actual interaction than desired, such as when the parties are separated by distance (J. M. Honeycutt, 2003).

Maintaining Relationships

Relationships require much work to maintain, including building and maintaining connections with the other in the absence of the relational partner (J. M. Honeycutt & Ford, 2001). Regarding romantic relationships, some individuals espouse a work-it-out theory, according to which they have lowered expectations and believe that relationships evolve, while others espouse a soul-mate theory, according to which attraction is discovered and that there are "perfect matches" (Franiuk, Cohen, & Pomerantz, 2002).

One is constantly a son, daughter, parent, or partner, at least within the definable beginning and ending points of life. One becomes a parent when a child is born (or adopted), a

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role that does not cease until death, typically the death of the parent. These individuals are not in constant contact, but the relationship does not end when they are out of contact. Individuals often use maintenance strategies to bond with the absent partner, including thinking about the other, text messaging, videoconferencing, and e-mailing. The relationship is maintained by the replay of interactions and the memory of the parties' meanings to each other (J. M. Honeycutt & Ford, 2001). Just over half of all IIs both review previous encounters and prepare for future ones. These IIs serve to link past and future interactions through the present mental processes of the II participant (J. M. Honeycutt, et al., 1990). Couples who are separated use IIs to bridge their actual interactions and cope with separation (J. M. Honeycutt & Ford, 2001).

According to Honeycutt (1992), our memory of former events helps to maintain relationships. Specifically, "IIs can psychologically maintain relationships by concentrating thoughts on relational scenes in partners" (J. M. Honeycutt, 1992, p. 12). Indeed, the most common relational partners in IIs are those who are closest in life. Most IIs involve romantic partners, family members, and friends (Renee Edwards, et al., 1988). These encounters with relationship partners keep the relationships alive.

Conflict-Linkage and Resolution

One constant feature of a relationship is conflict. Individuals often replay the scripts from encounters that are particularly hurtful or in which they failed to understand the angry reaction displayed by their relational partner. They may also use an II to plan a future encounter in which they will seek revenge for a perceived slight. As these IIs link events and perpetuate the perception of incompatible goals between the parties (J. M. Honeycutt, 2003), it is likely that they link proactive and retroactive IIs. Individuals may anticipate future encounters by rehearsing messages, reliving prior encounters, and envisioning contingency plans for upcoming

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encounters based on prior occurrences, thus using retroactive and proactive IIs simultaneously (Honeycutt, 2003).

Individuals may manage conflict productively or destructively. Examples of positive conflict management are thinking of ways to compromise or create "win-win" solutions that appeal to multiple parties in the conflict (J. M. Honeycutt, 2010) or imagining conversations in which individuals validate their views of the other party and define their own opinions. Conversely, they can use destructive IIs to plot revenge, particularly those individuals who ruminate about past grievances.

Conflict is one of the most common topics in II research. Zagacki et al. (1992) found conflict to be the most frequently reported topic whereas Edwards et al. (1988) found it the second most frequently reported topic. The function of maintaining conflict is the focus of II conflict linkage theory (James. M. Honeycutt, 2003-2004). Honeycutt (2003, 2010) described it as a covering laws theory, which is based on three axioms and nine theorems, as designed to explain the daily persistence of conflict. Indeed, it is difficult for individuals to forget conflicts and forgive former transgressions (McCullough, Dellah, Kilpatrick, & Johnson, 2001). Rumination often leads to feelings of hopelessness, depression, revenge, and dysfunctional repetitive thoughts as individuals become mired in an absorbing state of anger. Honeycutt (2003) reviewed countless studies of individuals who have proactive and retroactive IIs linking events in the relationship together. These IIs sustain conflict in everyday life. Relational partners keep conflict alive through the memories of past conflicts and the planning of future encounters.

Rehearsal

Rehearsal involves the use of IIs to plan an interaction before the interaction takes place. More IIs occur before an interaction (53%) than after an interaction (47%; Honeycutt, 2003).

Individuals use IIs before the interaction as a means of planning and rehearsing what they want to say and how to say it. This prior planning is an important step to understanding the cognitive processes of communication and how individuals can play out an encounter as a means of preparing for interactions (Berger, 1995).

Slightly more than half of IIs serve both planning and review functions, suggesting that IIs help one link interactions in the absence of the other party (J. M. Honeycutt, et al., 1990). Thinking of previous encounters is an important step in preparing for future encounters. Recalling events, thinking of the interaction partner's responses, and trying to arrange the responses in a way that helps explain the other's view leads to more accurate IIs and thus less discrepancy in planning the future encounter.

Research has found that participants given the opportunity to use IIs prior to an encounter benefit from the planning performed in engaging in the II. In one study, debaters who engaged in IIs prior to competition to imagine the scene and their performance were more successful (J. M. Honeycutt & Gotcher, 1990). In another study in which the participants developed a plan for a difficult conversation, one group of participants engaged in IIs to practice the plan before role-playing that conversation. Those who had engaged in IIs to rehearse an interaction experienced less anxiety, as displayed in their use of object adapters (playing with pencil, fidgeting, etc.) in the real interaction (Allen & Honeycutt, 1997). The greater comfort displayed offers support for the usefulness of IIs in planning for an interaction. They also lead to increased communication satisfaction (J. M. Honeycutt & McCann, 2008).

Self-Understanding

Self-understanding involves seeking to understand more fully one's own feelings and thoughts. In this regard, IIs allow individuals to examine their values, attitudes, and intuitions, as

well as to understand the etiology of their beliefs. The process of engaging in an II allows individuals to explain where they stand or engage in dialogue and debate with a significant other about a topic. This process of engaging the issue internally allows individuals to gain a better understanding of how they feel about a topic (J. M. Honeycutt & Ford, 2001). This enhancement of self-awareness accords with Rosenblatt and Meyer's (1986) assertion "that in the process of explaining things or relating things to others one comes to clarifications for oneself" (p. 320). By serving as a proxy for interaction with others, IIs serve a role in gaining understanding of the self. This function, which is especially important in cases where interaction with significant others is limited (e.g., long distance relationships; (J. M. Honeycutt & Ford, 2001), draws more on verbal imagery and a greater expression of self than do the other functions (Zagacki, et al., 1992).

Imagery Modes

IIs are mental representations of encounters one has had or might have. They involve either visual, auditory or both modes of imagery. IIs were proposed within the framework of symbolic interaction (Renee Edwards, et al., 1988). Mead (1938) discussed perception as the way one sees the world and held that one's understanding must be based upon the observed world. He made several observations regarding imagery. First, imagery is internal; it does not directly connect with the external objects, and yet concerns them. Thoughts bring the image back to mind recreating the experience of perceiving the external objects as they had once been perceived. Second, imagery can involve any of the five senses and can occur at any time. Third, one uses imagery to test actions or serve as a referent to an action. Fourth, imagery is dependent on the past, but its occurrence belongs to the present. The ability to bring an image to mind, absent the image, is often referred to as imagination.

Research has focused on three types of imagery in IIs. The first type, verbal IIs, involve the individual imagining the words that are involved in the communication event. The second, visual IIs, requires the individual to mentally picture an interaction without words. The third, mixed IIs, requires the individual to imagine both the mental picture and words from the interaction (J. M. Honeycutt, 2003). Mixed imagery IIs are the most common type, with about 65% of IIs fitting in this category, followed by verbal IIs (31%) and visual IIs (4%; Zagacki et al., 1992). Research has identified several differences between verbal IIs and mixed IIs. Verbal IIs, which individuals appear to use more than mixed IIs for gaining understanding of and rehearsing interactions, score higher in self-dominance characteristic and less positive in the valence characteristic than mixed imagery. The degree of specificity characteristic also varies across different types of II imagery. For example, individuals who have very detailed and specific IIs may have exacting lines of dialogue that they imagine in a particular location, and hence they use both verbal and visual IIs. IIs that deal with conflict are associated with verbal imagery (Zagacki, et al., 1992).

Direct and Omniscient Perspective

Also related to the visualization involved in the II is the perspective that the party takes regarding the imagined event. It is common for individuals to see themselves in an II in the same way that they see themselves in real life. The direct perspective is the cognitive recall of the event as one sees it whereas the omniscient perspective allows one to view the event in the II as would an observer. It is similar to watching yourself on a video. Kroll-Mensing found that individuals sometimes have cognitive representations of conversations in which they are observers of others engaged in the interaction (as cited in Honeycutt, 2003).

II literature provided the background from which TPIIs developed. The next section will expand the concept of IIs, and offer a definition of TPIIs that is consistent with previous research into IIs.

Third-Party IIs

Previous II research has noted participant reports of mental representations of a conversation that did not involve the individual having the mental cognition (Honeycutt, 2003). These findings suggested that a mental experience of other's communication exists, such as watching two other people in a conversation. This phenomenon has not been investigated since IIs were defined as involving the individual in a possible event. Honeycutt (2003) emphasized the involvement of the party having the II in a plausible interaction: "Imagined interaction refers to a related process of cognition whereby actors imagine *themselves* in interaction with others" (p. 2, emphasis mine). Honeycutt, et al. (1989) distinguished IIs from fantasy, and limited the concept to encounters that involved the party having the II. This distinction indicated that IIs are limited to interactions in which the individual having the II is a part of the imagined conversation and in which the imagined conversation is possible.

According to Honeycutt's (2003) assertion that "communication fantasies involve highly improbable or even impossible communication encounters" (p. 10), the mental visualization of another's communication does not have to be a fantasy. The mental experience can indeed be the recreation of a possible communication event in which the actor imagining the event is an observer. This distinction between IIs and fantasies does not require that the mental actor be involved in the imagined event, only that the imagined event be a plausible communication event. Thus, the expansion of IIs to include the category of TPIIs is still in keeping with the distinction drawn with fantasies. Although the concept has been enlarged to include the cognitive

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experience of an event of which the individual is not a part, TPIIs must still represent possible

communication events, which maintains the key distinction between TPIIs and fantasies

described in the II literature.

A TPII can be defined by tweaking Honeycutt's (2003) II definition, as "a type of social

cognition in which communicators experience cognitive representations of [*others'*] conversation

with the accompanying verbal and nonverbal features" (p. 2). Alternatively, a TPII is the process

of experiencing an interaction between other individuals through mental imagery.

IIs literature provided the background from which TPIIs developed. The concept

definition has been offered. The next element in the purposes of the study required looking at

how individuals using TPIIs might come to believe an event occurred that did not. Research into

false memories helped inform how individuals develop these incorrect beliefs.

<div align="center">False Memories</div>

Memory involves the ability to store and recall information (Ashcraft, 2002). This is

important to the study of IIs because mental imagery is achieved by recalling previously

experienced stimuli. Sometimes these may be arranged in a manner never before experienced,

such as when hearing the voice of a friend say a word that he or she has never said. The

experience of having heard the word and the experience of having heard the friend's voice are

combined (George. Herbert. Mead, 1934). At times events are recalled that never occurred, a

phenomenon known as *false memory* (Loftus & Pickrell, 1995). The consequences of false

memory have been seen in the judicial system several times over the last few years; individuals

who were convicted based in part on false memories later were found to be innocent through

DNA testing (Loftus, 1997). The emergence of interest in the recall of repressed memories has

spurred research into the phenomenon (Loftus, 2004). False memory differs from false

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knowledge. In the case of false memory, the individual recalls the event rather than just possessing knowledge that it happened. For example, if an individual recalls seeing an event, he or she would be experiencing false memory. In contrast, if the individual claims he or she knows the event happened but does not recall the event he or she would be displaying false knowledge. The difference is in the recall of the event.

Loftus (1997) identified two types of false memories: *distorted memories*, in which events that actually occurred are recalled but their details recalled inaccurately, and *fictitious memories*, in which events that never occurred are recalled (Greenberg, 2004; Loftus, 1997). Thus, an individual who has a memory of being kidnapped by a kidnapper wearing a blue shirt would have a distorted memory if the kidnapping truly occurred but the kidnapper's shirt had been red. This would be a fictitious memory if the kidnapping had never occurred. Both types of false memories involve the actual false-recall of events. The telling of a lie is not a false memory since the individual knows what he or she is saying is untrue; however, if told often enough the individual might come to believe it really happened. Once the individual believes his or her lie actually happened and recalls the mistaken belief, a false memory has occurred.

Much work on distorted memories has followed Bartlett's early application of schema theory to false memories (McDermott, 1996). Schema theory explains how information is stored and accessed in memory. Schema theory models a structure of memory whereby information is stored with related information like mental file cabinets. A schema is stored information related to one situation or idea. This schema would be activated when the situation is called to mind, and guide what people saw and thought about the event (R Edwards & McDonald, 1993).

The best exemplars of schema theory in distorted memory research are works that use videos to show individuals events and then examine the memory of the event. One study (Neuschatz, Lampinen, Preston, Hawkins, & Toglia, 2002) showed a group of college students a

video episode of a professor lecturing to a class. After watching the video, the students were asked if an event had occurred in the videotape and whether they remembered the event or simply knew that it had happened. The results indicated that the participants recalled events well that were in the video, but are not typical (schema inconsistent) to a lecture. The mean proportion of events so recalled was between .72 and .76. Recall of events typical to a lecture was worse, a mean proportion between .53 and .57. This suggests that actions not expected in the schema (schema inconsistent) are more likely to produce specific memories of an event than are events that are expected, which accords with Lampinen et al.'s (2000) findings. False recall of events is also biased toward what people expect in the schema. The proportion of events that participants falsely claimed had occurred was higher for schema-consistent behavior, a mean proportion of .12. The schema inconsistent behaviors were misidentified as occurring at the mean proportion of .04 (Neuschatz, et al., 2002).

A second line of work into distorted memories developed over the last decade tends to adopt a network approach. Network theories model memory as constructed of multiple nodes (Smith, 1998). A node holds information about one idea, and when activated (woken up) it then activates other nodes. The more often a node is activated with another node the stronger the link between the two and the more likely they are to activate each other. Roediger and McDermott (1996) reintroduced a research method pioneered by Deese in the 1950s known as the Deese, Roediger and McDermott (DRM). It involved presenting a list of 10 or 15 related words to a participant. The participant is then asked to identify which words were presented from words on the list and some that are not. A word related to the words on the list but not presented is called a critical lure and if falsely identified as having been presented serves as the measurement of a false memory. A sample list might include bed, nap, pillow, night, cover, and rest but not the word sleep, which would be a critical lure. Early researchers presented the words in a written list,

some using computers and others using testing booklets. Recency (remembering the last piece of information) and primacy (remembering the first piece of information) effects were found in initial studies, with the greatest failure to recognize a word as being on the list belonging to the middle section of a word list. Participants' memories of words from the middle of a list tended to match the percentage who claimed to remember the critical lures. Both were lower than rate of recall for words at the beginning or end of the list (Payne, Ellie, Blackwell, & Neuschatz, 1996). A 30-second delay before allowing participants to recall the words eliminated recency and primacy effects without altering the likelihood of the false recall of the lures. However, lures were more likely to be produced sooner in the list of recalled words once the short delay was instituted (McDermott, 1996). Participants who produced the list shortly after memorizing it were less likely to produce the critical lure than a word on the list. However, the recall of the critical lure soon became more likely than was the recall of a word on the test by the next day (Payne, et al., 1996) and two days later (McDermott, 1996). The lure is also more likely to intrude the more participants are asked to remember the list (Payne, et al., 1996) or once the word intrudes into the recall. This intrusion can be natural, as from an earlier test, or from a second source that the participant was instructed to ignore (Roediger, et al., 1996). The proportion of words recalled by participants on the DRM tended to be approximately .6 for quick recall and lures were produced at about a .5 proportion. These levels both dropped at 24 hours, but to vastly differing degrees. The lures were slightly better recalled, with the proportion for both being just above .45. However, the near-even proportion represents a much larger drop in recall for the list words compared to the lures (Payne, et al., 1996). These both occurred at much higher rates than unrelated words, which only appeared in a proportion of about .04 (Marsh & Bower, 2004). Therefore, distorted memories are relatively common and easily created. They result when a detail is incorrectly remembered.

Unlike distorted memories, fictitious memories must be completely created. One of the issues that makes studying them difficult is being certain that the events the individuals are asked to recall never happened (Loftus, 1997). One approach is illustrated in a study (Ost, Vrij, Costall, & Bull, 2002) conducted about four years after the death of Princess Diana, researchers asked the participants about viewing a television broadcast of a video of the car crash that killed her. Although such a video may become known someday, the authors argued that because no video of the actual crash was known at the time, it certainly had not been broadcast and seen by the participants. Yet, 20 of the 45 participants claimed to recall having seen it. Another example of an account of observing events that did not occur was George Bush's account regarding how he learned of 9/11 (Greenberg, 2004). He relates that he was waiting to go into a classroom to read to students when he happened to glance at a television and saw the first plane hit the tower. The video of a plane hitting the tower is of the second plane, and occurred after contemporary media reports indicate he had been notified. There are several inconsistent details in Bush's different retellings of the story about how he heard of the attacks, but the changes are consistent with the changes of others telling about how they heard of 9/11 and the Challenger disaster. In another study (Loftus, 2004, 2005), researchers showed an advertisement for Disney World that featured Bugs Bunny (a character owned by Warner Brothers) to participants who were told that they were evaluating the advertisement. In a later conversation, about 1 in 6 participants told their own story of meeting Bugs Bunny while visiting Disneyworld, many describing the encounter in detail. The figure increased with exposure to multiple advertisements.

Another approach involves having another party serve as the arbiter of whether the events occurred. The best study design related to event occurrence involved using diaries from 11 participants that had been created in a study conducted about 13 years previously. Three types of events were presented to the participants: events that had happened, events that had happened but

in which a detail was changed, and completely invented events. The participants indicated memories for about 13% of the invented events, but did try to relate the events to other events in dating when they occurred (Burt, Kemp, & Conway, 2004).

Fewer than 20% of individuals create memories for events that are completely lacking any connection to real events and have not been imagined (Loftus, 2004, 2005). They are considerably more likely to recall memories that relate to events that occurred but for which their recall of the details of the events differ from the actual details (Greenberg, 2004; Henkel, 2004; Lindsay, Hagen, Read, Wade, & Garry, 2004; Ost, et al., 2002). Thus, distorted memories are a greater concern when looking at naturally occurring false memories.

Researchers have found few differences between real memories and false memories. When Ost et al. (2002) examined participants who had reported seeing a nonexistent video of Princess Diana's car crash, they found no differences in terms of background, confidence in the memory, or other factors on the dissociative experiences scale from those who had not reported seeing the video. The one difference found in the study was a higher level of self-monitoring, leading the researchers to suggest that the willingness to report false memories may relate to a desire to comply. Confidence in the false memory being as high or higher than confidence in a real memory has been found in various studies (Loftus, 2004; Macrae, Schloerscheidt, Bodenhausen, & Milne, 2002). However, PET scans suggest that the brain activity may be different for false memories and real ones, which suggests the possibility of some physical differences (Gonsalves & Paller, 2000).

The most important difference is the finding that the richer and more involved the individual's imagination, the more likely that the individual will produce a false memory (Thomas, Bulevich, & Loftus, 2003), which accords with the source monitoring theory of why false memories develop. A source monitoring error occurs when the individual mistakes the

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source of information when recalling the situation. This type of explanation can explain why asking someone if he or she saw the red shirt on the target could later influence the individual to say that the shirt was red. The individual connects the idea of "shirt" and "red," and later fails to monitor that the information came separately from the event he or she had observed. Asking individuals to imagine an event also tends to lead them to recall false memories because individuals tend to confuse what is real and what is imagined when answering questions about their memory (Gonsalves, et al., 2004). In the process of imagination inflation, the imagination of the event becomes a source that may be confused with the actual event (Loftus, 2004).

Association between Memory and Imagination

In a study using the source monitoring framework, Lampinen et al. (2003) found that participants who imagined events became confused about how they had experienced the event. The participants in the study were divided into three groups: those who performed an action, those who imagined performing the action, and a control group. The actions were small actions such as touching one's nose or tapping a pencil. When the participants were asked to recall what had happened, those who had imagined performing the action recalled performing the action significantly more often than did individuals who had not imagined performing the action, but their memories of the action were less detailed in sensory information than were those of individuals who had actually performed the action. Those who had imagined the action had been asked to imagine it between one to five times. The more times a participant had imagined the event, the more likely he or she was to have falsely recalled performing the action, and the difference in sensory information diminished. Those who had imagined the action became more like those who had actually performed the action.

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In another study (Mazzoni & Memon, 2003), the participants were asked to read about an event or imagine an event. The event used in the study was a skin prick medical test that was not used in England, which is where this study was done. Imagining the event increased the reports of a memory of the event from 24% among the group that read about the event to 40% among the group that had imagined the event.

The percentage of recall in Mazzoni and Memon's (2003) study was similar to that in Thomas and Loftus's (2002) study, which found that having individuals imagine a relatively normal action (i.e. one people do often) at least five times resulted in 36% reporting a memory of the event two weeks later. This compared with 24% who developed a false recall when imagining bizarre (i.e. people do not often do these) actions.

A greater difference was found in Hyman and Pentland's (1996) study, which found that individuals were three times more likely to have a memory if they had imagined the event. It is likely that the procedure used in the study resulted in a higher demand to recall events. Participants were presented five truthful and one fictional event. At the initial interview, some participants were encouraged to imagine any event that they could not recall. At a later interview, those who had been told to imagine events during the first interview were more likely to recall them than were those who had not imagined them.

Okado and Stark (2003) induced false memories by showing photographs to study participants. The participants engaged in a game in which they lied about having seen some of the photographs, and then took a memory test. The researchers found that the participants who had lied about having seen a photograph were more likely to falsely recall having seen the photograph on the memory test, even when accuracy was stressed. While taking the recall test, the researchers imaged the participants' brains using magnetic resonance imaging (MRI). They found that the participants had similar activity in three areas—the left parietal lobe, the left

frontal lobe, and the medial temporal lobe—regardless of whether they had related a true or false memory. Individuals who had related a true memory after seeing the photograph tended to have greater activity in the occipital and right posterior parahippocampal gyrus whereas those who had related a false memory tended to have greater activity in the right anterior cingulate regions. These findings support the idea that the mind shows a greater trace in the encoding region than in the creative regions for a true response, and a greater trace in the creative region for a false memory. This finding is similar to those obtained using positron emission tomography (PET) scans (Gonsalves & Paller, 2000), which showed false memories are not as active in the brain as real memories. However, false memories identified as real tend to be more vivid and activate the brain to a greater degree than false memories identified as false. Thus, thinking about a picture seems to contribute to creating false memories.

Work with the DRM method activates the propositional memory. When Cabeza et al. (2001) used this method with functional magnetic resonance imaging (fMRI), they found similar activation in the medial temporal lobe for both true and false memories, which accorded with Okado and Stark's (2003) findings. They also had similar parahippocampal gyrus activity for true answers. Gonsalves et al. (2004) tested propositional memory by presenting some words with pictures and some without pictures and then asking the participants to recall which words were presented with pictures. Results obtained from fMRI scans during the experiment showed greater activation in the precuneus, right inferior parietal cortex, and anterior cingulated. Words falsely remembered to have a picture with them at presentation activated these regions more than words correctly identified as presented without a picture. Visual tasks activate these regions.

Fabiani et al.'s (2000) study highlights that most imaging has been done without examining the imagination in false recall. The finding of higher activation for visual regions when words were falsely recalled as having a picture presented with them than words recalled

without a picture suggests that false recollection is due to the words creating an image within one's mind as they are presented. This false recollection becomes a source monitoring error, whereby that recollection of the image to accompany a word is thought of during the recall, and not distinguished as not having been presented with the word in the study (Gonsalves, et al., 2004). When using self-reported data collected from surveys and interviews, little difference in the experience can be determined between recalling a real event and an imagined one (Brainerd, Payne, Wright, & Reyna, 2003) unlike watching the brain through imaging. It does appear that the richer and more involved the imagination, the more likely that the individual will develop a false memory. PET scans of participants engaged in the list recall of the DRM display mental signatures that differ when correctly recalling words from the signature obtained while falsely recalling lures. The authors concluded that although the behavior and subjective indexes do not find differences, the processing does show a difference in brain activity for false memories and correct memories (Fabiani, et al., 2000).

Thus, two types of false memories, distorted and fictitious, can be created. The creation of these false memories are supported by the mental creation of pictures. The following section examines how this visualization occurs in TPIIs and the interaction with false memories.

Creating False Memories

IIs are a mental experience that can contribute to one's sense of reality, as some mental experiences are mistakenly encoded as having truly occurred (Gonsalves, et al., 2004) and become a part of an individual's memory. These false memories are either distorted memories or fictitious memories (Loftus, 1997). Either type of false memory can be encoded from mental imagery or another source. Once the false memory exists it becomes information that can be

recalled for future mental experiences. Distinguishing different types of mental imagery helps to understand which type of false memory may be interacting with the mental imagery.

TPIIs can take three forms, depending on the source of the material in the mental imagery. These three forms are event-based, constructed, and augmented. The first type of TPII is the *event-based TPII,* which occurs when the party experiencing the II sees an interaction and plays that interaction back in his or her mind at a later point in time. This is a retroactive II because the mental imagery takes place after the conversation as the individual relives the scene in his or her mind (Honeycutt, 2003). Most event-based TPIIs take place offline rather than while the conversation is occurring, but may occur online, such as when one imagines the conversational partner speaking to someone else while planning his or her statement. Honeycutt (2003) reports offline IIs comprise the majority of IIs because most occur outside of the imagined party's physical presence. Online IIs occur during a live conversation when one anticipates what the other individual is going to say next. Event-based TPIIs would help encode true memories, and distorted memories. Distorted false memories that that are already in the memory could cause the mental imagery to be discrepant.

The *constructed TPIIs* are an encounter that never truly occurred, as the encounter does not represent a past event, but is entirely constructed in the individual's mind, and can be set either in the past, present, or future. An example of this type of interaction is one in which a student might not have seen a teacher ridicule another student asking a question, but imagines the teacher doing so, which leads the student to refrain from asking questions. Encoding an event in memory from this type of mental imagery would create a fictitious false memory. Mead's (1934) assertion that imagining something new is simply a novel arrangement of previously experienced stimuli would make all proactive imagery fit this type. Proactive imagery combines previous experiences to create the expected encounter suggesting that when planning for future

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communication the possibility of creating of fictitious memories should be considered. The replay of a fictitious memory in imagery would always be a constructed TPII.

The third type of TPII is the *augmented TPII*, which takes a middle ground between event-based and constructed TPIIs. An example of this type is the process of "filling in" parts of a telephone conversation when one hears only one side of the conversation. The individual cognitively constructs the conversation as he or she believes it has occurred. Similar interactions take place in any number of situations when one party knows part of what has transpired in an interaction but does not know all that happened. The individual uses his or her cognitive abilities to imagine the interaction, work out what he or she believes happened in that encounter, and then uses this belief to determine the manner in which she or he interacts with that party following the interaction. This type of mental imagery can draw upon real memories, distorted memories or fictitious memories. They would result in the encoding of distorted memories since they are based on real events with additions.

TPIIs and IIs can interact with memory in both directions drawing on memories as the imagination experiences the interaction or placing the interaction into a memory; however, not all mental imagery will result in encoding a memory. The replay of event-based imagery could simply strengthen the memory of the event while other types might never move past working memory and be encoded into long-term memory at all.

These types of imagery all involve the mental recall and creation of images. Research conducted on mental activity shows that greater brain activity leads to the development of false memories (Thomas, Hannula, & Loftus, 2007). TPIIs and IIs will also involve the creation of mental imagery. The more often individuals engage in mental imagery the more likely they are to have a false memory of the event occurring (Hyman & Pentland, 1996; Lampinen, et al., 2003; Mazzoni & Memon, 2003; Thomas & Loftus, 2002). The more details individuals recall in the

mental imagery (Gonsalves, et al., 2004) and the more confidence the individual expresses in the memory being accurate (Loftus, 2004; Macrae, et al., 2002) also increases the chance that he or she will produce a false memory.

Thus, the IIs are a type of mental imagery which when changed from viewing the self in an interaction to viewing others become TPIIs. The creation of images in the mind leads to false beliefs about those images having occurred outside the mind, also known as false memory. The next purpose was to look at the effect of thinking about various individuals on TPIIs. This required background literature regarding whom individuals target in thought. This was achieved by using in-group and out-group members as identified by social identity theory.

<div align="center">Social Identity Theory</div>

The perception of group membership influences whether the individual interacts with another individual based on unique characteristics or group characteristics (Brewer & Brown, 1998; Tajfel & Turner, 1986). SIT addresses how individuals interact based on group memberships, how these memberships form, the construction of the self and other, and the maintenance of the group construct. The beliefs one forms about one's own group memberships and relationships to others are cognitive constructions (Brown & Turner, 1981; Tajfel, 1978b). These constructions account for how a group develops a common identity, with each member acting upon the common group identity when interacting with others (Reicher, 1982).

Communication occurs among individuals who vary in terms of demographics, (e.g., same-sex interactions versus opposite-sex interaction) to differences in personality, culture, values, and beliefs. Those who are like us possess a similar characteristic on some salient point and those who are unlike us lack this characteristic (Gudykunst & Kim, 1997; Gudykunst & Lee,

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2003). Social identity theory (SIT) explains how individuals identify whether the other individual is within their in-group (like themselves) or part of the out-group.

Origin

SIT is an outgrowth of work in intergroup communication that extended the work of Muzafer Sherif and realistic group conflict theory (later labeled RCT), by identifying the cognitive processes through which parties identify with an in-group (Tajfel & Turner, 1986). The best known element of RCT is the robber's cave experiment (Sherif, Harvey, White, Hood, & Sherif, 1961). Drawing on previous work, in 1954 Sherif and his colleagues brought together 22 boys between the fifth and sixth grades at a summer camp. The researchers selected the subjects, who had no previous relationships, to be as uniform in background as possible, and divided the participants into two groups. The research team first allowed participants to develop relationships inside of the group. After these relationships had developed, the participants became aware of the other group at the camp. The researchers then had the groups compete with each other before posing challenges to the groups that required cooperation in order to reach a solution.

During the first phase, the participants developed relationships and leadership within the group. As the groups became aware of the others, the participants developed a sense of group membership and group superiority over the others. During the contests, the groups maintained a sense of group membership, placing a greater weight on the activities that allowed them to maintain a view of themselves as superior to the other group. This led each group to judge the activities in which it did well as more important than activities in which the other group did well. The final stage resulted in a reduction of tensions as superordinate goals were introduced and the groups had to work together to achieve solutions to the problems.

The primary conclusion of RCT is actual interaction among groups with differeing goals

causes the perception of intergroup conflict. SIT was developed by examining two issues that

were not adequately addressed in RCT. First, RCT does not focus on how individuals develop

and maintain group identity. Second, RCT fails to account for discrimination by which

individuals tend to favor members of a group of which they are members, even when that action

is not of maximum benefit to the group (Tajfel & Turner, 1986). Sherif's earlier work on

attitudes foreshadowed the answers developed by SIT. He suggested that an individual's

identification with a group is as powerful as objective membership in a group for one's attitudes

and values (R. H. Turner, 1992).

Intergroup – Interindividual Behavior

Human behavior exists along a continuum between the two extremes of interindividual

and intergroup behavior (Tajfel, 1978b). The behavior is exhibited because of the cognitive

construction of the self in relation to the other party (Brewer & Yuki, 2007). At the extreme of

interindividual behavior is a situation in which the interaction between the parties is wholly

governed by unique factors that represent one individual's understanding about the other

individual. This level of interaction is only possible in long-term personal relationships such as

close friendships, relatives, and significant others. Many of these relationships even fail to be

purely interindividual relationships, as they rely upon the perception of group membership as the

basis of behavior towards the other party. At the opposite extreme of the continuum are wholly

intergroup interactions, which are completely governed by the participant's construction of group

membership (Gaertner & Dovidio, 2000). It is suggested that the purest form of intergroup

behavior can be seen in armies at war that seek to kill the enemy before they can be killed. In this

situation, the only important factor is the group membership of the other, so decisions regarding

how to interact are solely based upon the beliefs that one has regarding the other group (Tajfel & Turner, 1986).

Some evidence suggests the intergroup and interindividual behaviors are not a separate ends of a continuum but actually represent two continuums, with behavior determined by high or low levels on each (Lindeman, 1997). Figure 1 illustrates the manner in which the two continuums intersect creating in-group members who are known and in-group

Figure 1: Layout of Lindeman's two continuums.

members who are unknown. This would allow some interactions to be determined by both individual knowledge of the other as well as group membership. Friendships that cross group boundaries, such as black-white friendships in the United States, represent this type of interaction. It is also possible that these friendships represent a situation in which the observer sees the participants as members of two different groups. The participants do not see the groups constructed by the observer as the most salient, choosing instead to view another common group membership as the most salient to the situation (Gudykunst & Hammer, 1988). The opposite of friendship is hatred and killing. Recent conflicts in the Balkin's have demonstrated the speed with which neighbors who have been living and interacting with each other take to killing each other as they are reclassified as out-group members (Hewstone, et al., 2008). The change from personal contact to wholly out group behavior is accounted for with Lindeman's (1997) contribution. The two-continuum explanation accounts for both personal and group factors being present at differing levels in every encounter. People see in-groups as more diverse and

individual than out-groups, which are viewed as more homogenous and thus the known and unknown personal characteristics are less important with out-group members.

Dimensions of SIT

Turner (1975) delineated four dimensions to SIT: Identification with group, maintain the identification, evaluate the group against other groups and determine the value of the group against the other groups. First, individuals develop a cognitive identification of themselves as similar to others in some manner to which they attach significance, and thus see themselves as members of a common group (Gaertner & Dovidio, 2000; Tajfel & Turner, 1986). Second, individuals maintain a construction of themselves as group members with groups that make positive contributions to the individual's social identity (Patterson & Bigler, 2007). They also seek memberships in new groups that they judge will improve that social identity (Oakes & Turner, 1980). It is not possible to leave some groups, such as those with whom one shares skin color. When these groups place one at a disadvantage, they can be dealt with by altering the relevance that one places on the issue; otherwise, the group membership may lead the individual to develop a negative self-image (Ellemers, Kmippenberg, Vries, & Wilke, 1988). Third, groups are evaluated in relationship to other groups. Individuals often determine who is a member of their group based upon a negative definition of the out-group. Individuals who are not members of the other group are then a member of the in-group. Fourth, the value of being a member of the in-group is determined against the value of the other group(s). Thus, one must maintain a separate privileged identity for the in-group (Brewer & Yuki, 2007).

The first dimension of SIT is cognitive identification, which concerns why individuals develop a group identity (Tajfel & Turner, 1986). The minimal conditions necessary to form the perception of membership in a group were the key considerations upon which early research

focused. The answer is known as the minimal group paradigm. Previous work had relied upon

physically present groups and creating a sense of "us versus them." The work in the minimal

group paradigm examined the perception of group membership. The minimal condition for

membership in a group was seen as the mental perception of being a member of the group (Hogg

& Abrams, 2003).

In one study (Tajfel, Billig, Bundy, & Flament, 1971), participants took part in a series of

experiments designed to create the in-group in their minds. The realization that social groupings,

such as white or Protestant Irish, drive many instances of group behavior triggered these

experiments. These groups had never been together as one encompassing group. Thus, as a group

they had never experienced the interaction with other groups that was understood to develop

conflict in RCT (Brewer & Yuki, 2007). It was impossible to gather all whites, all elderly, or all

Irish together in a conflict with the other, yet the perception of being a member of these groups

drives individuals to act in a discriminatory manner. The minimal group paradigm explained how

these groups could form (Tajfel, 1978b; Tajfel, et al., 1971).

In early minimal group experiments (Billig & Tajfel, 1973; Tajfel, 1978a; Tajfel, et al.,

1971; J. Turner, Brown, & Tajfel, 1979), researchers showed abstract paintings to participants

and instructed them to distribute points to other individuals, which determined how much money

the individual would receive. Participants knew if the individual they were giving the money to

preferred the same painting they did or a different one. (Some groups were asked to guess the

number of dots in the painting and told the other individual had either guessed more or fewer

than were in the painting to create the groups.) The participants demonstrated a bias toward

individuals who were like them in the task, giving them more money. The researchers repeated

the experiment with a payoff structure that allowed the participants to choose between the

greatest amounts of money for members of the in-group or the greatest differences between the

money received by in-group members and out-group members. The participants consistently chose to maximize the difference between the groups, even when the in-group members received less over all (Billig & Tajfel, 1973; Tajfel, 1978a; Tajfel, et al., 1971; J. Turner, et al., 1979). This maximization of the difference may have a cultural component. In research conducted among Polynesian islanders, the use of maximum profit was used about as often as maximum difference, but much more than it was used by northern European participants in the original body of work (Wetherell, 1982). These studies confirmed that individuals will develop a group in their mind and act to the benefit of that group.

Other studies examined schoolchildren aged 7 to 16 (Vaughan, 1978). Some were asked to think of a friend, to create the perception of the in-group member or a schoolmate with whom they did not like to play to create the perception of the out-group member. Other participants were told the person they were to give money to either liked red or blue. The individual who liked the same color as did the participant was in the in-group and one who liked the opposite color represented the out-group member. The researchers then instructed the participants to give coins to the other two children. The study allowed the participants to award money in a manner that reflected the maximum profit or the maximum difference between groups. The participants distributed the coins to create the maximum difference between the in-group and the out-group. The created out-groups where the child was told to think about another child who liked a color were not different from the groups where the child was asked to think about a friend and a disliked classmate. The conclusion was that participants behaved the same way toward a created out-group member as they did toward a real individual. Vaughan (1978) concluded, "The kind of minimal group categorization employed in this was just as powerful in determining favouritism as was a strong and meaningful personal relationship such as 'your best friend at school'"(Vaughan, 1978, p. 352).These studies addressed the central question of SIT: What is

the minimal condition required for individuals to act in an intergroup manner? The only

necessary element required to create intergroup behavior is the perception of belonging to two

separate groups. Participants behaved toward the out-group based on their group memberships,

even when they had personal interactions with those members (Billig, 1973).

The second dimension of SIT involves the construction of the self (Hogg & Abrams,

2003). Individuals try to enhance their self-esteem or self-image with their group membership.

Self-image, which is how one views oneself at a specific time, is a more fluid construct than self-

concept, which is a relatively enduring view of oneself. Individuals create their self-image within

a moment in time based on their personal and social identities, which are salient to the specific

situation. Thus, at certain times their social identities or group memberships can override their

personal characteristics in their self-image. It is through this process that individuals are able to

use social identity to create a positive self-image, which increases self-esteem (J. C. Turner,

1982).

Research has found that members of minimal groups have higher self-esteem. In one

study, (Oakes & Turner, 1980) found that those who were allowed to see themselves as part of a

group scored higher on two of the three measures of self-esteem. Other research has shown that

individuals who are members of high-status groups tend to have stronger identification with the

group than members of low-status groups (Ellemers, et al., 1988). Real-group (preexisting

groups, not groups created for research) research has also shown that self-esteem is greater in

groups based upon membership in the group (Hunter, Platow, Howard, & Stringer, 1996).

A key factor in group membership and self-image is the salient group identity, which

refers to the identity most important at a particular time. In some interactions, age is the most

important factor in group membership, while in others gender is the most important. In an

interaction where age is important and youth valued, a young female would experience an

increase in her self-image, but in an interaction where being male is valued over age, she would experience a decrease in her self-image (Tajfel & Turner, 1986).

The third dimension of SIT considers how groups are evaluated in relationship to other groups (Hogg, 2006). The fourth dimension considers how the value of that group membership is determined by the relative superiority of the group to other groups. The effect of a group membership upon self-image and self-esteem is dependent on the relationship of the group to other groups. Being part of a high status group helps increase one's view of oneself. Individuals of high ability tend to identify less strongly with their groups, which allows them to move from the group, and suggests that their self-esteem is less dependent upon the group. The group remains of supreme importance to those not able to progress on their own (Ellemers, et al., 1988).

Roccas and Schwartz (1993) found that groups of high school students demonstrated greater favoritism to the in-group on issues relevant to their identity as students by rating individuals as more similar to the others in the group on these relevant issues. They found that groups of high school students judged out-group members more positively when they were similar on measures not related to the relevant grouping. These findings accord with those of Pickett and Brewer (2005), who examined how the greatest exclusion of others from group membership is often practiced by those who are least typical of the group. These individuals are seen as fringe members of the group, and as such must work to maintain their membership in the group. It is through this maintenance of the in-group that the identity of the group has been linked to ethnocentrism (Brewer, 2001).

The cognitive construction of social identity allows researchers to investigate many types of social conflict. The perception of in-groups versus out-groups is the main issue leading to exclusion and discrimination (Tajfel, 1978b). One factor that can be important when

investigating these self-identities is which perceived group membership is salient at the moment (Tajfel & Turner, 1986). Most previous in-group work has examined smaller, physically present groups. By examining groups created by identification of one's self with a group of individuals who are not physically present (e.g., I am an American), behavior such as discrimination could be investigated.

Discrimination often arises in situations in which individuals see themselves as members of a superior group and the individual against whom they discriminate as a member of a lower status out-group (Gaertner & Dovidio, 2000). The group members may view themselves as members of a group that may have never existed as a unified group. For example, within American culture, there has never been a single unified white group; however, many individuals have identified themselves with this group and sought to maintain their membership by behaving towards African-Americans in a discriminatory manner (Tajfel, 1978b). Indeed, as a group is defined as individuals who see themselves and are seen by others as members of this group (Tajfel & Turner, 1986), groups need not be composed of individuals who come together physically. Mentally constructed groups may include other members who do not wish to be identified with the group. Many whites, for instance, did not share the construct of whiteness upon which discrimination was built in the United States, but these individuals were still part of the construct in others' minds.

Individuals identify themselves as members of groups by cognitively seeing themselves as members of a group. Individuals seek a positive self-concept and view membership in any social group either positively or negatively. They judge themselves based upon group memberships and how those group memberships are valued in relation to out-group membership. Individuals seek to enhance their social identity, which is based upon positive valuations regarding one's own in-group and relevant out-groups. If one's social identity is negative, one

seeks to change that evaluation by comparing oneself with a new out-group or by elevating his or her own in-group compared to the out-group. This process of evaluating oneself in comparison with out-groups leads to the differentiation of the in-group (Hogg, 2006; Tajfel & Turner, 1986).

Group membership influences interpersonal interactions with members of the out-group. Research on the effect of group membership shows individuals tend to consider social identity a useful construct for guiding the interaction when they see the other as a typical member of the out-group, but that group membership is not as important when the other is seen as atypical (Gudykunst & Hammer, 1988). There is also less uncertainty in the encounter when the other party is a close friend or partner (Gudykunst, Forgas, Franklyn-Stokes, Schmidt, & Moylan, 1992). This close relationship points to the higher interpersonal element in some interactions.

Research has demonstrated the positive valance associated with the in-group is dependent upon the greater cognitive certainty one has regarding groups with whom he or she can clearly identify (Harwood, Giles, & Ryan, 1995). SIT provides a cognitive means for individuals to place themselves into a group with like individuals. This group membership functions to reduce uncertainty regarding the actions of the in-group. The groups, when salient to the situation, drive how one sees it. Seeing others as a part of the in-group influences one's perception of them and plays a role in the interpretation of their manner and the content of their behaviors (C. Edwards & Harwood, 2003).

One difficulty presented by the cognitive element is that the primary group membership with which the individual identifies in a situation can be difficult to determine. In a controlled situation, this means that the salient membership may be different from the membership expected. For example, a typical student may identify with the student body of his or her school or the members of his or her gender, religion, political party, or fan club, to name but a few

groups. The issue here is the difficulty in determining which factor is the basis of the group membership or which group the student considers of primary salience in a particular situation.

How individuals interact with others is constrained by the nature of the relationship, drawing on either the group stereotypes or the individual factors. These factors will also guide the development of the conversation imagined in the TPII.

Third-Party IIs and SIT

Mental imagery is a means of planning for an encounter (J. M. Honeycutt, et al., 1989). Analyzing the differences in TPIIs as individuals prepare for an encounter with different individuals or under different circumstances provides insight into how individuals approach communication encounters. Interactions across group boundaries are one such encounter. SIT posits that others are either like us or not like us based on our perception of group membership (Tajfel & Turner, 1986). Individuals interact with others based on either individual factors or group factors (Tajfel, 1978b). Typically, out-group members are perceived to be more uniform, which makes interaction with them easier because it is based on group factors, whereas interaction with in-group members is less uniform because it relies more heavily on individual factors (Gudykunst & Hammer, 1988; J. C. Turner, 1982).

Previous research has shown that interactions with in-group members produce greater certainty, which contributes to interactions with in-group members having more positive valance (Harwood, et al., 1995). Individuals choose to watch television shows focusing on their in-groups which suggests more positive valence towards the in-group (Harwood, 1997). Individuals also interact more condescendingly towards out-group members (Harwood, 2004).

Interactions between in-group and out-group targets rely on different levels of understanding. In-group members interact on individual factors whereas out-group members

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interact on group factors based on stereotypes (Tajfel & Turner, 1986). A known in-group member is one the individual has a relationship with allowing him or her to interact with that member based on what the individual knows about the person. An unknown in-group member presents a challenge since individual factors (i.e. how likely to talk about a subject, or one's view towards a topic) cannot be incorporated into the conversation. This type of encounter occurs occasionally in face-to-face interaction such as when an individual meets a new classmate to start working on a project. This classmate gradually becomes known as the relationship progresses. TPIIs make consideration of imagining unknown individuals more important since they can take a long-term role. TPIIs involve two other parties such as a child and his or her conversation partner. One may imagine a conversation between the child and a fellow adult such as a schoolteacher without actually meeting the teacher. This interaction could be seen as an interaction with an out-group member where that member is expected to behave based on the stereotypes of a teacher or as an unknown adult (in-group based on age) wherein the parent does not have any individual knowledge of the party upon which to build the imagined interaction. The individual constructing the image balances these competing factors.

Known in-group and out-group members are easier to visualize than unknown in-group members are. Known in-group members are visualized based on individual knowledge about the person being visualized possessed from previous interactions. Out-group members are visualized based on stereotypes thought to be appropriate to the situation. Unknown in-group members are more difficult to visualize since the visualization cannot be based on factors known about the person or stereotypes based on group membership. The ease of visualization results in individuals believing they have greater knowledge about the person being imagined when that person is a known in-group member or out-group member. This belief allows for greater

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specificity, more positive valence, and less discrepancy in imagery targeting known in-group and out-group members than in imagery targeting unknown in-group members.

Individuals engage in TPIIs with individuals they imagine. Some are in-group members and others are out-group members. Interactions can occur in which the actions of the other are important for the future planning of the communication. Conflict is a major factor in human experience (Wilmot & Hocker, 2001). This type of interaction can be investigated by exposing the participant to a game scenario.

Prisoner's Dilemma Game Theory

Game theory undertakes the analysis of conflict. Interpersonal conflict results when two or more individuals have goals that are incompatible with each other (Wilmot & Hocker, 2001). Game theory takes situations in which two or more parties have competing interests and analyzes which actions and outcomes are likely (Myerson, 1991). Beginning with Von Neumann's work in the 1920s and 1930s, game theory has provided the social sciences with a mathematical means of examining the decisions individuals are forced to make (Luce & Raiffa, 1989; Rapoport, 1966).

The idea of a "game" in game theory involves two or more players who are rational and intelligent (Myerson, 1991) engaged in a social situation involving the choice of alternatives for each player. This choice results in a defined payoff and either a new situation or a termination of the game (Luce & Raiffa, 1989). Rational players are those who seek their greatest self-interest. Intelligent means the player possesses full knowledge of the situation (Myerson, 1991). The games are usually laid out in a fashion that allows two choices to be made, one each by the two players. Some individuals reduce multiparty games to two sides by forming coalitions to reduce the sides to two. Some formulations, however, include more than two players, and more than two

choices that can be made (Rapoport, 1966). Payoffs (called utilities when labeled on an interval scale) are the numbers associated with the possible outcomes. These numbers are almost always given in pairs to represent the payoff to each party (Rapoport, 1966). Players select one of two different possible solutions.

The first solution offered by Von Neumann is known as the minimax, where both parties choose the option that gives them the best outcome. Von Neumann was working with two-party games, where one party's gain was always the other party's loss. The best illustration of the minimax is that of two parties cutting a cake into two pieces, one of whom cuts ("the cutter") and the other chooses ("the chooser") which piece is whose. Rational players want the largest piece (assuming that no one is counting calories), and so the cutter cuts the pieces as evenly as possible. The cutter acts on the assumption that the chooser will take the larger piece, and this strategy will leave the cutter the largest piece he or she can achieve. Thus, the cutter acts to maximize the minimum left for him or her, resulting in the minimax (Poundstone, 1992).

John Nash offered a second approach. First, he suggested that in determining outcomes, not everyone values each outcome in the same manner. Second, Nash suggested that noncooperative games are a more appropriate model for most situations. His solution known as the Nash Equilibrium allowed many players in the game not just two. The Nash Equilibrium is found by making the best choice one can make, given the strategy of the others. Thus, individuals choose the strategy that gives them the best outcome that they can achieve, given what the other players do (Nash, 1950/2002; Siegfried, 2006).

The Games

The Prisoner's Dilemma is a common form of game theory. It involves a situation in which two parties are given a choice of staying silent, which is conceptualized as cooperating

with an opponent, or confessing to a crime, which is conceptualized as defecting on the opponent. The payoffs for cooperating vary from receiving a small sentence if both stay silent to receiving the longest sentence if the coconspirator defects. The payoffs for defecting vary from being let go if the coconspirator stays silent to receiving a longer sentence if the coconspirator defects (Poundstone, 1992). Thus, the payout if both cooperate is the best the parties can do jointly. When only one party defects, it is the best for that individual, and the party that tried to cooperate is punished with the worst outcome. If both defect, they both have a poor outcome (see Figure 2). Because there is no enforceable agreement in this game, each individual is tempted to defect to achieve the best individual outcome regardless of the other player's action.

		Player 2	
		Cooperate	Defect
Player 1	Cooperate	-1,-1	-5, 0
	Defect	0,-5	-4,-4

Figure 2: Prisoner's Dilemma payouts.

Chicken is another game that is sometimes used (Barash, 2003). Here the payoffs follow a form in which symmetrical behavior results in the highest payout (see Figure 3). The highest payouts in a chicken game would be the quadrant in Figure 3 where both cooperate. This game represents situations in which both must cooperate to have any positive outcome such as when trying to communicate. Both parties must engage to have a conversation. Situations with symmetrical action to not communicate are the least negative since agreement exists. When an individual attempts to communicate and the other individual does not there will be frustration on both parts. Taken to an extreme trying to communicate with someone who does not want to may introduce frustration

		Player 2	
		Cooperate	Defect
Player 1	Cooperate	1, 1	-3,-2
	Defect	-2,-3	-1,-1

Figure 3: Chicken payouts.

in the party seeking communication and fear in the other party, as behavior such as stalking is perceived.

Game theory provides a framework to ask people how they would behave in a situation. This structure presupposes the situation exhibits a conflict. The game also asks people to choose an action. This is the key to the idea of planning for future interaction.

The Communication in Conflict

The basic choice in a conflict situation is to engage with the other party in the conflict or to deny the conflict with avoidance behavior (Rahim & Buntzman, 1995; Wilmot & Hocker, 2001). The foundation of resolving a conflict is to have the parties work on a solution (Slaikeu, 1996).Thus the first step is to engage in communication with the other party to a conflict. The second question is, if communication is to occur what type of communication will it be. Deutsch (2000) points out that communication can either be competitive or cooperative. Cooperative communication seeks to engage the other party in seeking a solution to the problem, and exhibits an openness, and willingness to trust the other party. When both parties engage in cooperative communication, mutually beneficial solutions are like to emerge. Competitive communication involves hiding thoughts, feelings and information from the other (Guerrero & Valley, 2006). This type of communication will often result in attacks against the other, and likely will result in an escalation of the conflict (Wilmot & Hocker, 2001).

Two basic premises exist for engaging in a competitive communication style. One is based on having enough power to achieve your goals despite the contesting of the goal by the other party (Coleman, 2000). The second is a defensive action concerned with defending oneself (Fisher & Ury, 1983). Openness is a hallmark of cooperative communication seeking to resolve a dispute in a fair and equitable manner. Competitive communication on the other hand seeks to

win at the expense of the other and involves hiding information, taking a hard position, and the use of hostile tactics (Deutsch, 2000).

Game theory sets up a choice to be made by the person having experienced the TPII about how he or she is going to proceed. These choices mirror the communication choice everyone faces when confronted with conflict. The mental image the individual holds contributes to the plan he or she develops about how to communicate.

<u>Visualization Affects Plans for Future Interactions</u>

Past research showed individuals engaged in IIs develop cognitive scripts and procedural records that can be activated and used by actors in real encounters (J. M. Honeycutt, et al., 1989). Individuals planning for future encounters engage in both retroactive IIs as they replay past encounters and proactive IIs as they envision what is to come (J. M. Honeycutt, 2003). The use of IIs in planning an encounter affects what occurs in the encounter (Allen & Honeycutt, 1997).

Past research has demonstrated two ways in which IIs influence actual communication. First, individuals who engage in an II develop an interaction script which may be activated in an actual conversation, as shown in Figure 4 (J. M. Honeycutt, et al., 1989). Second, IIs serve to

Figure 4. II script development.

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link previous interactions with future ones. Relationships are kept alive between actual encounters by IIs in which the actor recalls and looks forward to interaction with that individual. These linking IIs maintain unique elements such as pet names, special greetings, and emotional tone to keep the relationship alive. Linking IIs often arise during times of conflict, particularly when parties are brought together during a separation, as shown in Figure 5 (J. M. Honeycutt, 1995, 2003; 2004).

Background – previous interactions in the relationship.	Retroactive IIs recall previous encounters.	IIs serve to maintain the emotional and unique elements (i.e. pet names, and special greetings) of the relationship.	Emotional and unique elements of the relationship serve to influence perception and interpretation during the actual encounter.
	Proactive IIs look forward to future encounters.		

Figure 5. II interaction linking.

In a third path for influencing future human interactions, individuals use what they believe has happened as a basis for how they interact with other individuals in the future. This process is diagrammed in Figure 6, which shows how an individual who is in some type of relationship (i.e., shares a history with another sufficient to allow one party to think about the other) faces a situation in which he or she would like to know what has occurred. Because the individual has not experienced what has objectively occurred, he or she tries to understand it by imagining the interaction in his or her mind and creating a version of what has happened. The process of imagining the interaction causes the individual to experience the interaction vicariously in a manner similar to the process by which imagining actions leads the individual to vicariously experience the action (Lampinen, et al., 2003).

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| Background – individual has some type of relationship with the other party. | → | In mentally processing a situation, the individual engages in an II to help work out his or her thoughts about the situation. | → | The individual recalls the II as fact and it becomes part of the individual's reality. | → | The individual uses this conception of reality as the basis of interaction with the relational partner. |

Figure 6: Process by which TPIIs influence future interactions.

Thus, IIs can become a part of an individual's belief about reality, helping the individual create a script that serves as the basis for how he or she interacts with the other party in the future. The potential for a created memory to influence future communication is significant (J. M. Honeycutt, 1995). The individual builds his or her version of reality on the understanding that is created in the II/TPII, and that view of reality becomes the background for future interactions.

A major function of IIs is managing conflict (Honeycutt, 2003, 2004, 2010). Imagined interactions serve as a means by which individuals activate and perhaps re-create procedural records, which may inform future interactions (J. M. Honeycutt, et al., 1989).

Honeycutt (2003) explained:

> Based on previous knowledge of the other, imagined interactions also may be used to develop what Berger (1979) refers to as proactive attributions. Based on current and previous knowledge, an individual reduces uncertainty by making predictions of the other's future behavior. In other words, the imagined interaction helps construct the individual's social reality. As repositories for social knowledge, imagined interactions allow individuals to construct and test

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predictions against what they already believe to be a particular state of affairs."

(p. 180)

The created interaction becomes the relationship. Interpersonal relationships are thought into existence through thinking and dwelling on a potential relational partner (J. M. Honeycutt, 2003), which fulfills the need to reduce uncertainty regarding what will happen next. Thus, the new reality created by IIs may be distorted (J. M. Honeycutt, 2003).

Summary

II researchers have identified several characteristics and functions of IIs. Their work provides insight into the ways individuals use mental representations and suggests that a new category of TPIIs exists. False memory research indicates that individuals develop false memories when imagining events. This body of research contributes to understanding of how the process of thinking about previous interactions in a relationship can corrupt memories regarding that relationship and affect future interactions with the other that draw upon these corrupted memories. SIT research predicts that individuals base their interactions with in-group members on individual factors whereas they base their interactions with out-group members on group factors. Both considerations tend to influence the manner in which an individual approaches communication with another. The present research investigates these connections. TPIIS are used; they sometimes result in the creation of false memories. The people viewed in the TPII will affect the experience of the TPII. Finally, the mental imagery will contribute to the view of reality used to plan for a future interaction. The following chapter will present specific hypotheses that test these ideas.

Chapter 3: Rationale and Hypotheses

This chapter presents nine hypotheses that advance the four pursuits. The first pursuit includes the research question comparing the features of TPIIs with IIs and hypothesis one. Then second pursuit examines the relationship between TPIIs and false memories followed by the third pursuit explaining how SIT predicts that TPIIs differ according to whether they involve in-group or out-group members. The chapter concludes with the fourth pursuit examining how IIs influence individuals' anticipated plans in approaching a future communication event.

Third-Party IIs

Previous II research has noted participant reports of mental representations of a conversation that did not involve the individual having the mental cognition (Honeycutt, 2003). These findings suggested that a mental experience of other's communication exists, such as watching two other people in a conversation.

IIs and TPIIs are both cognitive processes whose primary difference is the involvement of the individual who is experiencing the interaction in the interaction being imagined. In IIs, the individual having the mental representation is a party to the conversation, whereas the individual is not party to the conversation in TPIIs. With IIs, who controls the conversation is known as self-dominance, a characteristic that does not apply to TPIIs.

The other seven characteristics of IIs (frequency, proactivity, retroactivity, variety, discrepancy, valence and specificity) apply to TPIIs. Based on theory and research, there is no reason to assume differences between TPIIs and IIs on six of these characteristics; as both involve the mental experience of communication encounters, it is likely that they are more similar than different. Thus, a research question is asked:

RQ: How do the following features of TPIIs compare with those of IIs:

(a) Most recent occurrence of imagery, (b) setting of most recent imagery, (c) topic of most recent imagery, (d) parties imagined in most recent imagery, (e) rating of the characteristics, and (f) the rating of the functions?

TPIIs were conceptualized as a subset of IIs, and as a subset, should be reported less often than IIs. Therefore, frequency is the one characteristic upon which a clear difference between TPIIs and IIs can be theorized, and upon which hypothesis 1 is based:

H1: Individuals report a higher II frequency than they report TPII frequency.

Creating False Memories

IIs can contribute to one's sense of reality, as some mental experiences are mistakenly encoded as having truly occurred (Gonsalves, et al., 2004) and become a part of an individual's memory. Research into false memories suggests several factors that contribute to the production of false memories. Individuals produce more false memories the more times they imagine the event occurring (Hyman & Pentland, 1996; Lampinen, et al., 2003; Mazzoni & Memon, 2003; Thomas & Loftus, 2002). More false memories are also likely to be created when the individual imagines more details (Gonsalves, et al., 2004) or is more active in mental activity (Thomas, et al., 2007).

Thus, the more often individuals engage in TPIIs, the more likely they are to create memories that are characterized by greater specificity. Another measure of the degree by which individuals are engaged in a task is the number of words that they report. The participant reporting more words likely indicates deeper and more imaginings of the event. Based upon this assumption, hypothesis 2 posits the following:

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H2: TPIIs that produce a false memory have (a) more words and (b) greater specificity than TPIIs that do not produce a false memory.

<div align="center">Third-Party IIs and SIT</div>

IIs are a means of planning for an encounter (J. M. Honeycutt, et al., 1989). Analyzing the differences in IIs as individuals prepare for an encounter with different individuals or under different circumstances provides insight into how individuals approach communication encounters. Interactions between in-group and out-group targets rely on different levels of understanding. In-group members interact on individual factors whereas out-group members interact on group factors based on stereotypes (Tajfel & Turner, 1986). Typically, out-group members are perceived to be more uniform, which makes interaction with them easier because it is based on group factors, whereas interaction with in-group members is less uniform because it relies more heavily on individual factors (Gudykunst & Hammer, 1988; J. C. Turner, 1982). The interaction with in-group members may be difficult when these individuals factors are not well known (Lindeman, 1997). Thus, three groups are considered, out-group members, in-group members with individual factors known, and in-group members with individual factors unknown.

The individual constructing the image balances these competing factors. Known in-group and out-group members are easier to visualize than unknown in-group members are. Known in-group members are visualized based on individual knowledge about the person being visualized possessed from previous interactions. Out-group members are visualized based on stereotypes thought to be appropriate to the situation. Unknown in-group members are more difficult to visualize since the visualization cannot be based on factors known about the person or stereotypes based on group membership. The ease of visualization results in individuals

<div align="center">52</div>

believing they have greater knowledge about the person being imagined when that person is a known in-group member or out-group member. Previous research has shown that interactions with in-group members produce greater certainty, which contributes to interactions with in-group members having more positive valance (Harwood, et al., 1995). This greater certainty exists with in-group members about whom individual characteristics are known. The ability to adapt communication when individual attributes are unknown is missing, meaning the unknown in-group is less easy to visualize than out-group members who can be stereotyped.

Unknown in-group members end up being the least well-known meaning they are hardest to visualize. This leads to less certainty about what would occur, which should make participants rate their imagery as less like they think the real event will be. They think the encounters with more certainty will be less discrepant. The more difficulty in thinking about the event the less positive valence will be experienced. Finally, the less certainty they feel suggests fewer details would be imagined resulting in less specificity. Based upon these assumptions, hypotheses 3, 4, and 5 are proposed:

H3: Individuals who construct a TPII with unknown in-group members judge the interaction as more discrepant than do participants who construct a TPII with known in-group members or out-group members.

H4: Individuals who construct a TPII with unknown in-group members display less positive valence than do participants who construct a TPII with out-group members or known in-group members.

H5: Individuals who construct a TPII with unknown in-group members report less specificity than do participants who construct a TPII with out-group members or known in-group members.

Visualization Affects Plans for Future Interactions

Past research has shown individuals engaged in IIs develop cognitive scripts and procedural records that can be activated and used by actors in real encounters (J. M. Honeycutt, et al., 1989). The use of IIs in planning an encounter affects what occurs in the encounter (Allen & Honeycutt, 1997). At times the mental imagery is the primary factor upon which the individual draws to prepare for an encounter. The process of imagining the interaction causes the individual to experience the interaction vicariously in a manner similar to the process by which imagining actions leads the individual to vicariously experience the action (Lampinen, et al., 2003).

Thus, IIs can become a part of an individual's belief about reality, helping the individual create a script that serves as the basis for how he or she interacts with the other party in the future. The potential for a created memory to influence future communication is significant (J. M. Honeycutt, 1995). The individual builds his or her version of reality on the understanding that is created in the II/TPII, and that view of reality becomes the background for future interactions.

Future behavior is influenced by mental imagery (Thomas, et al., 2007). Thus, mental images developed by individuals influence their future actions. Hypothesis 6 is to test the role of TPIIs in guiding future behavior:

H6: Individuals choose the communicative behavior (seek / do not seek to communicate) that provides the best outcome given their mental image of the other's choice to tell or not.

A major function of IIs is managing conflict (Honeycutt, 2003, 2004, 2010). Imagined interactions serve as a means by which individuals activate and perhaps re-create procedural records, which may inform future interactions (J. M. Honeycutt, et al., 1989). The mental imagery becomes part of the reality of the relationship (J. M. Honeycutt, 2003), which fulfills

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the need to reduce uncertainty regarding what will happen next. Thus, the new reality created by IIs may be distorted (J. M. Honeycutt, 2003).

Individuals engage in activities with groups with which they have associated more positive valence (Harwood, 1997). Interpersonal relationships exist through thoughts about them. TPIIs create the individual's version of reality. Individuals who have more positive valence in the TPII will act upon the positive feelings, which influence whether or not to engage the other party (Honeycutt, 2003). Based upon these assumptions, hypothesis 7 posits the following:

H7: Individuals who experience more positive valence in their TPII are more likely to seek engagement with the party imagined than are those who experience less positive valence in their TPII.

Conflict is maintained by using IIs to recall past encounters and plan for future ones (J. M. Honeycutt, 2003). These encounters help process the conflict and lead to greater feelings of conflict. Individuals use these IIs to understand what has happened and seek answers to the questions that they face. Honeycutt (2003) posits that conflicts are a function of neurotransmitter activity that stimulates the neurons, as does the processing of false memories (Gonsalves & Paller, 2000). The greater activation of the mental regions likely enhances the perception of conflict and increases the vividness of IIs. This greater activity stimulates more conflict and false memories, resulting in greater conflict choices and payoffs.

Greater mental activity results in the formation of false memories (Hyman & Pentland, 1996; Thomas, et al., 2007) and an increase in the perception of conflict. Individuals often enact conflict with competitive instead of cooperative communication (Deutsch, 2000). Therefore, hypothesis 8 proposes the following:

H8: Individuals experiencing false memories are more likely to choose a competitive communication strategy than are those not experiencing false memories.

The more often individuals engage in TPIIs, the more likely they are to create memories that are characterized by greater specificity. Another measure of the degree by which individuals are engaged in a task is the number of words that they report. Reporting more words likely indicates deeper and more imaginings of the event. Greater mental activity leads to false memories (Hyman & Pentland, 1996; Thomas, et al., 2007) and an increase in the perception of conflict. Therefore, hypothesis 9 proposes the following:

H9: Individuals whose IIs are characterized by greater specificity and more words are more likely to choose a competitive communication strategy than are those whose IIs are characterized by less specificity and fewer words.

Having presented the study rationale and hypotheses in this chapter, the data collection and analysis procedures used to test the hypotheses are described in the following chapter.

Chapter 4: Methods

This chapter describes the methodology employed to test the hypotheses described in the previous chapter. Two different surveys were given to separate samples. The research question and hypothesis 1, which concern the similarities and differences between IIs and TPIIs were tested from Survey A. This survey asked the participants to think about their most recent TPII or II. Survey B addressed the remainder of the hypotheses. The participant population and recruitment was the same for both samples.

Participant Population

All the participants were enrolled in undergraduate communication classes at LSU that included Public Speaking, Interpersonal Communication, Introduction to Communication Studies, and Communication in Relationships. Participants recruited in the 2008 fall semester were enrolled in a drawing for a $5 gift card. Although research is inconclusive as to the effect of offering incentives, this small incentive appeared to be as effective as a larger incentive (Singer, Hoewyk, & Maher, 2000).

The participants who were given extra credit for participation had a response rate of approximately 85% whereas the participants in two classes given the opportunity to participate but not given extra credit had a response rate of approximately 10%. The response rate was calculated by counting all completed and all partially completed surveys (only the first fully completed response was kept if multiple responses had the same name, teacher, and demographic information all others were eliminated) divided by all possible responses. The all-possible number of responses was calculated as the enrolled count in the classes in which the opportunity

to participate was announced. Students enrolled in spring communication classes for which a requirement was participation in research served as additional participants in Survey A.

Survey Administration Procedure

Data were collected using Web-based surveys hosted on Surveymonkey.com. Research has shown that online samples are equivalent to face-to-face samples (Meyerson & Tryon, 2003). Instructors who agreed to allow their classes to participate were asked to read the following statement to the class and forward the following e-mail text using the course management software:

In class announcement:

Everyone in class is invited to participate in a study on how we think about a communication event. I would like to ask that you all participate. I will (or have sent) send you an email message that provides a link to this survey. You should have about 15-20 minutes to complete the survey when you sit down to take it. All individuals who complete the survey will be entered into a drawing with the winners receiving a five-dollar gift card. ****I am also offering (#points or percent) extra credit for participating. Make sure you fill in your name and my name as the instructor when you take the survey. **** This survey will be available until (Date).

E-mail text:

Here is the survey link I promised in class. Once again everyone is asked to participate in this study about how we think about a communication event. You should have about 15-20 minutes to complete the survey when you sit down to take it. All individuals who complete the survey will be entered into a drawing

with the winners receiving a five-dollar gift card. ****I am also offering (#points or percent) extra credit for participating. Make sure you fill in your name and my name as the instructor when you take the survey. ****This survey will be available until (date).

-link to survey -

Spring participants were only given Survey A (n=223, fall n=162, N=385). These participants selected to participate in this study from a list of options for partial fulfillment of course requirements. These students were e-mailed the link to Surveymonkey.com. This research was approved pursuant to the university's human subject policies.

Survey A

Participants

Students enrolled in undergraduate communication studies courses at LSU were asked to participate. A priori power analysis requires many assumptions in order to estimate the number of participants needed for a test. Gpower a priori analysis (Erdfelder, Faul, & Buchner, 1996; Faul, Erdfelder, Lang, & Buchner, 2007) was used to estimate the number of participants needed to achieve a power of .9. A medium effect size was used in this calculation as a compromise between finding small effect sizes, which requires a large number of participants, and using a small number of participants but only finding a large effect. The analysis indicated t-tests required approximately 140 participants to achieve this power level. A sample of 385 students enrolled in communication courses at LSU participated, consisting of 69% ($n = 265$) female and 31% ($n = 120$) male.

Participants reported their classification as 16.4% first year, 33.6% sophomore, 17.7 % junior, 34.5% senior, and .8% graduate. The mean age was 21.04 years and ranged from 18 to

59. Six participants did not report their age. The largest ethnic grouping was Caucasian at 81%, followed by African-American at 12.5%, Asian-American at 2.6%, Hispanic at 2.1%, international student at .8 %, and Native American and other at .5% each. Two students did not answer this question.

Procedure

The participants were directed to the survey hosted on Surveymonkey.com and given a date by which they had to complete the questionnaire. Survey A included a question asking if the participant's birthday was on an odd or even day. Participants with birthdays on odd days were asked about IIs (n = 188) and participants with birthdays on even days were asked about TPIIs (n = 197).

Instrumentation

All participants were asked for demographic data including sex, age, classification, ethnic origin, and relationship status. The participants directed to think about IIs took the Survey of Imagined Interactions (SII; Honeycutt, 2003) and participants directed to think about TPIIs took a modified version of the SII. This modified survey provides a description of TPIIs rather than of IIs and changes the wording questions to reflect TPIIs. The subscale on self-dominance was removed from the modified version.

Participants who took the SII were given the following explanation of IIs:

> **Imagined interactions** (IIs) are mental interactions we have with others. These encounters involve any situation when you mentally think about communicating with other individuals you interact with. People may have imagined conversations that occur in self-controlled daydreams or while the mind wanders. Sometimes they may occur after a real interaction has taken place. IIs may be brief or long.

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They may be ambiguous or detailed. They may address a number of topics or examine one topic exclusively. The interactions may be one sided, where the person imagining the discussion does most of the talking, or they may be more interactive, where both persons take an active part in the conversation. With your help, we can better understand IIs. Thank you very much for your participation.

Participants who take the modified SII received the following explanation:

Third-party Imagined Interactions (TPIIs) are mental interactions in which you think about other people's interactions. These encounters involve any situation when you mentally think about other people communicating with each other while you are not involved in the conversation. These include recalling a professor talking to another student, or overhearing a roommate talking on the phone and filling in what the other person says. Sometimes these may occur after a real interaction has taken place, other times you may recall them while daydreaming. TPIIs may be brief or long. They may be ambiguous or detailed. They may address a number of topics or examine one topic exclusively. The interactions may be one sided, or they may be more interactive, where both persons take an active part in the conversation. With your help, we can better understand TPIIs. Thank you very much for your participation.

Two scales, II self-dominance and TPII proactivity, had alphas of .69 when given on Survey A. The II self-dominance scale was not used in the study since it was not theorized to be a characteristic of TPIIs. All other scales exceeded .7. For a full listing of the alphas and which questions in appendix B composed each scale, see Table 1 for IIs and Table 2 for TPIIs. All of

the features compared in the research question were questions, or scales from the SII or the

modified SII (third-party wording).

Pilot Study for Survey A

A pilot study was conducted to determine reliability and test the protocol for Survey A

using 87 participants from an upper-level class on IIs and two public speaking classes. The

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Table 1: Scale alphas and questions for IIs

Scale:	α for pilot	α from survey
Discrepancy	.81	.82

(Appendix B: Survey webpage 5 - Question numbers 7,10*,15,19,20*,35,36)

Valence	.76	.76

(Appendix B: Survey webpage 5 - Question numbers 14*,21,24*,27,29)

Frequency	.78	.82

(Appendix B: Survey webpage 5 - Question numbers 1,6,13,18*)

Self-dominance	.80	.69

(Appendix B: Survey webpage 5 - Question numbers 12*,25,26*,28*,32)

Specificity	.67	.74

(Appendix B: Survey webpage 5 - Question numbers 5,23,33)

Retroactivity	.80	.85

(Appendix B: Survey webpage 5 - Question numbers 4,8,17)

Variety	.61	.81

(Appendix B: Survey webpage 5 - Question numbers 3,31,38)

Proactive	.77	.87

(Appendix B: Survey webpage 5 - Question numbers 2,30,34)

Self-understanding	.60	.81

(Appendix B: Survey webpage 6 - Question numbers 1,2,3,4)

Rehearsal	.80	.85

(Appendix B: Survey webpage 6 - Question numbers 5,6,8,9)

Catharsis	.57	.77

(Appendix B: Survey webpage 6 - Question numbers 7,10,22)

Conflict linkage	.53	.72

(Appendix B: Survey webpage 6 - Question numbers 19,21,15,14)

Compensation	.68	.81

(Appendix B: Survey webpage 6 - Question numbers 16,20,23)

Relational maintenance	.41	.73

(Appendix B: Survey webpage 6 - Question numbers 17,18,24)

Satisfaction	.75	.89

(Appendix B: Survey webpage 6 - Question numbers 11,12,13)
*Reverse coded

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sample consisted of 27 males, 59 females, and 1 participant who did not report his or her sex.

The pilot population had an average age of 23.4 years.

Several of the scales had low alphas during the pilot study (see Tables 1 and 2). This was

a concern, but it was noted that most scales would be above .7 if a question was dropped. Most

of the problem questions were reverse coded. The consideration that led to pursuing the study

without altering the questions was that the modified version had higher reliability than the SII,

and the SII had demonstrated reliability in the past.

Table 2: Scale alphas and questions for TPIIs

Scale:	α for pilot	α from survey
Discrepancy	.89	.75
(Appendix B: Survey webpage 8 - Question numbers 7,10*,14,17,18*,29,30)		
Valence	.78	.71
(Appendix B: Survey webpage 8 - Question numbers 19,22*,23,24)		
Frequency	.81	.80
(Appendix B: Survey webpage 8 - Question numbers 1,6,12,16*,32		
Specificity	.72	.77
(Appendix B: Survey webpage 8 - Question numbers 5,21,27)		
Retroactivity	.57	.73
(Appendix B: Survey webpage 8 - Question numbers 4,8,)		
Variety	.53	.85
(Appendix B: Survey webpage 8 - Question numbers 6,9*)		
Proactive	.61	.69
(Appendix B: Survey webpage 8 - Question numbers 2,25)		
Self-understanding	.81	.86
(Appendix B: Survey webpage 9 - Question numbers 1,2,3,4)		
Rehearsal	.76	.85
(Appendix B: Survey webpage 9 - Question numbers 5,6,8,9)		
Catharsis	.83	.76
(Appendix B: Survey webpage 9 - Question numbers 7,10,22)		
Conflict linkage	.43	.71
(Appendix B: Survey webpage 9 - Question numbers 19,21,15,14)		
Compensation	.85	.84
(Appendix B: Survey webpage 9 - Question numbers 16,20,23)		
Relational maintenance	.79	.75
(Appendix B: Survey webpage 9 - Question numbers 17,18,24)		
Satisfaction	.75	.90
(Appendix B: Survey webpage 9 - Question numbers 11,12,13)		

*Reverse coded

Survey B

Participants

Gpower a priori analysis (Erdfelder, et al., 1996; Faul, et al., 2007) estimated the number of participants needed to achieve a power of .9 based on a medium effect size. The estimation was run for both an ANOVA with three groups and a logistic regression. The ANOVA estimate was about 210 participants, or 70 per group, and the logistic regression was about 270 participants or 90 per group. Based on the Gpower estimates, the goal was 100 participants per group, or 300 total participants.

Three-hundred seventy-four students enrolled in undergraduate communication courses at LSU participated. Sixteen of the surveys were partially completed and 358 fully completed. The sample consisted of 58% ($n = 217$) female and 42% ($n = 157$) male. Participants reported their classification as 6.4% first year, 33.7% sophomore, 27.8% junior, 31.8% senior, and .3% graduate. The mean age was 21.08 years and ranged from 18 to 55. Six participants did not report their age.

The largest ethnic group was Caucasian at 77%, followed by African-American at 14.2%; Asian-American at 3.5%; Hispanic at 1.9%; and Native American, international student, and other at 1.1% each. International students were not included in the data analysis. The out-group was operationalized as an international student, so international students in the out-group could have responded toward an in-group member instead of the intended out-group manipulation.

Procedure

Participants who received the link to Survey B (Appendix C) accessed the survey on SurveyMonkey.com through that link. They were first presented with a consent page that

provided a brief description of the study. Those who agreed to participate clicked "next" to access the first page, which asked for information about the class that had referred them to the study for the purpose of giving them credit for participating. Instructors who offered extra credit to students for participating in the study received a list of participants who had listed them as their instructor. The third page asked for demographic information including age, sex, classification, ethnic background, and marital status. The participants were asked about cheating at school for the first time and whether they had lived outside the country. The cheating question was included to measure the participants view of it prior to the induced TPII where cheating is a part of the dilemma they were asked to imagine. The participants were then asked what day of the month they were born on in order to classify them into three groups (1-10 [n = 123], 11-20 [n = 128], and 21-31 [n = 119]) for the purpose of presenting three different scenarios.

Instrumentation and Scenarios

The three groups took the same survey after being presented with a different co-conspirator. This survey induced a TPII to the participants in a manner similar to how Klos and Singer (1981) had induced an II. The participants were asked to think about a situation in which they are waiting to see the Dean of Academic Violations. Another student who was accused with them of cheating on a recent test is speaking with the dean. Participants typed out what was occurring between the other student and the dean and then completed the modified SII.

SIT was manipulated within the scenario. This manipulation created three groups based on whom the survey asked the participant to imagine talking with the dean about the alleged cheating. This individual was the coconspirator in prisoner's dilemma terms. The first group was presented a scenario with someone whom the participant knew, identified as "a student similar to yourself that you have known since high school." The second group was presented with someone

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like them whom they did not know, identified as "a classmate you do not personally know, but whom you recall came from a town close to yours, and likely would fit in with your friends." The third group was presented someone not like them who was identified as "a classmate you don't know, but recall came from somewhere in Southeast Asia."

After creating the II, the participants were presented the modified SII scales for discrepancy, valence, and specificity. All scales had alphas above .7 (see Table 3). They were

Table 3: Scale alphas and questions for survey B		
Scale:	α for pilot	α from survey
Discrepancy	.90	.85
(Appendix C: Survey webpage 8 - Question numbers 2*,3,5*,7*,8,14*,23*)		
Valence	.83	.80
(Appendix C: Survey webpage 8 - Question numbers 4*,6*,9,12,15)		
Specificity	.89	.70
(Appendix C: Survey webpage 8 - Question numbers 1,11,13,21,16*)		
*Reverse coded		

then asked a series of three forced-choice questions based on game theory. Two distracters followed the game theory questions. In the first, participants were asked eight questions drawn from a conflict styles inventory. This was chosen to appear related but create some time between inducing the TPII and measuring the false memory. The second task was a single math question, which was chosen to induce the participants to think about something unrelated to the subject. Only one math question was asked in order to reduce dropouts, as it was feared that a page with many questions would result in many participants ceasing to take the survey especially since it would appear unrelated.

False memories were measured by asking about several elements embedded in the induced IIs. Participants were asked to begin the induced TPII by imagining their coconspirator walking across a green carpet and entering the office of the Dean of Academic Violations. Participants who identified the Dean of Academic Violations or a green carpet as answers to

questions about their university were judged to have had a false memory. Participants who answered either question with the item they were asked to imagine were judged to have had a false memory. About 40% of participants were judged to have a false memory, a rate of false memories in line with in previous research (Mazzoni & Memon, 2003; Thomas & Loftus, 2002).

Prisoner's Dilemma/Game Theory

The first question inspired by game theory is related to the Prisoner's Dilemma. The participant imagines a dean talking with a target. The dean tells the target that he has evidence of some irregularities on a test and that the target will be expelled from the class. If the target helps the dean and names everyone who cheated, the target will be allowed to stay in the class and the others will be expelled from school. If someone else provides the information and the participant stays quiet, he or she may be expelled from school. In the event that both provide information, they will all be suspended immediately through the following semester.

Participants were presented with the modified SII after recording the TPII. Following the SII section, the participants were asked the first question, "Will you tell the Dean about the cheating or remain silent?" The second question asked, "Will you try to talk to your classmate?" After answering the second question, the survey presented the third question, "While crossing campus you happen to run into your classmate. Which of the following sentences best describes the way you would talk with your classmate?" Two answer choices were presented, "I would enter into a discussion of what we should do" or "I would not want to let them know any plans that I have."

The second and third questions are closest in form to the game of chicken (Barash, 2003). The design asks the individual participants if they would try to talk with the other party. The highest payouts in this scenario would be where both cooperate, represented in this study by two

"yes" answers. Both a "yes" from the participant and a "yes" from the imagined coconspirator are required before a conversation can take place. The third question asks the participants to choose which characterization would be their most likely approach when they see the other individual: "I would enter into a discussion of what we should do" or "I would not want to let them know any plans that I have."

Pilot Study Survey B

The purpose of the pilot study was to determine the alpha reliability of the instrumentation and test the protocol for Survey B. This survey collected of 30 data sets, 28 of which were usable. The sample consisted of 15 males and 13 females with an average age of 21.2 years. The modified scales for this section returned acceptable alphas, a specificity of .89, a discrepancy of .90, and a valence of .83.

The pilot study uncovered a significant problem with the planned measurement of false memory. Respondents had been emailed and asked to fill out a follow up survey. This survey had a response rate less than 50%. It was decided to adjust the protocol so that false memory was measured at the same time. This was done by adding a page with seven conflict questions and a page with a math question as distracters before asking the false memory questions.

Analysis

IIs and TPIIS

The research question examined reported frequencies of time, location, topic and participants with chi-squared tables. Then the scales for functions and characteristics were compared with both t-tests and equivalence tests. Hypothesis 1 was tested with a t-test on the characteristic of frequency.

False Memories

Testing hypothesis 2 required determining whether TPIIs that produce false memories have more words and greater specificity than TPIIs that do not produce false memories. False memory was measured by asking questions after the induced TPII and counting participants who answered according to what they had been asked to imagine as having a false memory. Words in the induced TPII were counted using Microsoft Word software and specificity was measured by averaging the items on the modified SII. These were tested with t-tests.

Mental Imagery and SIT

Hypotheses 3, 4, and 5 posited that the participants who had been instructed to think about an unknown in-group member would report the largest amount of discrepancy, less positive valence and the least specificity. The scores were obtained from the average of the items in each scale on the modified SII. These three hypotheses were tested by performing a multivariate multiple regression.

False Memories, Mental Imagery and Planning for Future Communication

Hypothesis 6 posited that a participant's choice to engage in a communicative behavior was dependent on his or her mental image of the other's choice. The testing of this hypothesis depended on two variables. The first was the response to the first game theory question, "Would the individual plan to tell the dean about the cheating?" The second variable was whether the imagined partner reported the cheating, which was obtained by coding the reported TPII. A code of "0" was given to participants who did not report a conversation that related to cheating. These included blanks, indications of not understanding the instructions, and off-topic conversations such as the dean inviting the student out for pizza. A code of "1" was assigned if the classmate indicated he or she would tell or provide information in the TPII. A code of "2" was assigned

when the conversation was between the classmate and dean about the alleged cheating but did not indicate whether the classmate would provide any information. These codes were primarily assigned when further contact was being planned and the classmate did not indicate an intention. The code of "3" was assigned if the classmate refused to provide information. Intercoder agreement between the two coders was acceptable (Kappa = .88). The final codes were arrived at by discussing disagreements between the coders and reaching a consensus for items that had been coded differently. A two-by-two contingency table was developed by dropping the "0" and "2" codes, which resulted in a table consisting of "tell" or "no tell" by the imagined classmate. This hypothesis was tested with a chi-square and interpreted with an odds ratio.

The seventh hypothesis, which posited that more positive valence made one more likely to seek to engage in communication, was tested with a logistic regression. Valence was reduced to four groups formed by the bottom fourth of valence scores being placed into group 1 and so on to form all four groups. The threshold points were chosen to keep the groups as even as possible. The second variable was a "yes" or "no" answer to the second game theory question about whether the participant would seek to engage in communication with the imagined classmate.

Hypothesis 8 posited that individuals experiencing false memories are more likely to choose a competitive communication strategy. The two variables were dichotomous. A false memory was identified if the participant misidentified either who deals with cheating or the carpet in the dean's office according to the instructions in the induced II or identified cheating as a greater problem after the induced TPII. The competitive communication strategy was taken from the third game question. Participants were told that they had run into the classmate whom they had imagined as they crossed the campus. They were then asked if they would enter into a discussion of what to do or avoid telling the classmate their plans. Those who chose not to let the

classmate know their plans were considered more competitive regarding their communication strategy. This hypothesis was tested with a chi-square and interpreted with an odds ratio.

Hypothesis 9 posited that the participants whose TPIIs were characterized by greater specificity and more words would be more competitive. This hypothesis also related to the third game theory question. Specificity was measured according to the specificity scale and words by a word count of the induced TPII. Each was reduced to four categories by dividing the participants into four groups according to rank, with the bottom fourth assigned a 1 and the top fourth assigned a 4. Each group contained as close to 25% of the participants as possible. This was tested with multinomial logistic regression.

Summary

In summary participants were directed to take either Survey A or Survey B. Survey A consisted of filling out the full SII or the full modified (wording changed to reflect TPIIs) SII. Survey B consisted of engaging in the induced TPII, taking part of the modified SII, answering questions about how the participant would behave after the imagined event, and after a distracter responding to questions that determined if a source monitoring error had develop a false memory. The results are reported in the next chapter.

Chapter 5: Results

This chapter reports the results with the first section about IIs drawing from Survey A and answering the research question and testing hypothesis 1. The last three sections, false memory, social identity, and planing use Survey B to test hypotheses 2-9. The chapter describes how each hypothesis was tested and analyzes the results of the tests. A summary of the hypothesis concludes the chapter (see Table 9 at the end of the chapter).

Comparing IIs and TPIIs

Research Question

The research question asked, "Are the features of IIs more similar to or more different from the features of TPIIs?" The results answer: there are more similarities than differences between IIs and TPIIs. Tables 4 through 7 present data from different questions of the SII paired with the question on the modified SII.

Table 4 presents data regarding when the participants' last imagined event occurred as well as the number of times that each answer was chosen and the percentage of answers that it represented. A chi-square test was performed to determine whether the proportions were different. The results, $\chi^2 (6, N = 371) = 8.035, p = .236$, failed to provide evidence of a difference in the proportion of responses in a category between IIs and TPIIs.

Table 4: When the most recent II/TPII occurred.

Time frame	II (%)	TPII (%)
Today	52 (28.6)	45(23.8)
Yesterday	56 (30.8)	60(31.7)
3 days ago	24 (13.2)	25(13.2)
4 days ago	13(7.1)	6(3.2)
5-7 days ago	21(11.5)	37(19.6)
8-30 days ago	8(4.4)	10(5.3)
More than a month	8(4.4)	6(3.2)
Total:	182(100)	189(100)

$\chi^2 (6, N = 371) = 8.035, p = .236$

The second survey question addressed the setting of the most recent II or TPII. Table 5 lists the number of participants who placed their most recent II or TPII in each location. There is

no evidence of a difference in the proportion of responses for the location of the last imagined

event depending on whether the participant was reporting an II or a TPII, χ^2 (6, $N = 372$) =

3.793, $p = .705$.

The third question addressed with

whom the participants were interacting

during their most recent II or TPII. The

participants were allowed to check more

than one individual. Table 6 lists the

number of participants who reported the

individual as appearing in the most recent

imagined event. The percentage reported

is for the percentage of individuals who

indicated that that relationship was in the

most recent event. The total reported for

the percentage is the sum of all individual

percentages. It indicates that the average

participant asked about IIs reported 2.72

individuals in the imagined event and that

Table 5: Setting of most recent II/TPII

Location	II(%)	TPII(%)
Room/home	50(27.6)	53(27.7)
Others room/home	24(13.3)	24(12.6)
Phone	17(9.4)	19(9.9)
Public space	38(21)	45(23.6)
Work	15(8.3)	23(12)
Car	13(7.2)	10(5.2)
Other	24(13.3)	17(8.9)
Total:	181(100.1)	191(99.9)

χ^2 (6, $N = 372$) = 3.793, $p = .705$

Table 6: Topics of most recent II/TPII

Topic	II (%)	TPII (%)
Dating	123(65)	120(61)
Conflict	134(72)	146(74)
Work	71(38)	80(41)
Activity	57(30)	51(26)
School	84(45)	90(46)
Friends	113(60)	101(51)
Family	71(38)	82(42)
Money	43(23)	50(25)
Small talk	33(18)	44(22)
Ex-partner	52(28)	52(26)
Other	30(16)	25(13)
Total partic.:	188(433)	197(427)

χ^2 (10, $N = 1652$) = 5.101, $p = .884$

the average participant asked about to TPIIs reported 2.63 individuals. The results of a chi-square

test provided no evidence for a difference in how often each relationship is named, χ^2 (12, $N =$

1032) = 16.044, $p = .189$.

The fourth question addressed the topic of the most recent mental imagery. The

participants were able to choose more than one topic, and reported an average of about 4.3 topics

in each event. Table 7 shows the number of responses for each topic and the percentage of

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participants who indicated a topic was discussed during the most recent II or TPII. The results of a chi-square test provided no evidence of a difference in topics based on the experience of an II or TPII, χ^2 (10, $N = 1652$) = 5.101, $p = .884$.

Taken together, the results of the analysis of the four questions provide no evidence of a difference in the content of IIs and TPIIs. However, they could not indicate similarity, as the test only assessed difference. Table 8 shows both t-tests and equivalence tests for the characteristics and functions measured by the SII and modified SII. The self-dominance characteristic is excluded from

Table 7: Parties in most recent II/TPII		
Who	II(%)	TPII(%)
Partner	104(55)	107(54)
Mother	44(23)	39(20)
Father	25(13)	32(16)
Sibling	30(16)	29(15)
Friend	91(48)	101(51)
Ex-partner	41(22)	39(20)
Roommate	38(20)	43(22)
Teacher	25(13)	24(12)
Coworker	23(12)	32(16)
Boss	33(18)	36(18)
Customer	11(06)	14(07)
Stranger	24(13)	6(03)
Other	24(13)	17(09)
Total partic.:	188(272)	197(263)
χ^2 (12, $N = 1032$) = 16.044, $p = .189$		

the comparisons since self-dominance is not a characteristic of TPIIs. Each subscale (Likert scales with all items averaged to obtain a score between 1 and 7) of the SII and the modified SII measures these variables.

Equivalence tests were conducted following the procedure laid out by Levine et al. (2008) to determine if no difference existed. This procedure uses the independent samples t-test value to test H_o: $\Delta < |M_1-M_2|$. The equivalence test was conducted using $\Delta = .20$. Past research conducted with the SII (S. G. Ford, 2003; McCann & Honeycutt, 2006) was examined to determine an appropriate value for Δ. Based on the average effects found in those studies a Δ value between .20 and .21 was found. This was rounded down to .20 because this is also the midpoint between a small and a medium effect size based on Cohen's effect sizes (Levine, et al., 2008).

The test procedure calls for obtaining a *t*-score which is used in the equivalence test. The *t*-test and effect test alphas are reported in Table 8. The results support equivalence for 8 of the 13 characteristics and functions tested. Note the *t*-score suggests a difference on 4 of the 13 characteristics and functions while a fifth approaches significance at $\alpha = .07$.

Table 8: Results of comparison between IIs and TPIIs

Scale	*M* II(*SD*)	*M* TPII(*SD*)	*t* (*df*)	*t*-test *p**	Equivalence *p***
Discrepancy	3.92(.91)	3.92(.82)	0.000 (380)	1.0	**.00**
Valence	4.61(.90)	4.42(.80)	2.162 (378)	**.03**	.16
Frequency	4.90(1.16)	4.35(1.08)	4.846 (380)	**.00**	.95
Specificity	4.61(1.12)	4.50(1.07)	0.943 (379)	.35	**.01**
Retroactivity	4.65(1.24)	4.68(1.14)	-0.283 (379)	.78	**.00**
Variety	4.61(1.09)	4.00(1.20)	5.185 (380)	**.00**	.98
Proactive	5.13(1.16)	4.96(1.13)	1.467 (379)	.14	**.05**
Satisfaction	4.49(1.1)	4.19(1.01)	2.657 (372)	**.01**	.32
Self-under	4.69(.97)	4.57(1.00)	1.193 (372)	.23	**.03**
Rehearsal	5.00(1.08)	4.95(1.05)	0.438 (372)	.66	**.00**
Catharsis	4.63(1.13)	4.39(1.09)	2.041 (372)	**.04**	.14
Conflict link	4.77(1.06)	4.78(.85)	-0.135 (372)	.89	**.00**
Compensat	3.09(1.32)	3.34(1.37)	-1.835 (372)	.07	.10
Rel. maint.	4.50(1.08)	4.52(.98)	-0.250 (372)	.80	**.00**

*Two-tailed; ** The p-value for the equivalence test is obtained by adding the p-value of two one-way tests, H_o: $-\Delta > M_1-M_2$ and H_o: $\Delta < M_1-M_2$ (Wellek, 2003).

Hypothesis 1

Hypothesis 1, which posited that participants reporting about their IIs would report a higher mean for the frequency characteristic than those reporting on TPIIs, was tested by performing a *t*-test. The results, $t(380) = 4.846$, one-tail $p < .01$, support hypothesis 1 (see Table 8). That is, participants reported experiencing a greater frequency with IIs than TPIIs.

Creation of False Memories

Hypothesis 2 testing required determining whether TPIIs that produce false memories have more words and greater specificity than TPIIs that do not produce false memories. This hypothesis was tested with two *t*-tests. The results indicate partial support for the hypothesis.

Individuals who produced false memories did tend to record more words in their TPII, $t(318) = 2.246$, one-tail $p < .01$ (false memories $M = 77$ $SD = 61.8$, no false memories $M = 62.1$ $SD = 53.2$) but the specificity of their TPIIs was not greater, $t(311) = -.41$, $p = .341$ (false memories $M = 3.86$ $SD = .83$, no false memories $M = 3.82$ $SD = .83$).

Mental Imagery and SIT

Hypotheses 3, 4, and 5 posited that the participants who had been instructed to think about an unknown in-group member would report the largest amount of discrepancy, less positive valence and the least specificity. These three hypotheses were tested by performing a multivariate analysis of variance (MANOVA). A Pearson correlation test indicated that the three scales correlate at levels between .263 and .392. These levels indicate a statistically significant relationship, yet are low enough that multicollinearity should not be a major problem. Sex was included as a covariant based on previous research into IIs (Renee Edwards, et al., 1989). Sex was a significant factor in the model, Wilks's $\Lambda = .965$, $F(1,319) = 3.855$, $p = .01$, $\eta^2 = .035$. The results supported the hypotheses. The overall model yields a Wilks's $\Lambda = .955$, $F(2,319) = 2.442$, $p = .024$, $\eta^2 = .023$.

The between-subject tests were inspected for each factor. These indicate that both specificity, $F(2,319) = 2.776$, $p = .041$, $\eta^2 = .025$, and valence, $F(2,319) = 4.826$, $p = .003$, $\eta^2 = .043$, are significant contributors. The results for discrepancy, $F(2,319) = 1.138$, $p = .334$, suggest no difference in discrepancy between II and TPII responses. This is confirmed by examining the means; the mean for the unknown group ($M = 3.58$) was lower, not higher, than the means for known in-group members ($M = 3.74$) and out-group members ($M = 3.66$). These between-subject test results are the bases for the conclusion that hypothesis 3 is not supported and hypotheses 4 and 5 are supported.

TPIIs, False Memories and Interaction Plans

Hypothesis 6

Hypothesis 6 posited that a participant's choice to engage in a communicative behavior was dependent on his or her mental image of the other's choice. The equation χ^2 (1, N = 284) = 40.073, $p < .001$ indicates that there is a difference in the plan to tell based on whether the imagined classmate told, thus supporting the hypothesis.

Interpreting a contingency table based on a chi-square test presents difficulties. A better way to interpret the data is using an odds ratio (Agresti, 1996). The odds of the participant telling when their imagined classmate told are five and a half times the odds of the participant telling when his or her imagined classmate did not tell, OR = 5.591(95% CI = 3.203-9.760). This odds ratio increases to 8.369 (95% CI = 3.106-22.549) for those who had a false memory versus 4.650 (95% CI = 2.287-9.453) for those who did not. It is not possible to conclude a difference based on experiencing a false memory because the confidence levels overlap.

Hypothesis 7

The seventh hypothesis, which posited that more positive valence made one more likely to seek to engage in communication, was tested with a logistic regression. The results support the hypothesis. The difference in -2 log likelihood between a reduced model and the model containing the valence groupings was significant, χ^2 (3) = 8.412, $p = .038$, Nagelkerke pseudo R^2 = .037. The standardized betas display an interesting trend. In the lowest fourth, the $\beta = .680$ indicates these participants are less likely to seek to engage in communication than are participants in the highest fourth. The second ($\beta = 1.875$) and third ($\beta = 1.322$) groups are more likely to engage in communication than the highest group (reference group, $\beta = 1.0$). It is

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impossible to carry the interpretation of the standardized coefficients too far at this time, since the confidence interval (95%) does not indicate that the second and third groups are definitely different from the fourth group.

Hypothesis 8

Hypothesis 8 posited that individuals experiencing false memories are more likely to choose a competitive communication strategy. The results, χ^2 (1, N = 309) = 4.564, p = .033, OR = 1.773 (95% CI = 1.045-3.012) supported the hypothesis. The odds of a participant experiencing a false memory choosing the competitive strategy was 1.773 times the odds of a participant not experiencing a false memory choosing the competitive strategy.

Hypothesis 9

Hypothesis 9 posited that the participants whose TPIIs were characterized by greater specificity and more words would be more competitive. The results of the multinomial logistic regression used to test this hypothesis do not support it. The difference in -2 log likelihood between a reduced model and the model containing specificity and words was not significant, χ^2 (6) = 4.891, p = .558. Tests conducted on each variable individually indicated that neither variable was significant by itself, with words, χ^2 (3) = 4.190, p = .242, being closer to significance than specificity, χ^2 (3) = .696, p = .874.

Summary

This chapter presented the results of the hypothesis testing. Of the nine hypotheses proposed by this study, six were fully supported, one partially supported, and two not supported, as shown in Table 9. The following chapter describes the results and their implications, discusses the study limitations, and offers recommendations for future research.

Table 9: Hypotheses

H1: Individuals report a higher II frequency than they report TPII frequency. SUPPORTED

H2: TPIIs that produce a false memory have (a) more words and (b) greater specificity than TPIIs that do not produce a false memory. PARTIALLY SUPPORTED

H3: Individuals who construct a TPII with unknown in-group members judge the interaction as more discrepant than do participants who construct a TPII with known in-group members or out-group members. NOT SUPPORTED

H4: Individuals who construct a TPII with unknown in-group members display lower valence than do participants who construct a TPII with out-group members or known in-group members. SUPPORTED

H5: Individuals who construct a TPII with unknown in-group members report less specificity than do participants who construct a TPII with out-group members or known in-group members. SUPPORTED

H6: Individuals choose the communicative behavior (seek / do not seek to communicate) that provides the best outcome given their mental image of the other's choice to tell or not. SUPPORTED

H7: Individuals who experience more positive valence in their TPII are more likely to seek engagement with the party imagined than are those who experience less positive valence in their TPII. SUPPORTED

H8: Individuals experiencing false memories are more likely to choose a competitive communication strategy than are those not experiencing false memories. SUPPORTED

H9: Individuals whose IIs are characterized by greater specificity and more words are more likely to choose a competitive communication strategy than are those whose IIs are characterized by less specificity and fewer words. NOT SUPPORTED

Chapter 6: Discussion

The results of this study demonstrated that TPIIs not only exist but are quite common and commonly influence interactions. The introduction outlined four parts to the purpose of this study: (A) to compare IIs and TPIIs which was addressed in the research question and hypothesis 1, (B) to look at TPIIs and the creation of false memories which was addressed in hypothesis 2, (C) to examine differences in the TPII when thinking about different known and unknown individuals which was addressed in hypotheses 3-5, (D) and how mental imagery in TPIIs affected plans for interaction which was addressed in hypotheses 6-9.

Table 9 presents a summary of the hypotheses addressed in this study and the results of the hypotheses testing. The following sections discuss these results in detail. The chapter then proceeds to discuss the study limitations and directions for future research before concluding with a summary of the work.

Findings and Implications

Third-Party IIs

TPIIs do exist and they are common. Over one-half (55.5%) of the participants in this study indicated that they had experienced a TPII the day of the study or the previous day, a figure just under 4% less than those who had experienced IIs. Although differences regarding the timing of the last TPII or II were not significant, there was a significant difference in the frequency scale ratings. Participants who were asked about experiencing IIs had a higher score, suggesting greater frequency in experiencing IIs, and that individuals may engage in more IIs than TPIIs. Experiencing two IIs and one TPII on the same day would explain this finding, as the IIs are more active, but the last occurrence was the same day. The results indicate both are experienced on a regular basis.

The results indicate the discrepancy present in the mental representations was not influenced by imagining the self or not imagining the self. Individuals believed that they were as accurate in TPIIs as they were in IIs. Specificity was also similar. Individuals seemed to visualize the conversations in a similar manner, including details.

The scales suggest that there are significant differences between IIs and TPIIs. Valence and satisfaction are higher in IIs, which is likely related to individuals imagining themselves in IIs. Narcissism is the love of or absorption with the self (Sarason & Sarason, 1996). Conversational narcissism relates to conversational behaviors. It suggests high conversational narcissism results in a need for conversations that are about the self, with the communication centered around the high narcissist (Vangelisti, Knapp, & Daly, 1990). Individuals with a high level of narcissism tend to rate themselves more highly in communicative behaviors (Ames & Kammrath, 2004) and inflate their own importance (Barrett, 1986).

In most cases, narcissism has been considered a negative trait (Vangelisti, et al., 1990), and individuals with higher levels usually perform more poorly in communication tasks (Ames & Kammrath, 2004). However, narcissism is present in all individuals in varying degrees, and only high levels are associated with negative outcomes. Normal levels of narcissism are not a problem in communication; indeed, unless one is extremely low in narcissism, the desire to be engaged in the conversation would be present. IIs may be more satisfying even for individuals with a normal level of narcissism. This would explain the higher rating in satisfaction and pleasantness among participants who recalled IIs.

The functions of IIs and TPIIs provide information about how the IIs and TPIIs are used. The participants indicated that they used TPIIs for relational maintenance, conflict linkage, rehearsal, and self-understanding in a similar manner to how they used IIs. The rehearsal function may be different in the two even though it is used equivalently; if rehearsal was

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practicing what one planned to say, why would it be used in TPIIs, in which the self is absent? It is likely that the rehearsal function of TPIIs is different from that of IIs. The rehearsal function of IIs is used to think about what one is going to say. There are three ways that thinking about what others say is used in rehearsal. First, one could imagine another's way of dealing with a situation. Second, one can imagine what others would say in response to an utterance; one can ask, "How will they respond if I say this?" as well as "If I do this, what will they say about me to someone else?" Third, the individual might have imagined what the other said about the subject at another time. In some of these cases, an individual might have recalled events they were not involved in but that the conversational partner was in order to think about what to say to the conversational partner.

The participants indicated significant differences with greater use of IIs for the function of catharsis and a greater use of TPIIs in compensation. These two differences are feasible findings. Catharsis is expressing an idea to another that cannot be expressed face-to-face. Cathartic actions are enjoyable performances for the individual who gets to tell off another. The higher rating in IIs accords with the higher valence measured in IIs. Compensation was rated higher in TPIIs. It is likely that individuals think about others who are not with them and whom they are missing. Individuals may think about a conversation they had with someone they are missing but are more likely to think about what that absent party is doing and who that absent party is interacting with.

Individuals engage in TPIIs in situations of conflict. As with IIs, individuals think about their conversations of others to link past events with current conflicts and future interactions. They also think about relational partners and interacting with others as part of maintaining a relationship. This research looked at one possible outcome of using TPIIs to process and link episodes in a conflict: developing false memories.

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False Memories

Approximately 40% of the participants incorrectly identified a detail that they had earlier been asked to imagine, a percentage in line with previous false memory research involving imagining events (Marsh & Bower, 2004; Mazzoni & Memon, 2003; Thomas & Loftus, 2002). Over 80% changed the degree to which they viewed cheating as a problem, indicating that the induced TPII had created false memories. It is likely that an even greater proportion of the participants developed a false memory than had been possible to measure. If one were able to examine memories after the induced TPII and evaluate them in light of objective reality, more false memories regarding facts not measured would likely emerge.

False memories were more likely to be produced by individuals who experienced longer TPIIs but not by those who reported experiencing more specificity in their TPIIs. It was expected that participants who reported more words, as counted in the induced TPII they reported, would have a greater likelihood of a false memory. These participants likely put more thought into the TPII, and may have thought about the interaction more than once, taking into account that the mind works faster than most can type. Previous research into false memories clearly shows that thinking about something in greater depth or multiple times leads to a greater likelihood of producing false memories (Thomas, et al., 2003). Therefore, the more times a person produces the image containing discrepancy the more likely they are to develop a false memory.

The second part of hypothesis two is more puzzling. The greater specificity in the induced II was expected to lead to a greater likelihood of producing a false memory. False memory research has found that imagining more details contributes to producing a false memory (Gonsalves, et al., 2004), but this was not found in this study. A possible explanation for why this finding was not what had been expected is in the measurement of a false memory. In this study the false memory measure was if the participant answered that the school official who

dealt with cheating was the nonexistent dean they had been told to imagine or that the color of his carpet was the color they were told to imagine. Participants who gave the answer they were asked to imagine were judged to have had a false memory, with all other answers being no false memory. These responses allowed for a very limited measurement of false memory. Completing the survey may have led to the development of other false memories. If it had been possible to identify all the false memories, the results might have been different. The limited measurement of false memory may have interacted with specificity to obscure the true number of false memories. Those who imagined few details may have focused more greatly on the given details and been more likely to recall one of them falsely. Individuals high in specificity had more details in their TPII, and these details may have overshadowed the two details measured pushing them out of mind more quickly in favor of other details that were not measured to see if they had falsely been encoded in memory. Less focus on details would lower the likelihood of developing a false memory (Gonsalves, et al., 2004). Thus, those with lower specificity had fewer details to recall and were more likely to develop a false memory of the details targeted in the measurement of a false memory.

Finally, it is important to reexamine the degree of detail in false memories. The false memory research that found greater detail in imagined events leads to a greater likelihood of producing false memories was based on neural imaging (Gonsalves, et al., 2004). The more active a participant's brain appears on an fMRI scan, the more likely he or she is to develop a false memory, leading to the assumption that greater specificity or more detailed TPIIs occur when the brain is more active. Specificity is a self-report of the degree to which individuals imagine details. What is not known for sure is if imagined events that are rated as having greater specificity do show up in fMRI scans as a more active brain.

Social Identity and Mental Imagery

The target of the thought also affects the TPII. This study considered the rating of discrepancy, valence, and specificity in relation to the group status of the imagined party. Discrepancy was not affected, which likely indicates that the perception of a difference is more a function of one's view of the self than of the encounter. Indeed, much research has shown that individuals have a strong self-serving bias in rating their own ability. For example, Carrol and Willmington (1996) found college students rate themselves higher in speaking ability than appears warranted.

Positive valence and specificity are lowest with an unknown individual seen as an in-group member. These findings accord with the work of Lindeman (1997), who found that individuals are guided by individual knowledge when thinking about in-group members and interact with them based on unique factors. This conforms to the literature that reports more awareness of variation in the in-group (Tajfel & Turner, 1986). Individuals accept variation within the in-group and deal with individuals in the in-group based on unique factors that they know about the individuals. In contrast, individuals tend to interact with out-group members with the expectation that they will behave in a certain way based on their group membership (Lindeman, 1997). This leaves unknown in-group members as the most difficult to imagine, particularly as individuals tend to consider anyone who is not an out-group member to be an in-group member (J. Turner, 1975). Known in-group members can be approached based on what is known about them, but not unknown in-group members, which presents difficulties in knowing how to approach or imagine them, leading to the lowered specificity reported. Less knowledge about an individual leads to the production of fewer details and the more difficult task of dealing with an unknown in-group member results in a less pleasant experience.

False Memory, Future Plans and Conflict-Linkage

Individuals in conflict link communication episodes together as they think about the other party and dwell on previous arguments as well as anticipate additional arguments (Sherry G. Ford, 2010; J. M. Honeycutt, 2003). Gottman (1994) discussed how conflict can lead to a closed, absorbing state from which individuals sometimes find it hard to extricate themselves. While thinking about arguments, they can introduce elements into their thinking that do not objectively exist; the more that they think about these elements, the more likely they are to believe that they exist. By such a process, a false memory becomes a part of the individual's view of reality.

As the individual prepares for an encounter, he or she applies what he or she believes has happened in the past to plan communicative strategies for that encounter. Consistent with game theory (Rapoport, 1966) participants in this research chose to communicate in a manner that maximized their outcome given the imagined choice of the other. Participants who produced a false memory were even more likely to follow the view that they had. Hypothesis 7 confirms that individuals tend to plan events based on what they have been thinking, illustrating the means by which the thoughts in their TPIIs (some of which become false memories) will influence future communication.

Hypotheses 7, 8, and 9 addressed how features of the TPII influence the way participants approached communication. As shown by the results of hypothesis 7, individuals with a positive view of an interaction are more likely to communicate with the other party. This finding accords with what had been expected: Individuals who have pleasant thoughts about the other party are more likely to engage with him or her.

Hypothesis 8 posited that individuals who develop false memories in their TPIIs are more likely to engage in competitive communication. This hypothesis was supported. The more

mentally engaged an individual is in an interaction, the more likely that he or she will produce a false memory, and greater mental activation occurs in individuals thinking about conflicts (J. M. Honeycutt, 2003). This relationship between false memories and choosing to engage in a competitive fashion leads to two considerations: Are false memories more likely to develop when the individual is mentally agitated and are false memories more likely to develop from conflict situations? Conflict does cause mental unrest, which may feed back into the process of creating the false memory and causing anxiety about the situation. As individuals engage in IIs or TPIIs to understand the situation, they help cement any false memories and link the past episode to their plans for the future. The finding is important to consider in light of IIs known tendency to lead to negative thoughts (Honeycutt, 2003). Negative thoughts tend to intrude into thinking about conflict situations. The result may well be that negative thoughts about the partner or the partner actions in a conflict will be believed more readily since the agitation is present.

Hypothesis 9 was not supported. It is interesting to note that although the participants who produced more words were more likely to produce a false memory, and the participants who produced a false memory were more likely to engage in competitive communication, the participants who produced more words were not more likely to engage in competitive communication. Other factors are likely at work beyond those identified.

Another issue might be the measurement of a false memory, which was measured by introducing specific elements into the TPII and then asking questions that the participant might answer wrongly by repeating the elements from the TPII. However, participants in the no false memory group may have indeed produced false memories, but as these memories did not concern the elements introduced, these memories could not be identified. Thus, if all the false memories could have been identified, the link between more words, false memories, and a greater likelihood of competitive communication might have existed.

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Study Limitations and Future Research

There are three significant weaknesses to the study: simulated situations, measuring false memory and the equivalence test. Because it was impossible to place all the participants in the same real-life situation, this study used an experimental methodology useful for proposing theory (Creswell, 2003). The scenario that the participants were asked to imagine focused on the mental activity involved in imagining the event and the planning for a communication event, which was consistent with using IIs to link past interactions with future ones (J. M. Honeycutt, 2004). The scenario was successful in this research, as it produced support for two significant considerations: Imagining an interaction leads to the production of false memories, and what happens in the imagined interaction influences future communication plans. In some cases, the false memories will be the element that influences the plan that shapes the future communication.

Future researchers should move the study method from abstract scenarios to naturalistic settings, which can be accomplished using applied conflict research (Keyton, Bisel, & Ozley, 2009), to examine how individuals communicate using TPIIs and false views of previous encounters. Future studies may want to induce a conflict and allow time to elapse, mimicking the linkage of conflict episodes. Many conflicts consist of short periods of active dispute separated by periods of calm with the root of the conflict contributing to multiple flare-ups (Wilmot & Hocker, 2001). The intervals of calm can last from a few hours to several years. Individuals think about the previous "hot" episode, replaying it in their mind during the period of calm. It may be possible to mimic this in a multisession project. During the initial session, the participants could be instructed to consider a conflict before leaving the session with the instruction to record a certain number of IIs at certain points in time. They would then return for a second session during which they would confront the issue again. Any number of subsequent sessions could

follow with researchers comparing the participants' IIs with their actual encounters, allowing determination of whether false features are introduced and if the features of focus are connected to the next scene. These steps would deepen the understanding of the effect of visualization on the participant's conduct in the conflict.

The second limitation is inherent to research involving false memories: the manner in which to operationalize false memories (Loftus & Pickrell, 1995). This study followed research that judged individuals who reported a fact falsely as having produced a false memory (e.g. Greenberg, 2004; Henkel, 2004; Lindsay, et al., 2004; Loftus, 2005; Ost, et al., 2002). The problem is that this approach did not identify all possible false memories; false memories may have developed related to other elements of the interaction. Future researchers may want to consider if a recorded event could be compared to the record of produced TPIIs to determine what really happened and what elements are false memories. This limitation in measuring all false memories may have obscured some results.

A limitation in determining the true impact of false memories on mental imagery was the use of only TPIIs in Survey B. The assumption was that the mental process would be similar in IIs and TPIIs. However, the level of self-involvement may make IIs slightly different from TPIIs, and so further work should be conducted to confirm that false memories are indeed created by IIs. Further studies could confirm that the results of the many studies on IIs also apply to TPIIs, such as the finding that lonely individuals have more discrepant IIs (Renee Edwards, et al., 1988).

The use of the equivalence tests presented a unique difficulty for the analysis of the similarities between II and TPIIs. The equivalence test is a derivative of the t-test (Levine, et al., 2008). The top portion of a t-test formula is M_1-M_2-δ (Devore, 2000). In most cases, the test is looking for a difference in the means, and thus δ is zero. In a few cases when researchers are

interested in whether one group mean is higher than the other δ will become x, with x representing the expected difference. Thus, if testing a hypothesis that one group will do ten points better than the other group the top portion might look like 50-38-10. The test then determines if the resulting 2-point difference is far enough from zero to say that the difference in the sample was not zero.

The equivalence test is designed to test if the value of the difference in the means is greater than a specified value (δ) in which case the two means are not equivalent (Levine, et al., 2008). The problem encountered centers on determining the specified value: What was the maximum value that δ could assume and still suggest that the groups do not differ? The difference could not exceed this critical value. The study used a critical value of $\Delta = .20$ [δ and Δ are not the same but can be computed using $\delta=sqrt((\Delta^2/((n_1/N)\ (n_2/N)))\ /(1.25^2-\Delta^2))$], which was chosen based on effect sizes reported in previous II research and the procedure laid out in Levine et. al. (2008). However, this figure was somewhat arbitrary. Unlike tests of generic drugs, which abide by Food and Drug Administration mandated tolerance levels regarding acceptable differences between brand name and generic drugs (US Food and Drug Administration, 2009), there is no standard for δ. This lack of a standard maximum value for δ limits the value of the equivalence test. Future research should examine what level of difference in the scale makes a practical difference between TPIIs and IIs.

In addition to the research suggested above to address the limitations of this study, several findings of the study suggest farther research opportunities. There are four points that will be discussed: The self-focus of IIs, the II specificity link with neural activation, what intervenes in creating false memory and choosing more competitive communication and more naturalistic settings.

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First, the difference in findings between IIs and TPIIs was thought to relate primarily to the presence of the self in the II. This self-presence leads to greater satisfaction, more pleasant IIs and greater frequency. The primary factor for the satisfaction and pleasantness may be a fulfillment of a 'normal' level of narcissism. Further research on individuals with a high level of narcissism would show if they are more dominant in IIs and experience conversations in their IIs and TPIIs that are more self-focused than would those with a low level of narcissism. Greater narcissism might even correlate with satisfaction.

Second, the lack of a relationship between specificity and false memories in H2 was unexpected. Part of the issue may have been the connection of II specificity with the greater activity in the technological images. It seemed that the description of specificity and the image studies conducted with technology were both touching on greater activity in the mind. More research using fMRI of individuals experiencing IIs is needed to determine if greater specificity is indeed accompanied with greater neural activation. This research requires collaborating with someone who has clinical access and experience with fMRI or other brain imaging technology. An II or TPII would be induced while the scan was conducted and followed by filling out the SII regarding the experience. Results would determine if greater specificity resulted from more areas being activated, greater activation of certain regions or if specificity related to less activation. It is possible that the exact opposite of what was expected occurred. The process of having an II provides many more imagined cues than just the word requested in the Gonsalves et. al. (2004) study. A highly specific II may include many details in which no single detail is considered intensely. Thus, more details could mean less brain activation on any single detail, and less likelihood of developing a false memory.

Third, investigating the reason hypotheses 9 was unsupported appears to need to investigate intervening factors. This would possibly explain why even though more words in an

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TPII lead to false memories, and false memories lead to engaging in more competitive manner the greater words don't directly show a statistical relationship to the more competitive communication style. One factor may be conflict styles. Some individuals are more likely to engage in a conflict using a competitive style while others are more likely to try to avoid conflict (Rahim & Buntzman, 1995). It might be that the factors studied here would only show a relationship when the variation due to the conflict style was considered.

Fourth, the whole of this research was conducted in an experimental fashion. The real workings among naturally occurring IIs and TPIIs are important to understand. From the research already conducted in false memory, a likely conclusion is that the more one engages in IIs/TPIIs the more likely they are to have a false memory. To this end, it would be interesting to conduct a more objective test with actual encounters graded against a recorded talk aloud procedure. Participants would verbalize the II that they were experiencing regarding either an encounter that they had as they entered the research location or an upcoming encounter (J. M. Honeycutt, 2010). The recorded II could be compared to a video of the actual encounter. The aspect of interest is that the participants may not believe that their thoughts about others' communication could be wrong. This would have consequences if they take their view of others as reality and do not have the ability to consider that the thoughts that they entertain do not reflect reality. Additional natural research could be conducted with diaries, providing a look into the change in beliefs over time as one plays out an imagined interaction over the course of days or weeks.

Conclusion

This work adds a significant new dimension to the body of II research. Individuals do not simply think about their own communication; they also think about others' communication.

Sometimes the mental activation that occurs when one replays or creates a conversation leads to problems. As individuals use what they know about the unique characteristics or group memberships of the other party while engaging in IIs, they always produce some level of discrepancy between what they imagine and reality. In some instances, this discrepancy leads to the production of false memories, which when combined with real memories and individual knowledge can greatly influence future communication.

Serious consequences, both positive and negative, can result when individuals act according to false memories from imagined events. Honeycutt (2004) suggested that IIs can be therapeutic by allowing for catharsis. Indeed, the mourning survivor who imagines saying something important to a parent before the parent passed on and gradually conflates that with reality might be helped over his or her grief. In a similar manner, spouses use IIs in developing new self-identities after bereavement (Sherry G. Ford, 2010). Other settings could have outcomes that are more negative. In conflict situations, mediators often talk to the parties separately (Slaikeu, 1996), a situation not unlike police or investigators in other settings. What the individual thinks about while waiting his or her turn to interact with the mediator could be an important factor in whether a settlement is reached. This research suggests that what the other party is envisioning is of utmost importance to the outcome of a conflict. Allowing the party to replay past negative encounters or engage in a negative TPII of the other party's interaction can result in moving away from settlement.

The views individuals develop in thinking about interactions can lead to problems in almost any environment. Individuals need to become aware of the danger in thinking about relational partners and guard against starting and escalating conflicts based on visualized events.

Conversely, controlling the party's thoughts in a manner that creates a positive experience or memory can lead to improved communication and a greater likelihood of

resolution. Therefore, the findings in this research have real consequences in human interactions. With the knowledge gained about false memories individuals can guard against the influence those memories can play, and future work can investigate ways to overcome the results of these false memories in actual interactions.

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Appendix A: Glossary of Terms

*Term is introduced in this work.

*Augmented TPII: mental imagery of an event that mixes real events with features that never

      occurred.

Catharsis: the function of IIs whereby they are used to express thoughts and opinions that are

      actually or practically inexpressible to the other party.

Compensation: the function of IIs whereby they are used to develop a relationship with an

      individual who is not physically present.

Conflict-linkage and resolution: the function of IIs whereby they are used to recall an d think

      about conflicts.

*Constructed TPII: mental imagery of an event that never occurred.

Direct perspective: seeing the event in an II as would the participant.

Discrepancy: a characteristic of IIs that pertains to the difference between the real events of an

      interaction and how the individual imagines the interaction.

Distorted memory: a type of false memory with features of real events recalled wrongly.

*Event-based TPII: mental imagery of a real event.

False memory: the storage and recall of events are that never occurred.

Fictitious memories: a type of false memory where events that never occurred are recalled.

Frequency: a characteristic of IIs that pertains to how often one engages in IIs.

Imagery: the mental recall of stimuli.

Imagination: The use of imagery in ways not actually experienced.

Imagined interactions (IIs): phenomena that occur when an individual mentally creates, or

      recreates a communication event involving himself or herself as a participant in the

      interaction.

Maintaining relationships: the function of IIs whereby they are used to replay of interactions and

      the memory of the parties' meanings to each other

Memory: the storage and recall of information.

Omniscient perspective: seeing everyone in an II.

Proactivity: a characteristic of IIs that deals with experiencing a future event.

Rehearsal: the function of IIs whereby they are used to plan an interaction before the interaction

      takes place.

Retroactivity: a characteristic of IIs that deals with experiencing a past event.

Self-dominance: a characteristic of IIs that pertains to who controls the conversation in the

      imagined conversation.

Self-understanding: the function of IIs whereby they are used to more fully know one's own

      feelings and thoughts.

Specificity: a characteristic of IIs that describes the extent to which the individual includes

      details in the II.

*Third-party imagined interaction (TPII): when an individual experiences through mental

      imagery an interaction between other individuals as an observer.

Valence: a characteristic of IIs that describes the type of emotional affect produced by the II.

Variety: a characteristic of IIs that pertains to the number of different topics and people imagined

      by the individual in the II.

Appendix B: Survey Form A

[Survey webpage 1]
 1 / 11
Thank you for taking time to participate in this study.

This research project at Louisiana State University looks into how imagined interactions influence the way we approach a communication event.

If you are 18 years of age or older you are invited to participate in this study. It will involve taking this survey, which most participants finish in about 15 min.

If you are participating at the invitation of your professor entering your name and information on the next page will result in the professor being informed about your participation in the study. Other than this all identifiable data will be kept confidential, unless disclosure is required by law.

Participants who participate are helping the academic community gain valuable insight into human interactions; additionally, they will be entered into a drawing for one of 3 five dollar gift cards.

Questions regarding this project should be directed to Marcus Porter at mporte5-at-lsu.edu. Questions regarding subjects' rights may be directed to Robert C. Mathews, Institutional Review Board, (225) 578-8692, irb -at-lsu.edu, or on the web at www.lsu.edu/irb.

Your participation is voluntary, continuing to the survey and submitting data indicates your consent to participate in this survey.

Click next to continue to the survey

Next

[Survey webpage 2]
 2 / 11

You will see the survey in a series of web pages. The survey has 11 pages, but you will only be

directed to 8 of these. The first and last page have no questions, only text.

1. School attended

2. Enter the name of the professor who directed you to this survey.

3. What class are you taking with this professor?
○   CMST 1061 Fundamentals of Communication

○ CMST 1150 Introduction to Communication Studies

○ CMST 2010 Interpersonal Communication

○ CMST 2060 Public Speaking

○ CMST 2061 Communication for Business and the Professions

○ CMST 2064 Small Group Communication

○ Other

○ I don't know

4. Enter your name
First

Last

5. Enter your email address

6. Enter the start time for your class

	HH	MM	AM/PM
start time	☐	: ☐	☐ ▼

Prev   Next

[Survey webpage 3]
3 / 11

1. Biological sex
○ Male

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○   Female

2. Age (enter in years)

[   ]

3. Classification

[▼]

4. Ethnic origin

[▼]

5. Relationship status

[▼]

[Prev]   [Next]

1. Think about the day of the month you were born on. Is that day

○   Odd [Proceeds to page5]

○   Even [skips to page 8]

[Prev]   [Next]

Imagined interactions (IIs) are mental interactions we have with others who are not physically present. People may have imagined conversations that occur in self-controlled daydreams or while the mind wanders. Sometimes they may occur after a real interaction has taken place. IIs may be brief or long. They may be ambiguous or detailed. They may address a number of topics or examine one topic exclusively. The interactions may be one sided, where the person imagining the discussion does most of the talking, or they may be more interactive, where both persons take an active part in the conversation. With your help, we can better understand the functions of IIs.

The following items ask you about your experiences involving imagined interactions with others. Please read each item carefully and try to answer it as honestly as possible.

YES!!! = very strong agreement
YES = strong agreement
yes = agreement
? = neither agreement or disagreement
no = disagreement
NO = strong disagreement
NO!!! = very strong disagreement

1. I have imagined interactions many times throughout the week.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

2. I often have imagined interactions before interacting with someone of importance.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

3. Most of my imagined interactions are with different people.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

4. I often have imagined interactions after interacting with someone of importance.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

5. When I have imagined interactions, they tend to be detailed and well developed.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

6. I have recurrent imagined interactions with the same individual.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

7. In my real conversations, I am very different than in my imagined ones.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

8. After important meetings, I frequently imagine them.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

9. Most of my imagined interactions are with the same person.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

10. I usually say in real life what I imagined I would.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

11. My imagined interactions usually involve conflicts or arguments.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

12. When I have imagined interactions, the other person talks a lot.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

13. I frequently have imagined interactions.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

14. I do not enjoy most of my imagined interactions.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

15. When I have a real conversation that I have imagined, the actual conversation is very different from what I imagined.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

16. When I have a real conversation that I have imagined, the actual conversation is very different from what I imagined.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

17. After I meet someone important, I imagine my conversation with them.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

18. I rarely imagine myself interacting with someone else.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

19. In my real conversations, other people are very different than in my imagined ones.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

20. My imagined interactions are quite similar to the real conversations that follow them.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

21. I enjoy most of my imagined interactions.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

22. It is hard recalling the details of imagined interactions.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

23. My imagined interactions are very specific.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ● yes   ○ YES   ○ YES!!!

24. My imagined interactions are usually quite unpleasant.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

25. I talk a lot in my imagined interactions.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

26. The other person has a lot to say in my imagined interactions.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

27. My imagined interactions are usually enjoyable.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

28. The other person dominates the conversation in my imagined interactions.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

29. My imagined interactions usually involve happy or fun activities.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

30. Before important meetings, I frequently imagine them.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

31. I have imagined interactions with many different people.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

32. I dominate the conversation in my imagined interactions.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

33. In my imagined interactions, I can "hear" what the other person says.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

34. Before I meet someone important, I imagine a conversation with them.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

35. More often than not, what I actually say to a person in a real conversation is different from what I imagined I would say.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

36. More often than not, what the other actually says in a real conversation is different from what I imagined he or she would say.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

37. When I have an imagined interaction, I often only have a vague idea of what the other says.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

38. My imagined interactions tend to be on a lot of different topics.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

[Prev] [Next]

Think about your most recent imagined interaction.

1. The imagined interaction helped me to actually talk about feelings or problems later with the interaction partner.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

2. The imagined interaction helped me understand my partner better.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

3. The imagined interaction helped me understand myself better.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

4. The imagined interaction helped me in clarifying my thoughts and feelings with the interaction partner.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

5. The imagined interaction helped me plan what I was going to say for an anticipated encounter.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

6. I had the imagined interaction before entering a situation with someone whom I knew would be evaluating me.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

7. The imagined interaction helped me relieve tension and stress.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

8. The imagined interaction made me feel more confident when I thought I was going to actually talk with the interaction partner.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

9. I had the imagined interaction to practice what I was actually going to say to the person.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

10. The imagined interaction helped me to reduce uncertainty about the other's actions and behaviors.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

11. The imagined interaction I just reported was a very enjoyable conversation.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

12. I was very satisfied with the conversation.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

13. I enjoyed the conversation.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

14. I relived old arguments in my mind.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

15. It is sometimes hard to forget old arguments.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

16. Imagining talking to someone substitutes for the absence of real communication.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

17. I use imagined interactions to think about someone with whom I have a close bond.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

18. Imagined interactions help keep relationships alive.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

19. I often cannot get negative imagined interactions "out of mind" when I'm angry.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

20. Imagined interactions can be used to substitute for real conversations with a person.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

21. Imagined interactions sometimes help me manage conflict.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

22. By thinking about important conversations, it helps relieve tension or stress.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

23. Imagined interactions may be used to compensate for the lack of real, face-to-face communication.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

24. Imagined interactions are important in thinking about one's relational partner.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

[Prev]　[Next]

1. During my imagined interactions, I tend to see and concentrate attention on:

○ Myself

○ Mostly myself

○ A little more myself

○ Both

○ A little more the other person

○ Mostly the other person

○ The other person

2. My imagined interactions are:

○ mostly verbal (e.g., they involve talking with little visual imagery)

○ mostly visual (e.g., little talking occurs)

○ a mixture of both verbal and visual

3. Have you ever recalled a smell in your imagined interaction?

○ Yes

○ NO

4. Have you ever felt like you were touching something in your imagined interaction?

○ Yes

○ NO

5. Have you ever recalled a taste as you were having an imagined interaction?

○ Yes

○ NO

6. Identify which topics you recall being discussed in your most recent imagined interaction. (you may choose more than one)

☐ Dating

☐ conflicts/problems

☐ Work

☐ Activities

☐ School

☐ Friends

☐ Family

☐ Money

☐ Small talk

☐ Ex-partners

☐ Other

7. Please indicate which of the following individuals were in your most resent imagined interaction (e.g., romantic partner, sister, etc.).

☐ Romantic partner

☐ Mother

☐ Father

☐ Sibling

☐ Friend

☐ Ex-partner

☐ Roommate

☐ Teacher

☐ Coworker

☐ Boss

☐ Customer

☐ Stranger

☐ Other

8. How long ago did your most recent imagined interaction take place?
○ Today

○ Yesterday

○ 3 days ago

○ 4 days ago

○ last week (5 to 7 days)

○ last month (8 to 30 days)

○ more than a month

9. What was the setting of your most recent imagined interaction?

○ My room/home

○ Others room/home

○ On the phone

○ Public place

○ Work setting

○ Car

○ Other

Third party imagined interactions are mental situations in which you think about other people's interactions. These encounters involve any situation when you mentally think about other people communicating with each other, while you are not involved in the conversation. These situations include recalling a professor talking to another student, a roommate talking on the phone and filling in what the other person says, thinking about two friends talking about you in your absence, two strangers talking in the hall way or overhearing the person in front of you at the checkout counter and recalling it in your car. Sometimes these may occur after a real interaction has taken place, other times you may simply think about the interaction while daydreaming. Third party imagined interactions may be brief or long. They may be ambiguous or detailed. They may address a number of topics or examine one topic exclusively. The interactions may be one sided, or they may be more interactive, where both persons take an active part in the conversation. With your help, we can better understand third party imagined interactions. Thank you very much for your participation.

The following items ask you about your experiences with third party imagined interactions. Please read each item carefully and try to answer it as honestly as possible.

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YES!!! = very strong agreement
YES = strong agreement
yes = agreement
? = neither agreement or disagreement
no = disagreement
NO = strong disagreement
NO!!! = very strong disagreement

1. I have third party imagined interactions many times throughout the week.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

2. I often have third party imagined interactions before interacting with someone of importance.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

3. Most of my third party imagined interactions are with different people.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

4. I often have third party imagined interactions after interacting with someone of importance.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

5. When I have third party imagined interactions, they tend to be detailed and well developed.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

6. The same individuals are often in my third party imagined interactions.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

7. In real conversations, people are very different than in my imagined ones.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

8. After important meetings, I frequently imagine them.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

9. Most of my third party imagined interactions feature the same persons.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

10. People usually say in real life what I imagined they would.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

11. My third party imagined interactions usually involve conflicts or arguments.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

12. I frequently have third party imagined interactions.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

13. I do not enjoy most of my third party imagined interactions.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

14. When I learn what happened in a real conversation that I have imagined, the actual conversation is very different from my third party imagined interaction.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

15. After I meet someone important, I imagine them having a conversation with someone else.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

16. I rarely imagine other people interacting with each other.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

17. People are very different in real life than they are in my third party imagined interactions.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

18. My third party imagined interactions are quite similar to the real conversations that follow them.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

19. I enjoy most of my third party imagined interactions.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

20. It is hard recalling the details of third party imagined interactions.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

21. My third party imagined interactions are very specific.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

22. My third party imagined interactions are usually quite unpleasant.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

23. My third party imagined interactions are usually enjoyable.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

24. My third party imagined interactions usually involve happy or fun activities.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

25. Before important meetings, I frequently imagine them.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

26. I have third party imagined interactions featuring many different people.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

27. In my third party imagined interactions, I can "hear" what the people say.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

28. Before I meet someone important, I imagine him or her in a conversation with someone else.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

29. More often than not, what people actually say to others in real conversations is different from what I imagined them to say.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

30. When I have a third party imagined interaction, I often only have a vague idea of what the people are talking about.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

31. My third party imagined interactions tend to be on many different topics.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

32. I have third party imagined interactions many times throughout the week.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

[Prev] [Next]

Think about your most recent third party imagined interaction.

1. The third party imagined interaction helped me to actually talk about feelings or problems later with the interaction partner.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

2. The third party imagined interaction helped me understand my partner better.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

3. The third party imagined interaction helped me understand myself better.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

4. The third party imagined interaction helped me in clarifying my thoughts and feelings with the interaction partner.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

5. The third party imagined interaction helped me plan what I was going to say for an anticipated encounter.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

6. I had the third party imagined interaction before entering a situation with someone whom I knew would be evaluating me.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

7. The third party imagined interaction helped me relieve tension and stress.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

8. The third party imagined interaction made me feel more confident when I thought I was going to actually talk with the interaction partner.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

9. I had the third party imagined interaction to practice what I was actually going to say to the person.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

10. The third party imagined interaction helped me to reduce uncertainty about the other's actions and behaviors.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

11. The third party imagined interaction I just reported was a very enjoyable conversation.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

12. I was very satisfied with the third party imagined interaction.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

13. I enjoyed the conversation in my third party imagined interaction.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

14. I relived parts of old arguments in my in my third party imagined interaction.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

15. It is sometimes hard to forget old arguments.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

16. Third party imagined interactions substitute in the absence of real communication.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

17. I use third party imagined interactions to think about someone with whom I have a close bond.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

18. Third party imagined interactions help keep relationships alive.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

19. I often cannot get negative third party imagined interactions "out of mind" when I'm angry.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

20. Third party imagined interactions can be used to substitute for real conversations with a person.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

21. Third party Imagined interactions sometimes help me manage conflict.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

22. Thinking about what others may be saying in their conversations, helps me to relieve tension or stress.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

23. Third party imagined interactions may be used to compensate for the lack of real, face-to-face communication.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

24. Third party imagined interactions are important in thinking about one's relational partner.

   ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

[Prev]   [Next]

1. During my third party imagined interactions, I tend to see and concentrate attention on:

○ Myself

○ Mostly myself

○ A little more myself

○ Both

○ A little more the other person

○ Mostly the other person

○ The other person

2. My third party imagined interactions are:

○ mostly verbal (e.g., they involve talking with little visual imagery)

○ mostly visual (e.g., little talking occurs)

○ a mixture of both verbal and visual

3. Have you ever recalled a smell in your third party imagined interaction?

○ Yes

○ NO

4. Have you ever felt like you were touching something in your third party imagined interaction?

○ Yes

○ NO

5. Have you ever recalled a taste as you were having an third party imagined interaction?

○ Yes

○ NO

6. Identify which topics you recall being discussed in your most recent third party imagined interaction. (you may choose more than one)

☐ Dating

☐ conflicts/problems

☐ Work

☐ Activities

☐ School

☐ Friends

☐ Family

☐ Money

☐ Small talk

☐ Ex-partners

☐ Other

7. Please indicate which of the following individuals were in your most recent third party imagined interaction (e.g., romantic partner, sister, etc.).

☐ Romantic partner

☐ Mother

☐ Father

☐ Sibling

☐ Friend

☐ Ex-partner

☐ Roommate

☐ Teacher

☐ Coworker

☐ Boss

☐ Customer

☐ Stranger

☐ Other

8. How long ago did your most recent third party imagined interaction take place?

○ Today

○ Yesterday

○ 3 days ago

○ 4 days ago

○ last week (5 to 7 days)

○ last month (8 to 30 days)

○ more than a month

9. What was the setting of your most recent third party imagined interaction?

○ My room/home

○ Others room/home

○ On the phone

○ Public place

○ Work setting

○ Car

○ Other

[Prev] [Next]

[Survey webpage 11]

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Thank you for participating!!!!

Prize winners will be contacted by email in early December.

[Prev] [Done]

Appendix C: Survey Form B

[Survey webpage 1]

Thank you for taking time to participate in this study.

This research project at Louisiana State University looks into how imagined interactions influence the way we approach a communication event.

If you are 18 years of age or older you are invited to participate in this study. It will involve taking this survey, which is estimated to take about 15 min. Some participants will be asked to take a second survey in about 10 days. This second survey will take 2-3 min.

If you are participating at the invitation of your professor entering your name and information on the next page will result in the professor being informed about your participation in the study. Other than this all identifiable data will be kept confidential, unless disclosure is required by law.

Participants who participate are helping the academic community gain valuable insight into human interactions; additionally, they will be entered into a drawing for one of 3 five dollar gift cards.

Questions regarding this project should be directed to Marcus Porter at mporte5-at-lsu.edu. Questions regarding subjects' rights may be directed to Robert C. Mathews, Institutional Review Board, (225) 578-8692, irb -at-lsu.edu, or on the web at www.lsu.edu/irb.

Your participation is voluntary, continuing to the survey and submitting data indicates your consent to participate in this survey.

Click next to continue to the survey

Next

[Survey webpage 2]

You will see the survey in a series of web pages. The survey has 18 pages, but you will only be directed to 15 or 16 of these. The first and last page have no questions, only text. Many pages have one question, and only one has more than 10 questions on the page

1. School attended

2. Enter the name of the professor who directed you to this survey.

[   ]

3. What class are you taking with this professor?

○ CMST 1061 Fundamentals of Communication

○ CMST 1150 Introduction to Communication Studies

○ CMST 2010 Interpersonal Communication

○ CMST 2060 Public Speaking

○ CMST 2061 Communication for Business and the Professions

○ CMST 2064 Small Group Communication

○ Other

○ I don't know

4. Enter your name
First   [   ]

Last   [   ]

5. Enter your email address

[   ]

6. Enter the time your class starts

[   ]

[Prev]   [Next]

[Survey webpage 3]

1. Biological sex
○ Male

○   Female

2. Age (enter in years)

[   ]

3. Classification

[▼]

4. Ethnic origin

[▼]

5. Relationship status

[▼]

6. Please rate how important you consider the following:

	not at all	a little	some	a lot	it is extremely important
I value honesty	○	○	○	○	○
I value education	○	○	○	●	○

7. Please rate the following:

	very small problem						very large problem

To what extent do

you see cheating as

a problem at your   ○   ○   ○   ○   ○   ○   ○

school?

8. Do you know anyone at this school who has gotten in trouble for cheating on a test?

○   Yes

○   No

9. Have you lived outside the US?

○   Yes [goes to page 4]

○   No [goes to page 5]

<div align="right">[Prev] [Next]</div>

[Survey webpage 4]

skip page for yes living out of country

1. How long in years did you live outside the US?

[   ]

2. Where outside the US did you live?

[▼]

<div align="right">[Prev] [Next]</div>

[Survey webpage 5]

1. Think about the day of the month you were born on. Pick the line containing that day.

○   1,2,3,4,5,6,7,8,9,10 [goes to page 6]

○   11,12,13,14,15,16,17,18,19,20 [goes to page 7]

○   21,22,23,24,25,26,27,28,29,30,31 [goes to page 8]

<div align="right">[Prev] [Next]</div>

[Survey webpage 6]

You and a student similar to yourself that you have known since high school have to meet the Dean of Academic Violations regarding a recent test.

The dean usually kicks students out of class when questions arise over tests; he tells you that he has sufficient evidence to drop you from the class; however, you have been offered a deal. You will get to stay in the class if you provide solid evidence about the cheating so that he can kick the participants out of school. If you do not cooperate, and others tell about your cheating, you will be kicked out of school. If everyone tells him what has happened, you will be allowed to return the following year. You are given until noon tomorrow to give the dean your answer.

1. The classmate involved is (choose only one):

○ Someone I knew in high school

○ A student from a similar background to me

○ An international student

○ Just another student

○ A faculty member

○ The same age as me

○ I don't know

<div align="center">

Prev   Next [goes to page 9]

</div>

[Survey webpage 7]

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You and a classmate you do not know but who seems similar to you, have to meet the Dean of Academic Violations regarding a recent test.

The dean usually kicks students out of class when questions arise over tests; he tells you that he has sufficient evidence to drop you from the class; however, you have been offered a deal. You will get to stay in the class if you provide solid evidence about the cheating so that he can kick the participants out of school. If you do not cooperate, and others tell about your cheating, you will be kicked out of school. If everyone tells him what has happened, you will be allowed to return the following year. You are given until noon tomorrow to give the dean your answer.

1. The classmate involved is (choose only one):

○ Someone I knew in high school

○ A student similar to me

○ An international student

○ Just another student

○ A faculty member

○ The same age as me

○ I don't know

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You and an international student you don't know have to meet the Dean of Academic Violations regarding a recent test.

The dean usually kicks students out of class when questions arise over tests; he tells you that he has sufficient evidence to drop you from the class; however, you have been offered a deal. You will get to stay in the class if you provide solid evidence about the cheating so that he can kick the participants out of school. If you do not cooperate, and others tell about your cheating, you will be kicked out of school. If everyone tells him what has happened, you will be allowed to return the following year. You are given until noon tomorrow to give the dean your answer.

1. The classmate involved is (choose only one):
○ Someone I knew in high school

○ A student from a similar background to me

○ An international student

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○ Just another student

○ A faculty member
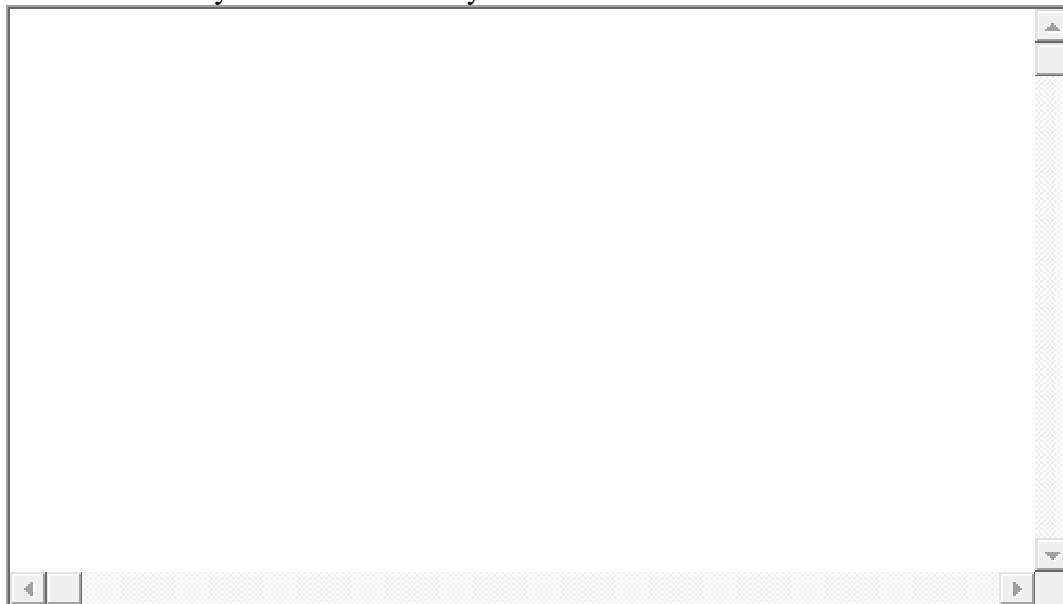
○ The same age as me

○ I don't know

[Prev] [Next]

As you leave the office, you think about the fact that your future is dependent on what your classmate decides to do. You imagine the dean greeting your classmate, and inviting them into the office. They walk across the green carpet of the reception area and enter the office of the Dean of Academic Violations. The dean asks the student to sit down on one of the easy chairs and rotates his chair to face it. He says "I have asked you here to discuss your recent test."

1. Please fill in the rest of the conversation.
Use D: Dean and C: classmate to indicate who is speaking. (You may indicate any nonverbal information in brackets)

D: I have asked you here to discuss your recent test.

[Survey webpage 10]

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The experience you just had is a third party imagined interaction. Keeping that experience in mind, answer the following items. Please read each item carefully and try to answer it as honestly as possible.

YES!!! = very strong agreement

YES = strong agreement

yes = agreement

? = neither agreement or disagreement

no = disagreement

NO = strong disagreement

NO!!! = very strong disagreement

1. My third party imagined interactions was detailed and well developed.
○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

2. In the real conversation, what was said was probably very different than in my imagined one.
○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

3. People probably said in real life what I imagined them saying.
○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

4. I did not enjoy my third party imagined interaction.
○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

5. When I learn what happened in the real conversation that I have imagined, the actual conversation will have been very different from my third party imagined interaction

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

6. My third party imagined interaction was quite unpleasant.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

7. People are very different in real life than they were in my third party imagined interaction.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

8. My third party imagined interaction was quite similar to the real conversation.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

9. I enjoyed my third party imagined interaction.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

10. It was hard recalling the details of the third party imagined interaction.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

11. My third party imagined interaction was very specific.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

12. My third party imagined interaction was enjoyable.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

13. In my third party imagined interaction, I "heard" what people said.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

14. More likely than not, what was actually said in the real conversation is different from what I imagined them to say.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

15. This third party imagined interaction made me happy.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

16. In my third party imagined interaction, I only had a vague idea of what they were talking about.

  ○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

17. During my third party imagined interaction, I recalled events from the class my classmate and I are in.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

18. During the third party imagined interaction, I recalled other encounters I had had with my classmate.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

19. Before important meetings, I frequently imagine them.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

20. I have third party imagined interactions featuring many different people.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

21. In my third party imagined interactions, I can "hear" what the people say.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

22. Before I meet someone important, I imagine him or her in a conversation with someone else.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

23. More often than not, what people actually say to others in real conversations is different from what I imagined them to say.

○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

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1. During my third party imagined interaction, I tend to see and concentrate attention on:

○ Myself

○ Mostly myself

○ A little more myself

○ Both

○   A little more the other person

○   Mostly the other person

○   The other person

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Survey webpage 12]

1. Will you tell the Dean about the cheating or remain silent?
○   Tell

○   Remain silent

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[Survey webpage 13]

1. Will you try to talk to your classmate?
○   Yes

○   No

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[Survey webpage 14]

1. While crossing campus you happen to run into your classmate. Which of the following sentences best describes the way you would talk with your classmate?
○   I would enter into a discussion of what we should do

○   I would not want to let him or her know any plans that I have

[Survey webpage 15]

Answer each of the following questions according to how you generally react to a disagreement

with a friend.

1. I generally try to satisfy the other's needs.
○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

2. I usually avoid open discussion of my differences with the other.
○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

3. I try to find a middle course to resolve an impasse.
○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

4. I usually accommodate the other's wishes.
○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

5. I try to stay away from disagreement with the other.
○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

6. I often go with the other's suggestions.
○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

7. I try to keep my disagreement to myself in order to avoid hard feelings.
○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

8. I try to avoid unpleasant exchanges with the other.
○ NO!!!   ○ NO   ○ no   ○ ?   ○ yes   ○ YES   ○ YES!!!

1. What is the answer to 13x14?

  ○ 64

  ○ 81

  ○ 25

  ○ 182

  ○ 100

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The following questions seek to understand how well you understand policies on your campus about cheating in classes. Please answer each question as accurately as you can.

1. What official deals with cheating at your school?

  ○ The Dean of Academic Violations

  ○ Dean of Judicial Affairs

  ○ Dean of students

  ○ Other/I don't know

2. What color is the carpet in the dean's office?

  ○ White

○ Green

○ Brown

○ Blue

○ Blake

○ There is no carpet, it is a tile floor

○ Other/I don't know

3. What is the penalty for something questionable occurring on a test?
○ Getting a zero on the test

○ Getting kicked out of the class

○ Nothing

○ Other/I don't know

4. Do you know anyone at this school who has been in trouble for cheating on a test?
○ Yes

○ No

5. Please rate the following: extent to which you see cheating as a problem at your school.

	Very small problem			average			Very large problem
To what extent do you see cheating as a problem at your school?	○	○	○	○	○	○	○

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[Survey webpage 18]

Thank you for participating!!!!

You will be contacted by email with information about completing a second survey connected to this research shortly after your class has finished taking this survey. This survey will take 1-2 minutes to complete.

Prize winners will be contacted by email in early December.

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Vita

Marcus A. Porter is a doctoral candidate at Louisiana State University. His major field is communication studies with external study in experimental statistics and psychology. His primary research interest is conflict management in intrapersonal, interpersonal, intercultural, and organizational contexts. He holds an undergraduate degree in electronic media from Harding University, and has professional news experience with the Cashmere Valley Record newspaper, KTHV-TV, and KARK-TV. He received a Master of Arts in interpersonal and intercultural communication and a graduate certificate in conflict mediation from Abilene Christian University. He is currently a member of the International Communication Association and the International Association of Conflict Management.