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Knowing Who is Calling: Telephones and Mental Telepathy

Clinical Psychology Master's Thesis 2011

Clint Harvey

Eastern Illinois University

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Abstract

This study focuses on the possible role of mental telepathy in perceiving the identity of telephone callers before the caller is known through the normal senses. Many people report that this phenomenon occurs frequently in their day-to-day lives prompting controlled laboratory experimentation. The data was collected during the summer of 2010. One of the most important goals in determining the existence of mental telepathy involves the replication of different modes of research in different laboratory settings. This research attempts to replicate data Rupert Sheldrake collected during the beginning part of this century, in which he reported significant findings from studies of telephone telepathy. For the current study, four groups consisting of five participants each were recruited by the researcher. For each group, a receiver (the participant receiving calls) was selected by the participants, with the four remaining participants acting as telephone callers or senders. The researcher accompanied the receiver to a distant location while a research assistant remained with the four remaining callers. A caller was randomly selected and the receiver was then asked to guess which sender they felt was calling on each trial. Each group participated in a session per week for a total of five sessions with each session consisting of ten trials. By chance we would expect a 25 % hit rate. Through the course of 200 trials, 57 hits were obtained for a 28.5 % hit rate. Although not significant, the results were in the predicted direction. It was noted that the group with the lowest belief scores obtained the lowest hit rate(20 percent) while the others scored hits rates of 28 percent, 30 percent, and 38

percent. It was concluded that future research should take into consideration the possibility that groups or receivers with low belief scores might be expected to score in opposite direction than those with high belief scores canceling out significant effects.

Telephone Telepathy

It is widely accepted that controlled experimental research in the field of parapsychology originated in the 1930s by Duke psychologist J.B. Rhine. Since then several terms have been used to describe the phenomena that are central to the field of parapsychology. Two commonly used terms for these phenomena are extra sensory perception (ESP) and psi. According to Radin, (2006) the term psi was first used by British psychologist Robert Thouless as a term for psychic phenomena in his article "experiments in paranormal guessing" published in 1942. This term was chosen because it was a neutral term that did not refer to any origins or mechanisms behind these phenomena. Several common psi experiences are telepathy, clairvoyance, precognition, psychokinesis, and synchronicity. All of these phenomena require obtaining information without the use of the normal senses. Telepathy involves mind to mind connections or communication. Clairvoyance is knowing or perceiving information from a distance. Precognition refers to obtaining information about future events. Psychokinesis refers to mind matter interaction or the mind's ability to influence matter. Synchronicity describes events that have unusual correspondences (Radin, 2006). According to Mayer (2007), in her recent book Extraordinary Knowing, we cannot tune in to these abilities consciously, but rather we obtain them by tuning out most of the information we gain through other senses.

Despite reports of a multitude of statistically significant studies, the field of parapsychology continues to be debated and critiqued by people outside the field as

well as within the field of parapsychology (Bem & Honorton, 1994; McCraty, Atkinson, & Bradly, 2004; Sheldrake & Smart, 2003; Sheldrake & Smart, 2005). Many scientists disregard the research in this field altogether. One example of this was outlined during a news conference in Washington when a paper was presented discussing human performance (Druckman & Swets, 1988.) A section of this 807 page document, which was written under the authority of the National Research Council, discussed parapsychology and the validity of the research conducted on the topic. (Druckman & Swets, 1988) During the news conference in which this paper was presented Swets, the committee chairman, stated, "The committee finds no scientific justification for research conducted over 130 years for the existence of parapsychological phenomena." In a response to the national research council, the Parapsychological Association's reaction stated "the National Research Council was publicly committed to a negative verdict at the outset of their investigation, actually constitutes a strong source of

Elizabeth Mayer is a researcher who believes in parapsychology following numerous anecdotal encounters with psi in her own life. Mayer (2007) believes researchers fall into one of three categories regarding psi beliefs. The first category is that of orthodox scientists who refuse to believe that psi is real. The second is that of true believers who feel that psi is real and can be explored using modern research methods. The third category is composed of people who feel psi may exist but it is impossible to study using modern research methodology.

support for the conclusion that parapsychology has identified genuine scientific

anomalies." (p. 18) (Palmer, Honorton, & Utts, 1988)

Most of the academic world does not share the views of the National Research Council. Wagner and Monnett (1979) conducted a study in which they polled college professors with questions regarding their view of the field of parapsychology. A total of 2400 surveys were sent to over 100 different colleges and the surveys were distributed equally to professors in the fields of natural science, social science, humanities, arts, and education. Of the 2400 total surveys sent out, 1188 replies were obtained. The surveys that were returned did accurately reflect the gender breakdown of college professors at the time, 79 to 21% with males outnumbering females. Results of this study indicate that 84% of those surveyed thought that parapsychology, more specifically ESP, was a field of legitimate scientific study. Also, 8% stated that they felt it was not a legitimate field of study with the remainder undecided. They report that 16.3% of respondents felt that ESP was a scientific fact, 49.3 felt that it was a likely possibility, 19.4 stated it was a remote possibility, while only 4.1% felt that it was totally impossible. In addition, 10.9% felt undecided on the possibility of psi. Another interesting fact emerged from this survey. Of the five academic areas covered, over half of the "totally impossible" answers came from the social science sample. The professionals within the field of social science also had one of the most skeptical views of ESP with 56% giving positive answers to the survey questions. Wagner and Monnett (1979) explained that they think the reason for this was that the sample of social science professors was more exposed to the research of Rhine and his books and likely more aware of the "pitfalls" involved in the field of ESP. Some of these pitfalls were described as debates over some of the statistics and methods used by Rhine. Overall, the authors of this study express the

belief that parapsychology has become an accepted field of study and has a legitimate place in the views of most people in academia.

Mayer (2007) thinks that there are two types of data that give solid evidence to the existence of psi. The first is the abundance of anecdotal evidence or stories that people can recall from their own lives, which give support to the reality of psi occurrences. There are several data bases currently that collect this anecdotal evidence such as that of the Society for Psychical Research. Rupert Sheldrake, a biologist and parapsychologist, also has a large data base containing anecdotal evidence for psi (Sheldrake, 2003). The second type of evidence is based on formal scientific experiments. Mayer states that these experiments are often difficult to conduct because the nature of the experiment in laboratory settings causes psi abilities to be minimized.

One example of anecdotal evidence involves Mayer herself. She claims that her reason for becoming a parapsychologist stems from a personal experience that she had concerning synchronicity in her own life. She stated that her 11 year old daughter enjoyed playing a very special harp that she had been performing with since she was six years old. One day after a performance this harp was stolen. After searching for the harp with normal means with no success, a friend of Mayer advised her to contact a dowser. A dowser is a person who finds materials such as water, metals or other materials through unconventional means such as L shaped sticks. When this dowser was contacted in Arkansas, he indicated that the harp was still in Oakland and he requested a street map of the city to be able to give the exact location. After receiving this map,

the dowser indicated the exact address of the harp. Dr. Mayer did not feel as though she could walk up to the residence that was in a neighborhood in which she was unfamiliar, and ask if they had stolen her daughter's harp. She instead posted flyers within a block of this house offering a reward for the return of her daughter's harp. Three days later, she was contacted by a man, who stated the picture of a harp on the flier posted in front of his home was exactly like the harp his neighbor had shown him. He stated that he did not want to cause this family any trouble but that he thought he could get the harp back. The harp was indeed returned to Dr. Mayer the next day forever changing her view of the powers of the human mind and prompting her to write the book Extraordinary Knowing (Mayer, 2007).

It is difficult to know exactly which type of psi worked in the above story to get the harp returned. According to Sheldrake (2003), it can often be difficult to distinguish between the different types of psi and exactly which type is active during specific events. For example, did the dowser detect the location of the harp by receiving the information from a mind near it (telepathy) or did he view the harp from a distance (clairvoyance)?

Field theory

A field is defined by Sheldrake (2006) as "A region of physical influence. Fields interrelate and interconnect matter and energy within their realm of influence. Fields are not a form of matter; rather, matter is energy bound within fields." A number of theorists have referred to physics regarding how psi abilities can occur within the energy of a field. (Lewin, 1951; Braud, 2002; Sheldrake, 2006). The first scientist to apply field

theory to psychology was Kurt Lewin. Lewin, who was a Gestalt psychologist, published several works outlining the effects of fields and its effects on group interactions. Lewin was concerned with how social fields affect the social behaviors of people. He felt that motivation was affected more by social fields than by freedom or chance (Lewin, 1951).

Since Lewin, theorists have speculated how social fields may affect other systems than social interactions. According to Sheldrake, morphogenesis is a particular kind of morphic field (social field) that concerns how organisms develop from the original cells to the adult form (Sheldrake, 2006). In other words, it is unclear how an oak becomes an oak tree with various different parts such as bark or leaves. From molecular biology, the purpose and function of genetics and how they form different proteins are known but nothing within genetics has been shown to account for form. Since all of these parts of the tree contain the same genetic program, there must be something else ensuring that this oak tree forms as an oak tree (Sheldrake, 2006).

Biologists have struggled with this problem for many years. Many biologists believe that there is a morphogenetic field which Sheldrake (2006) describes as "invisible blueprints that underlie the form of the growing organism." These fields are located both in and around systems they influence. These fields restrict and impose order on the systems under their influence. Sheldrake feels that humans have fields that are responsible for organizing many different aspects of their existence. He believes that these fields control how behavior is developed as well as guiding the nature of mental functioning.

One of the most controversial parts of morphogenetic field theory concerns the idea that these fields depend on events that have happened in the past and that the field contains instructions that were developed long ago. The force these fields exert contains a memory, making their instructions to the organism under their control a force of habit. Since the fields contain this cumulative memory, once a new morphogenetic field comes into existence over time this field becomes stronger because of repetition (Sheldrake, 2003; Sheldrake, 2006).

The means by which information or instructions are passed from one system to another is referred to by Sheldrake as morphic resonance. Morphic resonance influences systems which are similar to systems that formed in the past that are like the current system that is being formed. For instance an oak tree will be influenced by morphic resonance from oak tree systems in the past. These influences are not affected by time and space thus they do not lose effects due to distance. The more similar the current system, the greater it is influenced by systems of the past (Sheldrake, 2006). This does not only apply to living things. If a new material forms somewhere around the earth, it should be easier for this material to form in the future due to morphic resonance.

The type of field, involving social groups, is a more specific type of morphic field called a social field. Social field theory implies that the mind does not just function within the brain but extends outward and interacts with the organism's environment helping to explain phenomena such as telepathy, clairvoyance and psychokinesis. From this perspective, these are not paranormal experiences but common normal

experiences natural to the biologic composition used to link species to one another (Sheldrake, 2003). Many researchers share this view. (Bem, Palmer, & Broughton, 2001; Braud, 2002; Carpenter, 2006;) The alternate theory is the materialist theory which implies that the mind is created by the brain and cannot operate outside the head. This implies that the mind cannot possibly influence anything outside of the body making psi phenomena impossible (Sheldrake, 2003).

Social fields have a biologic purpose for how and why they function. Sheldrake thinks these fields serve to link species with others similar to them. Sheldrake (2003) points out that these fields help flocks of geese and other birds communicate intentions and direction changes. He also states that social fields function with any group assembled such as coordination of a football team. It is suggested that social fields are also used to pick up the emotions and needs of others at times of distress or pain. These characteristics are beneficial to the survival of a species thus making their genetics favored in natural selection.

The phenomena of social fields have been observed in nature and also in experiments looking at intuition. In 2004, two papers were published addressing EEG, skin conduction, and heart rate and how they respond to future events (McCraty, Atkinson, & Bradly, 2004a; McCraty, Atkinson, & Bradly, 2004b). The goal of this experiment was to replicate previous data that the human body would physiologically respond differently to emotionally charged images precognitively, seconds before they were presented. The way the body would respond to the emotionally charged pictures would depend on whether the pictures were of something dangerous or pleasant in

nature. This study used 26 participants who received 30 calm pictures and 15 emotional pictures. Two test conditions were used for each participant. The normal condition consisted of a baseline physiological state in which they were instructed to attend the session as normal. In the physiological coherence state, the participants were put in a relaxed mood. The pictures were presented randomly on a computer with a ten second "cool down" time given between each picture. The results of these two papers show that participants experienced a significantly greater decelerated heart rate before emotional pictures. It also showed that women were more likely to experience psychological symptoms prior to the presentation of images than men in this experiment. There is also evidence in this data to show that the brain begins to process emotional and neutral data differently seconds before it is presented. This research demonstrates how the mind may tune into social fields to gain information before this information reaches the normal senses.

Irvin (1999) discusses how fields may interact with the brain. He states that the energy seems to radiate from an individual's brain and mediates extrasensory and psychokinetic phenomena. The quanta of which the energy is comprised are so small that they do not interact with matter but rather pass through matter. This is why physical objects do not seem to block or affect psi phenomena at a distance. He believes that this field interacts and affects neurological processes as it passes through the brain just as a magnetic field can induce a flow of electricity.

The theory of social fields is similar to that of quantum theory. One part of quantum theory states that if two particles are once part of the same system but then

are separated from this system that these particles will still share a mysterious connectedness no matter how great the distance. Originally quantum theory was doubted by many researchers but through experiments quantum theory has been supported and this particular part of quantum theory referred to as non-locality.

Psi-Conduciveness

Psi-conduciveness or psi-favorable refers to conditions in which psychic functioning is likely to occur, while psi-antagonistic or psi-inhibitory implies that the conditions are not favorable for psychic functioning (Braud, 2002). In a paper written by Braud (2002), he states that psi-conducive factors not only involve characteristics of the individuals who are experiencing psi but also environmental, familial, societal, cultural, planetary, and extra planetary influences. He elaborates to say that if a factor is identified as psi favorable then its opposite or absence might be psi-antagonistic, but too much of a psi favorable condition might result in a physiological or perceptual shutdown. Many factors have been reviewed in the literature concerning psi-conduciveness conditions for parapsychology research. Some of these factors include warmth and friendliness of the experimenter (Schmeidler, 1997; Schneider, Binder, & Walach, 2000;), motivation and interest of the experimenter (Pratt, 1940) and the participant (Braud, 1994; Schneider, Binder, & Walach, 2000) and creativity (Bem & Honorton, 1994; Bem, 1996). Extraversion has also been supported by research as being a psiconducive factor (Honorton, Ferrari, & Bem, 1998).

During his lifetime, Joseph Rhine was considered one of the leading experts on parapsychology. His research at Duke University led to the setting up what is now the Rhine Research Center which is considered a leading research site for parapsychology in the world. In a book he wrote with Joseph Pratt (1940), they listed several conditions in which psi abilities are enhanced or likely to be maximized. Under these conditions, subjects are likely to produce hit rates consistently above chance. In the book Extra-Sensory Perception after Sixty Years, Pratt states that, first, the finding of successful subjects or subjects who have produced ESP phenomena in the past is important to producing hit rates above chance. Second, he states that a favorable setting is important for producing positive effects. And third, Pratt feels that suitable techniques are needed to produce positive psi effects.

Some of the specific conditions which Pratt states are likely to produce positive psi effects are listed as hypnotic states, self-induced trance states, states in which the subjects are in a "state of passivity" (p.52) or relaxation. In the lab at Duke University, games with children have also shown to produce positive psi results because it puts them at ease. The mode in which the test is conducted is also important to producing positive psi results. Pratt states that if the subject is entertained or at least not bored they are more likely to produce results. He goes on to state that Rhine at the lab has shown that if subjects are rewarded for their successful results they are more likely to produce hit rates higher than chance.

Pratt (1940) mentioned several things that produce negative effect on psi abilities when performing research. The first of these methodologies is having the

subjects perform long runs. He states that, in most of their research, the subjects maintain a higher hit rate in the first half of a series of runs than in the second half. Another condition negative to psi phenomena is long delay of notifying the subjects of hits or misses. Formality of procedure is also something that has a negative effect on psi ability. Rhine refers to this as the advantage of "the spirit of fun". Rhine also conducted studies showing that frustration produced negative effects on subjects. In experiments designed to produce frustration, negative hit rates were considered the successful hypothesis since frustration is a psi-inhibitory factor. Pratt and Rhine believe that there is a wide variety of other conditions that can have an influence on psi abilities.

Because of all the conditions that affect psi abilities, Rhine and Pratt have four general characteristics of psi. The first characteristic is that it is unconscious. This implies that it is not an ability that one can consciously choose to use. He further explains that most successful subjects have a wide variety of reasons for how the information is received by them. Many of them state that they are "just guessing" (p.312) even though they consistently produce positive psi results. The second characteristic of psi is that it is erratic. This means that the results are not consistent. The most successful subjects show no pattern to their hit rates from one day to the next. For instance, they may produce successful results at the beginning of a run one day and the next day they may produce their best results at the end of the series of trials. The third characteristic noted was that psi abilities are unstable. This means that many of the methodologies used to obtain successful results initially tend to show a gradual decrease toward chance levels over time. The fourth characteristic noted by

Pratt and Rhine is that psi ability does not develop or improve with practice. In other words, it does not get better over time.

In a reaction to Rhine's research, many parapsychology researchers looked for newer more innovative methods of psi research. Most of Rhine's research involved the use of zenar cards. Zenar cards are a deck of 25 using 5 different symbols. The participants in research at Rhine's research lab were required to guess the symbols under different controlled conditions. They believed that Rhine's methodology had become tedious or repetitive. Since historically psi has often been associated with meditation, hypnosis, dreaming and other naturally occurring psi-conducive states of consciousness the Ganzfeld procedure has been introduced. This method attempts to reduce "noise" caused by the normal senses and maximize the subject's information gained through psi. According to Bem and Honorton (1994), the Ganzfeld methodology involves a sender and a receiver. At the beginning of the Ganzfeld session, the receiver undergoes relaxation exercises. This is to reduce "internal somatic noise". The receiver is placed in a reclining chair in an acoustically isolated room with translucent ping-pong ball halves taped over the eyes and headphones are placed over the ears. A red floodlight is directed toward the eyes to interfere with the normal visual field while white noise, a random signal used to relax participants, is played in the headphones. The sender is placed in another sound proof room where a target is presented to the sender. This target is generally in the form of a picture or a video. While the sender concentrates on the target, the receiver gives a continuous report of his imagery. Traditionally, each Ganzfeld session lasts 30 minutes. Many articles including metaanalysis have been written reporting significant results using the Ganzfeld method (Bem, Palmer, & Broughton 2001; Parker, 2000; Storm & Ertel 2001).

It is common to find that certain experimenters are more likely to have significant results than other experimenters. This is known as experimenter effects. Schmeidler (1997) actually feels there are three different types of experimenters. The most successful experimenters in the field of parapsychology are labeled psi-conducive. Schmeidler (1997) believes that within this type of conditions, the experimenter actually transfers his psi ability to the participants. The second type of experimenter is known as psi-permissive. This type of experimenter creates a warm environment in which psi is likely to occur. The third type is psi-inhibitory, which creates an environment in which psi is unlikely to occur. The experimenter effect causes many studies in the field of parapsychology to be difficult to replicate. Watts and Ramakers (2003) looked at the factor of experimenter belief. In their study, they recruited participants who had been used during previous research in which they measured experimenters' belief scores using the Belief in Paranormal Questionnaire. On this form were 12 total items, with one item addressing the participant's ability to demonstrate psi. There were 11 items on this sheet addressing the participant's belief in telepathy, clairvoyance, precognition and psychokinesis. Each of these 12 items related to belief were measured on a Likert scale from 1-7. Belief scores ranged from 12 to 84 with high scores indicating greater belief in psi. They recruited nine believers (mean belief of 70, SD=4.24), and five non-believers (mean belief score of 28.6, SD=6.11). The results of this study showed that the belief of the experimenter had a significant effect on the results of the psi task. After analysis

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using a t-test, experimenters with high belief scores obtained more significant results than the experimenter's with the low belief scores (p = .005). Likewise, (Smith, 2003) found that the experimenters' belief in their own ESP abilities also had a significant influence on the results of their studies.

The participant's belief has also been shown to affect psi performance. In a study by Storm and Thalbourne (2005), subjects were typed as skeptics by their score on an Australian measure of psi belief scale. A computer randomly selected one of five zener card while the participants were required to guess the selected card. This procedure was repeated for 50 trials. The skeptics were then placed in one of two groups for a second run. Group one was simply told to continue to the second run while group two was told the true positive statistical significance of their results on the first run, in an effort to convert them from being skeptics, then given a second run. There was a significant correlation (r = .49) between the belief scores and success on the second run for subjects who were informed of their results after the first run. Post-hoc evidence also shows that converted skeptics, those given the significance of their results, showed a significantly higher hit rate after conversion. The results indicate that there may be a conversion effect in some skeptics through the course of psi experiments if feedback is given to contradict their original beliefs. (Storm & Thalbourne, 2005)

In a similar study, Walsh and Moddel (2007), found that people who believe in psi phenomena score significantly higher on psi tasks than those who do not believe in

psi phenomena. In their study, 12 subjects were given the definition of psi phenomena and then asked to identify if they believed in psi based on the definition given. Then they were randomly assigned to one of two groups, then shown one of two written arguments. The first argument is supporting the existence of psi phenomena, while the second they are presented information against the existence of psi. The subjects were then given trials of 100 zenar cards. The best evidence for psi (p = .028) came from the psi believers who were given the pro psi argument. This group achieved a hit rate of 27% when 20 is expected by chance.

Similar studies have been conducted in the Eastern Illinois parapsychology research laboratory. Mcwhorter (2005) examined the relationship between belief in psi and performance on a psi task. In her study, a group of senders attempted to transmit the location of a target disk on large foam board. The disk could be in one of four locations on the board, and the receiver's goal was to indicate on a form which of the four locations they believed the disk to be for each trial. Two runs were conducted, Set A and Set B with 16 trials within each set. The results of these data indicate that receivers with high belief scores did better when compared to subjects with low belief (p < .01).

Telephone Telepathy

Changes in technology have changed the types of psi occurrences that are reported in everyday life. One example of these types of occurrences is known as telephone telepathy. Rubert Sheldrake first labeled the term telephone telepathy. Through anecdotal data that Sheldrake had collected, while studying the forces behind telepathy, he found that many people were experiencing the psi related phenomena of knowing who was calling when the phone rang (Sheldrake & Smart, 2003a; Sheldrake & Smart, 2003b). Sheldrake feels that the intention of calling someone creates favorable conditions for telepathy to occur. The caller has to first think of the person whom they are preparing to call. While thinking of this person, they may even have to perform actions such as looking up the person's number to prepare to make this phone call. This requires them to focus their attention on this person for a period of time (Sheldrake & Smart, 2003b). Through Sheldrake's own personal data base of anecdotal evidence, he noticed that it appears common for people to suddenly start thinking of someone and then the phone rings and they are on the other end of the phone. He also reported that this occurs more frequently when there is a strong emotional link between people. Another observation was that it was more common with people of the same sex (Sheldrake & Smart, 2003b)

Curious about the subject, Sheldrake began discussing this topic with many of the groups that he lectured around the world. He began by describing the phenomenon of telephone telepathy and then asked how many people in his lecture hall had experienced this psi phenomenon. He stated that frequently between 80 and 95% of the individuals at his lectures had experienced telephone telepathy (Sheldrake, 2000).

The next step for Sheldrake was to conduct formal surveys to see who had experienced telephone telepathy in the general public. In 2000, Sheldrake conducted a

random survey of 387 people in Bury and London, England. In London, he simply asked the participants, "Have you ever felt that someone was going to telephone you just before they did?" The results were that 51% of those surveyed felt that they had experienced this during their life. The percentage of women to men who had this experience was 56 to 41 respectively (Sheldrake, 2000).

The Bury survey asked several different questions regarding telephone telepathy. Nearly two thirds of those surveyed stated that they had called someone who had said they were just thinking about them. When asked if the participants had ever answered the phone and knew who was on the other end without any possible cue, 49% stated that they had experienced this. Like the London survey, 47% stated that they had received a phone call from someone who had stated that they had been just thinking about them. Women also reported more experiences with telephone telepathy than men.

Brown and Sheldrake (2001) conducted a similar survey in America. A sample of 200 randomly selected people was surveyed in Santa Cruz, California. They found that 78% of the people stated that they had phoned someone who had said they had been just thinking about the caller. Similar to the results obtained in England, 47% of those in California stated that they had the experience of knowing who had been calling them when the phone rang without any possible cue. Furthermore, 37% stated that they had experienced this phenomenon often. Similar to the studies conducted in England, more women than men consistently stated that they experienced telephone telepathy more

often. However, unlike the British studies, the difference in female and male experiences was not significant. The researchers suggested that this difference was because of the differences in the political cultures of the two areas (Brown & Sheldrake, 2001).

These surveys set the ground work for Sheldrake to design experiments to test for telephone telepathy in the general population. In the spring of 2003, Rupert Sheldrake and Pam Smart published an article on their first research regarding telephone telepathy. This experiment was conducted using a variety of research methods. The basic methodology involved a receiver at one end of a line with four potential callers in other locations. One of these four callers was selected at random to call the receiver. The caller was instructed to think about the receiver for a minute or two before making the calls. The receiver was instructed to guess who the caller was and in some cases how sure they were about their guess. Method one varied from the other methods because it did not have fixed times in which the chosen caller would be making the call. Also there were two trials per session. So if the die was rolled, there would be two callers notified and their times would be chosen also by die throw. In method two, these times were fixed but the caller was still chosen at random. In method three the sessions were reduced to one trial each. Method four placed all four callers at the same location and several trials were conducted over a full day. Also in some trials, there were callers who were familiar to the receiver and others who were unfamiliar to the receiver. In some of the methods, video tapes were used to insure that the researchers and participants were not cheating (Sheldrake & Smart, 2003).

The probability of a correct guess by chance is one out of four or 25% (Bittinger, 2007). So if the guesses by the receiver were purely random, the hit rate should have been around 25%. Out of 271 trials there were 122 correct responses. This is a 45% hit rate that is significant to 95% confidence interval. Sheldrake also found that the success rate of familiar callers to be 61% while unfamiliar callers hit rate was only 20%. The methodology used to gather these results was disputed by Schmidt et al. (2004), because they felt that a natural response bias was not taken into account. After looking at Sheldrake's data, where unfamiliar and familiar callers were used (Schmidt et al. 2004) they noticed that out of the 175 trials the receiver only guessed the unfamiliar callers 41 times while they selected familiar callers 134 times. After a statistical correction for this response bias, Sheldrake's data concerning familiar and unfamiliar callers was then not significant.

The result of the data from Sheldrake and Smart (2003) was with the set of data regarding how confident the receiver was regarding their selection. The receiver was asked to give an estimate of how sure they were of their guess. Three choices were given: confident, not very confident and just guessing. With one particular participant, the results show that when "just guessing" was selected then a hit rate of 29% was obtained. When "not very confident" was selected the hit rate was 35%. When the receiver said she was confident in her guess, her hit rate was 82%. Out of 70 trials, the odds against chance are reported as billions to one.

Soon after this data was published Sheldrake and Smart (2003) published results of their second study regarding telephone telepathy. In this study, three methods were used. The first method involved two trials per session. The times of the trials were selected at random to show that the phenomena of telephone telepathy occurred even when the caller was not expecting to receive a call. The testing session was generally an hour long and a die was thrown to determine in which of the ten minute intervals the two calls would take place. The callers were chosen also with the throw of a die and notified an hour or two ahead of time when they would be calling the receivers. Method one was used for 17 participants for a total of 198 trials. Method two was simplified with fixed times. This method was used for five participants and 87 total trials. The remainder of the 571 total trials used method three. In this method there was only one trial per testing period. This caller was notified at random less than 15 minutes before the trial was to occur. The remaining callers who were not selected were notified at this time that they were not selected. This was changed after a few trials and the remaining callers were informed if they had not been notified ten minutes before the trial, that they had not been selected for this trial. The test times for method three were all prearranged. For all three methods, there were familiar and unfamiliar callers mixed in with the trials. The number of callers who were familiar with the recruited subject depended upon how many callers the recruited subject could obtain to participate in the trials (Sheldrake & Smart 2003).

In a total of 571 trials, the overall success rate for this experiment was 40%. This was 15% above the 25% success rate expected by chance. Significant results were also

displayed when subjects knew the prearranged times and when the times were chosen at random. This test also showed familiar callers to produce a much higher hit rate (53%) than the unfamiliar callers' hit rate of 25%. These results were not corrected for response bias toward familiar callers. Also, the effect of distance on telephone telepathy was observed in this study. Callers over 1000 miles apart showed 65% success rate for this study. The callers, who were in Britain near the receiver, scored 35%. Sheldrake feels that this result occurred because callers who were over 1000 miles apart shared an extremely close emotional bond (Sheldrake & Smart 2003).

One subject which Sheldrake used for many of the trials in these two studies was Sue Hawksley. In her first 30 trials, Sue was successful in 14 trials. The odds against chance were 2500 to one. In her next set of 100 trials, Sue was correct in 49 of these trials for a 49% hit rate. The odds against chance were 100 million to one. It was noticed that she was far more successful with some friends than others. With one of her close friends, she had a hit rate of 75% during these first sessions. In the third set of trials, the callers consisted of two close friends and two researchers who Sue had not met. Sue was correct 66% of the time with her friends and only 18% of the time when the researchers were the callers. The overall success rate was 45%. In her fourth set of trials, which included some familiar and some unfamiliar callers, Sue obtained a hit rate of 47%. During some of these trials, Sue was asked how sure she felt about her guesses. She was given three choices: confident, not confident, and just guessing. Out of 134 trials, when she indicated confident, she was correct 85% of the time. When she was not confident her results fell to 34% and when she said she was just guessing her results

were correct 28% of the time (Sheldrake, 2003b). Overall, the Sue Hawksley trials support the existence of telepathy and also that telepathy is a phenomenon that is more likely to occur between people who share a close emotional bond.

Around the same time as this research, Sheldrake et al. (2004) conducted an experiment with the Nolan sisters, who were quintuplets and popular British pop singers, on nationwide British television. Similar to his other studies, one sister was separated from the callers by one kilometer and 12 trials were conducted. The sisters had participated in research for Sheldrake prior to this study. During the previous study, they were separated and participated in 17 trials in which eight hits were counted. During the "made for TV" run, Sheldrake took the four callers to a bar one kilometer away, while one of the sisters and Simon Rockwell, who was a researcher helping with the study, stayed and monitored the receiver at the hotel. The callers were selected by the roll of a die after each of the four sisters had been assigned a number. This study was conducted from 2:30 to 3:40 in the afternoon and Colleen, the receiver would get one call every five minutes or so and was required to say who she felt was calling. During this study, 12 trials were conducted with six hits, for a hit rate of 50% where 25% would have been expected by chance. Even with very few trials, this study is significant at .05.

After Sheldrake's research on telephone telepathy was revealed, a few replication studies were conducted by other researchers. One of these studies was conducted by Lobach & Bierman (2004) which looked at data from Sheldrake's

experiments. They noticed that through post hoc tests that the hit rates seemed to be higher during certain periods of the day. They then decided to conduct their own replication of Sheldrake's data to first see if they could come up with significant results for telephone telepathy, but also to see if the local time in which the experiment occurred could be used as a within subjects variable.

The method for this experiment was very similar to the previous research that had been conducted on telephone telepathy. One main difference was that instead of having the subjects video themselves, an experimenter would visit their homes to control for any possible cheating. Also, each subject participated in six sessions. Three sessions during what they previously found to be peak sessions and three during non peak sessions with six trials per session that took place after approximately one hour. Six different participants were used for a total of 216 trials. Because of errors in researcher logs, only 214 trials were used in the data analysis.

The overall hit rate for these 214 trials was 29.4% which is significant (p < .05). Interestingly, the peak time within subject's tests showed a 34.6% hit rate, while the non-peak time trials showed a hit rate of only 25.2%, indicating that the peak time accounted for the significant results. A survey was also given to the receivers asking them to rate their closeness with each caller on a scale between one and five. The average rating was 3.71 demonstrating that the overall closeness of the participants in this study was fairly high. However, emotional closeness did not appear to have a significant effect on the hit rate in this study.

Also in response to Sheldrake's research, Schimidt, Muller, & Walach (2004) set up an experiment with callers and receivers being placed in office-like rooms for two hours per session for approximately ten trials per session. In this study, there were 4 callers in which 2 were familiar to the receiver and 2 who were unfamiliar to the receiver. The caller was determined by a random number generated prior to the start of the session. Each session was also recorded as well as videotaped. The main goal of this study was to replicate prior research but to use tighter controls than previous studies.

This experiment produced 397 trials in which 106 were hits for a no significant hit rate of 26.7%. Familiar callers were identified correctly by the receiver 67 times while unfamiliar callers were correctly identified 39 times. According to the researchers this can be explained by response bias on the part of the receivers. The receivers identified the caller as a familiar caller 61% of the time thus increasing the odds of correct identification of familiar callers. Schimidt, Muller, & Walach (2004) suggested some reasons for their low hit rates. First, changes made to the experiment to tighten controls on this study and second the businesslike research setting may have reduced the effects of psi in this experiment. Also several participants in Sheldrake's studies were people who had already scored high on pretests for psi abilities, thus using participants who had already produced a known psi effect.

Sheldrake believed that this same type of telepathy would also occur using email. To study this, Sheldrake used very similar methods to his telephone telepathy experiments. Sheldrake & Smart (2005) published a study in which they asked participants to find two or three friends or family members with whom they felt they might share a telepathic bond. The other participants would be assigned by the researchers. The participant, who would send the email, for each trial would be picked with the roll of a die and notified seven or eight minutes before the fixed time. This chosen participant was instructed to think about the person he was going to email for a set period of time before writing and sending the email. The receiver was instructed to email the researchers his guess one minute before the fixed time. When the sender sent the email, this email was also sent to the researchers simultaneously. All emails were required to have the standard time attached to the email to ensure the receiver made their guess before they were emailed. There were five trials for each session and each trial was ten minutes apart (Sheldrake & Smart 2005).

The results of this study were very similar to the results that Sheldrake recorded using phone calls. In 552 trials, 235 hits were recorded. This is significantly above what is expected by chance. Since four senders were used in this study, the expected probability of a hit was 25%. This study produced a hit rate of 43%. Out of the 50 participants that completed 10 trials, 43 obtained results that were above chance ($p = 2 \times 10^{-19}$). Another 195 trials were also conducted on people who did not reach the required 10 trials, the minimum to be included in the study. Of these 195 trials a hit rate of 34% was obtained which was also significant (p = .002). Of the 552 trials, 137 of the trials were filmed. Of the 137 trials, 64 hits were obtained for a hit rate of 47%.

Current study

The current study attempts to replicate the study by Sheldrake, Godwin, & Rockell (2004) in which Sheldrake demonstrated evidence of telephone telepathy for the television series 20/20 productions. In this study, Sheldrake selected the Nolan sisters, a popular music group, to act as participants in this research project. They were selected because of the close relationship that all these sisters share with one another. One of the sisters was selected by the group to act as the receiver while the other four sisters acted as senders and remained at the bar. They were then chosen at random by the roll of a die to place a telephone call to the receiver. The receiver then attempted to guess who she thought was calling before she picked up the phone. This experiment only had 12 trials which resulted in six correct guesses. The small number of trials was due to the condition of occurring live during a television broadcast in Britain. The results were statistically significant (p = .04)

The current study differs slightly from Sheldrake's study in that all of the participants share close relationships within each of the four groups. There is also a larger number of participants and more trials for each group in the current study as well as more groups being tested. Measures of Belief in telepathy, as well as an emotional closeness will also be added to the study. In the current study, four groups of five individuals are recruited based on their emotional connection to one another. Examples of personal relationships included, people in romantic relationships spanning several years or close relatives. After the four groups were selected, each group was informed

of the instructions for the study. Emotional closeness and participant's level of belief information were collected. The receiver was selected by a group vote of the participants based on who they felt would make the best receiver. The receiver was then asked a question regarding their level of belief in mental telepathy. The receiver was then escorted to a separate location along with the researcher and the senders were assigned numbers one through four based on the alphabetical order of their first name. A research assistant then rolled a die to determine who would make the first call. If a five or six was tossed, the die was rerolled until a one through four roll was achieved. The person selected to act as the sender for the first trial was then escorted to a separate room where they were instructed to think about calling the receiver for a period of four minutes after which they placed a phone call to the receiver during the final minute. This procedure was repeated until ten phone calls were placed. Five sessions per group, comprising of 50 trials for each of the four groups were completed for a total of 200 trials.

Method

Participants

All 24 participants were volunteers who were known by the primary researcher and were recruited based on their close relationships with one another. All of the participants lived in a two county area of south central Illinois. All members of each group were either close family or someone the receiver shared a special bond with, such as a significant other. The four groups were comprised of men and women and ranged in age from approximately 16 to 85. Once a receiver was chosen for each group, they were asked to identify two additional people that they felt could act as substitutes' senders in the event that a member of their group was unable to attend a session. If the receiver was not available for a session, the session would be rescheduled for the soonest available date.

Materials

Materials for this study included a stopwatch which was used to determine the length of time between trials. The time between trials was four to five minutes resulting in sessions of approximately 45 minutes; brief enough to prevent fatigue or boredom from affecting results, but long enough to allow time for the sender to focus on the call they are about to make. Two cell phones were used. The cell phone at the location of the receiver had no functions available on the outside of the phone such as a front

display indicating caller ID. A standard ring tone was used and was identical for all callers. The cell phone at the sender's location belonged to the research assistant coordinating the sending procedure. The following forms were used: instructions to the senders, data recording form, a consent form, a mental telepathy belief question with a degree of closeness measure, a form providing mental telepathy tips, a debriefing form, and a form listing the participants along with specific instructions for the research assistant. These forms appear in appendices one through eight. A die was also used to randomly choose the sender placing the phone call for each trial.

Procedure

The primary researcher recruited an assistant to help with data collection and to stay with the senders. This research assistant was given a copy of the methods section of this experiment as well as an instruction sheet. The participants were chosen by the researcher based on their apparent closeness that they share as a group. The researcher looked for relationships which were as close as possible. Examples of relationships that were chosen were children and parents, siblings, grandparents and grandchildren and significant others as long as the relationship were consistent for over a year. Most of the chosen participants lived together either in the past or present and communicated with one another on a frequent basis. The location of each session took place in a home of one of the participants to help ensure that the subjects felt comfortable. At the beginning of the first session for each group, the participants were given the instruction form and given the opportunity to ask questions. Participants were then given a form

with telepathy tips indicating what was expected of them during this experiment. They were then asked to vote on who was to act as the receiver for the duration of the session. Each of the five participants anonymously wrote on a piece of paper who they felt would do the best as the receiver. The chosen receiver then listed two people to act as substitutes in the event a sender could not attend a session. If more than two senders were not available or the receiver was unable to attend a session, the session was rescheduled to the earliest convenient date. After the receiver was chosen, all participants completed a closeness and belief measure. The senders completed a closeness measure for only the receiver while the receiver completed a closeness measure for each of the four senders as well as the two substitutes. The substitute's measure was only used in data analysis if they were actually called to participate in a session.

For all sessions, the primary researcher accompanied the receiver to a second location, a minimum of a half a mile from the senders, which was familiar and comfortable to the receiver. Examples of locations included the receiver's house or a park or restaurant. The assistant remained with the senders and then assigned numbers one through four to the senders based on the alphabetical order according of the sender's first name. The researcher, accompanying the receiver, phoned the research assistant to indicate that they had arrived at their location and that data collection could begin. The assistant then asked that all cell phones be placed on a table to guard against sending messages to the receiver. The assistant used a die to determine randomly who acted as the first sender. If a five or six were rolled, it was rerolled until a number one

through four was rolled. This did not change the probability of each participant being selected. This was repeated for each trial.

Once the sender was selected for each trial, they separated from the remaining senders to another room within the house and the researcher recorded the name of the caller on the data recording form. The selected sender was instructed to think about the caller and the placing of the phone call for a period of four minutes. The selected sender was asked to make the phone call sometime during the following minute. The selected sender used a stopwatch and was instructed to start it as soon as they began thinking about the receiver. The assistant then wrote the name the receiver identified as being the caller. The keeping of two separate, independent records provided a check for accuracy of recorded guesses. This sender was then returned to the room with the other three senders and the next sender was selected. As each of the four senders was eligible for selection, a sender could have been selected repeatedly depending on the die roll. This was repeated for the remainder of the ten trials.

As with the senders, the receiver was provided with a cell phone with the front screen facing out of view from the receiver with a standard ring tone that would not vary depending on the caller. The receiver was asked to not carry their own cell phone to ensure that they could not receive additional information. As each call was placed the researcher asked the receiver to indicate who they believed was calling and this was recorded. The receiver then answered the phone and said "hello is this _____?" The sender then revealed their identity and informed the research assistant of the

receiver's choice. The receiver then also identified the name of the actual caller indicating a hit or miss for the trial. The receiver then waited approximately 5 minutes for the next call. Following the final session, each group was given the opportunity to ask questions and thanked for their assistance.

After each group session comprised of ten trials, the researchers met to check the accuracy of data recording. They then had the opportunity to discuss any unforeseen issues that may have influenced the session and the data gathered. The data was stored in a file cabinet and was not accessed until all sessions were completed.

Analysis

A binomial test is a nonparametric test used when each trial is independent, has only two possible outcomes, and the probability of each outcome is known. A binomial test was used to compare the overall proportion of actual hits obtained across trials against an expected hit rate of .25. The hit rate obtained from each group was calculated separately as well as all groups together. An ANOVA was used to see if a difference in hit rate existed between the groups. A conservative probability level of .01 was chosen to indicate significance as multiple tests were performed. Belief in telepathy of senders and receivers was examined to see if they affected the results of this study.

Results

As there were four possible senders for each trial, .25 was the known probability used for comparison. Cumulative binomial probability was used when reporting results because it provides a more conservative analysis. Cumulative binomial reporting means that the probability reported is the likelihood of the data being a certain distance from the mean or further, as opposed to exact binomial probability which specifies the exact probability of the specific result occurring.

During the course of this experiment, there were four groups who participated in five sessions of ten trials per session giving this experiment a total of 200 trials. Since the probability is expected to be .25, 50 correct calls being indicated is expected as chance. Across the four groups and a total of 200 trials, 57 correct callers were indicated giving a total hit rate of 28.5% (cumulative binomial $x \ge 57$ p=.145). Furthermore, a one-way ANOVA was used to test for differences among the four groups, with no significant differences found F(3, 16) = 1.81, p = .186.

During a single session of ten trials, 2.5 would be the expected number of hits per session. Therefore 12.5 hits would be expected for each group during the course of their 50 trials. Group one consisted of a 32 year old male who acted as the receiver for the group. The senders consisted of his 29 year old wife of 11 years, two of his biological children age 10 and 8 and his adopted son age 14. To describe the closeness of this group, the receiver indicated that he communicated with each sender daily. On a seven point-likert scale, where one indicated no belief in telepathy and a seven

indicating that they feel that it very likely exists, the receiver indicated that he had a belief score of four. During five sessions of ten trials per session, the receiver indicated the correct caller 15 times for a 30% hit rate. A two tailed binomial test revealed that there was not a significant number of hits for group 1 (cumulative binomial $x \ge 15 p$ = .252). (See table one for information on each group)

Group two consisted of the primary researchers' family members. The receiver was a 59 year old female who indicated a belief score of seven. The senders consisted of her 58 year old sister, her 63 year old brother in law whom she had known for over 40 years, her 66 year old sister, and her 26 year old niece. The receiver indicated that she communicated with her 58 year old sister, her brother in law and niece at least once per month but that she interacted with her older sister every few months. Two substitute senders also participated in this group. One substitute was the receiver's seven year old nephew and 49 year old sister. The substitutes both participated during session two and this was the only session where they were used. During the course of 50 trials, the group two receiver indicated the correct sender 12 times for a 24% hit rate (cumulative binomial $x \ge 12 p=.511$).

Group three was comprised of a 22 year old male who acted as a receiver. He recruited his 85 year old grandmother and his grandmother's twin whom he considers a grandmother and who signs cards to him as "granny". The twins currently live together after the passing of each of their husbands and have not gone a day without communicating that they can remember. They have dressed the same every day of

their lives. He also recruited his 59 year old father and mother to participate in this experiment. The 59 year old father was "shared" by both twin sisters since one did not have a child. He indicated a very low belief level of one on the Likert scale. He also indicated that he communicated with all senders on a daily basis. During the course of group 3's 50 trials, the receiver indicated the correct caller 11 times for a hit rate of 22% (cumulative binomial probability $x \ge 11 p=.737$).

Group four consisted of a 31 year old male (receiver) whom was asked to recruit people with whom he shared a close relationship. He recruited his 11 year old step son whom he has lived with since his stepson was nine months old, his 11 year old daughter, his 28 year old wife of ten years, and his 62 year old mother. His 68 year old father and 6 year old son also acted as substitutes for this group. The son participated in sessions two, four, and five. The father participated in sessions three and five. He indicated a belief level of four which fell in the middle on the Likert scale. He also indicated that he interacts with each sender daily. During the 50 trials, the receiver indicated the correct caller 19 times for a hit rate of 38% (cumulative binomial $x \ge 19 p = .029$). After a correction for the total number of tests conducted, this score is not significant although it does indicate a trend in the direction predicted.

Belief scores for the four groups of senders, including the receiver's belief score, showed that all four groups have a moderate level of belief. The lowest mean group belief score was 3.20 while the highest belief score was 4.85. The overall mean belief for the groups was 4.13 for the total of 20 senders, including the 4 substitutes, and four

receivers used during the course of this experiment (see Table 3). For the belief of the receivers, groups one and four indicated belief in the middle of the scale. The receiver of group two indicated strong belief score of 7 in the existence of psi, while the receiver in group three indicated strong disbelief score of 1 indicating that psi does not exist.

Discussion

Although the results of this research did not reach the significance level of any of Rupert Sheldrake's research experiments, there are several meaningful things that can be addressed with regard of these data. The first is the overall hit rate during the course of this experiment of 28.5%. Although not significant, these results are in the direction predicted. (Lobach & Bierman, 2004; Sheldrake & Smart, 2003; Sheldrake, 2003b; Sheldrake et al; 2004,). These results were not nearly as far from chance as the results in all of Sheldrake's experiments in which he often reported hit rates above 40%, but these results were similar to the results obtained by Lobach & Bieran (2004), a study of similar size and reporting a hit rate of 29.5%.

There may be several reasons why the hit rate of the current research project did not obtain the high significance rate of the Sheldrake studies. First, he used subjects with a high level of belief which has been shown to produce higher hit rates (Storm & Thalbourne, 2005, Walsh and Moddel 2007). By looking at Table 1, it can be seen that

most of the receivers in the current study did not have a high level of belief. This could also lead to the conclusion that many of these participants have not actively experienced psi within their life which is another indicator for successful psi experiments. In the book by Pratt (1940), he lists producing psi experiences in the past as his first psi conducive condition. Experimenter effect may also have affected the current results. Sheldrake in his past research has a long history of producing significant results with his psi research. In the current study, this was the first attempt at psi research for all researchers involved.

An interesting example of change in belief, possibly affecting this experiment, occurred with group three. In this group, the receiver (with a belief score of one) was producing an extremely low hit rate of 12.5% during the first four sessions. Just before the final session, the receiver reported he just watch a movie about Stu Unger. Stu was a world champion in many card games and had displayed an amazing ability at card guessing. The receiver stated before this session that his belief was higher in telepathy since watching this show. He produced his highest hit rate during the final session scoring five hits out of ten for a 50% hit rate. It is possible that other subjects experienced change in belief from one session to the next which could have affected the results.

It is important to note that the overall belief score for group three was the lowest psi belief score of the four groups. Numerous studies including those conducted in the Eastern Illinois University Research Parapsychology Laboratory have indicated

that low belief in psi often causes psi missing or lower than chance results when performing psi related tasks (McWhorter, 2005). Likewise, recent research by Gruber, lead psi researcher at Eastern Illinois University, indicated that in the Spring of 2011, research was conducted involving psi missing and belief in which the previous finding by McWhorter (2005) was successfully replicated (p < .002) (Gruber, personal communications, August, 2011). Based on these findings, we would expect groups and particularly receivers with low belief scores to perform below chance, and this is what the current study found. Along these lines, if the group with the lowest belief score indicating a receiver who indicated a one on a one through seven scale, from the current study was removed from the data analysis, the groups with moderate or high levels of belief would have come closer to significant results (cumulative binomial p=.067) with a hit rate of 31%.

One group did produce a much higher hit rate than the other groups who participated in this study. Group 4 achieved a hit rate of 38% (cumulative binomial probability $x \ge 19$ p=.029). It should be noted that an interesting interaction occurred between the receiver and his mother. His mother was randomly chosen to place telephone calls to him a total of 16 times in which he guessed correctly a total of 9 times for a hit rate of 56.25% (cumulative binomial probability $x \ge 9$ of 16 p=.006). However this may be a slightly inflated probability as he guessed that his mother was calling 20 times with 9 hits equally 45% correct (cumulative binomial probability $x \ge 9$ p=.04). After session three, he was very excited about this occurrence and stated that "he just got a feeling" when she was going to call. He said it almost seemed as though

something was different about the trials in which she was the sender. One interesting comment that he made during the project was that if his father had not participated in some of the trials he felt the results could have been even higher. His father participated in only 2 of the 5 sessions. He stated that he confused them and indicated that "it's either my mom or my dad but I'm going to say my mom" but after saying this, he would often guess the wrong one. This happened on several occasions. His first indication of this phenomenon actually occurred very early in the trials in which his mother and father were both acting as senders. There were twenty total trials in which both the mother and father participated. Within these twenty trials, there were a total of fifteen misses in which 5 were from switching the mother and father. During these two sessions, the receiver produced his two lowest hit rates. Of the 11 calls his mother made when his father was not present he was correct 7 times for a hit rate of 64%.

Suggestions for Future Research

Because several similar studies were conducted prior to this, and communication was made with some of these other researchers to safeguard against pitfalls, this particular research project was conducted with very few problems occurring during the data collection stage, as well as during analysis. However, some changes could be made to possibly strengthen the results of future studies. One problem with this project was with the measure of closeness that we used. Group two did not produce evidence of being close according to the measure used. When I asked the group how they did communicate, they stated that many of them communicate through electronic means

such as Skype or Facebook which were not options on the closeness measure used in this project.

These changes are mostly in the selection pool for participants. It was thought that obtaining four groups that were willing to allow a researcher to take up almost 2 hours a night for 5 weeks in a row would be a challenge. So, to help decrease the dropout potential for each group, the selection criteria was limited to closeness to get an overview of how telephone telepathy occurred in similar types of close groups. From the research conducted, it appears that all close groups do not produce similar results. Also, if this project was conducted with a group that had displayed psi ability in the past, significant results might be obtained with fewer than 200 total trials for the experiment.

The major modification that comes from this current research project is that fewer groups could be used, and they should be groups that report a strong belief in psi or have shown psi ability in the past. Further research could be conducted using group four from this study. This project could be conducted with a similar methodology to that of the Nolan sisters' project that Rupert Sheldrake conducted. A weakness in his project was the small number of trials conducted. Group four from the current research project could be run for ten sessions for a total of 100 trials. If the trends displayed during this project were repeated, significant results would likely occur.

Also further research in the general field of psi could to be conducted on the abilities of the mother and son in group four, with a hit rate of 56.25% between them. It seems these two would be good candidates to participate in other models of psi research to further test their psi abilities.

This project could be considered successful due to the interesting findings that occurred during the course of its completion, particularly with regard to group four. Although not significant at the p < .01 level, results do show meaningful trends in the anticipated direction. Also, the findings concerning the belief scores of the groups were consistent with past findings. It is difficult to conduct psi research with participates who share different belief levels as they may score in opposite directions causing the data to appear nonsignificant. Further research in the field of psi and telephone telepathy does appear to be warranted to better establish and understand these phenomena.

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Table 1

Results and Demographic Information

Group 1							
Sender	Sex	Belief	Calls Made	Hits	Guessed	% hits/calls	Probability
1	M	4	13	4	14	30.77	p=.416
2	М	3	11	4	9	36.36	p=.287
3	F	2	11	3	11	27.27	p=.545
4	F	3	15	4	16	26.67	p=.539
REC	Μ	4	-	-	-	-	-
Total		3.20	50	15	50	30.00	p=.168
				Gı	oup 2		
1	М	1	10	3	10	30.00	p=.474
2	F	4	11	1	10	9.09	p=.197
3	F	4	14	4	18	28.57	p=.479
4	F	6	10	3	8	30.00	p=.474
5	М	4	1	0	2	00.00	p=.75
6	F	7	4	1	2	25.00	p=.685
REC	F	7	-	-	-	-	-
_							
Total		4.71	50	14	50	28.00	p=.363

_

Total		3.20	50	10	50	20.00	p=.262
REC	M	1	-	-	-	-	-
4	F	3	11	2	15	18.18	p=.445
3	F	2	10	4	15	40.00	p=.224
2	М	6	20	4	12	20.00	p=.415
1	F	4	9	1	8	11.11	p=.197
				Gro	oup 3		

	Group 4						
1	F	4	11	4	7	36.36	p=.287
2	F	6	9	2	8	22.22	p=.601
3	M	5	5	2	4	40.00	p=.367
4	F	6	16	9	20	56.25	p=.007
5	M	5	3	1	5	33.33	p=.578
6	M	4	6	1	6	16.67	p=.534
REC	М	4	-	-	-	-	-
	•••						
Total		4.85	50	19	50	38.00	p=.029
Overal	l Total	4.13	200	57	200	28.50	p= .145

Note. % hits/calls represents the percent of times the receiver correctly indicated the sender when the sender called. Also the probability indicated represents the probability of the data being this far from chance or greater.

Table 2

Men versus Women Hit Comparisons

Sex	Calls Made	Correctly Guessed	Percent Correct	Probability	
М	69	19	27.54	.357	
F	131	38	29.01	.168	

Table 3
Group Data

Group	Sex	REC belief	Mean Closeness	Mean Group Belief	% correct
1	M	4	2	3.00	30.00
2	F	7	9.5	4.33	28.00
3	M	1	3	3.75	20.00
4	M	4	2	5.00	38.00

Note. Receiver belief is measured on a scale with 7 indicating high belief and 1 indicating low belief. Mean closeness is measured with a low score indicating a high level of daily contact.

Instructions

Hello, thank you for agreeing to participate in this research project. You should feel completely at ease and feel free to do as you please during the course of each session. During the next hour or so, four of you will be making phone calls, while one of you will be receiving phone calls. Those sending the phone calls will be at this location with (name of assistant), while the person receiving the phone calls will accompany me to another location (name of location). The instructions for those of you making the phone calls will be to relax in this location and do anything you please. We will shortly be voting to select one of you to be the receiver while the others will act as senders. For each trial, we will select one of the senders at random to make a phone call. Selection is completely random by the roll of the die. This means that one sender may call more than onr time, while another may not call at all. The person selected will go to another room, separate from the rest of the group and think about making the phone call to the receiver for about four minutes at which point my assistant will tell you that it is time to make the phone call. The remaining senders should remain relaxed continue with other activities. When the receiver hears the phone ring, they will attempt to identify who is placing the call and tell who they think is calling. They will then answer the phone and say "hello" and the name of the person they feel is calling. They will then tell me who the caller is and the caller will tell the assistant the name stated by the receiver. The sender and receiver will hang up and the sender will return to the group. The next caller will be selected and separated from the group to begin thinking about making the next

phone call. This procedure will be repeated a total of ten times today. Again, thank you very much for helping me complete this research project.

Date_____ Location____

Telephone Telepathy 55

Consent Form for Mental Telepathy Experiment

This study involves mental telepathy and telephone calls. A group of four senders and one receiver will be selected. One sender will be selected at random for each trial. The sender will attempt to use mental telepathy to convey their intention of contacting the receiver prior to making a telephone call. In this study one of you will act as a receiver while the other four will be senders. Two possible substitutes will be selected for this project. If for any reason we ever need more than 2 substitutes, we will attempt to reschedule the session for another time period but we will attempt to keep it as close to the seven day time period between sessions as possible.

This study involves the four senders sitting with each other talking or watching television or reading. You are encouraged to act as you would normally if you would have assembled on your own and not for a research study. One of you will be selected at random and be asked to think about the receiver for four minutes. After the four minutes have elapsed you will be asked to place a phone call to your friend or family member. That person will attempt to identify which of the four potential callers is trying to contact them. This procedure will be repeated for ten trials per session and I ask that you take part in five sessions total.

Your participation will help me complete a graduate degree from Eastern Illinois University. Your help is greatly appreciated. A biologist named Rupert Sheldrake has been conducting similar research on this for nearly ten years. My research could further the understanding of mental telepathy. I anticipate that those participating in this research will gain more information on how research is conducted in the field of psychology, become more interested in this field of study, and will enjoy the experience. You do have my sincerest thanks for assisting me with this research.

My thesis chair (Dr. Russell Gruber) and myself do not foresee or anticipate any risk or discomfort from the above procedure and would like to remind you that your participation is completely voluntary. Any personal information gathered during this study will be kept secret, and you may withdraw your participation of this experiment at any time.

PRINT NAME	DATE
Signature	M/F

Mental Telepathy Belief Question

Choose which number best reflects your belief in mental telepathy with 7 being
"very likely to exist" and 1 being "very unlikely".

1	2	3	4	5	6	7
Very	unlikely				very like	ely
	Print Name			_		
Цом	often de veu see	condor	la norce	on (nost in so	lationalia to voca	:\
HOW		sender	In perso	in (put in re	iationship to rece	iver)
1	2	3	4	5	6 7	
Daily	twice a week	weekly	Every two weeks	Monthly	Every two months	Rarely
How	often do you con	nmunicate w	vith this person (no	t face to fac	e) EMAIL,PHONE	EX.
1	2	3	4	5	6	
Daily		o weekly			Every two months	7 Darah

Receivers should carefully think about each call and get a sense or feeling of the person who is calling.

Receivers should remember that each trial is completely independent of the previous trial. Selection is completely random by the roll of the die. This means that one sender may call more than one time, while another may not call at all.

Mental telepathy is very subtle or even subconscious so between each call you may want to attempt to relax and attempt to clear your mind.

Keep the goal in mind that someone is thinking of you and trying to make you aware that they are thinking of calling you.

Possibly the most important tip: Be sure to give me your guess BEFORE you touch the phone.

Senders: if you are chosen, do your best to think of the receiver. If you are not chosen, do your best to do whatever you normally would be doing and not focusing on the next trial or thinking of your turn. Visit and enjoy being with your friends and family!

Both senders and receivers should try their best. This is a scientific investigation that is both interesting and controversial.

Mental Telepathy Experiment Debriefing

Thank you for participating in the telephone telepathy experiment. For the past ten years, biologist and parapsychologist Dr. Rupert Sheldrake has been studying telepathy. During this time, he has written several books and coined the term "telephone telepathy". He has conducted many experiments using similar methods to those in which you have just participated. He has received amazing results with his research. With nearly 900 trials, his data base currently has 42% correct guesses with 25% expected if the receiver were merely guessing. The existence of mental telepathy is a very controversial subject and your participation may help us to better understand the complex issues involved. Your help is truly appreciated.

If you would like to discuss any information concerning this study or have any other questions, please feel free to contact me.

Clint Harvey 508 W. Summit Fairfield, IL 62837 Phone-618-925-1149 Email-harvey261@hotmail.com

First session group composition sheet

GROUP NUMBER_____ Receiver____

Now that you have looked at the tip sheet, we now need to decide which role each of you will play in this experiment. These roles will remain the same throughout all five sessions. I ask that we vote for who should play the role of the receiver. This person needs to be someone who is the most central role to the whole group based on closeness. This is not a vote for whom you feel the closest to but rather a vote for who you feel is central to this group as a whole. If there is a tie in votes, their names will be placed in a hat and drawn out at random. The name drawn out will act as the receiver.
Once we have chosen a receiver, we need to determine two people to act as substitutes. These substitutes should be someone close to the whole group but most importantly close to you the receiver. They should also be people who you feel would be willing to meet and likely participate if we need them.
Sender
Substitute 1
Substitute 2

If for any reason we ever need more than 2 substitutes, we will attempt to reschedule the session for another time period but we will attempt to keep it as close to the seven day time period between sessions as possible.

Instructions for research assistant

First, thank you for helping me with this project. I understand it will be a significant amount of work but this project could not be completed without your assistance. I have created an instructions document to help you with this project. If you have any questions most should be answered either in this document or in the methods section of my thesis. Again thank you very much for assisting me!

- 1. The first thing you will be asked to do is carefully read the methods section. This is very detailed instructions on how this project will work. I will present you with the methods of this project at least a week before the first trial with which you will assist me. We will then have a session where you may ask me questions and we can review the procedure before we run any trials. Feel free to ask me anything!
- 2. Remember that the methods of this experiment state that we are attempting to keep the environment with the senders as natural as possible. This means that all of these people should know each other very well to allow them to dictate their own conversations and entertainment while they are waiting on the selection for the following run. If they ask what they should be doing while someone is participating in a trial, tell them they can do anything they like as long as they are ready for the next selection when the current sender finishes their trial.
- 3. You basically have only two roles in this experiment. First, you are there to help facilitate this experiment. This means you will select the callers with the role of the die, you will guide the participants to a room away from the senders not chosen, and you will remind the chosen sender that their goal is to think about calling the receiver before every trial. These are examples of how you help the experiment move with minimal effort. Second, your role is to monitor for ways in which the subjects could cheat. Make sure there is no texting or use of cell phones during this experiment at the sender's location. Look for other more creative possibilities as well. Remember, one major argument against the research conducted in this field is possible cheating by participants and experimenters. We are to ensure this does not happen. It is as simple as that. If you are familiar with the methods section, this should be a very easy experiment, and remember to have fun doing this and I hope you enjoy research!

Collected Date: First number represents indicated caller, second number is actual caller

Group 1

Session 1	Session 2	Session 3	Session 4	Session 5
1/4	11	13	11	4 1
3 3	3 3	4 2	4 3	2 4
4 2	4 3	1 4	21	3 4
14	3 4	4 4	3 3	13
3 4	2 1	3 2	4 3	2 2
2 2	3 1	4 3	2 1	4 2
31	4 2	12	11	13
41	14	4 4	4 3	4 4
3 4	3 1	2 2	2 2	11
1 4	4 4	1 4	4 2	2 1

Session 1	Session 2	Session 3	Session 4	Session 5
2 3	6 3	23	3 3	4 2
11	3 6	3 2	2 3	31
2 3	15	4 4	2 1	3 2
2 2	3 3	14	4 2	4 4
2 1	13	31	4 4	13
3 4	13	31	3 2	4 2
2 1	5 6	11	4 2	3 3
2 4	3 3	3 4	12	4 3
13	6 6	2 4	3 4	4 2
11	5 6	31	3 4	3 2

Session 1	Session 2	Session 3	Session 4	Session5
14	4 3	3 2	3 2	2 2
3 1	2 1	4 2	4 2	4 4
3 2	3 1	2 4	4 2	3 4
4 3	4 4	12	2 4	11
1 2	2 2	3 1	3 4	2 3
4 3	3 2	2 2	2 1	2 2
4 2	12	3 3	4 3	4 1
3 3	14	3 3	2 1	3 3
2 1	3 4	4 2	3 4	12
4 2	4 2	14	2 3	4 2

Group 4

Session 1	Session 2	Session 3	Session 4	Session 5
3 2	4 4	6 2	4 2	2 6
3 1	3 3	4 2	4 4	4 6
4 4	11	6 2	4 4	4 5
2 4	4 4	4 4	11	2 6
12	5 3	6 1	2 1	4 6
3 3	4 5	4 6	2 1	4 4
4 2	14	2 2	4 4	5 5
4 4	4 3	4 1	2 2	6 4
2 4	11	6 4	41	5 4
13	5 4	11	5 1	6 6