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Social Fields, Belief In Psi, And Their Effects On Mental Telepathy

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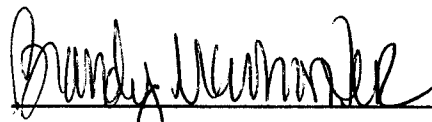
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Social Fields, Belief in Psi, and their Effects on Mental Telepathy

BY

Brandy McWhorter

THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF


Master of Arts in Clinical Psychology

IN THE GRADUATE SCHOOL, EASTERN ILLINOIS UNIVERSITY
CHARLESTON, ILLINOIS


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I HEREBY RECOMMEND THIS THESIS BE ACCEPTED AS FULFILLING
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Social Fields, Belief in Psi, and their Effects on Mental Telepathy

Clinical Psychology Master's Thesis 2005

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Abstract

The current study was designed to explore two major issues involving the existence of mental telepathy. The first goal was the exploration of the relationship between psi ability, specifically mental telepathy, and belief in psi phenomena. In addition, the value of social field theory as an explanation and potential facilitator of telepathic communication was explored. A small group of research assistants attempted to telepathically send 1 of 4 target locations to large groups of participants acting as receivers. The receivers answered a question on a 7-point-scale indicating their level of belief in mental telepathy. Two separate runs of 16 trials each, during which receivers indicated their choices on record forms without receiving feedback as to hits or misses, comprised each session. It was hypothesized that their belief scores would correspond with his or her performance on this telepathy task. Relationships were also explored between scores on the two separate runs. Other variables explored included membership in one of the researcher's class, sex of the participant, direct hits vs. total hits, and extreme scores. The results indicated that there was a significant correlation between belief scores and telepathy scores for Set A but not for Set B. This significant correlation for Set A was present for men but not for women. Also, correlations were strongest for male students enrolled in the researcher's class. T-tests performed on this data by comparing high and low belief groups confirmed these findings. Trends were also uncovered linking telepathy scores from Set A with Set B, but only for those with extreme scores. It was speculated that males might have viewed their belief rating more competitively than the females and actually formed the intention to score in a certain direction. The strength of these findings, along with differences between men and

women and class membership, provides support for a social field perspective. It can be speculated that multiple senders and receivers form a collective consciousness or group mind that may improve or strengthen the telepathic conveyance of information.

Social Fields, Belief in Psi, and their Effects on Mental Telepathy

Psi is a term used to refer to a wide range of phenomena or abilities that are unexplainable according to our usual familiar understanding of cause and effect. Radin (1997) states that psi is the currently accepted term used to describe what has previously been referred to as extra-sensory perception (ESP) or paranormal phenomena. There are four basic categories that are typically included under the label psi and as falling within the domain of parapsychology. Telepathy can be defined as thought shared between two or more people without any known sensory means. Clairvoyance is the ability to visualize an occurrence outside of sensory awareness but not directly involving mind to mind contact with another person. Precognition involves the ability to foresee an event before it occurs, while psychokinesis involves the ability to use thought to create effects in the physical realm, often referred to as "mind over matter." In addition, it is occasionally suggested that all psi phenomena are actually various forms of a single phenomenon referred to as synchronicity. This term was first introduced by Jung (1960) to identify an acausal principle of underlying interconnectedness. Synchronicity is often confused with coincidence, and is typically experienced as an unexplainable, meaningful connection between events.

In introducing this area of research, it should be noted that the study of psi phenomena invariably draws controversy of some sort. This controversy has been an inseparable part of psi research for over 100 years. According to Tart, Puthoff, and Targ, (2002) some scientists have discarded the existence of psi phenomena altogether, while others have been more accepting, pointing to the increasing volume of statistically

significant research. Utts (1995) reviewed research on psychic functioning conducted over a period of decades and concluded, “using the standards applied to any other area of science...psychic functioning has been well established. The statistical results of the studies examined are far beyond what is expected by chance” (p. 1). She goes on to recommend that researchers now “focus on understanding how psychic functioning works and on how to make it as useful as possible” (p. 1). Adding “there is little benefit in continuing experiments designed to offer proof, since there is little more to be offered to anyone who does not accept the current collection of data” (p.1).

However, an ongoing problem with establishing the reality of psi phenomena involves difficulty in replicating findings. Difficulties in replication have led some authors to suggest that psi is by nature “capricious” and “actively evasive” (Kennedy, 2003) therefore, inherently may not be replicable. (Kennedy, 2003; Radin, 1997). Kennedy summarizes difficulties in replicating findings, citing the tendency for significant psi scoring associated with specific individuals or specific experimenters to diminish over time. Other reasons offered as explanations for being unable to replicate include experimenter beliefs or skepticism, effects of boredom or fatigue, laboratory atmosphere, and the subtlety or spontaneous nature of the phenomena being studied.

Another factor, adding to the conflict surrounding the widespread acceptance of the existence of psi, involves the change in scientific perspective. Specifically, any attempt to explain psi phenomena requires a shift in our way of thinking about causality, which suggests an underlying interconnectedness that we are not normally aware of, as well as a fundamental change in our understanding of the human mind and human abilities.

Theories of psi

Many theories have been presented to explain psi phenomena. Some physicists' theories have related psi phenomena to electromagnetic, energy, quantum, and gravitational fields, while other scientists have differentiated psi phenomena from field theory, morphic fields, and social fields (Irwin, 1994; Lewin, 1951; Sheldrake, 1999 & 2003). There are also those who still question how any psi phenomena can be explained given our current level of understanding (Radin, 1997).

One major theory is that psi information can be transmitted through forms of electromagnetic radiation (Irwin, 1994). For example, an individual may be able to transmit information using very low "frequency electromagnetic waves" to another person without using any specific sensory organ. Becker (1992), however, notes the lack of evidence for the ability of electromagnetic fields to transmit information without using the five senses, and believes that there is more involved in psi phenomena than we have yet discovered. Another theory involving physical energy is known as the energy field theory (Irwin, 1994). Physical energy is believed to create a "field effect," which is described as a form of energy that does not interact with matter but has the ability to pass through solid objects (Irwin, 1994). Sheldrake (1999) related the field effect theory to what he called morphic fields. The field theory and morphic field are similar as they both explain that there are individual parts to a system that are connected in some underlying way. Sheldrake states that morphic fields are created by the social fields we develop through our everyday activity with various groups such as sports, a group of friends, and family (Sheldrake, 1987, 1999, & 2003). He also relates colonies and hives

of insects, schools of fish, flocks of birds, and herds with the notion that individual organisms work together to create one whole organism (Sheldrake, 1999 & 2003).

Skeptics explain that psi phenomena are due to “coincidences, misperceptions, and chance” (Irwin, 1994 p.178). In general, research on psi is not taken seriously by skeptics. Interestingly, there is evidence (Schmeidler, 1997, Smith & Gordon, 2002; Watt & Brady, 2002) that specific biases (positive or negative) can influence possible findings within psi research especially if the bias comes from those running the experiment.

Experimenter Effects

Smith and Gordon define psi-related experimenter effects as “when some experimenters are consistently more successful than other experimenters in obtaining evidence for psi” (2002, p. 1). This experimenter effect has been described as influencing psi research because the experimenter’s belief can affect the participant’s belief in psi, which has been shown to affect psi abilities. Another explanation, as indicated by Schmeidler (1997), is the difference between emotionally warm and cold experimenters. The experimenter’s tone of voice alone can influence the participant’s psi experience negatively or positively. A participant’s reaction to a warm or friendly experimenter appears to result in higher psi scores for the participant, whereas the cold or distant experimenter may elicit lower scores. Gruber (2004), however, found that when research assistants were warm and very friendly while providing snacks, the participants appeared to be uncomfortable. When the research assistants acted more distant, scientific, and did not provide snacks, the participants appeared more comfortable.

Watt and Brady (2002) explored a participant's belief in psi after the experimenter announced his own experiences and belief in psi research. Sixty psychology undergraduate students (18 male and 42 female) participated in the study. The researchers attempted to manipulate the participant's belief by randomly separating two groups of participants into a positive expectancy group and a negative expectancy group. The positive expectancy group involved the researcher stating that psi research has been successful and that the researcher had a positive belief, whereas the negative expectancy group involved the researcher stating that he had not had positive results through the years of his research and that he had a negative belief in psi. There was no significant difference in belief scores between participants who were assigned to the positive expectancy group and negative expectancy group, which indicated that views of the experimenter did not influence participant's beliefs.

Wiseman and Schlitz (1997), however, found that an experimenter's belief could have an impact on psi participant's beliefs. During this study, two researchers were separated based on their belief in psi phenomena. One researcher was skeptical of psi, whereas another researcher was a believer in psi who had found many positive findings in psi phenomena. Both researchers used identical procedures including the same location, time, equipment, and subject pool. The only difference, however, was that either the skeptic or believer ran the experiment. They found that the experimenter with a negative belief did not influence participant's beliefs; however, the experimenter with a positive belief did have an impact on the participant's beliefs.

It is possible that the experimenter effect theory is plausible and that the experimenter's personality or belief has an impact on participant's psi scores. However,

it is also important to note that other variables such as sensory information leakage, participant cheating, or experimenter cheating could have influenced the participant's scores as well. Along with experimenter effects, there is evidence that types or complexity of stimuli may influence the outcome of psi research.

Stimuli and methods being used

One of the most widely known telepathy experiments is the Bem and Honorton (1994) study. Bem and Honorton reviewed highly successful series of studies using psi ganzfeld methodology. The ganzfeld is identified as the "total field" or the "environment as a whole." Bem and Honorton believed that the environment impacted psi ability. During the beginning of the ganzfeld, the participants were guided through a series of relaxation procedures to increase telepathic receptivity or psi-conduciveness. Receivers (e.g., a person that receives a telepathic message) were placed in a comfortable chair that was located in a soundproof, secluded room, and unable to see or hear due to Ping-Pong halves taped over their eyes and headphones placed over their ears. To prevent distraction from outside noise, white noise was played through the headphones. Each sender (e.g., a person that mentally sends telepathic messages) was placed in a secluded room with randomly selected visual stimuli with different studies employing various stimuli such as art prints, brief videotaped segments, or photographs. Typically, senders were asked to concentrate on the selected target while receivers reported feedback on his or her visualization. At the end of the procedure, receivers were asked to rate the selected targets. If the receiver rated the target that matched the actual target sent as the highest out of the four stimuli presented, then the receiver scored a "hit."

Many researchers (Laszlo, 1996; Tart, Puthoff, & Targ 1979; Utts, 1995) discuss experiments in which senders and receivers are separated in distant locations and are asked to identify specific targets. This procedure is often referred to as “remote viewing.” Utts (1995) further contrasts a free-response format (the participant describes the target) with a forced-choice format (the participant asked to choose from a small number of set choices) as part of the remote viewing procedure. In a series of studies, Gruber (2002 & 2004) chose to use target locations ranging from nine possible locations to as few as two locations with the rationale that two locations involve the simplest possible information.

Based on a review of studies using different types of stimuli, Watt (1996) suggested that “target complexity” and “target emotionality” seem to be the most promising characteristics of stimuli effectiveness. Watt defined target complexity as “the amount of information conveyed in the target,” and target emotionality as “the extent to which the target is meaningful and may evoke an emotional response in the subject” (p. 5). However, Braud, Shafer, McNeill, and Guerra (1995) indicated that the target should be something that the participant can easily focus on. Whatever the stimuli chosen for psi research, it is important to note that findings in psi would be irrelevant if psi-conduciveness were not present during the experiment.

Psi Conduciveness

Psi-conduciveness is a term used to describe conditions such as laboratory environment or experimenter effects that increase the likelihood of demonstrating psi ability. Friendliness, charisma (Donovan, 1998; Schneider, Binder, & Walach, 2000), meditation, relaxation (Braud, 1990; Rao, Dukhan, & Rao, 1978), open-mindedness,

warmth (Schneider et al., 2000; Schmeidler, 1997), motivation (Casler, 1976; Schneider et al, 2000), game-like conditions (Foreman, 1974), and reinforcement (Foreman, 1974; Casler, 1976) have been shown to be psi-conducive in psi experiments. Personality of a participant or experimenter has also appeared to have an effect on psi abilities. Foreman (1974) believed that there were ten specific personality characteristics that could influence a person's ESP ability: "open-mindedness about ESP, motivation, ability to handle stress and conflict situations, ability to relax, competitiveness, creativity, adaptability, confidence, vital interest in ESP, and global perception" (p. 20).

Donovan (1998) explored the possibility that charisma is the primary "predictor" of telepathy scores. He believed that if an individual has characteristics of being charismatic, then there is a higher possibility that he or she has had ESP experience. Donovan also felt that those who have had experience with ESP are more likely to believe in ESP. Donovan compared those who scored high on a charisma scale with those who scored low. He believed that those who scored high on the charisma scale would report more ESP experiences and positive beliefs than those who scored low. A 13-item Affective Communication Test was used as the charisma measure, which measured "emotional expressiveness." Beliefs were measured using a 61-item questionnaire that consisted of seven factors: traditional Religious Belief, Psi Beliefs, Witchcraft, Superstition, Spiritualism, Extraordinary Life Forms, and Precognition (Donovan, 1998, p. 135). Overall, Donovan found a significant difference between the high scoring and low scoring individuals, which indicated that those who scored high on the charisma scale reported more psi experiences than those who scored low.

Psi Missing

Very often, scoring above chance represents significance within an experiment. However, scoring significantly below chance (psi missing) is also a possibility within a psi experiment. For instance in Dalkvist's (1994) replicated studies, she found that individuals with a belief in telepathy actually scored below chance. She also found that individuals with a neutral belief in telepathy scored above chance, whereas individuals with a negative belief did not score above or below chance. In addition, Gruber (2002) found that when participants were divided into an in-group and an out-group procedure, that the out-group participants scored below chance, whereas the in-group scored above chance with the stronger effect being the out-group psi-missing.

Riniolo and Schmidt (1999) believed that skepticism (those with a negative belief in psi) was likely to elicit psi-missing because skeptics were not likely to be good candidates to test psi-phenomena. In their experiment, only participants with a negative belief in psi (100 females and 52 males) were included. A deck of regular playing cards were sorted in piles based on color (5 red and 5 black) and once shuffled, placed in 5 separate "opaque" envelopes. The participants' task involved participating in a "mental counting task," designed to distract them. They were then asked to guess the color of a card chosen by the experimenter. The participants' ability to calculate the card numbers in their heads while selecting the correct card needed for the calculation was the goal of the procedure. Making this procedure difficult, referred to as "psi-hostile," was the purpose of the "mental arithmetic task." This hostile environment was thought to bring forth psi-missing. However, the experiment failed to produce the expected findings,

which may have been due to the absence of a control group (neutral belief in psi) and/or a comparison group (participants with a positive belief in psi). In addition, the distraction of the "mental counting task" could have influenced the participants' capability of scoring below chance.

Sheep and Goats

The literature on telepathy indicates that psi abilities are affected by belief in psi (Blackmore, 1997; Brugger & Landis, 1990; Donovan, 1998; Rigby, 1989; and Schmeidler & McConnell, 1973), personality of the participant (Donovan, 1998; Foreman, 1974; Schmeidler & McConnell, 1973), and personal experience (Blackmore, 1997; Glicksohn, 1990). In addition, research (Blackmore, 1994; Clarke, 1991) has shown that women are more likely than men to believe in paranormal events.

When Schmeidler started researching ESP, she disbelieved in the phenomena (Schmeidler & McConnell, 1973). However, upon further investigation, she concluded that ESP evidence was solid and accurate. To add to these findings she began her own experiment, which started with a standard deck of ESP cards that consisted of five ESP symbols, arranged randomly based on a random number sheet. Following the randomization, an assistant listed the ESP symbols on numbered sheets, which corresponded with the randomized cards. Next, the participant was asked to fill out a 25 blank record sheet that consisted of two ESP symbols assigned to each number. The task of the participant was to draw the symbol that was the chosen target. There was no sender involved in this procedure, only several participants singled out in a room separate from the experimenter. While running this experiment, Schmeidler found that subjects who believed in ESP scored higher on ESP tests, whereas subjects who did not believe in ESP

scored lower on ESP tests. After finding this evidence, Schmeidler invented the term “sheep and goats.” The participants who believed in ESP were labeled “sheep”, while the participants who disbelieved in ESP were labeled “goats.” Schmeidler attempted to manipulate the sheep/goat condition by creating a psi-conducive atmosphere for the sheep and a psi-evasive atmosphere for the goats. The sheep atmosphere was pleasant and welcoming (e.g., provided with cigarettes, candy) while the goats were provided with an uncomfortable atmosphere (e.g., hard desks to write on, dull pencils).

In order to further sheep-goat experiments, questionnaires have been developed to measure participant's attitudes and experiences of psi (Bhadra, 1966; Jones & Feather, 1969). Bhadra introduced a questionnaire consisting of 12 questions. The first six questions were designed to explore psi experiences while the other six were designed to explore attitude of psi. Examples of this questionnaire are “Do you consider that the existence of ESP or the special gift is...impossible, possible, or certain? Which statement is the best expression of your belief about your own ESP ability...No possibility I have ESP, Possibly I have ESP, or Believe that I have ESP?” (p. 16). Bhadra used this questionnaire during the beginning of his research to separate the sheep from the goats. Another measure created by Jones and Feather (1969) was also designed as a 5 item yes/no questionnaire to measure psi experience. The first four items are based on psi experiences, whereas the last question focuses on psi ability. Some examples include “Have you ever had a dream that later came true? Do you consider yourself lucky in whatever you do?” (p. 313). One common measurement used in ESP experiments is the seven-point scale questionnaire. Bem and Honorton (1994) used a 7-point scale in a

ganzfeld experiment, which measured participants' belief in ESP ranging from 1 (strong disbelief in psi) to 7 (strong belief in psi).

Palmer (1971 & 1972) reviewed a series of studies relating to belief in ESP and ESP test scores and found that there was a positive relationship between the two. He concluded that there are four "distinct" criteria needed in a sheep-goat experiment, including belief in ESP during the experiment, theoretical belief, believing in one's own psi experience, and the capability to score above chance on an ESP test. According to Palmer, the sheep-goat effect is the most reliable and consistent finding within the field of ESP research.

A phenomena related to the effects of belief in psi has been reported by Jahn and Dunne (1987) and Dunne (1998) with regard to human/machine interaction from their work at the Princeton Engineering Anomalies Lab. They reported that data from a meta-analysis, covering two decades of work, showed that pre-recorded intentions of participants affected random number generators in an up or down direction and correlated significantly with their results. They added that this effect was significantly stronger in males.

Psi Evasiveness

Kennedy (2003) attempts to explain that there is a deep "mystery" to psi. The mystery involves the discovery that psi can be "reliable at times but evasive other times"(p. 1), and the possibility that psi may not be meant to be scientifically discovered. He suggests this evasiveness may be due to some form of "higher consciousness" that intervenes in keeping psi hidden. White (1993) further elaborates:

I propose that we may be having so much difficulty in “applying” psi because we are thinking in terms of how it can serve us. Instead, we might turn this around by trying to think of how we can serve psi. In order to experience psi “at work” in our lives, it may be a case not of our using “it” but of “its” using us. It may be that psi cannot be deliberately used to wield power, to win over others, to express our wills in any way. The main aim of parapsychology for at least the past 60 years (and probably before) has been to consciously control psi. It is my personal opinion that we have not succeeded very well in doing so, given the technological paradigm we work under. As a machine psi performs very poorly! Because of this, parapsychologists are forced to take the stance that psi applications are too premature at this time (p. 3).

From this perspective we might ask, is psi able to be reliably tested or is psi testing us? Blackmore and Troscianko (1985) believe an illusion of control may influence a participant’s ability to produce psi effects. The illusion of control involves an individual’s feeling that he or she is in control of chance events.

However, according to Palmer (1978), finding a way to replicate findings is the primary issue on researchers’ minds. This problem may be due to the unreliable variables (e.g., experimenter effect, laboratory atmosphere, and spontaneous nature of psi) that present themselves during research, which sporadically happens. On the other hand, Edge, Morris, Rush, and Palmer (1987) indicate that psi research has been replicated successfully. One example of this is the “Sheep-Goat Effect” found by Gertrude Schmeidler in 1942, which has been previously discussed. Other examples

include studies (Radin, 1997; Thalbourne & Haraldsson, 1980) that have found that “sheep” have higher telepathic abilities than “goats.”

Telepathy and Social Fields

As previously mentioned, field theories are one hypothesized mechanism for psi. Gruber (2004) summarizes by saying:

Increasingly, theories of psi phenomena refer to the existence of fields of influence likened to gravitational, electromagnetic, and quantum fields described by physicists. Fields in physics are generally defined as “a condition of space” that influences matter, but are not themselves made of anything. The field hypothesized to underlie psi phenomena has been referred to by different theorists using different names such as Sheldrake’s morphic fields, Laslo’s psi fields, and the term social fields that I use (first used by Social Psychologist Kurt Lewin). Social fields can be described as collective patterns responsible for exerting an organizing and informing influence on human and animal behavior. It has been suggested that this might help to explain the cohesiveness and collective behavior of social groups, as well as the transmission of culture. Jung theorized about the collective unconscious while Freud described the influence of what he referred to as group mind.

There is little research directly linking social fields with telepathic communication. According to Rubert Sheldrake (1987) social fields can be explained using the following comparison between an acorn and an oak tree:

The acorn is associated with an oak tree field, an invisible organizing structure which organizes the oak tree’s development; it is like an oak tree model, within

which the developing organism grows. If you cut an oak tree into little pieces, each little piece, properly treated, can grow into a new tree. So from a tiny fragment, you can get a whole (pg. 15).

Similarly, Sheldrake describes the behavior of individual ants and other social insects as guided by a collective colony or hive mind. He extends this analogy to humans, implying that social behavior is also guided by collective mental fields. It should be noted that these concepts are not new in physics, biology, or psychology. Other related theories include E.O. Wilson's "super organism" theory (Sheldrake, 1988), Teilhard de Chardin's "noosphere" of collective human mind (Chardin, 1965), and Emile Durkheim's "conscious collective" (Sheldrake, 1988). Based on these theories, we can hypothesize that when a group of people are together, the power of a group is greater than the focus that of any one individual. Very few studies in the literature reporting using groups of senders in telepathy experiments. This omission seems curious given that the number of senders would appear to be an important variable in field theories of psi.

Recent attempts to test field theories of psi phenomena by using groups of senders have been conducted by Gruber (2002). He theorized that when groups of people get together they form a collective mind or consciousness and that:

information known by a group of people would exist within a collective social field formed by the group. Initially we thought that the best way to gather evidence supporting this theory would be to determine if a group's knowledge of a solution to a problem could facilitate problem solving in other individuals. As this proved difficult to quantify, we simplified the task to finding the location of a

target in a grid of nine squares (a kind of a telepathy version of the board game called battleship).

This strategy was tested first with a pilot study consisting of a group of research assistants acting as senders and receivers. Receivers were asked to sit in front of a foam board of nine squares using red disks as markers. The senders selected a random target location while the receivers were directed by a signal tone to select the target that was being focused on by the senders. A receiver placed the red disk on his or her chosen space on the grid and continued to place discs until the correct target location was chosen. Once the correct target location was found, the receiver was given a signal tone signifying a "hit." This was repeated for 12 trials. During the pilot study, 15 individuals participated in the study and a majority of them scored above chance. Due to the encouraging results of the pilot study, Gruber and colleagues revised their procedure and used four grids in hopes of obtaining more direct hits. Research assistants were used once again to act as senders and receivers using the same procedure with 16 trials instead of 12 trials. Once again, encouraging results were found with one participant scoring seven direct hits in a row (16 trials).

Yarnall (2003), working with Gruber, also explored a social field theory for telepathy. The study involved splitting participants into an "in-group" and an "out-group." Gruber, Yarnall, and colleagues hypothesized that the out-group members would score below chance, whereas the in-group members would score above chance due to the social field or collective conscious of the group. The equipment used to measure telepathic information were two foam boards containing 4 circles and 4 red foam discs with Velcro backs. A closed circuit TV was displayed in the sender room in order to

view the receiver. Researchers attempted to create a warm, friendly, and an enthusiastic atmosphere to help the participants feel comfortable participating in the research study. The senders were instructed that they would be sending to six receivers, three from the in-group and three from the out-group. The receivers, one at a time, attempted to receive the telepathic signals by using disc placement. After the out-group receivers participated, the researchers informed the in-group receivers that they should do better since they are part of the "social field or group." The results indicated that the in-group received more direct hits (163 direct hits) than the out-group (109 direct hits), which supported the hypothesis that the out-group would score below chance, whereas the in-group would score above chance.

Current Study

The current study is designed to explore two major issues addressed in the previous literature review. First, I will explore the use of social field theory as an explanation and potential facilitator of telepathic communication. Secondly, evidence of successful psi phenomena using groups may be useful in providing support for the existence of social fields. This study is part of a series of studies designed to identify social fields through the study of mental telepathy as well as to facilitate telepathy using social fields.

A small group of research assistants who have an interest in psi will act as senders and will attempt to transmit target locations (4 choiced format) to a larger group of undergraduate participants acting as receivers. Two sets of 16 trials (Set A and Set B) separated by a break will be conducted. Using this group format, participants will not be

given feedback as to whether they have hit or missed each target. In addition, a single likert scale question asking about their level of belief in telepathy will be administered.

The basic questions I am exploring in this study involve hit rates compared with chance expectation as well as the relationship between participant's belief in telepathy and their telepathy score. I will also be exploring whether or not hit rates on the first set (Set A) are related to hit rates on the second set (Set B) as well as any differences between men and women.

Method

Participants

Participants consisted of 277 (males = 100, females = 177) introductory psychology students who volunteered from the subject pool and received credit for their participation. Of the participants, 110 were in an introductory psychology class taught by one of the experimenters, whereas 167 participants were in other sections of introductory classes. Due to the experimenter's research interest, those students in his class were exposed to information regarding psi experimentation and theory during class lectures.

Materials

Two foam boards marked with four circles, one in each corner, and red discs (one for each board) were used. The red discs attached with Velcro were used as target markers. A stopwatch was used in the sender room in order to pace the time between trials. The interval between trials was standardized in order to avoid the possibility of conveying any information from the senders to the receivers. Bell wire (150 ft.) was attached to a bell that signaled the beginning of each trial. Data record sheets with 16 sets of 4 circles (1 set for each trial) were used to record results (see Appendix A).

A video camera (JVC-VHS) was set up on a tri-pod in the receiver room and connected using a co-axil converter, amplifier, and cable to a 32-inch Panasonic TV in the sender room. A standard doorbell was used as a signaling device connecting the sender room with the receiver room. The doorbell signaled the receivers before beginning each trial.

Measures

Psi-belief. An overhead projector was used to display a 7-point-likert scale. Participants were asked to rate themselves on this scale with 1 indicating their belief that mental telepathy was "very unlikely to exist" through 7 indicating "very likely to exist." They were instructed to write the number that represented their belief (1-7) on top of their consent forms. See Appendix (B) for a copy of the 7 point scale.

Telepathic hits. Participants had a record form on which they recorded their first and second choice for each trial. This strategy gave them 2 chances to correctly determine, or "hit" the target out of four possible target locations. First choice hits are considered "direct hits" with 25% likelihood, while first and second choice hits combined are considered "total hits" with 50% likelihood.

Procedure

A group of research assistants (between 6-8) set up the equipment, helped with experimental procedures, and acted as senders in the study. The video camera and tri-pod were placed in front of a large lecture hall and connected through co-axil cable to the TV set located in a room located one floor above and across the hall. This arrangement allowed for the senders to see and hear the receivers on the television and for a signal to be sent from the sender to the receiver room. There was a total distance of over 100 feet,

one floor, and two doors of distance between receivers and senders; the receivers could not hear or see the senders. A sound check indicated that no sound carried between the two rooms. One foam board and target disc was placed in the sender room and one in the receiver room.

Six separate data collection sessions were conducted with participant groups between 15 and 55. They arrived in a large lecture hall and were allowed to sit where they chose in view of the camera. The researchers greeted participants and in an attempt to create a friendly, relaxed, psi-conducive atmosphere, the researchers conversed casually with each other and with the participants. The researcher, who taught the introductory psychology course in which some of the participants were enrolled, gave a brief description of the research project, including an overview of the experimental procedure. In order to increase participants' involvement, a brief definition of social field theory and its possible theoretical connection with mental telepathy was also included in the description. A copy of the script, consent form, instruction/tips handout, and debriefing form can be found in Appendix (C). Subjects were asked if they had any questions; clarification was provided when necessary.

The research assistants acting as senders proceeded to the sender room. Two pages of random numbers comprised of 1's, 2's, 3's, and 4's in twelve columns were printed prior to each session from the website "random.org." According to the site, these numbers are produced by a process using white noise, and are more truly random than the pseudo-random numbers generated by computer programs. A coin flip determined which sheet was used. A second coin flip determined the starting point at the top or bottom of a column while a third coin flip determined right or left. A roll of two dice determined

which column 2-12 from the right or left would be used. Random targets were selected by entering the table at the location specified (1's upper left, 2's upper right, 3's bottom left, and 4's bottom right) and the red disc was placed accordingly on the foam board. A seven-second interval provided time for senders to focus on the target location at which time the receivers were signaled that the target was in place. Receivers were then instructed to write 1 in the location of their first choice and 2 in the location of their second choice. Following a 30-second period, senders repeated the procedure for trial 2. After the completion of 16 trials, the record forms were collected and the participants were told there would be a short break (5 minutes) followed by a second set of 16 trials. A second record form was provided. The procedure for the second set was the same as the first set. Following the completion of the second set, record forms were collected and a debriefing form was distributed. Each set took approximately 15 minutes.

Results

It was hypothesized that a participant's belief in telepathy would influence his or her performance on a telepathy task. Relationships were also explored between scores on two separate runs (Set A & Set B) using the same participants during a single session.

Relation between belief and telepathy

There were no significant differences between belief scores for men ($M = 3.62$, $SD = 1.85$) and women ($M = 3.66$, $SD = 1.44$), $t(df) = -.175$. Levene's Test for Equality of Variances indicated that men's belief scores had more variance than women's scores, $F = 14.31$, $p < .001$. Table 1 provides belief scores for men and women along with hit rates for set A and B. Overall hit rates did not vary from chance expectation for direct hits (1's) or total hits (1's and 2's) out of four choices.

However, when examining sheep (high belief scores) and goats (low belief scores) it was found that there was a significant correlation between belief scores and telepathy scores for Set A ($r = .16; p < .007$; for total hits) but not for Set B ($r = -.01; p > .05$; total hits). When examining data from men and women separately, it was found that this significant correlation for Set A was present for men ($r = .30; p < .002$) but not for women ($r = .06; p > .05$). Data was also examined by class membership with correlations being strongest for men in the introductory course taught by one of the researchers. See table 2 for a summary of correlations for total hits as well as direct hits.

Interestingly, it was noted that when the combined total hits for men and women from Set A were graphed, each increment in belief from 1-7 corresponded to an increase in the telepathy score, with 1 being the lowest score, 2 being the next lowest, sequentially through 7 being the highest. The probability of this sequence occurring by chance is about 1 in 500,000. See Table 3 for mean hits by belief for men and women combined for Set A and Set B. Table 4 shows mean hits by belief for men for Set A and B and Table 5 shows mean hits by belief for women in Set A and B. Figures 2-3 show distributions for men and women separately for Set A and Set B indicating direction and distance from the expected mean, whereas figure 1 shows men and women combined for Set A and B.

In order to determine whether the differences found between men and women for Set A represent a significant interaction, a Post Hoc two by two Univariate ANOVA was run comparing groups of goats (participants with belief scores of 1, 2, or 3) with groups of sheep (participants with belief scores of 5, 6, or 7) leaving out those with the middle score of 4. For direct hits belief was significant ($F = 5.73, p < .02$); sex was significant (F

= 5.14, $p < .02$); and belief by sex was significant ($F = 4.60$, $p < .03$). In order to clarify these effects, Post Hoc t-tests were then performed. The results were significant for men ($p < .01$) but not for women. A summary of these results can be found in tables 6, 7, and 8. Again, it can also be noted that the strongest relationship between belief and telepathy scores came from males in the introductory course taught by one of the researchers followed by males from other introductory psychology courses.

Comparison of set A and B performance

An initial examination comparing scores on Set A with those on Set B indicated no significant correlations (See Table 2) which suggested that performance on the first set was unrelated to performance on the second set. However, on closer examination it was revealed that those with high scores (10 or above) on Set A ($N = 64$, $M = 10.61$, $SD = .87$) scored slightly above chance on Set B ($M = 8.31$, $SD = 1.97$), while those with low scores (6 or below) on Set A ($N = 65$, $M = 5.22$, $SD = .91$) scored slightly below chance on Set B ($M = 7.86$, $SD = 1.97$). This relationship between Set A and Set B was similar for both men and women: males 10 and above for Set A ($M = 10.62$) and for Set B ($M = 8.57$), while women scored 10.60 for Set A and 8.19 for Set B. In the low score direction, males 6 and below ($M = 5.14$) for Set A with ($M = 7.64$) for Set B, while females ($M = 5.26$) for Set A and ($M = 7.98$) for Set B. Here again, the trend was strongest for men in the researcher's class (High A, $M = 10.87$, mean for B = 9.13; Low A, $M = 5.45$, mean for B = 7.64). While these numbers are very suggestive of a relationship and represent a trend in the direction predicted, they did not appear to reach a level of statistical significance. Interestingly, while this correspondence between Set A and Set B was found for high and low scores when examining total hits (1's and 2's), it

was not present for direct hits (1's). The initial lack of findings was due to the large number of participants who scored close to chance on both sets. However, by examining extreme scores this relationship was uncovered. An examination of belief scores for these groups revealed additional findings. The mean belief scores for high A, researcher's class (class 1) males was ($M = 5.13$, $SD = 1.96$) on the 7 point scale while the belief score for low A, class 1 males was ($M = 2.64$, $SD = 1.75$).

One final result worth noting involves a few extremely high scores. One participant scored 11 direct hits out of 16 trials while another two participants scored 10 direct hits out of 16 trials. The chance of scoring 11 hits out of 16 ($z = 4.65$, $p < .000006$) is approximately 1 in a million. If we divide this probability by 277 participants with 2 runs of 16 each for a total of 554 runs we arrive at a probability of 1 in 66 or $p < .02$.

Discussion

Numerous previous studies have found evidence for a relationship between psi performance and belief in psi tasks (Blackmore, 1997; Brugger & Landis, 1990; Donovan, 1998; Rigby, 1989; & Schmeidler & McConnell, 1973). Believing in mental telepathy appears to play a role in facilitating mental telepathy hitting, while being skeptical often results in above chance missing. The current study confirms and extends these findings.

One goal of this study was to explore social field theory as a facilitator of telepathic communication by using groups of senders and groups of receivers as well as to further explore the role of belief in telepathic receptivity. The receivers were viewed over closed circuit television and were sent simple information - - the location of a target on a board of four choices. Each participant filled out score sheets corresponding to their choices and received no feedback throughout two sets of sixteen trials. Unique aspects of this experiment involved a methodology using groups of senders and receivers, a visual image of the receivers, simple location as targets, and the attempt to employ and explore social field theory in a game-like atmosphere.

Interestingly, differences arose between males and females and Set A and Set B, with males showing highly significant results in Set A but not in Set B, while females did not show significant results in either set. Men in Set A with low belief scores (1, 2, & 3 on a 7 point scale) had a mean direct hit rate of 3.77 (with a chance expectation of 4) and an overall hit rate of 7.44 (with a chance expectation of 8), while men with high belief scores (5, 6, & 7) had a direct hit rate of 4.81 and an overall hit rate of 8.70. Of the 48 men with belief scores of 1, 2, or 3, 52.1% scored less than 4 direct hits. While on the

other hand, of the 37 men with belief scores of 5, 6, or 7, only 13.5% scored less than four direct hits. With regard to overall hits, 54.2% of men with belief scores of 1, 2, or 3 scored below the chance expectation of eight, while only 21.6% of men with belief scores of 5, 6, or 7 scored below chance expectation. According to t-tests, comparing these groups of sheep and goats, this represents probabilities of 2 out of 1000 and 3 out of 1000 respectfully ($p < .002$ / $p < .001$). Looking at those with the most extreme scores further highlights this contrast. Men with belief scores of 1 and 2 had an average hit score of 7.33 compared with those with belief scores of 6 and 7 with an average hit score of 9.29 (direct hits of 3.67 compared with 5.20). These highly significant results point to a significant relationship between stated belief in mental telepathy and psi ability.

Furthermore, those with low stated belief scored below chance expectation, while those with high stated belief scored above chance expectation. This finding is particularly remarkable given that participants were in large groups and did not receive any feedback regarding performance throughout the entire session. They did not know whether they were hitting or missing the targets.

While it is hard to say what specific variables are responsible for these findings, there are a number of possibilities that can be considered. These include simple location as targets, a single question as a measure of belief, groups of senders, groups of receivers, and a psi conducive atmosphere. The use of location, specifically having one of four choices as a stimulus for telepathic communication may have provided a very simple, easily transmittable target (the target was a "target"). This type of stimulus has not been previously used. The use of a single question (7 point scale) was designed to provide a more direct specific measure of belief in mental telepathy. Many sheep-goat measures

include a variety of questions, which may obscure the specificity of the measure. Also, the single question may have served as a more direct statement of one's intention to score in a higher or lower direction.

With regard to the use of groups of senders, we must wonder why this approach is almost completely ignored in studies of psi phenomena. Without systematic manipulation of this variable, including various group sizes, it is difficult to make any clear judgement as to its effect. However, it can be speculated that a group of senders is in fact more effective than a single sender or no sender at all. From a social field perspective, multiple senders may form a collective group mind, or collective consciousness that may improve or strengthen the telepathic conveyance of information.

The use of groups of receivers appears rarely in the literature. In this study, it can be speculated that groups of receivers, seated in large groups, were free from the scrutiny and nervousness often associated with laboratory settings. This may have also contributed to an enjoyable game-like atmosphere.

One of the most consistent findings in psi literature involves the effect of laboratory atmosphere and experimenter tone or belief. This can be summarized using the term psi-conduciveness. A psi-conducive atmosphere has been shown to produce better psi performance than a non-conducive setting (Donovan, 1998; Schmeidler, 1997; Schneider, Binder, & Walach, 2000). In the current study, the experimenters attempted to create an open, warm, and friendly interaction with the participants and maintain an enthusiastic tone. This seemed to be effective throughout the first set of 16 trials.

However, following the break, beginning with the second set, the researchers noted that the participants appeared to lose focus and became talkative. The lack of feedback

regarding their hit rates, as well as fatigue or boredom, may have led to a decrease in motivation, which may explain the differences noted between Set A and Set B. However, those with extremely high or low scores on Set A did score in a consistent direction on Set B.

With regard to differences between men and women, it's interesting to note that for Set A, men particularly the men in one of the researcher's class, findings were exactly as predicted with low believers scoring low, and high believers scoring high across the range of the belief scale. Specifically, men with low belief scores scored below expected chance, while men with high belief scores scored above chance expectation. However, this was not the case for women. Because a male researcher provided the initial information about the study, it is possible that the sex of one of the experimenter's (male) may have played a role in this because the males in the researcher's class showed the strongest findings, followed by the males not in his class. It can be speculated that males, especially those in the researcher's class, viewed their belief rating as more of a competitive statement than the females, actually forming an intention to score in the direction of their belief. This would support Dunne's (1998) findings that males had greater success in producing intentional results in a psi task. Dunn reports, "Both groups demonstrate greater success in the high intention efforts than in the low, but whereas a majority of the males succeed in both directions of effort, producing intentional results that are relatively symmetrical in comparison with the empirical baselines, most of the females' low-intention results are opposite to intention" (1998, p. 3). One of the fascinating things about psi-missing, as demonstrated by the male "goats", is that it would seem that on some level, one must know where the target is in order to miss it.

While the current study does not provide a definitive link between field theory and mental telepathy, findings are strongly suggestive of this connection. The strength of these findings encourages future exploration in a number of interesting directions. The first step would be to attempt replication of these findings. An improved methodology would take into consideration the participants' loss of focus during the second set. Other suggestions include eliminating the break, instructing students to try to miss the target, manipulating psi-conduciveness, creating a competitive atmosphere, and using a 6-point-belief scale to force participants into identifying themselves as either sheep or goats.

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Table 1.

Belief and Scores for men and women on Set A and Set B

	<u>Men</u>	<u>Women</u>
	<u>Mean Score/SD</u>	
Belief	3.62 / 1.85	3.66 / 1.44
	<u>Set A</u>	
Hits - 1's	4.16 / 1.59	3.90 / 1.74
Hits - 2's	3.79 / 1.62	4.15 / 1.81
Hits - 1 or 2	7.95 / 2.01	8.05 / 2.05
	<u>Set B</u>	
Hits - 1's	4.12 / 1.73	4.11 / 1.76
Hits - 2's	3.71 / 1.84	4.12 / 1.88
Hits - 1 or 2	7.73 / 2.10	8.24 / 1.95

Note: 1s = direct hits. 2s = hits.

Chance expectation for 1's (Direct Hits) = 4.0. Chance expectation for 1's and 2's (Total hits) = 8.0

Table 2.

Correlations Between Belief and Scores and Set A with Set B

	Belief 1's (Set A)	Belief Hits (Set A)	Belief 1's (Set B)	Belief Hits (Set B)	Set A w/ Set B (1's)	Set A w/ B (Hits)
All	$r = .15$ $p < .011^*$	$r = .16$ $p < .007^*$	$r = -.14$ $p < .018^*$	$r = -.01$ $p < .939$	$r = -.08$ $p < .173$	$r = .06$ $p < .321$
Men	$r = .33$ $p < .001^*$	$r = .30$ $p < .002^*$	$r = -.12$ $p < .230$	$r = -.01$ $p < .909$	$r = -.10$ $p < .348$	$r = .13$ $p < .191$
Women	$r = .04$ $p < .591$	$r = .06$ $p < .408$	$r = -.16$ $p < .034^*$	$r = -.001$ $p < .989$	$r = -.08$ $p < .314$	$r = .01$ $p < .853$
Men Class 1	$r = .42$ $p < .003^*$	$r = .39$ $p < .007^*$	$r = -.12$ $p < .415$	$r = .10$ $p < .517$	$r = -.16$ $p < .279$	$r = .14$ $p < .328$
Women Class 1	$r = -.04$ $p < .786$	$r = -.01$ $p < .972$	$r = -.07$ $p < .596$	$r = .18$ $p < .156$	$r = -.13$ $p < .328$	$r = -.08$ $p < .515$
Men Class 2	$r = .21$ $p < .14$	$r = .23$ $p < .110$	$r = -.12$ $p < .398$	$r = -.14$ $p < .325$	$r = -.03$ $p < .830$	$r = .12$ $p < .389$
Women Class 2	$r = .08$ $p < .388$	$r = .12$ $p < .207$	$r = -.20$ $p < .036^*$	$r = -.16$ $p < .096$	$r = -.04$ $p < .641$	$r = .08$ $p < .376$

Note: All = women and men combined

Class 1 = participants in researcher's class. Class 2 = participants not in researcher's class.

Set A = 1st set. Set B = 2nd set.

1's = Direct hits. 1's & 2's = Total Hits.

*sig. $p < .05$.

Table 3.

Mean Hits by Belief – Women and Men Combined

Mean Hits by Belief - Women/Men Set A

<u>Belief</u>	<u>N</u>	<u>1's</u>	<u>2's</u>	<u>1's & 2's</u>
1	30	3.57	3.93	7.50
2	48	3.60	4.02	7.63
3	40	4.08	3.90	7.97
4	69	4.06	3.99	8.04
5	56	4.14	4.07	8.21
6	21	4.14	4.52	8.67
7	10	4.90	3.80	8.70

Mean Hits by Belief - Women/Men Set B

<u>Belief</u>	<u>N</u>	<u>1's</u>	<u>2's</u>	<u>1's & 2's</u>
1	30	4.37	3.67	8.03
2	48	4.60	3.65	8.25
3	40	3.93	4.13	8.05
4	69	4.03	4.04	8.07
5	56	3.96	4.09	8.05
6	21	3.52	4.14	7.67
7	10	3.80	5.10	8.9

Note: N = Number of participants.

1's = direct hits. 2's = hits. 1's and 2's = total hits.

Belief = 1 (lowest belief) – 7 (highest belief). Set A = 1st set. Set B = 2nd set

Table 4.

Mean hits by Belief – Men

Mean Hits by Belief – Men

Men Set A

<u>Belief</u>	<u>N</u>	<u>1's</u>	<u>2's</u>	<u>1&2's</u>
1	17	3.41	3.94	7.35
2	16	3.94	3.38	7.31
3	15	4.00	3.67	7.67
4	15	3.80	3.93	7.73
5	22	4.55	3.77	8.32
6	7	5.14	4.43	9.57
7	8	5.25	3.75	9.00

Men Set B

<u>Belief</u>	<u>N</u>	<u>1's</u>	<u>2's</u>	<u>1&2's</u>
1	17	4.18	3.71	7.88
2	16	4.69	3.37	8.06
3	15	3.93	3.93	7.87
4	15	4.07	3.40	7.47
5	22	4.23	3.59	7.82
6	7	3.57	3.57	7.14
7	8	3.50	5.00	8.50

Note: N = Number of participants.

1's = direct hits. 2's = hits. 1's and 2's = total hits.

Belief = 1 (lowest belief) – 7 (highest belief).

Set A = 1st set. Set B = 2nd set

Table 5.

Mean Hits by Belief – Women

<u>Mean Hits by Belief - women</u>					
<u>Women Set A</u>					
<u>Belief</u>	<u>N</u>	<u>1's</u>	<u>2's</u>	<u>1&2's</u>	
1	13	3.77	3.92	7.69	
2	32	3.44	4.34	7.78	
3	25	4.12	4.04	8.16	
4	54	4.13	4.00	8.13	
5	34	3.88	4.26	8.15	
6	14	3.64	4.57	8.21	
7	02	3.50	4.00	7.50	
<u>Women Set B</u>					
<u>Belief</u>	<u>N</u>	<u>1's</u>	<u>2's</u>	<u>1&2's</u>	
1	13	4.62	3.62	8.23	
2	32	4.56	3.78	8.34	
3	25	3.92	4.24	8.16	
4	54	4.02	4.22	8.24	
5	34	3.79	4.41	8.21	
6	14	3.50	4.43	7.93	
7	02	5.00	5.50	10.50	

Note: N = Number of participants.

1's = direct hits. 2's = hits. 1's and 2's = total hits.

Belief = 1 (lowest belief) – 7 (highest belief).

Set A = 1st set. Set B = 2nd set.

Table 6.

T-test comparing Groups of Goats/Sheep for Men/Women Combined

Men and women combined							
	N	Mean	SD	T	df	Sig (2-tailed)	Mean Difference
Direct Hits (A)							
Low Belief	118	3.75	1.56	-2.07	203	.04*	-.48
High Belief	87	4.23	1.68				
Total Hits (A)							
Low Belief	118	7.71	2.18	-2.31	203	.02*	-.67
High Belief	87	8.38	1.85				
Direct Hits (B)							
Low Belief	118	4.31	1.84	1.88	203	.06	.47
High Belief	87	3.84	1.72				
Total Hits (B)							
Low Belief	118	8.13	1.90	.24	203	.81	.07
High Belief	87	8.06	2.28				

Note: * Sig. $p < .05$.

Low belief is scores of 1, 2, and 3. High belief is scores of 5, 6, and 7.

(A) = Set A. (B) = Set B.

Direct hits = 1's. Total hits = 1's & 2's combined.

Table 7.

T-test comparing Groups of Goats/Sheep for Men

		Men						
		N	Mean	SD	T	df	Sig (2-tailed)	Mean Difference
Direct Hits (A)								
Low Belief	48	3.77	1.43	-3.17	83	.002*	-1.04	
High Belief	37	4.81	1.58					
Total Hits (A)								
Low Belief	48	7.44	2.06	-3.08	83	.003*	-1.27	
High Belief	37	8.70	1.61					
Direct Hits (B)								
Low Belief	48	4.27	1.74	.83	83	.407	.32	
High Belief	37	3.95	1.84					
Total Hits (B)								
Low Belief	48	7.94	1.78	.21	83	.833	.10	
High Belief	37	7.84	2.56					

Note: * Sig. $P < .05$.

Low belief scores are 1, 2, and 3. High belief scores are 5, 6, and 7.

(A) = Set A. (B) = Set B.

Direct hits = 1's. Total hits = 1's & 2's combined.

Table 8.

T-test comparing Groups of Goats/Sheep for Women

		Women					
	N	Mean	SD	T	df	Sig (2-tailed)	Mean Difference
Direct Hits (A)							
Low Belief	70	3.74	1.69	-.185	118	.853	-.06
High Belief	50	3.80	1.63				
Total Hits (A)							
Low Belief	70	7.90	2.25	-.605	118	.547	-.24
High Belief	50	8.14	1.99				
Direct Hits (B)							
Low Belief	70	4.34	1.92	1.74	118	.084	.58
High Belief	50	3.76	1.64				
Total Hits (B)							
Low Belief	70	8.26	1.98	.100	118	.921	.04
High Belief	50	8.22	2.06				

Note:* Sig. $P < .05$.

Low belief scores are 1, 2, and 3. High belief scores are 5, 6, and 7.

(A)= Set A. (B) = Set B.

Direct hits = 1's. Total hits = 1's & 2's combined.

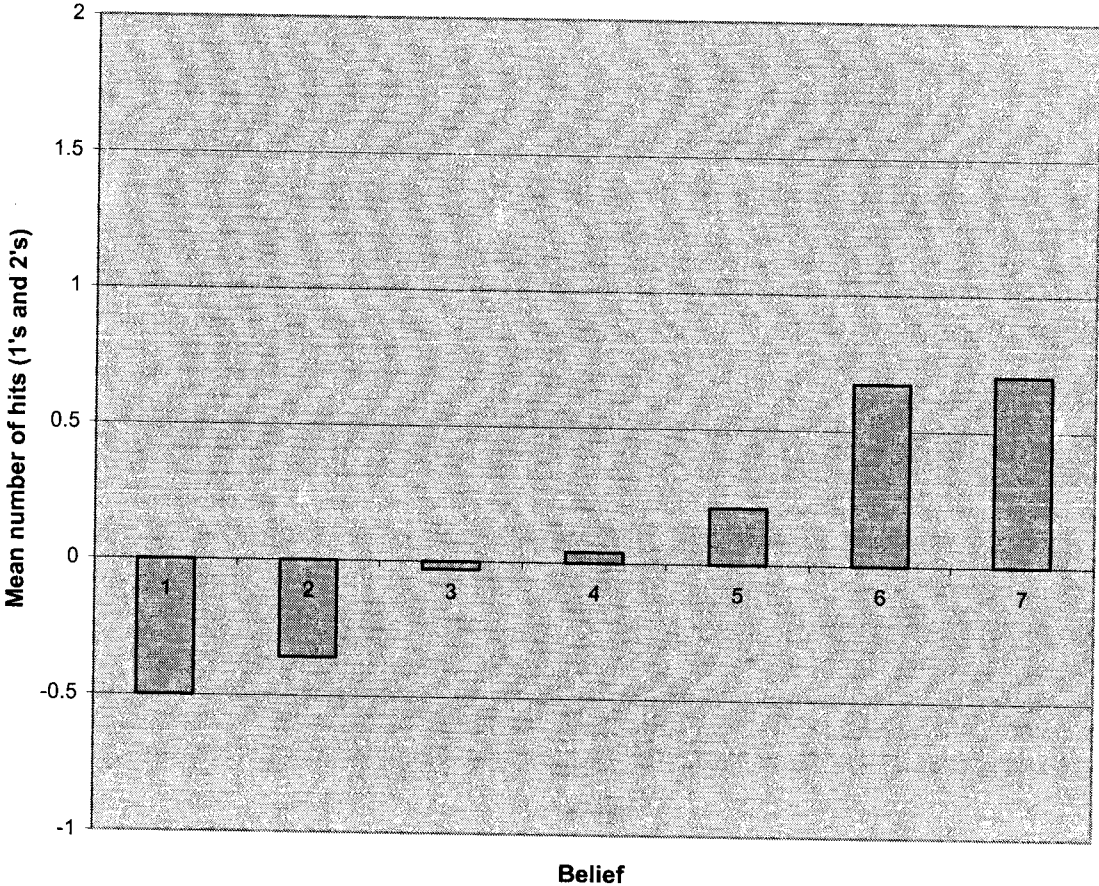


Figure 1. Mean difference from chance expectation – men and women combined for set A

Note: Chance expectation = 8 hits

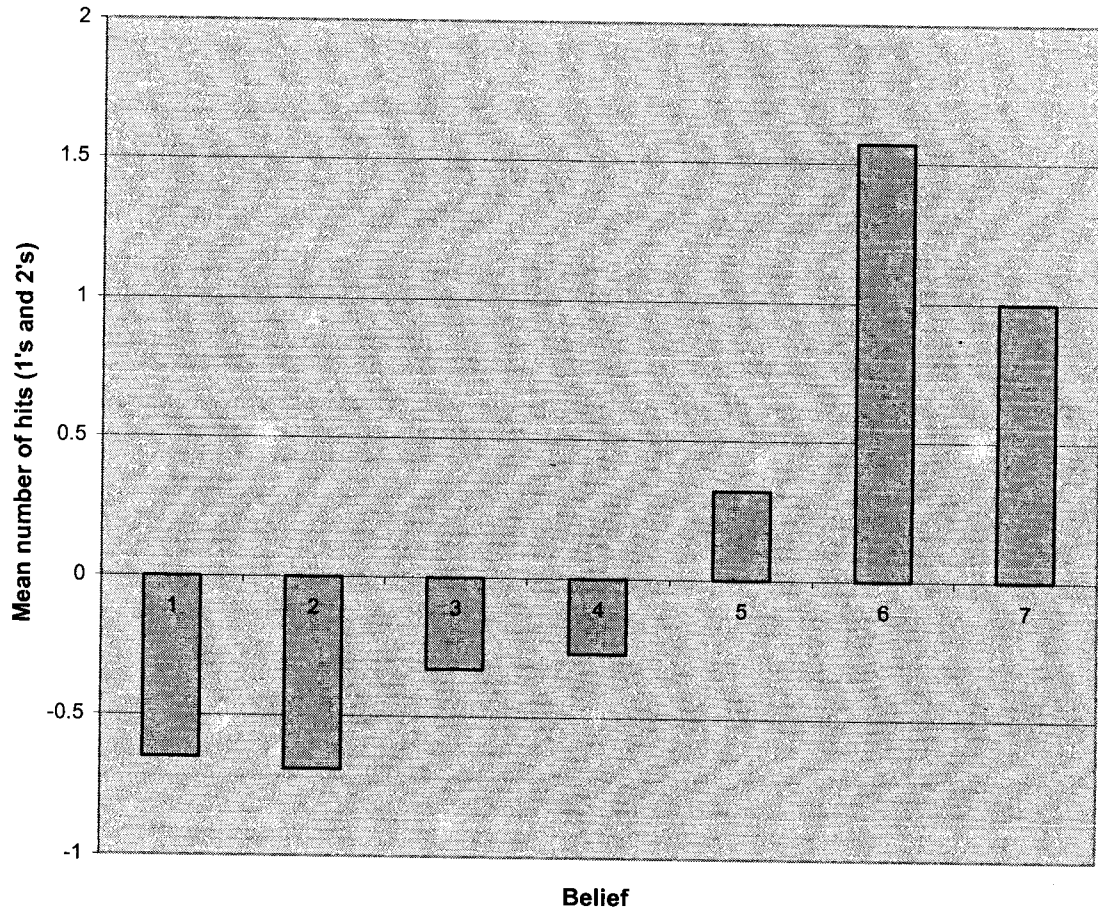


Figure 2. Mean difference from chance expectation total hits – men for set A

Note: Expectation = 8 hits

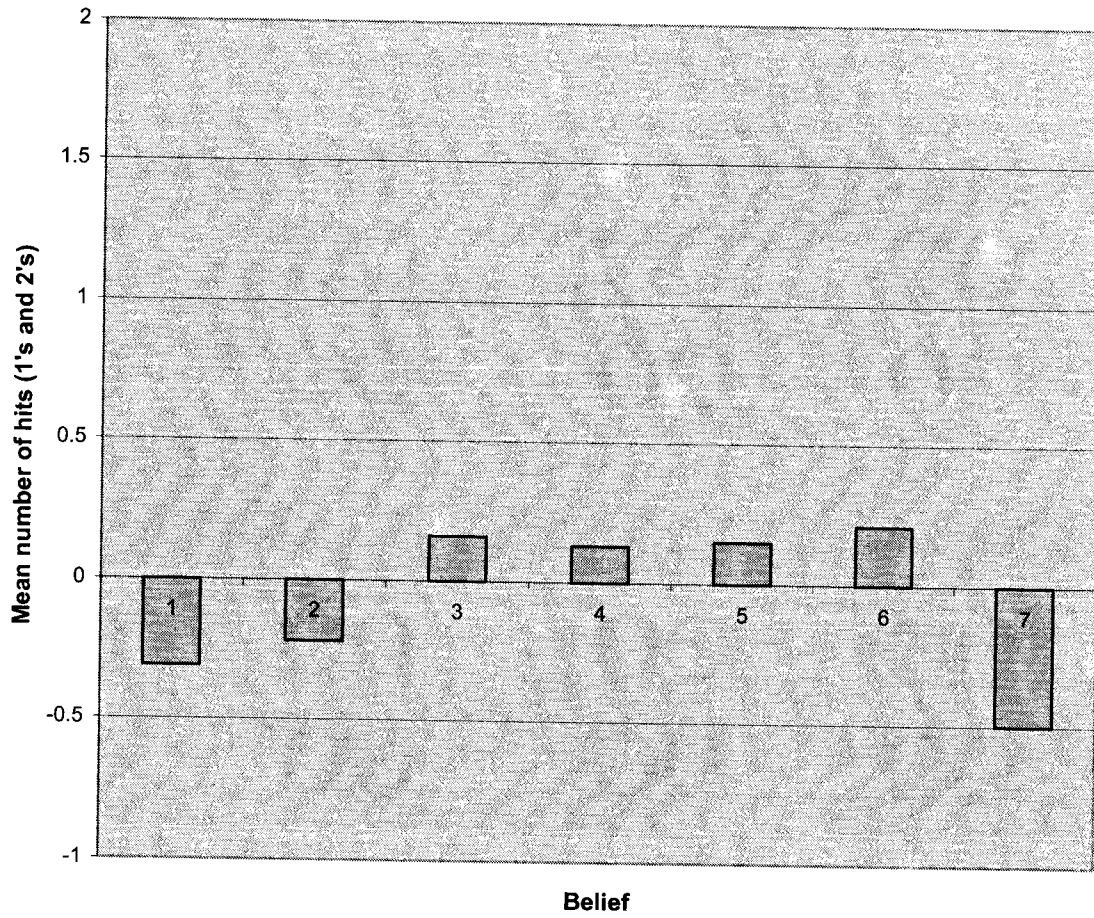


Figure 3. Mean differences from chance expectation total hits – women for set A

Note: Chance expectation = 8

Appendix A: Record Sheet

Name (please print) _____ Date _____

1	2	3	4
OO	OO	OO	OO
OO	OO	OO	OO
5	6	7	8
OO	OO	OO	OO
OO	OO	OO	OO
9	10	11	12
OO	OO	OO	OO
OO	OO	OO	OO
13	14	15	16
OO	OO	OO	OO
OO	OO	OO	OO

Appendix B: 7 Point Likert Scale

Belief in Mental Telepathy Question						
Very Unlikely To exist						Very Likely to Exist
1	2	3	4	5	6	7

Appendix C: Script

Mental Telepathy—spring 2005

Hi. I'm Dr. Russell Gruber. I want to thank you for being here and for your participation in the experiment we are about to run.

This introduction is meant as a brief overview of the research we are conducting.

You will be receiving more detailed, specific instructions, on a written consent form and instruction sheet, as well as from the experimenters.

The research project we are conducting involves a combination of Mental Telepathy and Social Field Theory.

Mental Telepathy is the ability of a person to know what is going on in another person's mind.

We are also studying Social Fields.

The main idea of social fields is that when groups of people get together, they form a kind of group consciousness or mind.

So, what we are suggesting is that this helps to explain mental telepathy - - it is through these mental social fields that information is conveyed from one individual mind to another - - the field creates the connection. This can also work from one group of people to another group.

In this experiment, a group of research assistants in another room will act as senders and this group (you) will act as receivers. The sender group will be able to see and hear the receivers over closed circuit T.V.

Each of you- - the receivers - - will get a score sheet (show sheet) with 16 sets of four circles - - each set of circles represents one trial. The senders - - in another room will have a foam board and red discs with Velcro (like this one). They will select a target - - one of the four circles in a set - - using random numbers - - and will place a red disc on the board marking the target. They will then send us a signal indicating that the target is in place and that they are attempting to telepathically transmit the target location.

The receivers will then attempt to telepathically determine the target location and will mark their choice on their score sheet by placing a "1" in one of the circles for the first trial. After a 7 second pause - you will be asked to make a second choice by placing a

Script continued

“2” in another circle for trial one. You may have hit the target on your first try - - but we want you to take two shots at the target for each trial.

We will repeat the procedure for each of the 16 trials.

We will then take a short break.

After the break we will do a second run of 16 trials.

We hope that you will be motivated by the chance to make an important contribution to this interesting area of study!

The next thing were going to do.....

1. Consent form
2. Instructions and tips
3. Demonstrate boards
4. Review tips and randomness of each trial.
5. Select receivers

Consent Form for Mental Telepathy Experiment (Part 1)

This experiment involves the study of mental telepathy. A group of "senders" will attempt to telepathically convey the location of a target stimulus to a group of "receivers." In this experiment, a group of research assistants in another room will act as senders and this group (you) will act as receivers. The sender group will be able to see and hear the receivers over closed circuit T.V.

For each trial, one of four circles - - in two rows - - will be randomly selected as the target. The senders will place a red disc on a foam board (using Velcro), to mark the randomly selected location. The senders will then attempt to telepathically transmit the target location.

The receivers will be asked to determine the location of the target circle and to mark their choice for each trial on a data collection form corresponding to the foam board.

For each trial receivers will be asked to place a number 1 in the circle corresponding to their first choice and a 2 indicating their second choice.

Two sets of 16 trials will be conducted. The total time for the experiment will be about 45 to 55 minutes.

I understand that my participation is completely voluntary, that all personal information collected will be kept strictly confidential, and that I may withdraw my participation at any time without penalty.

Print Name _____

Signature _____ Date _____

Instructions/Tips

- Wait for a signal to begin each trial

- Carefully examine of the four spaces for each trial on your data sheet for a *feeling* or *sense of the target location*.

- Keep the *goal* in mind - - *others are trying to send you the target location*

- Between trials try to clear your mind and wait for the signal to begin the next trial

- Remember, each trial is separate and has nothing to do with the previous trials

- Mental telepathy is very subtle information - - and may even be subconscious - - so, before each trial you may want to take a deep breath, relax, and try your best to quiet your mind

- Try your best - - this is a scientific investigation of an interesting and controversial phenomena

Mental Telepathy Experiment Debriefing

Thank you for participating in the Mental Telepathy Experiment. We have been trying different approaches to sending and receiving telepathic information using groups. The existence of mental telepathy is a very controversial subject and your participation may help us better understand the complex issues involved. Your help is truly appreciated.

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

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