Further Studies of Autonomic Detection of Remote Staring: Replication, New Control Procedures, and Personality Correlates

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In a previous paper (Braud, Shafer, & Andrews, 1993), we reviewed the scientific literature dealing with the purported ability to detect when one is being watched or stared at by someone situated beyond the range of the conventional senses. Surveys indicated that between 68% and 94% of various samples reported having had staring detection experiences in their everyday lives. Previous investigations provided suggestive evidence that persons were indeed able to detect, consciously, when they were being stared at under conditions in which precautions were taken to eliminate possible subtle sensory cues. In particular, positive conscious-guessing results were obtained in two studies in which sensory cueing was eliminated through use of one-way mirrors (Peterson, 1978) and use of a closed-circuit television system (Williams, 1983).

We hypothesized that stronger effects might be obtained if relatively "unconscious" autonomic nervous system activity were used as the indicator of staring detection, rather than conscious guessing. Our reasoning was that autonomic reactions might be less distorted by higher cognitive processes and therefore might provide a purer and more sensitive indicator. We presented the results of two original experiments in which sympathetic nervous system activation was assessed by means of electrodermal monitoring during randomly interspersed remote-staring and nonstaring (control) periods. The monitored participant was unaware of the number, timing, or scheduling pattern of these two types of periods. The possibility of sensory cueing was eliminated through the use of a closed-circuit television system for staring: the starer devoted full attention to the staree's image on the television monitor. In the first experiment, 16 untrained participants evidenced significant autonomic discrimination, becoming more activated during staring than during nonstaring periods. In the second experiment, 16 subjects who had been extensively trained to become more aware of their interconnections with other people and less defensive about their connectedness also evidenced significant autonomic discrimination, but became more calm during staring than during nonstaring periods; the starer had been similarly trained. As judged by effect sizes, unconscious autonomic detection did indeed appear to yield stronger effects than did previous conscious verbal or motoric detection assessments.

In the present paper, we present our attempts to replicate and extend our previous findings. Identical equipment, basic procedures, and analysis methods were used. The first replication involved 3 new starers and 30 new starees. The second replication involved the same starer who had participated in the earlier experiments reported in 1993, but employed 16 new starees. We made two additions in these studies. One of these was the introduction (into Replication 2) of an additional empirical control condition. This was a "sham control" in which we treated sessions and data as we did for real staring sessions, but staring did not, in fact, occur; this provided an empirical assessment of the likelihood of obtaining chance discriminations of otherwise equivalent session segments. The second improvement was the introduction of a new personality assessment for the starees in both replications. In addition to the Myers-Briggs Type Inventory (MBTI) we had been using in the original studies, we included an assessment of social anxiety or discomfort in a social situation (a Social Avoidance and Distress scale), in order to explore the possible interrelationships of these personality characteristics with the autonomic staring detection effect.

METHOD

Subjects

Thirty volunteer participants (22 females and 8 males) served as "starees" for Replication 1, and 16 volunteers (5 males and 11 females) participated as starees for Replication 2. In Replication 1, half of the starees were persons already known by the starers (relatives, friends, or familiar undergraduate classmates), whereas half were unknown at the time of the laboratory session (i.e., they were unfamiliar undergraduates); only one of the starees had participated previously in laboratory psi experiments. (Later results did not differ for the known versus unknown starees.) It had been decided in advance that each starer was to work with 10 starees and that results for all 30 starees were to be pooled for purposes of analysis. In Replication 2, 13 of the starees were previously unknown undergraduate students from a local college, and 3 were friends or relatives of the starer; only 2 of the starees had participated previously in laboratory psi studies. Participants were selected on the basis of availability during planned laboratory session times and on the basis of interest in participating in a study exploring the "feeling of being stared at." Across both replications, staree age ranged from 17 years to 40 years.

The starers of Replication 1 were three undergraduate psychology students (two females and one male) from a local college who were participating in independent studies internships at the Mind Science Foundation. None of these starers had prior laboratory psi research experience. The starers were trained for the experiment by the second author (D.S.), who had served as starer in our original (1993) staring detection experiments. D.S. served as starer for Replication 2. She herself had participated previously in extensive "connectedness" training that had been provided by the third author, S.A. This training (which is described in Braud, Shafer, & Andrews, 1993) took the form of approximately 20 hours of intellectual and experiential exercises designed to help individuals become more adept at and comfortable with experiencing interconnections with others, and to become more aware of, and to deal more effectively with, psychological resistances to such connectedness. It is important to note that D.S. was very comfortable with "connecting with" (i.e., having feelings of "merging with") others when these replication experiments began, and that it is likely that she communicated this ease and comfort to the three Replication 1 starers during the course of their training by her. (This training involved discussions of the rationale for the studies, previous results, and procedural information about the experiments; the three Replication 1 starers experienced no formal "connectedness" training, although that training was discussed in general terms by D.S.)

Apparatus

The experimental apparatus was identical to that described in Braud, Shafer, and Andrews (1993) and consisted of silver/silver chloride palmar electrodes (7.0 mm in diameter) attached with semi-conductive electrode gel, a skin-resistance amplifier (Lafayette Model 76405), and an analog-to-digital converter interfaced with a microcomputer. A color video camera (Hitachi Camcorder VM-2250) in the staree's room permitted the staree to be viewed by the starer in a distant room without the possibility of sensory cueing. The camera's radio frequency output was boosted by a 10-dB amplifier, then conveyed via heavy duty 300-ohm impedance twin-lead cable to a 19-in. color TV monitor (Sony Trinitron KV-1914) situated in the starer's room. Additional details concerning equipment, room layout, and physiological monitoring are given in Braud and Schlitz (1989).

Procedure

With the exceptions to be noted later, procedural details for the two replications were identical to those of the original experiments. For both replications, the starer (who was also the experimenter) greeted the staree in the starer's room, explained the experiment, and showed the staree the television monitor on which the latter's image would appear during the session.

Next, the starer led the staree to the staree's room, which was located in an entirely different suite area across an outside corridor. The two rooms were separated from each other by two inner hallways, an outer corridor, and four closed doors. Neither room contained any windows. Conventional sensorimotor communication between these two rooms, under the conditions of the experiment, was not possible. The staree's room was brightly illuminated by means of overhead fluorescent lights. The camera, which was active continuously throughout the entire session, was mounted on a tripod 6 ft away from the staree's chair, at eye level, and at an angle of approximately 45 degrees left of center (from the staree's point of view). The camera's zoom lens was set so that the staree's shoulders, neck, and head would be visible on the monitor in the starer's room. The camera's autofocus function was disabled in order to eliminate distracting camera lens movement noises that otherwise might have resulted from automatic tracking of staree movements; this also eliminated possible distracting changes in the staree's image, from the starer's point of view.

The staree was seated in a comfortable recliner chair (which remained in an upright position throughout the experiment), and the experimenter attached two silver/silver chloride electrodes filled with partially conductive gel to the staree's left palm by means of adhesive electrode collars. The staree was asked to sit quietly for the next 20 min and to refrain from unnecessary movements (especially of the left hand and arm). In order to more closely simulate a naturalistic staring-detection situation, the staree occupied his or her mind during the session by studying, reading a magazine, or thinking about and planning the day's activities (for Replication 1), or by completing the personality assessments (in Replication 2). The staree was told that the camera would be on throughout the 20-min session, but that the experimenter would watch the monitor only at certain randomly determined times. At those times, the starer would stare intently at the staree's image on the monitor and would attempt to gain the staree's attention. The staree was asked not to try to guess consciously when those periods (of which the staree was, of course, kept blind) might be occurring and was told that we were exploring whether any unconscious physiological reactions might be associated with remote staring. The experimenter then left the subject alone in the staree room and went to the distant starer's room, closing all intervening doors.

In the starer's room, the experimenter/starer recorded the staree's basal skin resistance and then, prior to starting the microcomputer that controlled the session events, retrieved from a hidden location a sealed opaque envelope that contained the random sequence of staring and nonstaring periods that would be used for that session. Forty-six such envelopes had been prepared previously by W. B., who had used a computer's random algorithm to generate the random sequence of the 10 staring and 10 nonstaring periods for each session. In a hidden location known only to him, W. B. kept his own copies of the 46 random sequences. The microcomputer program controlled the timing of the various events of the experiment and recorded the staree's electrodermal activity during each of the twenty 30-sec recording periods. Each of the 20 recording periods was signaled by a low-pitched tone (audible only to the experimenter, through headphones); a 30-sec rest period followed each recording period. The experimenter/starer consulted the contents of the session envelope to learn which of the 20 recording epochs were to be devoted to staring and which were to serve as the nonstaring control periods. If the random sequence indicated a staring period the experimenter/starer silently swiveled his or her chair around so that it faced the television monitor, and stared intently at the staree's monitor image throughout the 30-sec recording periods. During non-staring periods, the experimenter/starer kept the chair turned away from the monitor, so that the monitor's screen could not be seen, and thought about matters unrelated to the experiment. All reflective surfaces had been carefully covered and inadvertent glimpses of the monitor screen were not possible. In consulting a session's random-sequence sheet, the experimenter/starer used a method of occluding all epoch instructions other than the present one, so that he/she could devote full attention to the assignment for that epoch without being distracted by instructions for subsequent or previous epochs.

Throughout the session, the experimenter/starer was provided with no information about the staree's ongoing electrodermal activity; the latter was continuously and automatically assessed by the computer system. The equipment sampled the staree's rectified (by means of a diode) spontaneous phasic skin resistance responses (SRR) 10 times each second for the 30 seconds of a recording epoch and averaged these measures, providing what is virtually a measure of the area under the curve described by the fluctuation of electrodermal activity over time (i.e., the mathematically integrated activity). Because of the slowly changing nature of these autonomic reactions, this relatively slow sampling rate is quite adequate. At the end of the experimental session, the computer printed the electrodermal results for each of the 20 recording periods. The experimenter filed away the printout, taking special precautions not to look at the electrodermal measures, then went to the staree's room and discussed the experiment in general terms with the staree. Neither experimenter/starer nor staree had any knowledge of the numerical results for the session. Only after all sessions had been completed did W.B. analyze the results and give the experimenter feedback. The experimenter later provided feedback to those starees who requested it.

The general procedure described above applied to both replications. The specifics, however, were changed slightly for Replication 2. For the latter, instead of 20 recording epochs (10 staring and 10 nonstaring, randomly interspersed), a session consisted of 32 recording epochs. One half of a session was an "experimental" half and included 8 staring and 8 nonstaring periods (randomly interspersed). The other half of a session served as a new empirical sham control and included 8 sham or pseudostaring periods and 8 nonstaring periods (also randomly interspersed): The experimental half provided a comparison of true staring versus the absence of staring. The sham control half provided data that were treated in the same manner as the experimental data, but actual staring did not take place during the sham/pseudostaring periods. This provided an empirical control that yielded information about the likelihood of artifactual evidence for autonomic discrimination in arbitrary subdivisions of a session. For half of the Replication 2 sessions, the experimental half preceded the sham half; for the remaining sessions, the sham half preceded the experimental half. The television monitor was turned off throughout the sham half of a session, and the experimenter/starer occupied her mind with matters unrelated to the experiment. The staree had no way of knowing, conventionally, when the real periods and when the sham periods were in effect; and he/she was monitored in an identical fashion throughout both types of period.

Personality Assessments

For Replication 1, one personality assessment was administered. This was the Social Avoidance and Distress (SAD) scale (Watson & Friend, 1969) which measures social-evaluative anxiety (the experience of distress, discomfort, fear, and anxiety in social situations) and deliberate avoidance of social situations. This self-report scale emphasizes subjective experience, and it excludes physiological signs as well as items related to impaired performance. The scale is constructed so that the opposite instance of a trait simply indicates the absence of that trait, not the presence of some other trait. For example, the opposite instance of social avoidance is simply lack of an avoidance motive, not desire to affiliate. Similarly, the opposite instance of distress is lack of unhappiness, not the presence of some positive emotion. Others have found that scoring patterns of the SAD scale were indeed predictive of behaviors in social situations. We sought to learn whether SAD scoring might also be predictive of reactions to the remote or "psi mediated" social conditions involved in remote attention (remote staring or watching).

For Replication 2, the SAD scale was used along with the Myers-Briggs Type Indicator (MBTI, Form F: see Briggs & Myers, 1957). For this study, we were especially interested in the MBTI extraversion-introversion scale because of its possible relationships with SAD scoring and with remote-staring detection effects in this psi-mediated social (staring) context.

For Replication 1, the psychological assessments were completed by the starees after their experimental sessions. For Replication 2, the psychological assessments were completed by starees during their experimental sessions.

Experimental Hypotheses

Our experimental hypotheses were that, in Replications 1 and 2, the starees would discriminate the true staring from the nonstaring periods autonomically (electrodermally)--that their levels of spontaneous electrodermal activity during the staring periods would differ from those during the nonstaring periods. Therefore, two-tailed tests were used in the analyses, with alpha set at [is less than or equal to] .05. We also predicted that, in Replication 2, no such discrimination would occur in the empirical (sham) control segments of the sessions.

Exploratory analyses examined the correlations among the magnitude of the autonomic remote staring detection effect, SAD scoring, and MBTI extraversion-introversion scoring. Since these analyses were exploratory, two-tailed tests were used in their evaluation, with alpha set at [is less than or equal to] .05.

RESULTS

Primary Analyses

For each volunteer participant (staree), electrodermal activity was measured during 10 staring and 10 nonstaring periods (for Replication 1) or during 8 staring and 8 nonstaring periods (for Replication 2). Rather than compare these multiple scores within a given participant, we reduced the activities for an entire session to a single score for each participant and performed statistical tests using participants, instead of multiple period scores, as the units of analysis. We used the more conservative session score (a kind of single majority-vote score) in order to bypass criticisms based on possible nonindependence of multiple electrodermal measures taken within a given session. Although it would be possible to analyze individual epoch scores using, for example, a repeated measures analysis of variance procedure, such an analysis assumes that the autocorrelations among the measures within each session (i.e., within each participant) are constant across epochs, and that the same autocorrelation applies to all sessions (participants) (J. Utts, personal communication, July 13, 1991). Because these assumptions may not be met in these experiments, we preferred to use the more conservative session-based (rather than epoch-based) analyses, even though the former are more wasteful of data and result in tests with reduced statistical power.

For each of the 30 sessions for Replication 1, a total score was calculated for all 20 recording periods (10 staring and 10 nonstaring). This total score was divided into the sum of the electrodermal activity scores for the 10 staring (S) periods; the process was repeated for the 10 non-staring (N) periods. In the absence of a remote-staring effect, these two ratios [S/(S+N), N/(S+N)] should approximate 50%. A remote staring effect would be indicated by a significant departure of the scores from the 50% mean chance expectation (MCE). A single mean t test was used to assess the departure of the ratios from MCE (50%). This is approximately equivalent to calculating a dependent (matched) t test to compare the raw scores for each subject for staring versus nonstaring periods. We have consistently used such ratio scores in our various projects as a method of "standardizing" scoring so that scoring magnitude could be compared more meaningfully for the different dependent measures (response systems) with which we work. A similar analysis was performed for the 16 sessions of Replication 2, with 8 staring and 8 nonstaring periods contributing to each session score.

For Replication 1, mean electrodermal activity percentages were 45.15% (for the staring periods) and 54.85% (for the nonstaring periods), rather than the 50%/50% expected by chance. This scoring rate yielded a single mean t = 1.85 (29), p = .06, two-tailed, and an effect size (r) = .34. For Replication 2, mean electrodermal activity percentages were 45.66% (for the staring periods) and 54.34% (for the nonstaring periods), rather than the 50%/50% expected by chance. This scoring rate yielded a single mean t (15) = 2.08; p = .05, two-tailed, and an effect size (r) = .47. Thus, for both replications, the autonomic discrimination took the form of reduced spontaneous electrodermal activity during staring periods, compared with nonstaring periods. For the 16 sham control session scores of Replication 2 (each based on 8 pseudostaring and 8 nonstaring periods), the mean electrodermal activity percentages were, as expected, virtually identical to the 50%/50% values expected on the basis of chance. Here the scoring rates were 49.16% (for the pseudostaring periods) and 50.84% (for the nonstaring periods). This scoring rate yielded a single mean t (15) = 0.30; p = .76, two-tailed; and an effect size (r) = .08. Expanded summary statistics for Replications 1 and 2 and for the Sham Control series are presented in Table 1. For comparative purposes, the results for our previous two series with untrained and trained starees are also included in this table. Electrodermal activity rates during the staring and nonstaring periods of all four experiments, as well as for the sham control sessions, are presented graphically in Figure 1.

TABULAR DATA OMITTED

Secondary Analyses

Linear correlation coefficients (Pearson rs) were calculated in order to determine the interrelationships among the magnitude of the remote-staring detection effect, SAD scoring, and MBTI extraversion-introversion (E/I) scoring. To study the relationship between remote-staring detection and SAD, Pearson rs were computed for the percent electrodermal activity occurring during the staring periods (as in the primary analyses) versus the SAD scores (expressed as a percentage of the highest possible SAD score) for Replication 1, for Replication 2, and for the sham control sessions. Summary statistics are provided in Table 2. For Replication 1, the magnitude of the remote-staring detection effect (the degree of "calming" during the staring periods) was significantly ad positively correlated with degree of social avoidance and distress; a similar trend was found for Replication 2. For the sham control sessions, on the other hand, this same correlation was small, negative, and nonsignificant.

TABLE 2

LINEAR CORRELATIONS BETWEEN STARING PERIOD EDA (PERCENT) AND SOCIAL AVOIDANCE AND DISTRESS (SAD) SCORE

Series	r	df	p(a)
Replication 1	.36	28	.05
Replication 2	.43	14	.09
Sham control	-.12	14	.66

a All ps are two-tailed.

To study the remote staring detection as related to introversion, Pearson rs were computed for the percent electrodermal activity during the staring periods versus the continuous score for the MBTI introversion scale, for Replication 2 and for the sham control sessions. (The MBTI was not administered for Replication 1.) Summary statistics appear in Table 3. For comparative purposes, similar analyses are presented for our previous two series with untrained and trained starees (in which the MBTI, but not the SAD, had been administered). For Replication 2, there was a strong, positive, and highly significant correlation between the magnitude of the remote staring detection effect and the staree's degree of MBTI introversion. No such correlation occurred for the sham control segment of the experiment.

TABLE 3

LINEAR CORRELATIONS BETWEEN STARING PERIOD EDA (PERCENT) AND MBTI EXTRAVERSION/INTROVERSION (E/I) SCORE

Series	r	df	p(a)
Replication 2	.68	14	.0037
Sham control	.16	14	.55
Untrained	.12	14	.66
Trained	.07	14	.80

a All p s are two-tailed.

The relationships between remote staring detection and SAD scoring are presented graphically in Figure 2, and the relationships between remote staring detection and MBTI introversion scoring are presented graphically in Figure 3. In these figures, the ordinate indicates the percentage of total spontaneous electrodermal activity that occurred during the staring periods; increasing departures below the 50% chance level indicate increasing remote calming effects. The abscissas indicate, respectively, increasing degrees of social avoidance/distress/anxiety and increasing tendencies toward MBTI introversion.

For Replication 2, scores were available for both the SAD assessment and the MBTI introversion assessment, and these two instruments could be intercorrelated. The Pearson r for SAD versus introversion was .53 which, with 14 df, was associated with a two-tailed p = .035. The direction of the correlation was, of course, for high social avoidance and distress to be positively correlated with introversion.

DISCUSSION

Four separate experiments have now been carried out to determine whether persons are able to discriminate periods in which they are watched remotely by someone beyond the range of their conventional senses from periods in which such remote watching is not taking place. We reasoned that measurements of relatively unconscious autonomic nervous system activity might provide unusually sensitive indications of successful discrimination. Evidence for autonomic discrimination of remote watching or staring was indeed obtained in all four studies. This evidence reached statistical significance (as adjudged by conservative, two-tailed p values) in two earlier studies (Braud, Shafer, & Andrews, 1993) and in Replication 2 of the present paper, and very closely approached significance ($p = .06$, two-tailed) in Replication 1 of the present paper. The effect sizes were all relatively large, ranging from .34 to .57. Inspection of Table 1 provides convincing evidence that autonomic staring detection occurred and was replicated in these studies. The absence of a similar effect in the special sham control trials provides another indication that the effect obtained in the real trials was not artifactual.

In the very first experiment (conducted with an untrained starer and untrained starees), remote staring (remote attention) was associated with autonomic activation. In the remaining three experiments, a remote autonomic calming effect was observed. We suggest the following interpretation for these different effects. Although we attempted to equate staring conditions as closely as possible in all experiments, different psychological conditions did nonetheless occur. In the very first experiment, the starer was uneasy and somewhat nervous about the prospect of staring at another person (via the close-circuit television system) and felt she was "intruding" upon the starees. It is likely that the starer's anxiety (and therefore her heightened sympathetic nervous system activation) may have flavored her attempts to "purely attend" to the starees, and this increased activation may have been communicated to the starees. Prior to the second experiment, both starer and starees had undergone intensive connectedness training and everyone felt very comfortable and relaxed about staring and about "merging" with one another. The starer, in fact, reported feeling much more relaxed, positive, and nonanxious about her sessions in the second experiment, and it is likely that the starer's attention was flavored by these relaxed and comfortable feelings (and their associated sympathetic nervous system deactivation); and these feelings could have been communicated to the starees in the second experiment. Additionally, the starees themselves were comfortable and relaxed about staring and merging, as a result of their own connectedness training. The starer's relaxed and comfortable state could have carried over into Replication 2 (in which she was again the starer) and could have added a relaxed character to her remote attention, even though she was now working with new starees who had not been trained. It is also likely that the starer communicated some of her relaxed attitude, characteristics, and expectations to the three starers of Replication I during her training of the latter and her discussions of earlier results with these starers, and that these starer characteristics were then communicated to the Replication 1 starees. Such interpretations could be tested in analytical studies in which the attitudes and conditions of starers are deliberately manipulated.

Although the apparently discrepant findings of the first versus the remaining three studies make sense in terms of the foregoing interpretation, a conservative strategy can be used in pooling the four results: the sign of the t, z, and r scores can be reversed for the result that is inconsistent with the bulk of the results, according to a recommendation by Rosenthal (1984, p. 95). This is the reason for the minus signs in the first row of Table 1.

One of the rationales for conducting these studies in the first place was not only to study staring detection using a new (and hopefully more sensitive) methodology, but also to study a pure attention component that may have been present in all of our prior biological psychokinesis experiments, along with the specific, directional, intentional aims of those experiments. The lesson of the present series of studies is that it is difficult to isolate pure attention, that the latter is easily adulterated by other starer feelings, and that the quality of the starer's attention is important in determining the nature of the experimental outcome.

The significant correlations that obtained between the remote staring detection effect and the two personality variables of SAD and MBTI introversion in the real experiments but not in the sham control segment provide additional evidence for the reality of the remote staring detection effect and also relate the magnitude of the effect to certain psychological variables. The interpretation of these relationships is still unclear; however, certain preliminary suggestions can be offered. Because of the high, significant correlation between SAD and introversion ($r = +.53$), it may be the case that one of these is functioning as a moderator variable in the interaction of the other with the magnitude of the remote-staring detection effect.

Inspection of Figure 2 reveals that as social avoidance, distress, and anxiety increase from zero to high values, the remote calming effect increases from zero (i.e., 50% MCE) to high values. We can offer the following speculative interpretations of the greater susceptibility of those starees with high social avoidance, distress, or anxiety to the remote calming effect.

1. Persons with greater social avoidance/distress/anxiety may be more sensitive to social interactions (in a vigilant way), even when those interactions are psi-mediated. Therefore, high SAD starees may have been more likely to detect the experiment's remote-staring procedure and to have responded appropriately. (Such a suggestion is consistent with an earlier empirical finding by Watson and Friend [1969] that persons with high SAD scores tended to score more highly on an "audience sensitivity index" [Paivio, 1965] than did persons with low SAD scores.)

2. Persons with greater social avoidance/distress/anxiety are ordinarily more isolated and fearful and therefore more "needy" of social interactions. Their normal need to "connect" socially with others is ordinarily denied. Perhaps their greater need for social interaction provided greater motivation for the efficacy of the remote-staring detection effect. This finding would parallel an earlier finding (Braud & Schlitz, 1983) of a greater remote mental influence effect in persons with greater "need" to be influenced. Stated somewhat differently, perhaps the remote-staring procedure of the present experiment provided a less threatening opportunity for social responsivity than is normally the case, and those persons with greater need took greater advantage of such an opportunity.

3. Persons with greater social avoidance/distress/anxiety may simply be more comfortable (than those with lower SAD scores) and at ease working alone and could, therefore, have been more at home in the isolated staree room and less distracted than persons with lower SAD scores (who might have felt unnaturally isolated and therefore in a less than optimal state of mind).

4. Persons with greater social avoidance/distress/anxiety may be more persuadable or more conforming (having developed such a coping mode as a means of anxiety reduction) than persons with lower SAD scores and this persuasibility or conformity may extend be-

yond the social realm to the psi realm. (Watson & Friend, 1969, discuss this correlation of SAD with persuasibility and conformity; they do not, of course, mention the possible extension to conformity with psi influences.)

Inspection of the Replication 2 regression line in Figure 3 reveals that MBTI introverts tend to exhibit remote calming, whereas MBTI extraverts tend to show a reversal of this effect (i.e., they evidenced remote activation during staring periods). As in the case of SAD scoring, we can offer some speculative interpretations of this relationship.

1. If becoming calmer is the appropriate response to remote staring under the conditions of the experiment, the more appropriate reaction of introverts may simply be due to their greater ease and comfort under the specific test conditions of the experiment (sitting alone in a room, essentially doing nothing other than "being with themselves" for about 30 min, compared with extraverts (who might be less comfortable, more restless, more distracted, and so forth, and whose less than optimal psychological state may reverse the direction of the psi effect).

2. There are empirical indications that introverts evidence greater sympathetic autonomic arousal than extraverts (Coles, Gale, & Kline, 1971; Geen, 1984; Sadler, Mefferd, & Houck, 1971), that introverts are more excitable or arousable than extraverts in response to given levels of stimulation (Geen, 1984), and that the optimal level of stimulation needed to produce a preferred level of physiological arousal may be lower for introverts than for extraverts (Eysenck, 1967). If it is hypothesized that directing remote attention or psi attention toward a person has a balancing or homeostasis-enhancing influence, then perhaps such a balancing influence would be in the direction of calming for introverts (who are naturally more "excitatory" and may be overaroused ordinarily), but in the direction of activation for extraverts (who are naturally more "inhibitory" and may be underaroused ordinarily). This hypothesis is not unrelated to LeShan's (1966) suggestion that a single moment of special attention in which one feels "at one" with another may be sufficient to trigger optimal self-healing or self-balancing events within that other.

3. To the degree that introversion is correlated with social avoidance/distress/anxiety, the various interpretations offered above in connection with SAD scoring would also be applicable to introversion.

Several of these postulated processes, along with still others, could have interacted to yield the obtained experimental outcomes. Further research would, hopefully, clarify these interrelationships.

In Replication 2, the staree's conscious attention was directed to a personally engaging task (completing personality assessments) during the experimental session. Nonetheless, the staree's more unconscious autonomic nervous system continued to maintain a connection with, and respond appropriately to, the attention and mental processes of another, distant person (the starer). This indicates a dissociation between the two levels of knowing/reacting, as well as the possibility of going about one's individualized activities while still remaining interconnected in an important manner with others. In this experiment, neither of these complementary processes or ways of being or knowing seemed to interfere with the other. If these sorts of physiological "coherences" can be demonstrated in the laboratory, it follows that they may also be present continuously throughout life, and may indicate that while we are all, indeed, isolated individuals, we are simultaneously interconnected members of a much more inclusive, interacting, and interdependent "long body" (see Roll, 1989).

We hope other investigators will attempt to replicate these studies. We recommend the design as one that is straightforward, has already yielded consistent positive results, and addresses a very familiar psi manifestation in a manner that is readily communicable and understandable to the experimental participants and to the public at large.

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