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Research Note: Exploring Defensiveness and Psychokinesis Performance

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Abstract: Reviews of the few experimental studies of PK and its relationship to attitudes, self-perceived 'luckiness', personality, imagery, and 'cognitive mode/style' have frequently been unable to present an unambiguous picture of individual differences in PK performance (e.g., Gissurarson, 1989, 1990-91, 1992a, 1992b; Gissurarson & Morris, 1991; Stanford, 1977). This apparent inconsistency may simply be due to the small number of relevant PK studies. For the present study, the performance of subjects who had participated in two separate series of experiments was analysed retrospectively. Prior to enrolling in an experimental series by Watt on developing a prototype indicator of perceptual defence and vigilance, the subjects had participated in an experimental series by Gissurarson on psychokinesis. This enabled us to examine a hitherto unexplored PK-defensiveness relationship. Participants' performance on the perceptual defence/vigilance task correlated with their prior performance on a computer PK task, with low PK performance being associated with defensiveness (r_S = .23, N = 24, n.s.). This finding, in need of systematic replication, suggests that a defensiveness relationship with PK performance may be worth exploring further. Broader implications for models of ESP and PK are discussed.

Introduction

Research on individual differences in ESP performance has found some consistent trends, including that of individuals who show signs of defensiveness scoring lower on ESP tasks than low-defensive individuals (e.g., Haraldsson & Houtkooper, 1992; Watt, 1992, 1993a). In contrast, consistent findings on individual differences in PK performance are sparse, and there has apparently been no *direct* study of a possible PK-defensiveness relationship. Von Lucadou's multivariate PK experiment (von Lucadou, 1987a,1987b; von Lucadou, Lay & Kunzman, 1987) found that non-anxious and non-neurotic participants were relatively successful at a PK task. These personality characteristics might be related to low defensiveness, so von Lucadou's experiment may provide some indirect support for a PK-defensiveness relationship. Do the different relationships that ESP and PK have with psychological variables suggest different models for ESP and PK? This paper presents the results of some explorations of the relationship between PK and defensiveness that may contribute to this debate.

The distinction traditionally made between ESP and PK may be based more upon operational than upon theoretical and empirical foundations. Parapsychologists ask participants to 'influence' the random number generator, or to 'gather impressions' of the remote video target. In the past

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two decades, however, an alternative idea has emerged, that PK and ESP may be unitary phenomena. In his Conformance Behaviour model, for instance, Stanford (1978) suggests that PK and ESP should be reconceptualised in terms of a conformance between an organism and its environment that is contingent upon the relationship between the items in the system rather than representing a causal connection between those items. Von Lucadou's Model of Pragmatic Information (e.g., von Lucadou 1989, 1995), whose foundations lie in the observational theories of quantum physics, conceptualises ESP and PK as 'non-local correlations', as patterns emerging from organisationally closed systems. An alternative theoretical formulation is found in May, Radin, Hubbard, Humphrey & Utts' (1986) Intuitive Data Sorting (IDS) model (recently re-named Decision Augmentation Theory, or 'DAT'), which postulates that PK is not physical interference with an RNG's output, but that the participant uses precognition to choose the right moment to operate the RNG, such that non-random sequences are chosen. If the same individual differences found in ESP performance exist with PK performance, this would provide some support for the notion that ESP and PK may indeed be unitary phenomena on some microscopic, statistical level. Hence, it would not be unreasonable to expect a defensiveness-PK relationship to parallel that found for ESP.

Unconscious processes of defensiveness — the tendency to avoid or distort perception of threatening, stressful, or emotional material — have stimulated much research over the years. Parapsychologists have explored how individuals may defend in similar ways against both sensory and extrasensory perceptions, and a number of studies have sought to compare individuals' defensiveness with their ESP performance. Defensiveness has been found to be related both to free-response and forced-choice ESP performance, with those who are relatively low in defensiveness typically scoring better at ESP tasks.

The most frequently-used indicator of defensiveness in parapsychology is the Defence Mechanism Test (DMT; Kragh, 1955). This projective psychological test presents participants with brief exposures of pictorial stimuli that are intended to activate defence mechanisms in the viewer. Because of the brevity of exposure, the stimuli appear unclear yet viewers are asked to try to describe what they thought they saw at each exposure. The test assumes that the defence mechanisms that are activated by the threatening stimuli are revealed in the viewer's descriptions of the stimuli, especially in the distortions and inaccuracies that these descriptions can contain. A total of 16 studies, conducted in the USA, Holland, and Iceland, have correlated participants' DMT scores with their performance on forced-choice ESP tasks (e.g., Haraldsson, Houtkooper & Hoeltje, 1987; Johnson & Kanthamani, 1967; Johnson & Lübke, 1977). The results of the DMT-ESP studies are consistent with those found using other indicators of defensiveness: generally, the highest ESP scores were from the least defensive participants, while the highly defensive individuals had the lowest ESP scores. While not all DMT-ESP studies were independently significant, the overall DMT-ESP correlation was highly significant. Haraldsson & Houtkooper (1992) found that the combined DMT-ESP correlations from the Icelandic series gave a z of 2.611 (p = .0045, one-tailed, N = 462); adding in the data from the US and Dutch studies gave a z of 3.870, (p = .000 06, one-tailed, N = 582). In all, 13 out of 16 DMT-ESP studies showed correlations between DMT and ESP scores in the predicted direction.

Given that the DMT is time-consuming to administer and score, and that considerable expertise is required to interpret DMT results, Watt (1993a, 1993b) conducted two experiments that examined perceptual defence (defined as delayed perception of subliminal emotional stimuli compared to neutral and control stimuli) and perceptual vigilance (defined as rapid perception of subliminal emotional stimuli compared to neutral and control stimuli) in relation to forced-choice ESP performance. The predicted relationship between perceptual

defence/vigilance and forced-choice ESP performance was confirmed, with defensive participants scoring relatively poorly at the ESP task, and vigilant participants scoring relatively well; this relationship was statistically significant for the two experiments combined (t[65] = -2.132, p = .018, one-tailed), and was independently significant in the second experiment (t[41] = -2.077, p = .02, one-tailed).

While developing the methodology for measuring perceptual defence/vigilance, a series of preliminary studies was carried out (Watt, 1993b). None of these studies was aimed at correlating perceptual defence/vigilance with psi performance; however, the participants in one of these studies had previously taken part in a series of experiments carried out by Gissurarson (1989, 1990-91), in which participants did a PK task. Thus it was possible to compare participants' perceptual defence/vigilance scores with their psi scores obtained in Gissurarson's experiments. Although the study was post hoc, Watt remained unaware of subjects' PK scores and Gissurarson remained unaware of their perceptual defence/vigilance scores until analysis was carried out; however, the analysis was not pre-planned at the time of Watt's and Gissurarson's experiments. Two to three years separated defensiveness testing from PK testing. On the one hand, this time delay reduces the likelihood that participants' recollections of their PK scores might somehow influence their performance on the measure of defensiveness. On the other hand, the validity of the resulting defensiveness-PK correlation would be reduced if either of these attributes was unstable over time.

Method

Procedure for measuring psychokinesis

The PK task was a computer test called 'Synthia' (see Gissurarson, 1989 and Gissurarson & Morris, 1990, for details). It consisted of a VDU display of four windows, one of which would be designated the 'target' window by the computer. The participant was required to press the space bar on the keyboard and try to make the computer 'select' that window. When the space bar was pressed a random number was generated to select a window randomly. Thus, the participant's implicit aim was to bias the output of the random number generator (RNG) so as to select the designated target window. Some versions of Synthia used a pseudo-RNG (Wichmann & Hill, 1982), while other versions employed a live RNG (using electronic noise; for details see *User's Guide RBG 04CA-S*, 1988). Gissurarson's participants were not aware that different RNGs were being used. No significant difference in PK performance for the two kinds of RNG was found. If the target window was selected then a hit was scored. Half of the trials done with Synthia were in 'feedback mode' where a hit resulted in a display of a bright star intended to give congratulatory feedback to the participant on a trial-by-trial basis; and half were in 'non-feedback mode' where there was no trial-by-trial information on whether or not a hit had been scored, although at the end of the session the total number of hits was displayed on the screen. No significant difference in overall PK scoring for feedback versus non-feedback modes of the PK task was found. Participants completed some questionnaire material prior to being led to a sound-attenuated room where they completed two runs of 40 trials each in a session on the Synthia test with a break in between. There was a one-in-four probability of selecting the target window by chance, therefore MCE was 10 hits. The first version of Synthia consisted of 30 trials during a run, where MCE was 7.5 hits. Half the subjects started with the feedback mode first, the other half started with the non-feedback mode.

Procedure for measuring perceptual defence/vigilance

The prototype apparatus was developed by Watt to enable automatic administration and objective scoring of a measure of perceptual defence/vigilance. Participants gazed into a modified tachistoscope, at a dimly illuminated screen that formed the background field onto which a stimulus slide was projected with gradually increasing brightness. The participant was required to press a response button to indicate when they became aware of the *presence* of a stimulus slide. A computer controlled the timing and illumination of the slides, and automatically recorded the slide illumination level when the participant pressed the response button (thus keeping the experimenter and the participant blind as to the slide order and the participant's scoring). After 5 practice slides, 16 stimulus slides were shown four times each in a random order. The stimulus slides depicted four simple black and white line drawings that had previously been judged to be emotionally unpleasant (E), four similarly judged neutral drawings (N), and eight control slides that were matched to each of the E or N slides (EC and NC), and that consisted of a re-arranged version of the E or N slides, such that the control slides were the same brightness as their E or N partner, but conveyed no meaningful information[1]. Participants were unaware that the slides contained any information, and, when asked, participants reported no awareness of slide contents. It was assumed, therefore, that the slide brightness level at which the participant indicated awareness of the overall *presence* of a stimulus slide represented an index of his or her awareness threshold for the subliminal information *content* of each slide. Therefore, variations in the slide illumination levels at which awareness was indicated might reflect variations in perceptual threshold for the subliminal information. An individual was judged to be perceptually defensive if he or she took longer to indicate awareness of the E slides, compared to the N, NC, and EC slides; likewise, perceptual vigilance was indicated by relatively quick responses to the E slides compared to the N, NC, and EC slides.

[1] So, for example, if participants took longer to respond to E than to EC slides, this would suggest that it was the emotionally meaningful content of the E slides that was influencing participants' scores, rather than, say, the possibility that the E slides were generally darker than the others and so were less easily perceived.

Procedure

There was a total of 29 participants in the subliminal perception study, 24 of whom were recruited from volunteers who had participated in PK studies by Gissurarson, and five of whom were also volunteers who had not done any PK studies. In the subliminal perception study no reference was made to prior PK performance because the purpose of that study was simply to refine methodological details for the administration of the prototype test of defensiveness/vigilance. Each participant was tested individually, and each had a different random slide order. They were instructed to regard the task as 'like an eye-test', where their visual sensitivity to each slide was being measured. The participants were to concentrate on responding consistently to each slide, so that in their judgement each slide reached the same level of brightness before they responded to it. Following the practice slides, the participant proceeded with the 64 experimental slides, separated into two runs of 32 slides with a break at the halfway point. When all slides had been responded to, each participant was asked whether they had seen anything on the background screen apart from the light rectangular shape that they had been expecting.

Analysis of data

Because previous experiments with the prototype indicator of perceptual defence/vigilance had shown only weak signs of defensiveness and vigilance, a criterion was set in advance for the inclusion of participants' data in any analyses: it was decided to terminate the present study when 24 individuals responsed most quickly or most slowly to the E slides, relative to EC, N, & NC slides, in either the first or the second half of the session (in the expectation that these participants were more strongly defensive or vigilant than

those who showed no delayed or quick responding to the E slides). Only the data of these 24 'criterion' participants would be analysed. Following completion of all subliminal perception testing sessions, we looked back over Gissurarson's records to discover the participants' PK scores, and to correlate these scores with perceptual defence/vigilance.

Results

Twenty-nine participants were required in order to reach the criterion number of 24 (i.e., five participants showed no particularly quick or slow responding to the E slides). Of the criterion participants, 13 were female and 11 were male. All the criterion participants had taken part in some of Gissurarson's PK studies, so it was possible to compare their defensiveness/vigilance with their PK scores.

The mean brightness scores on the measure of subliminal perception were calculated for each participant, for the E, EC, N, and NC slides. If the overall mean brightness scores were highest for E slides compared to EC, N, and NC slides, that participant was described as perceptually defensive; vigilant participants were those whose mean brightness scores for E slides were lower than for EC, N, and NC slides. The 24 participants were categorised as follows: 12 were perceptually defensive (with a mean brightness score[2] of 1.028, SD = 0.015), five were vigilant (mean = 0.978, SD = 0.010), two were mildly defensive (i.e., second highest scoring for E slides, mean = 1.025, SD = 0.004) and five were mildly vigilant (i.e., third highest scoring for E slides, mean = 0.993, SD = 0.001). When asked whether they had seen anything other than the light rectangular shape of each slide, most participants reported no other visual impressions. A handful had occasional vague visual impressions ('a blob', 'a blotch'), but when they were later shown the actual stimulus slides the participants did not associate what they had seen with the contents of the slides. Most participants were surprised to learn that there had been information on each slide. It can be assumed, then, that the slide contents remained subliminal, as intended.

When checking Gissurarson's records for PK scores, 20 participants had done 80 trials on Synthia, and four had done 60 trials. To make the scoring of all participants comparable, therefore, each participant's hit-rate was calculated (i.e., the ratio of hits to trials, where MCE = 25%). The mean PK hit-rate was 24.62% (SD = 5.00), slightly below the 25% expected by chance. Overall, there was some suggestion that defensive participants had lower PK scores than vigilant participants, with a mean hit rate of 22.48% (SD = 5.03) for the former and 24.26% (SD = 4.12) for the latter. Given this slight difference in scoring, and the small number of participants, we decided to correlate PK with defensiveness scores.

Spearman correlation coefficients were calculated between PK hit-rate and ranked mean brightness scores for E and EC slides respectively. Support for the PK-defensiveness hypothesis would show up in a significant correlation between PK scores and responses to the critical E slides (since these are assumed to produce defensiveness or vigilance), but one would not expect to find a significant correlation between PK scores and responses to the matched EC slides (since the latter do not portray any emotional or meaningful information). It was found that PK hit-rate correlated with perceptual defence/vigilance, with the correlation in the direction that might be expected based on previous research with ESP tasks: the highest PK scoring tended to come from the vigilant participants, while the lowest PK scoring tended to come from the defensive participants (r_s = .23). Given that the present analysis is based on only 24 participants, this correlation is not statistically significant (it would need to be .34 for p = .05, one-tailed). The correlation between PK and responses to the EC slides is smaller than for the critical Emotional slides (r_s = -.182); therefore the overall pattern of scoring was as predicted, but not to a significant degree.

[2] In order to explore the effects of changing the brightness properties of the stimulus slides in this experiment, participants were exposed to slides that were either light (i.e., dark pictures on a light grey background) or dark (i.e., light pictures on a dark grey background). Participants who saw only 'dark' stimulus slides therefore had higher overall brightness scores than those who saw only 'light' slides. In order to compare directly the scores of the two sets of slides, a ratio measure is given here. This is calculated by dividing the brightness scores of the E slides by the mean of brightness scores of EC, N, and NC slides.

Conclusion

The defensiveness-ESP relationship has been conceptually replicated by Watt using a prototype indicator of perceptual defence/vigilance. During the development of the prototype apparatus, a study was conducted with participants who had previously taken part in a PK study. The experimenter who measured perceptual defence/vigilance remained blind as to participants' PK scores. Likewise, the experimenter who obtained the PK scores was unaware of participants' subliminal perception scores. There was a modest non-significant correlation in the predicted direction between defensiveness and PK scoring, in line with the findings of previous ESP-defensiveness research: the highest PK scores tended to be associated with perceptual vigilance; and the lowest, with perceptual defence.

The PK-defensiveness relationship suggested by this study needs further replication, given the small effect found, the small number of participants, and the prototype nature of the defensiveness measure. These preliminary findings are nevertheless of interest because, so far as we know, until now there has been no published comparison of defensiveness and PK scoring, despite the many studies that have compared defensiveness and ESP performance. If defensiveness turned out to be associated with PK performance in the same way as has been found for ESP performance, this would have implications for our models of the interaction of psychological and psi processes; perhaps more intensive study of individual differences in PK performance would similarly begin to reveal that PK performance is as affected by attitudes, beliefs, motivations, and more persistent personality factors, as ESP has been shown to be. As we discussed in the introduction, traditionally PK and ESP have been treated as distinct from one another, especially in terms of how we frame the psi task for experimental participants. But if psychological processes influence both similarly then perhaps the distinction lies more in how we define the participant's task than in the processes underlying PK and ESP, at least on a microscopic level. Stanford's (1978) Conformance Behavior model, and von Lucadou's (1989) Model of Pragmatic Information suggest that we cease to think of ESP and PK in causal terms, and instead regard them as patterns of information that are meaningful to observers. If so, then one might indeed expect the observer's normal psychological processes to interact in similar ways with both ESP and PK phenomena.

References

Gissurarson, L.R. (1989). *Psychokinetic Attempts on a Random Event Based Microcomputer Test Using Imagery Strategies.* Unpublished PhD Thesis, University of Edinburgh.

Gissurarson, L.R. (1990-1991). Some PK attitudes as determinants of PK performance. *European Journal of Parapsychology*, **8**, 112-122.

Gissurarson, L.R. (1992a). The psychokinesis effect: Geomagnetic influence, age and sex differences. *Journal of Scientific Exploration*, **6**, 157-165.

Gissurarson, L.R. (1992b). Studies into methods of enhancing and potentially training psychokinesis: A review. *Journal of the American Society for Psychical Research*, **86**, 303-346.

Gissurarson, L.R. & Morris, R.L. (1990). Volition and psychokinesis: Attempts to enhance PK performance through the practice of imagery strategies. *Journal of Parapsychology*, **54**, 331-370.

Gissurarson, L.R. & Morris, R.L. (1991). Examination of six questionnaires as predictors of psychokinesis performance. *Journal of Parapsychology*, **55**, 119-146.

Haraldsson, E. & Houtkooper, J.M. (1992). Effects of perceptual defensiveness, personality and belief on extrasensory per-

ception tasks. *Personality and Individual Differences*, 13, 1085-1096.

Haraldsson, E., Houtkooper, J.M. & Hoeltje, C. (1987). The Defense Mechanism Test as a predictor of ESP performance: Icelandic Study VII and meta-analysis of 13 experiments. *Journal of Parapsychology*, 51, 75-90.

Johnson, M. & Kanthamani, B.K. (1967). The Defense Mechanism Test as a predictor of ESP scoring direction. *Journal of Parapsychology*, 31, 99-110.

Johnson, M. & Lübke, C. (1977). A further attempt to validate the DMT as a predictor of scoring direction. *European Journal of Parapsychology*, 1, 37-46.

Kragh, U. (1955). *The Actual-Genetic Model of Perception-Personality*. Lund: Gleerups.

Lucadou, W. von (1987a). A multivariate PK experiment. Part I. An approach combining physical and psychological conditions of the PK process. *European Journal of Parapsychology*, 6, 305-346.

Lucadou, W. von (1987b). A multivariate PK experiment. Part III. Is PK a real force? The results and their interpretation. *European Journal of Parapsychology*, 6, 369-428.

Lucadou, W. von (1989). *Psyche und Chaos: Neue Ergebnisse der Psychokinese-Forschung*. Freiburg: Verlag. English translation by G. Hövelmann & H. Michels (in press): *Psyche and Chaos: New Results in Psychokinesis Research*. New York: Parapsychology Foundation.

Lucadou, W. von (1995). The Model of Pragmatic Information. *European Journal of Parapsychology*, 11, 58-75.

Lucadou, W. von, Lay, B. & Kunzmann, H. (1987). A multivariate PK experiment. Part II. Relationships between psychological variables. *European Journal of Parapsychology*, 6, 347-368.

May, E.C., Radin, D.I., Hubbard, G. S., Humphrey, B.S. & Utts, J.M. (1986). Psi experiments with random number generators: An informational model. In D.H. Weiner & D.I. Radin (Eds), *Research in Parapsychology 1985*, pp. 119-120. Metuchen, NJ: Scarecrow Press.

Stanford, R.G. (1977). Experimental psychokinesis: A review from diverse perspectives. In B.B. Wolman (Ed.), *Handbook of Parapsychology*. New York: Van Nostrand Reinhold.

Stanford, R.G. (1978). Towards reinterpreting psi events. *Journal of the American Society for Psychical Research*, 72, 197-214.

User's Guide RBG 04CA-S (1988). The Netherlands: Synchronicity Research Unit.

Watt, C.A. (1992). Defensiveness and psi: Problems and prospects. In L.A. Henkel & G.R. Schmeidler (Eds) *Research in Parapsychology 1990*, pp. 102-106. Metuchen, N.J.: Scarecrow Press.

Watt, C.A. (1993a). Perceptual defence/vigilance and extrasensory perception: A successful replication study and a comparison of implicit and explicit measures. *Proceedings of the 36th Annual Convention of the Parapsychological Association*, pp. 238-253, held in Toronto, Canada, August 15-19.

Watt, C.A. (1993b). *The Relationship Between Performance on a Prototype Measure of Perceptual Defence/Vigilance and Psi Performance*. Unpublished PhD Thesis, University of Edinburgh.

Wichmann, B.A. & Hill, L.D. (1982). An efficient and portable pseudo-random number generator. *Applied Statistics*, 31, 188-190.

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Explorer la défense et la performance de psychokinésie

Résumé: Les comptes-rendus des quelques études sur la PK et les attitudes, la perception de sa propre 'chance', la personnalité, l'imagerie, et le "mode/style cognitif" ont fréquemment été incapables de présenter une description non-ambigüe des différences individuelles dans la performance PK (par ex., Gissurarson, 1989; 1990-91; 1992a; 1992b; Gissurarson & Morris, 1991;

Stanford, 1977). Cette incohérence apparente peut simplement être due au petit nombre d'études pertinentes de PK. Pour la présente étude, la performance des sujets qui ont participé à deux séries d'expériences séparées ont été analysées rétrospectivement. Avant d'être engagés dans une série expérimentale par Watt sur le développement d'un indicateur prototype de la défense perceptive et de la vigilance, les sujets avaient participé à une série expérimentale par Gissurarson sur la psychokinésie. Ceci nous a permis d'examiner une relation PK-défense inexplorée jusqu'ici. La performance des participants à une mesure de défense/vigilance perceptive a corrélé $r_S = .23$ (ns, $N = 24$) avec leur performance précédente à une tâche informatisée de PK. Cette découverte, en attente d'une réplication systématique, suggère que la relation de défense avec la performance PK peut valoir la peine d'être explorée plus avant. Des implications plus larges pour les modèles d'ESP et de PK sont discutées.

Explorando tendências de defesa e resultados de psicocinesia

Resumo: Revisões dos poucos estudos experimentais de PK e atitudes, auto-avaliações de 'sorte', personalidade, imagens mentais e 'estilo de funcionamento cognocitivo' não puderam apresentar uma perspectiva precisa das diferencas individuais nos resultados de PK (ex.: Gissurarson, 1989, 1990-91; 1992a, 1992b; Gissurarson & Morris, 1991; Stanford, 1977). Esta aparente inconsistência talvez ocorra devido simplesmente ao fato de haver poucos estudos relevantes de PK. Neste estudo, analisou-se retrospectivamente os resultados dos sujeitos que participaram em duas séries separadas de experimentos. Antes de participar de uma série experimental de Watt, sobre o desenvolvimento de um protótipo de indicador de defesas perceptuais e de vigilância, os sujeitos participaram em uma série experimental de Gissurarson de psicocinesia. Iso nos permitiu examinar uma relação que não havia sido explorada anteriormente quanta às defesas e PK. A performance dos participantes em relação à medida de defesa perceptual e de vigilância apresentou uma correlação de rs = .23 (ns, N = 24) em relação aos resultados anteriores de um teste de PK por computador. Este resultado, que deve ser replicado sistematicamente, sugere que uma relação da defesa com a PK merece ser explorada no futuro. Também são discutidas implicações gerais de modelos de ESP e de PK.

Explorando Tendencias de Defensa y Resultados de Psicocinesia

Resúmen: Revisiones de los pocos estudios experimentales de PK y actitudes, auto evaluaciones de 'suerte', personalidad, imágenes mentales, y 'estilo de funcionamiento cognoscitivo' no han podido presentar una perspectiva precisa de las diferencias individuales en los resultados de PK (e.g., Gissurarson, 1989, 1990-91, 1992a, 1992b; Gissurarson & Morris, 1991; Stanford, 1977). Esta aparente inconsistencia quizás pueda deberse simplemente a que hay pocos estudios relevantes de PK. En este estudio se analizó retrospectivamente los resultados de sujetos que habían participado en dos series separadas de experimentos. Antes de participar en una serie experimental de Watt en la cual se trató de desarrollar un prototipo de un indicador de defensas perceptuales y de vigilancia, los sujetos habían participado en una serie experimental de Gissurarson de psicocinesia. Esto nos permitió examinar una relación que no había sido explorada anteriormente en relación a defensas y PK. Los resultados de los participantes en la medida de defensa perceptual y de vigilancia obtuvieron una correlación de rs = .23 (ns, N =24) con los resultados anteriores de una prueba de PK por computadora. Este hallazgo, el cual necesita replicarse, sugiere que una relación de la defensa con la PK merece explorarse en el futuro. También se discuten implicaciones generales de modelos de ESP y de PK.

Verband tussen defensieve houding en PK-resultaten

Samenvatting: Onderzoek naar de samenhang tussen PK-resultaten en een bepaalde attitude, denken dat je geluk hebt, persoonlijkheidskenmerken, verbeeldingskracht en cognitieve aanpak of stijl, heeft zelden geleid toteen duidelijk beeld van de verschillen in PK-scores tussen proefpersonen (b.v. Gissurarson, 1989, 1990-91, 1992a, 1992b; Gissurarson & Morris, 1991; Stanford, 1977). Die schijnbare inconsistentie kan natuurlijk gewoon een gevolg zijn van het kleine aantal PK-experimenten. Dit artikel behandelt een analyse die achteraf werd uitgevoerd op de scores die proefpersonen eerder in twee afzonderlijke experimenten hadden behaald. Voorafgaand aan hun deelname aan een experiment van Watt, over de ontwikkeling van een voorlopige indicator voor perceptieve afweer en waakzaamheid, hadden die proefpersonen een PK-experiment bij Gissurarson gedaan. Dit stelde ons in staat de niet eerder onderzochte samenhang tussen een defensieve houding en PK te meten. De correlatie tussen de scores in het onderzoek naar een defensieve/waakzame houding en de eerdere scores in de PK-taak was rS=0,23 (ns, N=24). Dit resultaat, dat natuurlijk systematisch moet wordenherhaald, suggereert dat verder onderzoek naar de verhouding tussen een defensieve houding en PK-scores nuttig is. De auteurs bespreken ook implicaties voor modellen over ESP en PK.

Untersuchung von Abwehrbereitschaft und PK-Leistung

Zusammenfassung: Übersichten über die wenigen vorliegenden experimentellen Untersuchungen zum Verhältnis von PK zu Einstellungsmustern, selbsterlebten 'Glücks'-Fällen, Persönlichkeitsvariablen, Vorstellungsbildern und kognitiven Verarbeitungsweisen sind häufig nicht in der Lage gewesen, ein unzweideutiges Bild individueller Unterschiede bei PK-Leistungen abzugeben (z.B. Gissurarson, 1989; 1990-91; 1992a; 1992b; Gissurarson & Morris, 1991; Stanford, 1977). Diese offenkundige Vieldeutigkeit mag einfach auf die geringe Zahl relevanter PK-Studien zurückzuführen sein. Für die gegenwärtige Untersuchung wurden retrospektiv die Leistungen von Versuchspersonen analysiert, die an zwei separaten Versuchsserien teilgenommen hatten. Bevor sie an einer Versuchsserie von Watt über die Entwicklung eines Indikator-Prototyps für Wahrnehmungsabwehr und Vigilanz teilnahmen, waren die Probanten Versuchspersonen in Gissurarsons PK-Experimenten gewesen. Dies setzte uns in die Lage, eine bisher unerforschte Beziehung zwischen PK und Abwehrbereitschaft zu untersuchen. Die Werte der Versuchspersonen für Wahrnehmungsabwehr/Vigilanz korrelierten mit rs = .23 (ns, N = 24) mit ihren vorherigen Leistungen bei einer Computer-PK-Aufgabe. Dieser Befund, der einer systematischen Replikation bedarf, legt den Schluß nahe, daß das Verhältnis zwischen Abwehrbereitschaft und Psychokinese weitere Erforschung verdient. Weiterreichende Implikationen für ASW- und PK-Modelle werden diskutiert.

Studio su difensività e prestazioni psicocinetiche

Sommario: Le analisi cumulative dei pochi studi sperimentali riguardanti il rapporto tra psicocinesi (PK) e atteggiamenti, "fortuna" (secondo quanto viene percepito soggettivamente come tale), personalità, *imagery* e "carattere/stile cognitivo", non sono riuscite finora a spiegare in maniera coerente le differenze individuali nelle prestazioni psicocinetiche (vedere per es. Gissurarson, 1989; 1990-91; 1992a; 1992b; Gissurarson e Morris, 1991; Stanford, 1977). E' possibile, tuttavia, che una tale apparente inconsistenza dipenda dal limitato numero di studi esistenti sull'argomento. La presente indagine è consistita in una valutazione retrospettiva delle prestazioni di soggetti che avevano preso parte a due diversi tipi di lavoro. Prima di venire impegnati da Watt in una serie sperimentale che tendeva a ottenere un prototipo di indice di difesa percettiva e di vigilanza, i soggetti avevano partecipato a un esperimento sulla psicocinesi, condotto da Gissurarson. Questo

ha consentito di analizzare il rapporto, mai indagato in precedenza, tra PK e difensività. Le prestazioni dei partecipanti nel test di difesa/vigilanza percettiva hanno avuto una correlazione r_s con la precedente riuscita in un test PK al computer pari a 0,23 (n=24; non significativa). Questo riscontro, che deve ancora ricevere una replica sistematica, indica che il rapporto tra difensività e performance PK potrebbe meritare uno studio ulteriore. Vengono infine discusse alcune implicazioni di questi dati per i modelli dell'ESP e della PK.