A DYNAMIC PK EXPERIMENT WITH INGO SWANN

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We report a preliminary study of psychokinetic influence on a noise-driven binary random generator with Ingo Swann. Mr. Swann has produced significant psi effects in a variety of controlled tests in three different laboratories. He may, without exaggeration, be called an applied specialist in this area. Our primary objective, therefore, was not merely to provide another demonstration of PK, or of Mr. Swann's abilities, but rather, to introduce him to this form of psychokinetic task in order to assess the feasibility of developing a systematic research effort that would utilize Mr. Swann's insight and ability to maximum advantage.

One of us (ECM) had described the instrument, which we call PSIFI, in detail to Mr. Swann and it appeared appropriate that we should take a "physics" approach to the PK task. Before the experiment began, we explained the internal workings of the instrument and the basic physics principles involved to Mr. Swann. We partially dismantled the sensitive sections of the instrument for his inspection, pointing out internal data paths and the source of the random noise.

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These were marked with tape. Further, we explained two possible physics-type phenomena that would dramatically alter the behavior of the instrument.

While Mr. Swann frequently peered into the open top of the instrument and took frequent notes, we took data for runs of 10^3 trials at a generation rate of 50/sec. Mr. Swann operated the instrument by manually depressing the reset button at the beginning of each run. Feedback was provided via a scaler reading of the run score. We informed Mr. Swann that chance expectation was 500/run and that a significant influence on the instrument would be reflected by consistent deviations from this mean.

Overall, 29 runs of 10^3 trials were completed. The mean run score of 493 is statistically significant (t = 2.71, 28 df, p = .011, 2-tailed). The mean run score for the first 10 runs was 495.4 (n.s.); for the second set of 9 runs the mean was 493.1 (n.s.). The last set of 10 runs was taken while Mr. Swann's EEG was being monitored. During these runs, he was in a sound-attenuated room, adjacent to the instrument room. These runs were independently significant, with a mean of 491.8 (t = 2.63, 9 df, p = .027).

One hour after Mr. Swann's departure from the laboratory, C.H. ran a control series of 3×10^5 trials (i.e., 30 runs of 10^4 trials). The control runs showed excellent approximation to theoretical chance expectation, with a mean of 499.7 (t = 0.11, 29 df, p = .91).

We conclude that Mr. Swann was successful in exerting a psychokinetic influence on the instrument. We also regard the following trends as provocative and highly suggestive of directions for further collaborative research with Mr. Swann:

- Performance improved (and was independently significant) with increased distance from the instrument. During the last 10 runs, Mr. Swann was separated from the instrument by distance and by two double steel walls.

- Performance showed steady improvement from the beginning to end of session.

- Variability of performance decreased from the first to the last 10 runs of the session ($F_{10,10} = 1.86$, $p = .16$).

These latter two trends, while not in themselves significant, suggest the advisability of further research relating to Mr. Swann's belief that his performance in psi tasks is susceptible to learning.

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Physics and Astronomy
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Which Paper Should Be Placed:
General Physics

Possible Detection of Experimenter-Instrument Interaction with a Selected Subject. E. C. MAY and C. HONORTON, Maimonides Medical Center— An experiment was performed with an individual who claims to influence remote physical systems by non-physical means. Prior experimental tests in 3 other laboratories provided encouraging results. In the present experiment the subject was tested with a noise driven binary random event generator in which each event is compared to a "target" alternating between '0' and '1' at a rate of 50 events/second. The number of events and the number of matches (events corresponding to targets) were recorded. Data were taken for 29 runs of 10^3 events during which the subject attempted to influence the binary output of events. The results corresponded to a probability against chance of $p<0.011$. Independently significant results ($p<0.027$) were obtained during the last 10 runs in which the subject was separated from the instrument by 12 feet and by two double steel walls. A control experiment was run one hour after the subject's departure from the laboratory. Control data were taken for 30 runs of 10^4 events and showed good approximation to chance expectation ($p<0.91$). The experimental results suggest that some anomalous influence on the generator occurred.

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VOLITIONAL CONTROL IN A PSYCHOKINETIC TASK WITH AUDITORY AND VISUAL FEEDBACK

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During the last five years, 15 experiments have been reported dealing with psychokinetic influence on electronic random generators. Twelve of these studies (80%) showed statistically significant ($p < .05$) evidence of PK influence. Even if we were to assume that for each reported study there are five unreported, nonsignificant studies, this result is still highly significant ($p < 1 \times 10^{-5}$).

The purpose of the present experiment was to replicate and extend the random generator (dynamic) PK work reported principally by Helmut Schmidt and his associates. Specifically, we were interested in the question of volitional control of dynamic psychokinetic influence.

The random generator used in this experiment has been described by May (1975). In order to totally exclude the possibility of generator bias, all runs were performed in an automatic mode such that the target ('heads' or 'tails') was alternated on each trial. The generation rate was 10 bits/sec., with a run length of 100 bits (i.e. 10 sec.).

We decided in advance to have 10 Ss complete 5 high-aim runs, trying to enforce scores above 50%, and 5 low-aim runs, trying to enforce scores below 50%. Order of conditions (high-/low-aim) was alternated by S.

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Two modes of feedback were used. Ss received auditory feedback (tone) whenever they averaged ±1.26 σ over the last 10 trials. Ss received visual feedback in the form of a digital chart recording which registered hits as deflections above baseline and misses as deflections below baseline (Fig. 1).

All 10 Ss were experienced in some form of internal state exploration. Nine had participated in previous psi research in our laboratory; six had prior experience with dynamic PK tasks; six had prior experience with EEG/EMG biofeedback training; four were meditators.

During the session, S stood or sat in front of the polygraph with headphones for auditory feedback. For the high-aim condition, S was instructed to maintain the pen deflection above baseline as much as possible. S was informed that when the pen was above baseline and the auditory feedback was on, s/he was scoring at a rate of 70% or higher. Similarly for the low-aim condition, S was instructed to maintain the pen deflection below baseline as much as possible, and was informed that when the pen was below baseline and the auditory feedback was on, s/he was scoring at a rate of 30% or lower. The running time for each S was less than 3 min.

The mean run score for Ss in the high-aim condition was 51.92 (t = 2.89, 9 df, p = .009, 1-tailed). Of the 50 high-aim runs, 8 were significantly ($p \leq .05$) above chance (exact binomial p for 8/50 at $p \leq .05$ = .0032). Only one of the 50 high-aim runs was significantly below chance.

The mean run score for Ss in the low-aim condition was 49.22 (t = -1.11, 9 df, p = .15). Of the 50 low-aim runs, 4 were significantly

below chance (exact binomial p = .24). Only one of the 50 low-aim runs was significantly above chance.

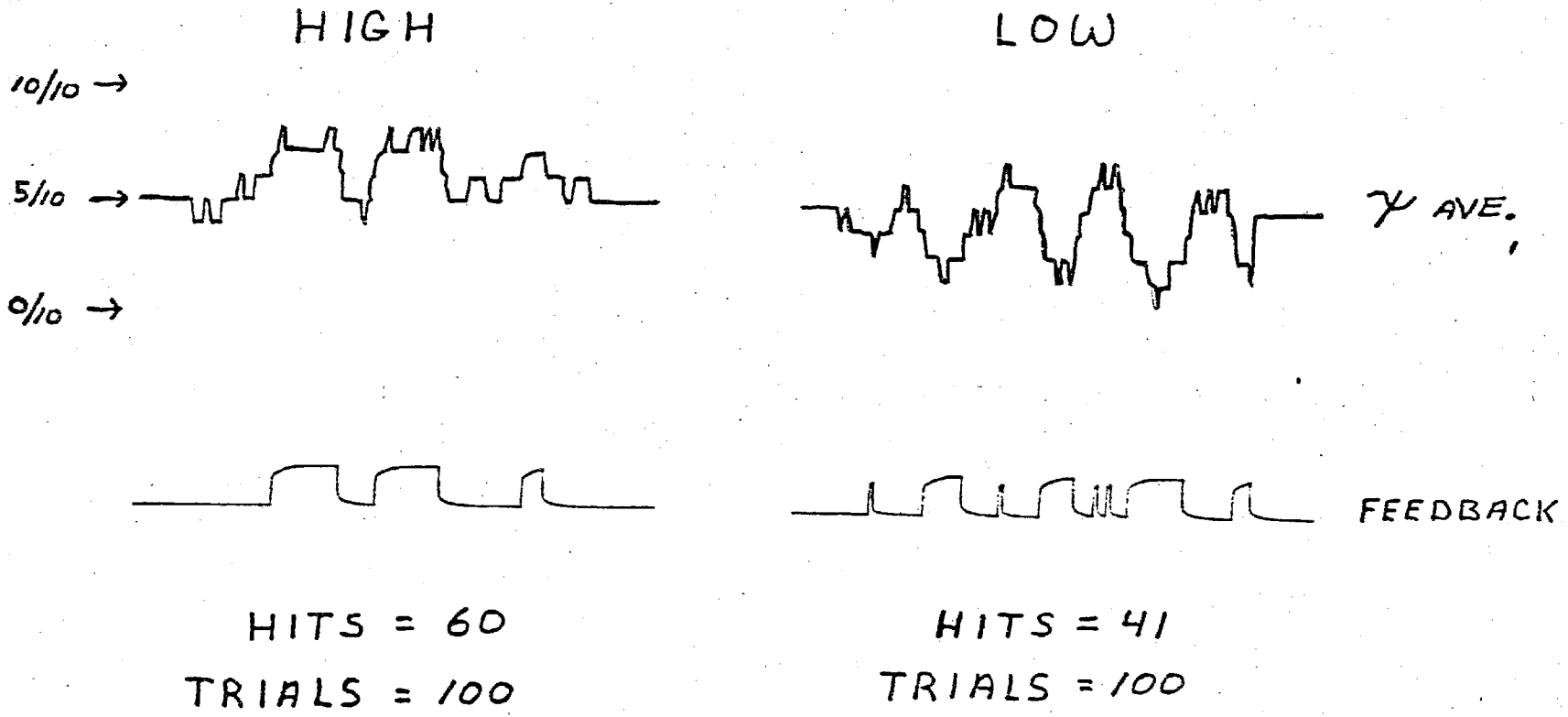
The difference between high- and low-aim conditions was significant (t = 2.05, 9 df, p = .035). Five of the 10 Ss individually obtained significantly more hits in the high-aim condition than in the low-aim condition. The exact binomial p for 5/10 at $p \leq .05$ is: .00006. None of the Ss obtained significantly more hits in the low-aim condition than in the high-aim condition.

Despite the short duration of each experimental session, the Ss exhibited a significant decline effect. Taking the first two runs of each S, the mean run score for the high-aim condition was 54.3 (t = 3.03, 9 df, p = .007), and the mean run score for the low-aim condition was 48.2 (t = -2.12, 9 df, p = .031). Thus, the high- vs. low-aim difference is independently significant for the first two runs of each S (t = 2.90, 9 df, p = .009). The last two runs of each S were associated with a mean run score of 50.5 for both conditions. This decline in volitional performance was significant for the high-aim condition (t = 2.94, 9 df, p = .016, 2-tailed).

The results of this study replicate Schmidt's findings and demonstrate that Ss can exert volitional control of dynamic psychokinetic effects.

HIGH AIM / LOW AIM

fig. 1



	MEAN/RUN	t	p	N SIGNIF. RUNS	p	t_d	p	N SIGNIF Ss	p
HIGH AIM	51.92	2.89	.009	8	.003	2.05	.035	5	0.00006
LOW AIM	49.22	-1.11	.150	4	.240				

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Possible Detection of Experimenter-Instrument Interaction. C. HONORTON and E. C. MAY, Maimonides Medical Center — Many experimenters have suspected that there must be some anomalous influence upon their equipment, when, after watching an experiment crash into oblivion, the equipment resumes normal operation just as the technician arrives. We decided to look for a measurable effect. A noise driven random binary event generator was constructed in such a way that each event is compared to a "target" which alternated between '0' and '1'. The number of events and the number of matches (events corresponding to targets) were recorded. In the control experiment, 20 runs of 10^5 events each were taken with no one present. The mean score was 49980±139 matches which corresponds to a probability against chance of $p<0.57$. Then 10 "experimenters" were asked to influence the generator to have more matches than expected for the first 5 of 10 runs, and less matches than expected for the last 5 runs. The results, which corresponded to a probability against chance of $p<0.035$, suggest that some anomalous influence upon the generator occurred. In addition, 5 of the 10 people individually had significant results at the $p<0.05$ level. This corresponds to a binomial probability of $p<0.00006$.

AUTHORS' INSTRUCTIONS:
Please place these two papers sequentially in the same session with this one first.

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