# RESEARCHES IN PSYCHOKINESIS BY MEANS OF PLACEMENT TECHNIQUE

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Placement PK is concerned with causing objects to come to rest in a designated area of a dice table. The apparatus used in the present research consists of an electrically controlled dice container, perched at the top of a sloping runway curving downward, and lengthened horizontally into a walled-in dice table. When the subject presses an electric button, at the end of a cord, a row of cubes is released, which roll down the incline and scatter over the table. In the first part of the experiments the table was divided longitudinally by a string into two halves, designated by A and B.

Attempts were made in five releases to hit the A-area, and in the following five releases to hit the B-area. The results were:

| *Section* | *Number of Die-Throws* | *Deviation* | *CR* | *P* |
|---|---|---|---|---|
| 1 | 40,000 | +500 | 5.00 | .000,000,6 |
| 2 | 27,000 | + 57 | .69 | .49 |
| 3 | 4,500 | +134 | 4.00 | .000,07 |
| Total | 71,500 | +691 | 5.17 | .000,000,3 |

The distribution of the deviation on the five successive throws for one area as target shows a marked U-curve, which with a probability of .000,4 represents a parabola. 11,000 control throws, without attempts to cause an effect on the cubes, gave a deviation of −91, which is at the chance level.

When continuing the experiments the two-area system was

abandoned. The table was provided with a coordinate system, in which the cube positions could be measured (the two-area system only allows for counting the hits in the target area). The new method has proven to be more sensitive than the previous one, i.e., significant results are arrived at in a smaller number of trials. It also permits a study of the energetics.

Student's t-test of the individual readings in the first two "scaled" series gave $t = 3.62$, or $P = .000{,}3$ against chance, for the observed difference between the centres of gravity of two aggregates, each comprising 630 wooden cubes. The difference was in the expected direction. For one of the aggregates a right-hand aberration of the movement was specified, and for the other one a left-hand aberration. The aberration was particularly marked in the first release of the experimental unit, and a dynamical calculation has shown that a side force of about 15 per cent of the cube weight is necessary to account for the observed aberration (9.41 cms. in 126 trials).

A study of the experimental results on a broader basis leads to some interesting suggestions. The general tendency is that success is obtained when making conscious efforts. In control series the total result is at chance level, but control series show position effects of the same kind as in placement series, although of an inverted structure (for instance inversion of the U-curve in the 5-throw unit). Obviously we are confronted with the following psychological mechanism:

During the repeated conscious efforts in placement series a psychological pattern (on the 5-throw basis) is established within the subject. In a following control series without conscious attempts to score, the PK forces are unconsciously controlled in accordance with this pattern. The inversion may be due to an effect of weariness, which causes a state of psychical opposition, due to the monotony in the placement experiments. Naturally this opposition must be assumed to act also in placement series, making it difficult for the subject to maintain positive scoring in an extended series (chronological decline).

## *DISCUSSION*

S. G. Soal, H. Schaefer, D. Parsons, Mrs. L. A. Dale, S. W. Tromp and D. Wassermann took part in the discussion of Mr. Forwald's paper. The main point of objection was that the observed deviations from chance could have been caused by a normal physical influence, as vibrations or air streams produced by the experimenter. Author pointed out that vibrations of the arrangement could not occur, because it stood on a cement floor resting on a solid foundation. The influence of air streams was thoroughly investigated in the course of the experiments. It was found that even relatively strong air streams from the place where the experimenter was standing could not produce observable aberrations in the cube movements (wooden cubes were used).