

A Further Report on the Midas Touch

ERNEST TAVES, L. A. DALE, and GARDNER MURPHY

In the April, 1943, issue of this JOURNAL two of the present writers reported experimental ESP results which were characterized by various decline effects (1). These effects we attributed to a "Midas touch in reverse" on the part of the subject, the experimenter, or both. It was shown that when subjects called a series of decks of ESP cards, scores were significantly above chance for the first three decks, descending to the chance level thereafter. This effect we attributed to the Midas touch in respect of the subject: as the subject becomes less naïve for a given experiment, he loses his ability to do above-chance scoring. We also presented evidence in support of the view that the Midas touch may work in respect of the experimenter; the present paper, however, does not deal with this aspect of the problem. We want to stress the fact here that the decline phenomena mentioned above were not a priori expected in the data in which they were found. On the contrary, the experiments reported on in the first paper had been designed to test an entirely different hypothesis. But the Midas touch effect became so obvious that it could not escape detection.

On the other hand, decline effects were expected to appear in the data about to be presented, and the entire experiment was specifically planned to facilitate their emergence. The question is, Does the Midas touch hypothesis possess predictive value? Our results lead us to believe that it does. This new experiment will now be described.

Experiment BA

Subjects: It was necessary, of course, to use naïve subjects in this experiment, since it is supposed that the Midas touch makes itself apparent in the first few runs made by a given subject. Accordingly GM* asked Dr. B. F. Riess

*The entire experiment was carried out under GM's direction, and was made possible by moneys available to him from the Hodgson Fund of Harvard University.

of Hunter College if he could make an appeal for volunteers in the latter's psychology classes. Permission was kindly granted and early in March, 1943, GM addressed the classes and asked for volunteers for a "psychological experiment." The parapsychological nature of the experiment was not mentioned since it was desired that the subjects be as naïve as possible. A total of 45 volunteers was accepted and appointments were scheduled. All of the subjects, therefore, were girls of college age. None of them had previously taken part in formal ESP experimentation.

Methodology and Procedure: Three methods of calling were used in the experiment. Two of these are the AE and AJ methods described in another paper appearing in this JOURNAL (2: pp. 17ff. and also 1: pp. 71-72); the third method is similar to method AE, except that the subject does not receive knowledge of results after each individual guess. The letters "wkr" are used to signify "without knowledge of results," so that the new method is called AEwkr.

Each subject was used for three sittings, each of which lasted from fifty minutes to an hour and a quarter, depending on the individual subject's preferred speed in calling. At each sitting the subject was required to call nine decks of standard ESP cards: three decks by one method, three decks by another method, and the final three by the third method. Each subject always did a group of three runs without the experimenter's entering the room. At the conclusion of a group of three runs, and before going on to the next method, the experimenter discussed the scores, and other matters of interest, with the subject. The order of methods used was rotated throughout the three sittings, that is, 15 subjects in their first sittings used the methods in this order: AE, AJ, AEwkr; 15 subjects followed the order AJ, AEwkr, AE; finally, the last 15 subjects called in the order AEwkr, AJ, AE. For each subject, in her second and third sitting, these orders were rotated so that each girl began one sitting with each one of the three methods. We planned this rotation of tasks so that a direct comparison of the methods themselves could be

made. Three methods were used, moreover, in order to give the Midas touch ample opportunity to appear. A subject who has called, say, AJ, may still be considered naïve for methods AE and AEwkr. According to the Midas touch hypothesis, we expected that the first run of all (first sitting) would give the highest average. We also expected that the first three runs of each method would be above chance, and that the first run of these would be higher than the second or third. It would follow from this, therefore, that a subject would do better at her first sitting than at her subsequent sittings. It was for this reason that we had each girl come for three experimental sessions. These sessions took place at approximately weekly intervals. The LD acted as experimenter throughout the series. The objective conditions of experimentation (distance between subject and stimulus material, preparation of stimulus material, mechanical recording, etc.) were exactly the same as described in a former paper (1: p. 82). The subjects were paid on an hourly basis at the rate of seventy-five cents an hour. In addition, rewards were offered as below:

SCALE OF REWARDS

Score	Reward
8	.15
9	.25
10	.50
11	.75
12	1.00
13	2.50
14	5.00
15	8.00
16-25	15.00

This scale of rewards was conspicuously posted on the subjects' panel of the machine, and in most cases LD called attention to it before the subject began her first sitting. When the subject appeared at the office of the A.S.P.R., and after the completion of each group of three runs, the experimenter conversed with her on topics of interest. A real effort was made to create a friendly, informal atmos-

phere; cigarettes and candy were offered, and appreciation was shown for "high" scores. It is impossible to measure, of course, to what extent this attempt to create a "favorable" atmosphere was successful. Most of the subjects, however, said that they enjoyed the experiment and expressed eagerness to participate without remuneration in future experiments. Nothing was said, except in a very few cases, about "chance expectation," and the subjects seemed for the most part naïve on this point.

Results: In the entire experiment 1215 decks of ESP cards were called by 45 subjects—a total of 30,375 individual trials. A plus deviation of 51, giving a mean score of 5.04, was obtained. This over-all result is without significance.

The average score of the *first run of the first sitting* (that is, when the subjects were at their most naïve) was 5.42. Since there were, of course, only 45 "first runs" this value is not in itself statistically significant, but it is in line with the hypothesis stated *a priori*.

In Table I are presented the deviations obtained for the *first three* and *second three* runs called by each method (see 1: pp. 72 ff.).

Table I
Deviations of first three runs compared with deviations of second three runs (by each method) called by naïve subjects, Expt. BA.

Runs	N (in decks)	Dev.	Mean	Dev.	Mean
1	135	+40	5.30		
2	135	+6	5.04		
3	135	-6	4.95	+40	5.098
4	135	+4	5.03		
5	135	-26	4.81		
6	135	+24	5.18	+2	5.005

It will be seen from the above table that, as predicted, the average score of the first run for each method is higher (deviation = +40) than the average score for the second (+6) and third (-6) runs.

None of the three methods used yielded a significant mean score; the obtained means for these three methods (N for each method is 405) are shown below:

AE	4.975
AJ	5.044
AEwkr	5.106

The deviations and mean scores obtained on the first, second, and third sittings are as follows:

First Sitting	5.09 (+40)
Second Sitting	5.005 (+2)
Third Sitting	5.022 (+9)

In Table II we present the *complete* Midas touch material to date. Included in this table are the data shown in Table I above, the original Midas touch material, and all the data collected under the original conditions (that is, exclusive of Experiment BA) subsequent to the publication of the first Midas paper.

Table II

Deviations of first three runs compared with deviations of second three runs called by naïve subjects, all data (August, 1941, to April, 1943).

Runs	N (in decks)	Dev.	Mean	N	Dev. $\sqrt{npq}$	P
1	287	+102	5.35	816	3.17	.0008
2	272	+35	5.13			
3	257	+44	5.17			
4	242	+15	5.06	699	.32	.37
5	232	-35	4.85			
6	225	+37	5.16			

Thus, only eight times in ten thousand similar experiments (each experiment extending over a period of twenty months) would such a result be expected on a chance basis; this result is, therefore, highly significant by standard statistical criteria.

Certain other analyses were made on the data. The following may be mentioned: (a) Salience (in respect of hits on the first card of each deck); preponderance of hits

in the first half of each deck; grouping of hits (runs of three, four, five, etc., successive hits); and abnormal score distributions (preponderance of extreme scores) as tested by Chi-square. Null results were obtained from these analyses.

An isolated case of striking scoring must, however, be noted. One subject, Miss L. L., calling her first deck of AEwkr (seventh deck of her first sitting), obtained a score of 17, the first fifteen cards of the deck being correctly guessed. An unbroken sequence of 15 hits at the beginning of a deck would be expected to occur by chance once in about 30,000,000 runs. It will be recalled that all decks used were arranged in accordance with random numbers.

Discussion of results: It is clear that no one method of the three possesses significant advantage over any other—at least under our conditions of experimentation. Further, the mean score obtained by all subjects under all conditions is without statistical significance. It will be noted, however, that the scoring level on Sitting One is higher than on either of the subsequent sittings, and that the average score of the first run of the first sitting was above chance (5.42). These results were predicted on the Midas hypothesis.

We believe that the most important contribution of Experiment BA lies in the fact that a definite type of result was *predicted and was obtained*—namely, a tendency to score high as a function of naïveté, with a subsequent decline to chance scoring. In other words, we suspect it is just possible that we have put the salt on the tail of that *rara avis*, the repeatable experiment in ESP.

In view of the one extreme score obtained by Miss L. L. (as noted above, the odds against correctly calling 15 cards in a row are astronomical), it may be of interest further to discuss the conditions attending this run, as well as the subsequent work of the subject. LD was experimenter throughout the series, but on the occasion of Miss L. L.'s first sitting it happened that ET was present in the room where LD was operating the machine and GM was in another room at the A.S.P.R. office. When the first five

or six guesses registered as correct, LD asked ET closely to observe the rest of the run. This he did. At the termination of the run under discussion GM's advice was sought on how to proceed. He suggested that there should be no change from the usual procedure as described above; that, in other words, Miss L. L. should continue her task of calling the remaining two AEwkr decks without interruption from us. After these decks had been called (yielding scores of 4 and 6) LD entered the room and, without telling the subject of her unusual score, engaged her in conversation. Miss L. L.'s introspections were as follows:

In the "17" run she had started out by looking around the room and certain objects there, which she associated with the five symbols, had successively caught her eye. For instance, when the coils of the radiator seemed to "attract" her she chose the wave; dry cell batteries on a near-by shelf indicated the circle; the corner of the table indicated the star; the square was symbolized by a chair-bottom, and "something she saw in the design of the rug" meant the cross. (Actually there is nothing in the design of the rug, which is of an Oriental type, that even remotely resembles the form of a cross.) Then, as the run progressed, this procedure began to seem too stereotyped, too "automatic," and another approach to the task took its place. She felt that she should call, say, a circle, and then she looked around the room until she found an object the outline of which would "justify" her impression. She further stated that after a while (whether towards the end of the "17" run or at the beginning of the next run could not be exactly ascertained) she "got bored with looking around the room and just tried to imagine what symbol Mrs. Dale was looking at, but thought it silly." She was not told at the end of this sitting, as were all the other subjects, what her exact scores were, nor was she paid the reward for her score of 17 until after the last sitting. Her total deviation for Sitting One was +14; Sitting Two, +8; Sitting Three, —4. When Experiment BA was completed, Miss L. L. was kind enough to come on two occasions to take part in further experimentation. The results obtained were of a chance nature.

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Summary: An experiment was designed to facilitate the appearance of decline phenomena (Midas touch effects). 45 subjects called, during three sittings each, a total of 1215 decks of ESP cards, using three different methods of calling. Suggestive, but not statistically significant, decline effects were obtained, these effects being similar to those previously noted. When the results of the present experiment are pooled with the results published in the April issue of this JOURNAL, the P-value, based upon the positive deviation of the first three decks called by naïve subjects, is .0008. The Midas trend in the present data is less pronounced than in the previously reported material, but the total result remains statistically significant.

REFERENCES

1. Taves, Ernest, and Dale, L. A., The Midas Touch in Psychical Research, *Journal A.S.P.R.*, Vol. XXXVII, April, 1943, pp. 57-83.
2. Murphy, Gardner, and Taves, Ernest, Current Plans for Investigations in Psychical Research, *Journal A.S.P.R.*, Vol. XXXVI, January, 1942, pp. 15-28.