Precognition: An Analysis, II

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Subliminal Precognition

The kinds of precognition we have thus far considered are, for the most part, those which have entered the consciousness “by gleams and flashes,” leaving some degree of evidence of their presence. ESP-card and other laboratory experiments, however, have shown that with humans it can occur and be measured without their “hits” (or "misses”) ordinarily making any conscious impression whatever. One of the questions which the valuable success of statistical psi research seems to engender is whether spontaneous precognition measurably can be perceived and acted upon in certain situations without consciously having been observed to enter the picture at all, just as can precognition in the laboratory.

For its study, to which we now turn our attention, it is here identified as “subliminal precognition.” Concisely, the working hypothesis may be stated as follows:

In advance of a sudden misfortune, a wholly subliminal precognizance can prevent the percipient’s involvement.

In the large majority of one’s ordinary experiences or avoidances of misfortune, there is no appropriate way in which a statistical yardstick can be applied to test whether or not a given precognition never arising as such to conscious level did prevent a certain misfortune from involving that person; or, if he did "accidentally” escape the same, whether this was due to chance or to a subliminal form of precognition. There does, however, appear to be at least one category of unfortunate events which, through involvement of many people in each single case of its kind, can provide the raw data that are required. It is that of railway passenger trains involved in accidents. The procedure, as here presented, is to obtain the particular information called for below, centering around each “major” accident:

1. The total number of passengers on the involved train, as ascertained in the last routine count made prior to the accident.
2. The total number aboard the train on that same “run” during each of the preceding seven days, and on the 14th, 21st, and 28th day preceding, as determined by the identical routine count as in (1).

Parallel trains too far in advance of the date of the accident would allow increasingly numerous normal and ulterior events to affect the statistical value

of the quantities of their travelers. The 8-day and the 5-week records here described are arbitrary limits. All necessary data are gathered and kept on file for several years by a good number of railroad companies.

In a study of this sort, sources such as ship sinkings are too infrequent, and the demand for ship passage too often exceeds capacity. Nor are bus and subway accidents, etc., appropriate, as accurate population data are not customarily recorded. (*In re* plane accidents, however, see p. 107.) Only the railroads can make any variation in the capacity of a “single carrier" by increasing or decreasing the available space (cars) according to demand.

In an exploratory application of this procedure, reported on the following pages, the stipulated count in each run included all passengers present at the time of the counts, separately in Pullman and in Coach, regardless of whether all were aboard at the place of the accident (in case the latest official count had preceded it by an appreciable distance), and whether injured or not. The definition of "passengers” (*in re* the inclusion of “pass-” and “dead-head-” or just "paying-passengers”) was of course constant for the daily run of any train, as was the place where all its relevant counts were made. In this research an arbitrary minimum of 10 injuries per accident was set in advance.

The source of information which was used is the United States Interstate Commerce Commission’s annual lists of all railway accidents on “Class I” Roads, and of the numbers of killed and injured passengers (Statement No. M-400), for the years 1950-1954. During 1953-55 there ensued correspondence between this writer and a Vice-President or Traffic Manager of each Road contacted.[1] Some Roads were unable to furnish the desired data; either because of their not maintaining them (assimilably or at all), or for reasons of policy.

The entire research was conducted for Coaches and Pullmans (or “sleepers") separately, for two reasons: (1) Most Pullman figures are not maintained by the individual Roads, but are recorded by The Pullman Company of Chicago, to which I am indebted for berth-passenger populations at the station nearest above the scene of most accidents invoking Pullman cars; and (2) Pullman passengers customarily book passage in advance, while Coach passengers do not, and hence the former are (a) less likely to cancel them for superficial reasons (e.g., those instigated by subliminal precognition), and (b) more likely to order the original booking several days earlier when psi theoretically might have a weaker effect upon one's travel plans.

[1]Appreciation has been expressed to the Railroad Companies listed in Tables 1 and 2. et al., and to the Association of American Railroads and The Pullman Company, for their cooperation.

All of the Coach passenger counts represent those at each Road's nearest ‘‘check-point” some distance above the accident. The distances varied widely; but since all figures for the daily runs of a given train were obtained from the same point, its distance from the accident is relatively immaterial. The theoretical (and actual) error in the counts, resulting from this interposition of distance, obviously would tend to be “on the safe side" as far as the purpose of this investigation is concerned. There are also, of course, chances of other inaccuracies on the part of the railroads, from whose voluminous records the population data were extracted; but such can hardly be presumed particularly to have “favored” the working-hypothesis.

Results

Of the 131 principal (‘‘Class I”) railroads in the United States and Canada, 35 were approached; viz., those having one or more accidents since the beginning of 1950. Twenty-eight sets of 11-day data were received, 11 Coach and 17 Pullman. (There was also one "combined” and one “unfinished" set which were thus unusable. Train #2960 had only partial operation.) Pullman and Coach data were analyzed separately, even when both comprised one “train,” for reasons already given.

Table 1-B shows all Coach-passenger totals on the appropriate dates for each of the 11 accidents, and Table 2-B all Pullman berth-passengers in 17. In both tables Column "D” represents the number aboard on the day of each accident, as recorded at the customary check-point. “D-1” signifies the identical run the day before, “D-7” that of one week before, etc. Trains with least passengers aboard on D-day are starred, and in this study constitute a full "hit”; i.e., a case wherein (for the 8 consecutive days) no other run of that train carried as few or fewer passengers. These 8 runs of one train thus comprise one "trial,” if all-Pullman or all-Coach, and two "trials" (one listed in each table) if it was a combined train. So do the 5 week-apart runs (on a weekly basis, referred to below), which are listed in Table 1-A and 2-A.

The tables are inserted to enable the reader to have an over-all picture of the findings, even though the total quantity of data obtainable is regrettably small. From both Tables 1 and 2, however, interesting results are apparent, and are in accordance with the basic hypothesis. Chance-expectation (c.e.) is 11/8 for the 11 Coach “trials” in Table 1-B, but the hits as defined are practically three times this amount. For "Pullman trials," c.e. is 17/8, and the hits are double this quantity.

TABLE 1

COACH-PASSENGER POPULATIONS ON STATED RUNS OF 11 TRAINS INVOLVED IN ACCIDENTS

Line	Train	Date of Accident	A (by Weeks) Populations				B (by Days) Populations								
			D-28	D-21	D-14	D-7	D	D-7	D-6	D-5	D-4	D-3	D-2	D-1	D
Boston & Maine	#60	5/7/53	32	33	32	36	28a	36	83	53	44b	34	34	32	23*
“	#1115	12/18/51	166	179	182	182	203	182	163	173	166	173b	173b	151	203
Canadian Pacific	#2960	2/21/53	--	--	105	123	126	123	85	62	54	46	46	80	126
Central Vermont	#332	7/15/51	25	40	187	173	147	173	131	94	75	124	140	187	147
Chicago & East. Ill.	"Georgian”	6/15/52	54	53	55	35	9a	35	70	62	48	53	60	68	9*
Chi.. Mil., St. P. & Pac.	#15	12/15/52	66	91	69	150	55a	150	136	100	120	87	118	86	55*
Louisville & Nashville	#99	2/2/52	128	107	63	77	85	77	110	33	48	51	52	133	85
New York Central	#5	3/27/53	61	119	97	109	55a	109	84	161	49	84	86	81	55
“	#12	3/27/53	45	91	98	86	109	86	84	185	66	65	60	82	109
“	#27	10/4/50	150	94	86	57	53a	57	93	87	79	90	62	59	53*
Western Maryland	#2	2/14/51	3	5	5	6	9	6	7	2	10	7b	7	6	9

* Accident (“D”) day population was the lowest of the 8 consecutive days recorded.

a Accident-day population was lower on that week day than on the same day of any of the 4 preceding weeks.

b No Saturday and/or no Sunday schedule. Each number so indicated is thus artificial, and equals the cross-sectional average.

TABLE 2

PULLMAN BERTH-PASSENGER POPULATIONS ON STATED RUNS OF 17 TRAINS INVOLVED IN ACCIDENTS

Line	Train	Date of Accident	A (by Weeks) Populations					B (by Days) Populations							
			D-28	D-21	D-14	D-7	D	D-7	D-6	D-5	D-4	D-3	D-2	D-1	D
Atlantic Coast Line.	#2	4/20/53	49	57	58	53	52	53	50	55	52	54	41	45	52
Atchison & Topeka &	#2	9/22/54	79	86	71	73	48a	73	78	50	71	77	75	66	48*
Santa Fe	#4	9/6/54	14	11	14	11	3a	11	II	14	6	12	6	8	3*
”	#15	11/13/53	50	54	42	55	63	55	61	50	38	49	70	49	63
”	#19	8/22/54	36	54	45	43	35a	43	55	44	51	58	42	52	35*
”	#20	11/24/54	54	47	54	32	40	32	41	82	46	36	60	37	40
Chicago & East. Ill.	“Geor-gian”	6/15/52	128	49	73	106	159	106	56	49	45	55	83	89	159
Chi . Mil.,	#15	12/15/52	34	45	35	69	46	69	41	35	53	63	50	29	46
St. Paul &	#16	5/31/53	20	20	15	18	19	18	25	15	13	16	24	13	19
Pacific	#16	9/5/54	36	45	30	28	42	28	36	S3	55	32	62	56	42
Kansas City Southern	#1	8/10/51	9	13	16	30	12	30	30	13	15	12	20	16	12*b
Louisville & Nashville	#99	2/2/52	33	22	47	66	25	66	37	36	33	49	62	56	25*
New York	#5	i/'n/Si	45	33	54	48	31a	48	23	43	35	26	31	44	31
Central	#12	3/27/53	65	73	88	103	96	103	40	120	100	54	69	73	96
”	#27	10/4/50	140	144	111	129	96a	129	159	143	135	109	95	77	96
Pennsylvania	#17	9/6/53	8	13	15	16	11	16	9	16	13	12	20	15	11
”	#173	1/15/53	169	68	57	182	161	182	132	114	56	196	176	180	161

* Accident (“D”) day population was the lowest of the 8 consecutive days recorded.

a Accident-day population was lower on that week-day than on the same day of any of the 4 preceding weeks.

b Train #1 is a “half-hit." See Table 3.

If these few trials be any criterion, and if we may for convenience inspect them just as one would ESP-card test results, it easily may be surmised what degree of significance might be attained were much more similarly suggestive data available.

The inclusion of Columns D-7 through D-28 enable comparison of the D-day populations with those of the same week-days for a month preceding. There were 10 such hits, as indicated in Tables 1-A and 2-A (about twice the pooled expectation).

The statistical method used in analyzing the railroad data is that of the binomial. In view of the impossibility of knowing specifically what nonrandom factors other than psi affected the number of passengers aboard a train during any run, it seems reasonable to assume that each one of the dates considered is equally likely to be that having the smallest number of passengers for a given train. This assumption immediately leads to the binomial distribution.[2]

The critical ratios derived from Tables 1 and 2 are assembled in Table 3. together with other data. Either the daily or weekly Coach analysis (from Table 1) shows a marginal significance of 2.4 CR. The Pullman results are less significant, however, as had been hypothesized. (“Correction” of P by doubling its value is necessitated by the originality of the research effort.) Also in accordance with anticipation are the CR’s of the pooled findings, which show the "by days" (from Tables 1-B and 2-B) to exceed the “by weeks” (from Tables 1-A and 2-A).

TABLE 3

Summary of Results, From Tables 1 and 2*

Train Category	C.E. (trains/days)	Total "Hits"	Dev.	CR	Corrected P-values
Coach, by Days	11/8	4	+2 5/8	2.4	.016
Coach, by Weeks	10/5	5	+3	2.4	.016
Pullman, by Days	17/8	4 1/2 a	+ 2 3/8	1.7	.088
Pullman, by Weeks	17/5	5	+ 1 3/5	1.0	.317
Coach & Pullman pooled: Days	28/8	8 1/2	+ 5	2.8	.004
Weeks	27/5	10	+4 3/5	22	.028

* A single “trial" consists of the whole order of runs of a single train.

A single "hit" consists of each train in whose order of runs the D-day population was the least.

a Where a D-day population was exactly the same as a prior day's, this is classed as a "half hit" for reasons of convenience.

[2]Appreciation has been expressed to Dr. T. N. E. Greville, a Statistical Editor of the *Journal of Parapsychology*, who was consulted in *re* this treatment of the data.

In this interpretation, the entire data are tantamount to less than *two* “ESP runs.” Computation of CR’s through tabulation in terms of actual populations instead of relatively by trains per se is not appropriate, due to distortion that may be caused by the relatively great variability of any individual total (as might occur when, say, members of a Sunday School outing augment a normal population).

There well may have been one other of the 8 consecutive days when a given train's population was by chance less than D day’s, even when psi did reduce the latter. Hence it is not illogical *ad hoc* to observe that “by days” the D-day figure is either the least or next to the least for 5 Coach and 6 Pullman (pooled c.e. is 7); and “by weeks" it is least or next to least for 5 Coach and 10 Pullman (pooled c.e. is 10.8).

Discussion

Though their small quantity restricts the significance of the present data, discussion of these results is given in order to enable a fuller consideration of the working-hypothesis, in this effort to illustrate what appropriately may be termed “applied psi.” A number of tentative conclusions may be drawn from them, presuming that corroboration of the exploratory findings ultimately ensues (within a country whose trains are adequate enough to avoid habitually being filled to capacity).

Hypothetically, there is a much larger quantity of cases of accident-avoidance, et al., that stem from subliminal precognition than of those which result from conscious ones. Psychological studies specifically have shown that not only do we have an “unconscious mind,” but that we also possess various levels of unconscious mental activity which influence our behavior and which are only subsequently in untraceable manners revealed to the conscious. Perhaps the seat of these unconscious cerebrations has closely associated with it a sort of “subliminal pan-awareness" which can possess information of relatively imminent "dangers” without any actual picture depicting a consciously comprehensible vision of the specific misfortune that may be (or, shall we say, "otherwise may have been") involving us. Nor can the precognized imminence of misfortune be presumed to occur only to, or predominantly with, that portion of the would-be travelers whose fate would have been personal injury or death: others who could have experienced the subliminal precognition are those whose journey the annulment of the ill-fated train would have undesirably disrupted.

Perhaps it should be stated that consciously realized precognitions, of which many dramatic experiences never reach the annals of psychical research, indeed may have accounted for *some* train cancellations; but there is no reason why we should presume

precognitive psi thus consciously to have been perceived by any large percentage of the so-called ‘‘would-have-been” travelers. A word might also be added concerning “chronic masochists” who actually may have boarded the doomed train as the result of subliminal precognition of its misfortune. Those would seem to be quite scarce, in comparison, if the trend of these findings is any indication.

“If only the engineer had been able so to perceive and prevent the entire accident," one might ask. The answer to this, no doubt a redundant one, is that such accident may well have been “the one time" that subliminal psi failed him—with his prior “subliminally-precognitive avoidances" of train misfortunes having come to pass unnoticed.[3]

There are in the literature many illustrations of subliminal precognition wherein the percipient’s psi-reactions were *only subsequently* recognizable as such. Reference is given to five which happen to concern railroads.[4]

A different case, but one which likewise illustrates a welling-up of subliminal precognition into the conscious level, was experienced by a businessman, Wade Stevick, of Southern Pines, N. C., with whom I am personally acquainted, and was related to me at first hand.

> There were a number of circumstances just prior to my mother's sudden death which seem to me providential. The previous day I had made several collections, but for some reason I had kept in my safe that day much more money than ever before. (I usually paid all bills by check.) I had finished to a quite unusual degree all carpenter and repair work, procured ample necessities, and, to make a summation, there was

[3]This could be true in normal courses of events as well. In such cases, "subliminal psi" would have its effect upon what we take to be purely conative actions, e.g., automobile driving, business administration, rearing of children, and multitudes of our "human needs," wherein minute variations of a "would-be” course of direction or action continually can be resulting in very great reductions of the probability of our encountering such misfortunes as otherwise might have been our fate. It is of no small consequence to note the general degree of attribution of the same to divine guidance (cf. Ps. 91: *passim*) and to faith (see Heb. 11:1, 8-11, 32-34). In fact, do not some people seem conspicuously to have gone through life experiencing a string of “lucky breaks" which repeatedly pulled them through physical dangers? Historians, both ancient and modem, have given passing reference to such characters (and likewise to their antipodes).

[4]*The Annals of Psychical Science,* Vol. 8, 1909, pp. 148-151 and pp. 311-313; and *Proc*., S.P.R. Vol. XI, 1895, pp. 416-417, pp. 419-420, and pp. 559 560. The two in the *Annals*, reported by Cervesato and G. Elliott, concern accidents which ensued; and the last three, reported by Myers, concern accidents that were prevented. But Myers’ first two are among cases he hypothesizes as possibly due to sensory hyperacuity.

not one detail left undone which would have caused someone else to do anything unusual in connection with my business while I was away.

About 7:30 p.m., Saturday (Dec. 30, 1944), a telegram revealed that my mother, at her home in Ohio, had dropped unconscious (never revived) from a cerebral hemorrhage. This caused me to be away from my business until January 10.

In this instance (which was not the only one he experienced), Stevick's failure to precognize the actual fatality as such, which itself appears never to have risen above a subliminal level, differs from the railroad in only one basic respect: his case is, in a word, an illustration of "psi-causation," while the railroads were cases of "psi-aversion." In the latter, the abortive measures by would-be travelers may have been prefaced either by basically similar causative thought and action or by less definitive varieties. Such, as it were, would be comparable to what earlier has been described as "nipped in the bud" conscious precognition, since the involvement was "nipped" but not the wreck itself (see Section I, pp. 50 and 57).

Although railroad accidents are incorporated in this initial study, that particular source of raw data may not comprise the most appropriate channel of inquiry. Other specific fields might more adequately support the hypothesis through more easily accessible data. Among those which perhaps are suitable for studies of this kind, but which have not been investigated owing to procedural difficulties and personal limitations, is, e.g., that of the air travel and/or of airline passenger cancellations. It may be that the number who actually are aboard a scheduled plane generally is too nearly commensurate with its limited seating capacity, naturally enough; but by observing personal *cancellations* initiated by would-be passengers (and disregarding any seats that are hastily "resold") for planes involved in accidents, etc., the objective might be attained. The relative amounts of travel insurance purchased just prior to flights of ill-fated planes may be especially worthy of consideration. Other possible sources might be those of hotel fires (when great enough to cause evacuation), and of hail damage to tobacco farms. In the latter, subliminal precognition could result in the purchase of hail insurance by a larger percentage of farmers who subsequently suffered hail damage than by those who did not. One difficulty in this approach, in addition to the factor of precedent or habit, is the widespread absence (in the United States) of accurately assimilable records of the number of non-insured farms whose tobacco was not damaged; but it is listed here in order to familiarize the reader with potential sources of data, and with hindrances that might not be avoidable. Perhaps, nevertheless, in other countries quite different

situations may prevail, making more feasible a procedure involving (and/or not involving) Acts of God. If, however, a carefully selected field is found wherein advance scientific predictions *cannot* be made (perhaps the hail, e.g.), the findings of a correlative study of total annual insurance vs. total subsequent loss per insured acre to policy holders, for given years, may yield some evidence of this sort.

There also is a novel and relevant experiment I wish to put forward. It is that of assigning insects to sudden death if, in their movements, they should violate a certain place-time edict. Specifically, one quarter or some other fraction of an enclosed surface upon which a certain number of ants, e.g., freely roam, could be designed to electrocute such as are not traversing elsewhere at that instant. The quadrant and instant would have to be randomly selected, of course, except when the machine is used for such other non- precognitive tests that (presuming psi in insects) readily may suggest themselves.

The extent of the basic existence of apparent precognition suggested by the railroad research may not itself be held to be very limited just because otherwise mortal chaos conceivably would result. The delimiting factor may be more likely the *rise* of this subliminal precognition into the supraliminal, or unconsciously into conation—suppressed perhaps by a Freudian "censor," or as implied in Bergson's "inattention to life" concept. It is not my purpose to discuss the logic or causation of precognition, but rather to rationalize the possible effect of subliminal precognitive knowledge upon ensuing conscious actions; and, where possible, to point out supporting evidence of this.

Evidence and theory of the acquisition of precognitive knowledge, which admittedly is one of the most difficult problems facing present researchers, already have been given considerable space in psi literature. It is my hope that the difficulties attendant upon such efforts, if only to a modest degree, may be made less insurmountable through consideration of the observations herein set forth. Through field investigations of subliminal precognition we can be hopeful of attaining a deeper understanding of its general dynamics, and of the integral part which it long may have been playing in, literally, the very ordering of our daily lives. As psi is more deeply rooted in our mental organization than can readily be indicated by the "non-subliminal" surface-phenomena we recognize today, such investigation as the above, to which I think Rhine's generic term of "psi-control" is applicable, may be one of the ''broad lines of method [which] would lead to a full study of the natural manifestations of psi (and anything

resembling it) and thus to learning everything possible about the conditions that hinder and facilitate its operation."[5]

The railway-accident approach should point the way to a number of methods of *public verifiability* of what I have presumed to term "applied psi." Those which have been mentioned may comprise collectively just one category of several involving subliminal precognition; for it is just as logical for such a faculty to expedite our general advancement, e.g., instead of only to minimize our physical dangers. Such of these particular psi capacities as can be subjected to verification would be included, of course, in the classification in Section I of this paper (p. 57) under "Type I—Beneficial," as its "subliminal" adjunct.

Such orders of the effects of psi upon any and all creatures are fairly readily conceivable. The possibilities of our recognizing and measuring one or more of these subliminal orders, however, is what this part of the present paper is intended chiefly to ascertain.

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[5] J. B. Rhine, "Editorial: Some Considerations of Methods in Parapsychology," *Journal of Parapsychology*, Vol. 18, 1954, p. 80.

Southern Pines, N.C.