

PERSEVERATION AND PERSONALITY.

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COMMENCING with Lankes's well-known study, "Perseveration", in 1914, a number of commendable experimental investigations (*cf.* Jones, Bernstein, Pinard, etc.) have contributed to the demonstration of the existence of a general functional "factor", common to all cognitive activity at least, to which the name "perseveration" has been applied. The main reason for thus designating the factor seems to have been that it manifests itself under conditions where the influence of one mental operation persists and interferes with efficiency in a totally different task. In several studies an attempt has been made to relate this factor as a function making for individual differences to differences in personality features as judged by the observation of behaviour.

In his historical review and discussion of those individual differences to which the name of "types" has often been applied, Spearman has indicated this direction of interest in a most illuminating manner. He commences by referring to the work of Müller and Pilzecker. Müller discusses certain differences between himself and his wife as having a perseverative basis. In a generalizing vein, he writes :

"Consistency of thought and action that extends beyond the immediately given is based to an essential degree upon perseveration. . . . It is easy to see that individuals with very strong perseveration will not be rightly placed in a vocation which needs a quick and frequent change of attention or rapid disposal of numerous and quite different businesses."

During his "*Aussage*" investigations, Stern (1900) proposed an anti-type differentiation under the names "subjective" and "objective". The subjective type is indicated by,

"The tendency of his description (of pictures) to give pre-eminently himself, to bring to expression his personal relations to the things, his temperamental, volitional, and imaginative reactions to them."

Concerning the objective type on the other hand,

"Characteristic for these persons is the tendency of their descriptions to have a cool, matter-of-fact nature, to seek to be just to the object as such."

Partridge (1910) has described at some length these two opposite types.

Otto Gross (1902) proposed a pair of antithetical types of persons ; the

“deep-narrow” and the “shallow-broad”. This distinction was based on observations respecting melancholia and mania. He indicated a physiological basis to these types. It was expressed in terms of the proportional dominance of the “primary function” (excitation) with respect to the “secondary function” (after-function) of the nervous system. This idea of primary and secondary function was taken over by Heymans, Brugmans and their school.

Other types that might be mentioned are the “static” and “dynamic” types of Meumann, who along with Stern also wrote on the “analytic” and “synthetic” types. A rather popular psychological antithesis is that of “theoretical” and “practical” mindedness; McFarlane has stressed this, following a pertinent experimental investigation. The “eidetic” type of Jaensch might be mentioned; it is made up of those persons who have extremely vivid imagery and who fall into one of two varieties that are constitutionally determined. Spearman mentions Jung’s “introvert” and “extravert” types also. This author further suggests that this “type” discrimination was anticipated in Beneke’s proposals of a basis for the whole psychology of individual differences. This basis is to be found in his three “ground-properties”. The first, “excitability by stimulation”, was indicated as consisting in the ease, fullness and fineness with which the mind is able to “pick-up” the sensory impressions. The second was said to be that of the mental “powerfulness” with which the sensory excitations are assimilated. The third was defined as “liveliness” of mental operation.

Spearman suggests that there is a general kinship between all these “type” differentiations. They represent interpretations of aspects of mental activity that are all based upon a general psychological function of the individual. This common functional basis is probably best indicated in Müller’s concept “perseveration” and the “secondary function” concept of Gross.

“Evidently these two exactly supplement each other. For whereas the perseveration indicates that percepts and ideas once vividly aroused have a marked tendency to persist or revive in subsequent consciousness, the secondary function implies that percepts and ideas remain markedly influential even when they have become unconscious. Joining these two concepts together, we get simply that, with some persons, there is a tendency for mental processes to persist in activity long after the cessation of the conditions to which they were originally due.” (p. 52.)

Wiersma’s problem was primarily one of personality differences. It finds its *locale* in an interest in “the psychological personality” as against the “anatomical” and “physiological” personalities. Now in this setting persons are said to differ exceedingly with respect to “activity”—i.e., “the greater or less impulse to and pleasure in work”. It was accepted that an explanatory factor making for this tendency was offered in Otto Gross’s “secondary function”. Every content of consciousness has a primary and secondary function. The primary function is in the activity of the conscious

content ; the secondary function is the after-effect of the activity of conscious content—i.e., its effort on consciousness when it is no longer above the threshold. Wiersma uses the phrase "the psychical after-effect" as synonymous with secondary function. It is further stated that these processes are basic respecting an obvious tendency in personality distinctions. The tendency is manifested in activity and is due to the equilibratory relationship of these two functions. If the primary function is dominant in any individual, such a one can be described as easily adaptable, or generally flexible respecting situational alterations showing itself in a ready sociability, the power to amuse and with a ready wit. Thus we have an active, busy individual, though tending to be inconstant in his actions ; a generally merry person, when disturbed, however, tending to be intensely so, but soon getting over it. On the other hand, when the secondary function is in the ascendancy, we have an individual displaying unity, connectedness and consistency of thinking and acting. These persons are not usually at ease in large companies, for, lacking the necessary flexibility, they find difficulty in quickly adapting themselves.

It is acknowledged that this secondary function is difficult to determine in the individual, and therefore an experimental procedure is of considerable value for its detection. Wiersma's investigation of "the continuance of perceptions" with laboratory apparatus, using both abnormal and normal subjects, is an attempt to measure this process and to indicate its relationship to personality differences.

The setting for Lankes's problem was the relationship between functional differences and personality differences. His background for this was the significant research carried out by Webb. This work suggested that human character or personality has one paramount differentiating factor, namely, the degree to which conduct is controlled by deliberate resolution rather than by present impulse. Spearman represents the relationship between this assertion and Lankes's research in the following logic. By "more deliberate motive" is essentially meant the one of older date. Therefore it would appear to follow that those who most obey deliberate motives may well be those on whom experiences leave the most persistent impressions. This being so the problem falls under the general theory of "after" or "secondary function".

In this light, we can appreciate Lankes's statement of the object of his investigation to be, in part, an attempt to find an answer to the question, How is perseveration, as a peculiarity of the cognitive side of mental life, related to the persistent qualities of character? The other part of his purpose was an interest in perseveration as a "general" factor. He found that perseveration as tested by his experimental methods did not correlate with the perseverance qualities of behaviour and character as rated by Webb. However, his conclusions seemed to have some harmony with the earlier findings of Wiersma ; for where the latter investigator concluded from his results that perseveration tends to increase along the line manic-normal-melancholic,

Lankes demonstrated that self-control is greatest with persons of normal perseverance and is less with both the high and low perseverators. He recommends the whole problem for further research. The challenge appears to have been accepted by Pinard.

Two studies in this field have concerned themselves with comparing manic and melancholic patients and normals with respect to perseverance. Heyman's (1906) background is the "secondary function" theory. Wynn Jones (1929) declares an interest in a study of individual differences in "mental inertia". Their findings are similar in that they both get high perseverance scores for melancholics. Heyman indicates that manics give consistently low perseverative scores, while Wynn Jones's findings are not consistent in this direction.

Pinard, in his recent study of tests of perseverance, and the relationship of this function to character, carried out the first part of his work with dependent and "problem" children. The point of using this situation was in the hypothesis that with subjects of this kind either excess or defect in the "persistent qualities" of character (and probably other characteristics, too) would necessarily be more marked and the individual differences greater than was the case with Lankes's and Webb's normal subjects. After securing character sketches for his subjects, he obtained further ratings on them respecting those specific traits which appeared in these sketches with almost monotonous regularity. The traits were broadly indicative of six "types": "difficult", "self-controlled", "reserved", "sociable", "persevering" and "unreliable". These results were related to perseverance scores by dividing the group—194 children—into four categories: extreme perseverators, moderate perseverators, moderate non-perseverators and extreme non-perseverators. Study of this data disclosed the fact that "reserved" and "sociable" were not significant "types", but that "self-control" and "perseverance" go with moderate perseverance, while "difficult" and "unreliable" characteristics go with either extreme perseverance or extreme non-perseveration. Like results were obtained by following a similar procedure with 116 adults, patients of a mental hospital.

The second part of this investigation was the study of the relation between perseverance and certain psychopathic conditions, and between perseverance and introversion. Respecting the former emphasis, a procedure similar to that previously employed was carried through with 144 patients of a mental hospital, only in this case perseverance was set against definite psychopathic states. It was found that delusion tends to go with the moderate forms of perseverance, that melancholia, suspicion and paranoid state tend to go with extreme perseverance, and that hysteria and mania are attendant on extreme non-perseveration. The study respecting introversion and its relation to perseverance was carried out with 236 subjects, all patients in the hospital who had recovered so far that they were on the point of being discharged. Dr. Pinard writes concerning the results he obtained :

“ One thing seems to be beyond dispute, namely, that the facts before us definitely explode the theory held so long and by such eminent psychologists, that introversion is synonymous with extreme perseveration, or that there is any significant correlation between perseveration and what was generally supposed to be the mental make-up of the introvert. . . . It becomes clear on the most superficial examination that the extreme perseverator tends to be a very different person from the extreme non-perseverator, and that the intermediate perseverators, as a class, are distinct from and in some respects the very opposite of the extremes, although the moderate perseverator and the moderate non-perseverator differ slightly *inter se* ”. (p. 123.)

This author further suggests that it would be more scientific and make for greater clarity if we grouped characteristics under different degrees of perseveration. There is no doubt whatever in his mind, but that perseveration and personality characteristics are very closely related.

“ Not only the extreme perseverator but also the extreme non-perseverator tends to lack perseverance and self-control and to be obstinate, unreliable, ‘touchy’ and ‘difficult’. Whereas the perseverator tends to be ‘nervous’, sensitive, effeminate and sentimental, the non-perseverator tends to be inconsiderate, tactless and critical. The moderate perseverator tends to be considerate, harmonious and reflective, the moderate non-perseverator to be courageous, jovial and a ‘good mixer’.” (p. 126.)

An investigation recently carried out by the writer respecting various relationships of perseveration might be said to offer a minor contribution to this present topic. Part of this consisted in the study comparatively of those cases who had obtained high and low scores on previously authenticated perseveration tests. Several different methods were employed. The first consisted in an adaptation of the free association test included by Terman (Stanford-Binet) at the ten-year level. The subjects (mental deficient of the “moron” classification) were examined individually, and asked to name as many words as possible until told to stop. The responses were then judged by a somewhat arbitrary classification, to see if any differences between the highest and lowest 25% of the perseveration distribution could be detected. The perseverators (high 25%) appeared to be influenced by the local situation—the hospital and the testing-room—to a greater extent than the non-perseverators (low 25%). The latter gave associations that were more varied and seemed to reflect greater exploration.

The subjects were next appraised on the basis of Rosanoff’s classification of “types”. Four workers co-operated in this task, and after a carefully conducted training period, they passed judgment on the children individually, under uniform conditions of examination. The data thus obtained suggested “depression” and “autism” as being more characteristic of the high perseverators, while “instability” and “antisocial” tendencies predominated with the low perseverators.

No relationship whatever resulted from a similar examination of the children

on the basis of "extravertive" and "intravertive" tendencies, as judged by the same four examiners, even though the judgments showed a high degree of reliability. This is in keeping with the findings of Pinard in his more elaborate investigation.

Social histories and school records were next examined in detail, having regard to general behaviour characteristics, recorded misdemeanours and family history. The difficulties inherent in such a field are obvious, and while some differences in the general picture of behaviour tendencies could be detected, it was felt that any very definite conclusions should wait further study.

SUMMARY.

Contemporary with the experimental determination of perseveration as a mental function, there have been effected correlative explorations of the possible relationships between this function and personality features.

Spearman has indicated that the so-called "type" psychology has an interesting bearing on this problem, and perseverative function as a common basic feature of these various personality dichotomies is suggested. Certain well-directed investigations would appear to have established a very definite relationship between perseveration and personality characteristics. It has been proposed—and it would appear to offer not only interesting but valuable possibilities—that apart from intelligence, perseveration offers one of the most important contributions toward the delineation of individual differences on a functional basis.

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