TABLE VI[1]

	Tasks not completed			Tasks completed by substitution: *Goal of act attained*			Tasks not completed			Tasks completed by substitution: *Goal of act not attained*		
n	24 *TSR*	24 *SR*	19 *RI*	24 *TSR*	24 *SR*	24 *RI*	12 *TSR*	12 *SR*	10 *RI*	12 *TSR*	12 *SR*	12 *RI*
Per cent	27	25	24	4	0	10	42	25	15	50	8	33
ΣR in per cent	60			13			75			75		
$\frac{RAN}{RAS}$	4.6						1					

[1] Mahler, Table 6, p. 50.

Success and Failure; Level of Aspiration.

Related to the structure of the psychological systems and the differences in degree of reality is the experimental work of the following.

Hoppe, Success and Failure.[1] In spite of the great practical significance of this problem we have hitherto known very little about the occurrence of experiences of success and failure and the laws of their operation. Hoppe shows that the occurrence of these experiences is not a simple function of the result of the activity but depends, among other things, upon the relation of this result to the momentary level of aspiration (real and ideal goal) of the person and upon the ascription of the result of the activity to the self as its own performance. He shows that these experiences are limited to a rather narrow zone of difficulty, which is determined essentially by the limits of the ability of the person. In quite too hard and quite too easy tasks experiences of success or failure do not occur (Fig. 1).

It is sometimes possible to fix upon different altitudes of the level of aspiration and to compare them for different persons. Thus one can investigate the effect of success and failure on the displacement of the level of aspiration ("real goal," Fig. 2) and the degree of reality of the ideal goal. These displacements

[1] *Psychol. Forsch.*, 1930, 14, 1–62.

of the level of aspiration, the formation of substitute goals, as well as the tendency to spontaneous interruption after certain

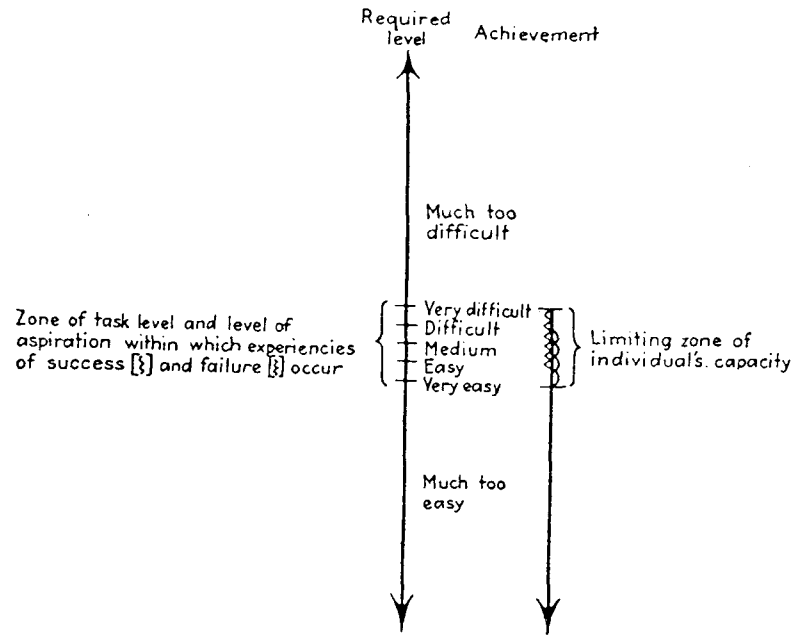

FIG. 1.—(*Hoppe, op. cit., Fig. 25, p. 55.*)

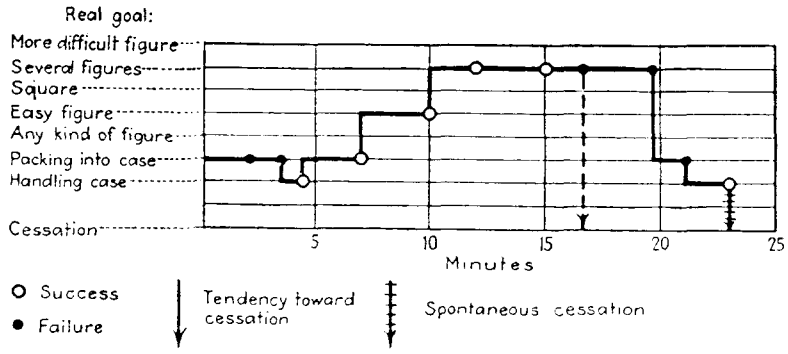

FIG. 2.—(*Hoppe, op. cit., Fig. 7, p. 16.*)

successes and failures, rest upon a definite conflict situation. Close relations were found to obtain between the level of aspiration and the *self*-consciousness of the individual as a

social person. Pronounced and apparently very deep-lying individual differences were found.

Frank, The Effect of the Level of Performance in One Task on the Level of Aspiration in Another,[1] Individual Differences in Certain Aspects of the Level of Aspiration,[2] Some Psychological Determinants of the Level of Aspiration.[3] The level of aspiration was studied by means of a more objective and quantitative technique than Hoppe's. It was found that a shift in the height of the level of performance in one task causes a shift in the height of the level of aspiration in another task under certain specified conditions. The relation between the level of aspiration and the level of performance differs widely among individuals and seems to represent a reliable and general personality trait. The height of the level of aspiration in a given case is a resultant of the tendencies (1) to keep the level of aspiration as high as possible, (2) to avoid failure, and (3) to hold the level of aspiration in close agreement with a realistic estimate of future performance.

Jucknat, Performance and Level of Aspiration.[4] Jucknat investigated the effect of success and failure in one field upon the displacement of the level of aspiration in another field. She uses an essentially improved technique for the diagnosis of the obtaining level of aspiration. The experiments were carried out with some hundreds of school children and showed that success and failure in one field may importantly displace the level of aspiration in another field, upward or downward. This presupposes, however, definite dynamic relations between the two fields and a not too fixed level of aspiration in the second field.

Fajans, II, Success, Persistence and Activity in the Infant and the Small Child.[5] Fajans investigated success and failure in children of from one to four years and in infants of six months to one year. She found a very considerable displacement of

[1] *Jour. Exper. Psychol.*, in press.
[2] *Amer. J. Psychol.*, 1935, 47, 119–129.
[3] *Amer. J. Psychol.*, 1935, 47, No. 2.
[4] *Psychol. Forsch.*, in press.
[5] *Psychol. Forsch.*, 1933, 17, 268–305.

the level of activity of behavior: characterologically rather passive children can be moved by success to a rather active kind of behavior and characterologically rather active children can be reduced by failure to a rather passive kind of conduct.

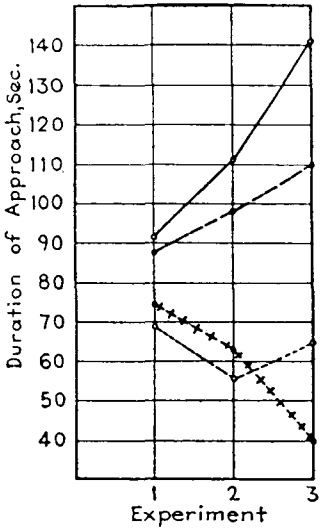

FIG. 3.

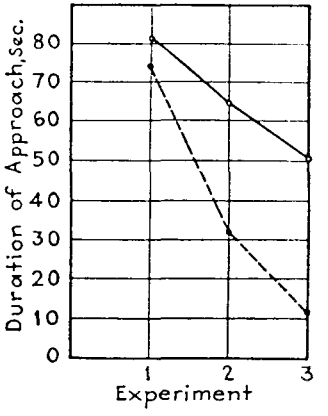

FIG. 4.

FIG. 3.—Comparison of the effects of success, encouragement, substitution and failure upon the duration of approach [*Zuwendungsdauer*]. A positively valent object was hung out of reach of the child: his efforts toward it were timed with a stop watch and are indicated as "duration of approach" upon the ordinates. (*Fajans*, II, *Fig.* 7, *p.* 290.)

————Success with concomitant encouragement. Increase in duration of approach from first to third experiment = 48 per cent.
– – – – –Success. Increase in duration of approach = 25 per cent.
. . . . . Substitute success. Diminution in duration of approach = 6 per cent.
+ + + + +Failure. Diminution in duration of approach = 48 per cent.

FIG. 4.—Effect of success (————) and failure (– – – – –) upon the infant. (*Fajans*, II, *Fig.* 2, *p.* 278.)

Fajans discusses the relation of success and failure to embarrassment and to going-out-of-the-field. It appears that the attainment of a substitute goal, a consolation, or an encouragement is, for the child, to a rather considerable degree the equivalent of a genuine success (Fig. 3). The quantitative results suggest that the attainment of a goal means psychologically something essentially other in the infant (Fig. 4) than

in the young child. This circumstance is confirmed and more explicitly investigated by the following.

Rosenfeld, The Ontogeny of Experiences of Success and Failure.[1] It is shown in what way the experiences of achieving and of non-achieving differ from the experiences of success and failure in children, and how these experiences are related to different developmental levels. An important factor in the development of success and failure experiences is the development of increasingly differentiated goal structures.

Psychical Satiation.

To be distinguished from the above-described questions on the dynamics of the tension system is the question of the conditions under which a new tension system spontaneously arises and how the new goal is related to the earlier goal. This problem has been attacked in the investigations of the displacement of the level of aspiration. A special problem in this field is that of psychical satiation.

Karsten, Psychical Satiation.[2] Karsten investigates the question of how the repeated execution of an act influences the inclination to execute the act yet again. The technique is essentially as follows: the subject must do a certain task repeatedly; he is, however, free to stop as soon as he has enough of it. Karsten used a group of activities as varied as possible. By reason of the repetition, an originally positive valence of the act changes to a negative. Finally the subject tries to go out of the field. The progressive process of satiation is evidenced by such typical criteria as variation, dissolution of the whole (of both perceptual and action unities), inattention, forgetting. Psychological satiation is shown to be different from fatigue although fatigue is frequently a symptom of psychical satiation. The speed of satiation depends, among other things, upon the structure of the task, upon the state of tension of the whole person, upon whether the task involved is of a more peripheral or more central character (both agreeable

[1] *Psychol. Forsch.*, in preparation.

[2] *Psychol. Forsch.*, 1928, 10, 142–254.

TABLE VII.—CONSATIATION. FIRST DAY, SUBJECT GROUP *a*

Subject	Sum of the part regions	Number of part regions per third	First third of the part regions		Second third of the part regions		Third third of the part regions	
			Total time	Amount	Total time	Amount	Total time	Amount
			Minutes Seconds		Minutes Seconds		Minutes Seconds	
Tr.	3	1	38 15	569	18 ..	476	8 15	70
Ha.	4	1·3	13 30	314	7 45	199	6 45	31
So.	7	2·3	25 30	645	14 30	532	7 ..	174
J.	21	7	10 10	357	6 45	188	3 35	56
Fa.	28	9	5 20	130	4 ..	40	4 ..	78
Mean	..	...	18 30	403	10 12	287	5 55	82

The procedure used in this experiment was to have the subject make strokes in a certain rhythm (3.5) until he would no longer continue even upon slight pressure from the experimenter. He was then asked to make strokes in another rhythm (4, 4), again until spontaneous cessation. He was then asked to make strokes in still another rhythm, again until spontaneous cessation, and this process was continued until the subject could no longer be moved to make strokes in any new rhythm whatsoever. Each rhythm is regarded as a part region. As may be seen from the table, subject Tr. required the satiation of only three part regions before the whole region (*i.e.*, making strokes any way at all) was satiated; whereas subject Fa. required the satiation of 28 part regions before the whole region was satiated. The "thirds" referred to in the table are the results simply of the division of the total number of part regions required for the subject into three equal parts. "Amount" means number of stroke groups executed.

[1] Karsten, Table 5, p. 222.

and disagreeable tasks are comparatively more rapidly satiated than neutral ones), upon the character of the person.

The problem of the *consatiation* [*Mitsättigung*] of neighboring regions is quantitatively investigated (Table VII) as is also the effect of variation upon the satiation of the total region (Table VIII). A condition of satiation is the occurrence of "genuine repetition." Karsten discusses the conditions under which satiation, in spite of many repetitions, fails to occur.

Karsten's results are, in addition, an impressive demonstration of the thesis that repetition by no means always brings with it an improvement in performance such as would be expected from the law of association.

Table VIII shows that with increase in amount of activity necessary to satiate single part regions, the number of part regions that have to be explicitly satiated in order to satiate the whole region decreases.

TABLE VIII.[1]—SUBJECT GROUP α ON THE FIRST DAY

(1) Rank order	Subject	Number of explicitly satiated part regions	Average satiation time per part region
1	Tr.	3	21 Min. 30 Sec.
2	Ha.	4	7 Min.
3	So.	7	7 Min.
4	J.	21	0 Min. 58 Sec.
5	Fa.	28	0 Min. 29 Sec.

(2) Rank order	Subject	Number of explicitly satiated part regions	Average satiation quantum per part region
1	Tr.	3	372
2	Ha.	4	136
3	So.	7	193
4	J.	21	29
5	Fa.	28	9

Lange, Action Unities in the Occupations of the Kindergarten.[1] Lange investigates the duration of occupations in children of various ages under the conditions of a Montessori kindergarten and the various factors which determine the kind of occupations and cessations of activity.

Problems of the Environment[2]

The properties of the psychobiological environment (E) depend, among other things, upon the state of the person (P) involved [$E = f(P, X, Y \ldots)$]. The valences, especially, are directly related to the state of the tension systems.

General Topology and Dynamics.

Of especial importance for the structure of the psychological environment are (1) the *topological* relations (*i.e.*, the mode of connections of different regions, the presence of dynamic barriers, etc.); (2) the *fields of force* (direction and strength of the forces at the various points of the field).

Fajans, I, The Significance of Distance for the Strength of a Valence in Infants and Young Children.[3] Fajans investigates the special problem of whether the strength of the force corresponding to a valence diminishes as the spatial distance between the valence and the person increases. She used as subjects infants and preschool children who tried to reach a goal object from various distances. She compared the duration of active and passive, direct and indirect, approaches (Fig. 5).

She found, in the case of the infants, a clear diminution in the strength of the field forces with increasing distance but no such diminution (within the investigated distances) with the preschool children. This difference rests in part upon the different magnitudes of the life-space at these different ages, in part on the greater significance of social fields for the older children. Fajans follows up the metamorphosis of "thing" [*sachlichen*] fields into social fields, the structure of the new

[1] *Psychol. Forsch.*, in preparation.

[2] A somewhat more thorough survey of the results up to the present concerning

environment in embarrassment, the effect of certain conflict situations on expression, and other questions. Methodologically important is the development of special criteria which permit the discrimination of differences in the strength of driving forces from differences in the firmness of barriers. Fajans shows that the strength of these restraining forces is a function of the strength of the driving forces.

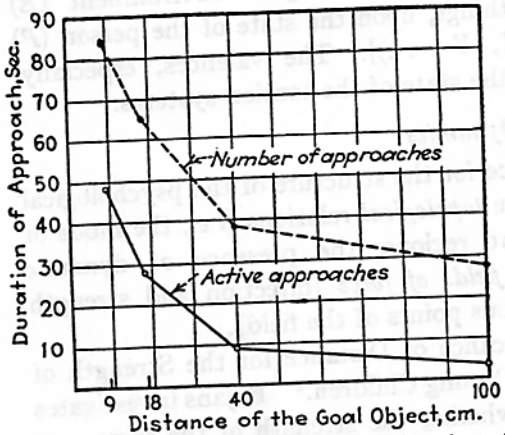

FIG. 5.—In these experiments with infants a positively valent object was hung at eye level as the infant sat upon a table at the horizontal distance indicated from his outstretched hand. The total duration of "active approaches" and "passive approaches" (visual regard) was measured with a stop watch and is indicated upon the ordinates. (*Fajans*, I, *Fig.* 4, *p.* 239.)

– – – – – –All approaches (active and passive).
————Active approaches.

Dembo, Anger as a Dynamic Problem.[1] Dembo analyzes the change in the topology of a situation in which a goal is unattainable (formation of a dynamic barrier between person and goal, formation of an outer barrier) and shows the effect of the obtaining topology on the possible modes of behavior. The decisive significance of the different *degrees of reality*, which are to be represented by a special dimension of the psychobiological life-space (Fig. 6), becomes clear. Besides the topology, the field forces, their distribution and their changes, are investigated. The structure of the fields of force in the *conflict* situation is given, its effect on behavior in the

[1] *Psychol. Forsch.*, 1931, 15, 1–144.

level of reality (oscillation, various kinds of going-out-of-the-field), as well as the tendency to go into the level of unreality (fantastic solutions). Dembo uses the idea of *inducing fields*

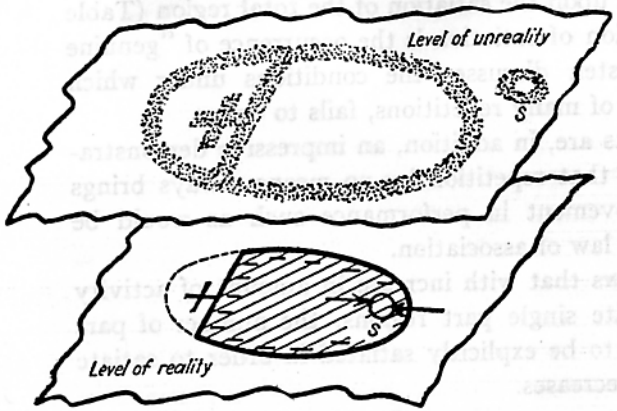

FIG. 6.—*S* = Subject. (*Dembo, Fig.* 13, *p.* 66.)

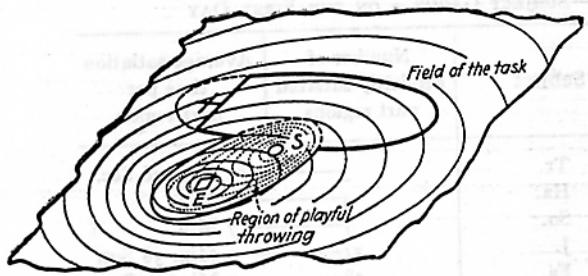

FIG. 7.—The outer barrier embraces not only the field of the task but also the field of the struggle with the experimenter. (The task here is to throw rings over a bottle. The experimenter intentionally provokes the subject by catching the thrown rings, moving the bottle, etc. The subject immediately takes this up as a *game*, which gives him a basis for conducting a struggle with the experimenter, a basis which, as mere subject, he did not have.) To this extent, then, the field of the struggle with the experimenter corresponds to "a special region of the field of the task." If the subject should succeed continually in getting the upper hand in the struggle the field of the task, its vectors and its barriers, would be annulled in so far as these rest upon the field of force of the experimenter. (*Dembo, Fig.* 17, *p.* 82.)

————Field of force of the experimenter.
. . . . . Field of force of the subject.

for the presentation of social power relations and deduces the occurrence and the forms of the struggle between experimenter and subject from the nature of these fields (Fig. 7). She also uses this concept in treating the difficult problems

related to the spontaneous occurrence of substitute goals and relates the problem of the substitute goal to that of the use of tools. Dembo follows in detail the process of *destructurization* [*Destrukturierung*] and *homogenization* [*Homogenisierung*] of the field, which is very significant for the dynamics of anger. The experimental findings of this investigation form the essential basis for my analysis of the situation of reward and punishment (see Chap. IV, page 114).

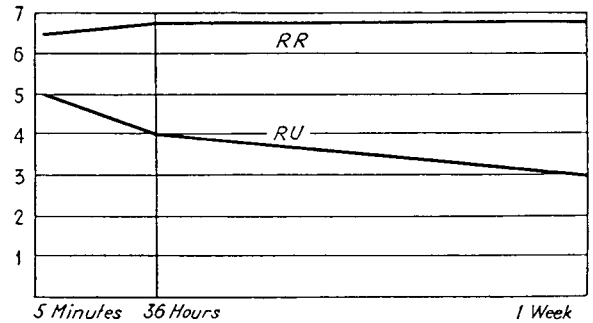

FIG. 8.—*RR* = real tasks retained. *RU* = unreal tasks retained. (*Brown, Fig. 5, p. 13.*)

Reality and Unreality.

Brown, On the Dynamic Properties of the Levels of Reality and Unreality.[1] Brown tests experimentally the assumption that the less real levels are dynamically more fluid than the more real, by investigating the speed of discharge of tense systems which belong to different levels. He makes use of the technique of Zeigarnik and compares especially the discharge of systems which correspond to serious and nonserious tasks.

He finds that tension persists much longer (Fig. 8) in the former, that they thus correspond to dynamically less fluid media. A special experimental arrangement shows that attention or intensity in the execution of the task does not determine this effect.

The question of the differences between levels of reality and unreality also plays a role in the already mentioned works of Lissner and Mahler.

[1] *Psychol. Forsch.*, 1933, 18, 1–26.

Sliosberg, On the Dynamics of Play.[1] Sliosberg investigates the problem of substitution especially in the play of the child. It is found, among other things, that the substitute value of an object or an action depends essentially upon whether the child is in a play or in a serious situation. The question is discussed whether the close connection between

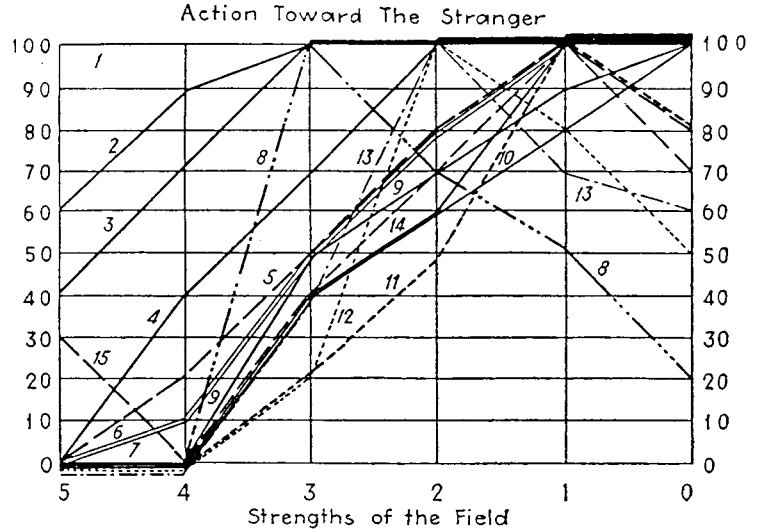

FIG. 9.

reality and unreality which determines the child's magical view of the world (Piaget) is also determinative for the satisfaction of his needs.

Social Fields.

Wiehe, The Behavior of the Child in Strange Fields.[2] Wiehe investigates the significance of a special social field for the behavior of children. The children, sometimes alone, sometimes in the presence of the mother, are brought into a strange

[1] *Psychol. Forsch.*, 1934, 19, 122–181.

[2] In preparation.