

TABLE IX.¹—ACTION TOWARD THE STRANGER

Behavior		Degree of the strengths of the social field					
		N = 21	N = 38	N = 59	N = 52	N = 51	N = 22
1. Listen to	unh	100 %	100 %	100 %	100 %	100 %	100 %
2. Look at	a	40	10	0	0	0	0
	o sh	30	10	0	0	0	0
	unc	30	0	0	0	0	0
	oem	0	20	10	0	0	0
	d	0	60	30	10	0	0
3. Turn bodily toward	oem	0	0	30	40	40	0
	unh	0	0	30	50	60	100
	a	60	30	0	0	0	0
	v we	30	30	0	0	0	0
	unc	10	20	0	0	0	0
4. Smile at	we	0	20	0	0	0	0
	oem	0	0	30	20	0	0
	s un	0	0	0	40	60	0
	a	100	60	30	0	0	0
	o sh	0	20	0	0	0	0
5. Speak to	unc	0	20	50	0	0	0
	c	0	0	20	40	0	0
	oem	0	0	0	40	60	0
	s un	0	0	0	20	40	100
	a	100	80	50	20	0	20
6. Address to	o sh	0	20	20	0	0	0
	we	0	0	20	30	0	0
	i	0	0	10	0	0	0
	d	0	0	0	0	20	0
	oem	0	0	0	30	40	0
7. Express wishes	s un	0	0	0	20	30	80
	a	100	90	50	20	0	0
	v we	0	10	10	0	0	0
	unc	0	0	20	30	0	0
	i	0	0	20	20	10	0
8. Give or throw something	c	0	0	0	40	60	100
	oem	0	0	0	0	30	0
	a	100	100	0	30	50	80
	o sh	0	0	60	40	0	0
	unc	0	0	30	0	0	0
9. Make bodily contact	i	0	0	10	0	0	0
	oem	0	0	0	30	30	0
	s un	0	0	0	0	10	20
	a	100	100	50	30	10	0
	o sh	0	0	30	20	10	0

TABLE IX.¹—ACTION TOWARD THE STRANGER.—(Continued)

Behavior		Degree of the strengths of the social field					
		N = 21	N = 38	N = 59	N = 52	N = 51	N = 22
10. Stay nearby	a	100 %	100 %	60 %	40 %	20 %	0 %
	o sh	0	0	30	20	0	0
	unc	0	0	10	20	10	0
	up	0	0	0	20	10	0
	oem	0	0	0	0	30	0
11. Ask personal questions	s un	0	0	0	0	30	100
	a	100	100	80	50	0	30
	i	0	0	20	20	20	0
	unc	0	0	0	30	20	0
	s un	0	0	0	0	60	70
12. Demonstrate ability	a	100	100	80	0	20	50
	unc	0	0	10	10	0	0
	sub	0	0	10	0	0	0
	oem	0	0	0	70	50	0
	s un	0	0	0	20	30	50
13. Show off	a	100	100	60	0	30	40
	unc	0	0	20	0	0	0
	oem	0	0	20	10	0	0
	s un	0	0	0	70	40	0
	a	100	100	60	40	0	0
14. Make demands	o sh	0	0	20	0	0	0
	v we	0	0	20	0	0	0
	we	0	0	0	30	0	0
	c	0	0	0	0	10	20
	aff	0	0	0	0	0	0
15. Affective reactions	oem	0	0	0	0	30	0
	we	0	0	0	0	40	50
	s un	0	0	0	0	20	30
	a	70	100	60	30	0	20
	v we	0	0	20	0	0	0
	o sh	0	0	10	20	0	0
	we	0	0	10	50	10	0
	oem	0	0	0	0	60	0
	s un	0	0	0	0	30	80
	a	30	0	0	0	0	0

a = absent.
 aff = connected with affections.
 c = confident.
 d = discretely.
 he = hesitancy.
 i = indirect.
 oem = overemphasized.
 o sh = overshoot.
 o st = only starting.
¹ Wiehe, in preparation.

p = personal.
 sub = substitute activity.
 s un = socially unhindered.
 unc = uncertain.
 une = unemphasized.
 up = impersonal.
 v we = very weak.
 we = weak.
 wo = doing with emphasis.

room, or a strange person appears in the child's home. Wiehe distinguishes six different degrees of strength of this strange field. The degree of strength is, apart from individual characteristics of the child and of the strange person, a function of the spatial distance of the strange person, of the duration of his presence, and of his conduct. It is possible to correlate the different degrees of the strength of the field with definite modes

of behavior of the child. Surprisingly marked quantitative lawful relations resulted (Table IX). The strongest pressure was expressed by the child's becoming motionless; crying and the tendency to run away, where possible to the neighborhood of the mother or into another field where the child feels itself more at home, correspond to a weaker degree of pressure (Fig. 9). The other activities of the child also showed, with great regularity, an inhibited character under high pressure of strangeness and an overexcited or overemphasized character under somewhat weaker pressure. Only a further reduction of pressure led to natural free behavior.

Structure and State of the Whole Person

Nearly all the investigations described above have also contributed somewhat to the problem of the state and structure of the whole person. Zeigarnik showed the dependence of the single tension upon the fatigue (Table X) and affectivity of the whole person. Birenbaum showed their dependence upon the state of tension (Table XI) of the whole person. In Karsten's investigation the stratification [*Geschichtetheit*] of the

TABLE X. $\frac{RU}{RC}$ FOR FATIGUED SUBJECTS

Subject	R	RU	RC	$\frac{RU}{RC}$
A	11	6	5	1.2 (5) ²
H	9	(3/6)	(3/11)	0.98 (1)
S	9	4	5	0.8
F	9	4	5	0.8
K	7	3	4	0.75
Lk	7	3	4	0.75 (1.75)
Ph	11	4	7	0.57
E	12	4	8	0.5 (1.66)
E	6	2	4	0.5
Fr	6	2	4	0.5 (1.5)
Mean	8.7	3.6	5	0.74

¹ Zeigarnik, Table 25, p. 66.

² The numbers in parentheses indicate the results of the experiment with the same subjects in the fresh condition six months previously.

whole person and the significance of the more central and more peripheral inner psychological strata for the process of satiation became clear. Hoppe, Fajans, and Jucknat treat of the relation between experiences of success and failure and the state and character of the whole person.

TABLE XI¹

Activity	7 Subjects (naive-excited): basic experiment				The same seven sub- jects instructed for speed			
	E	SE	F	E%	E	SE	F	E%
1. Match task.....	4	1	2	57	7	...	...	100
2. Draw a pentagon.....	3	2	2	43	6	...	1	86
3. Write cities.....	5	2	...	71	7	...	...	100
4. Guess a name.....	3	1	3	43	7	...	...	100
5. Word building.....	2	2	3	29	7	...	...	100
6. Poem.....	3	3	1	43	6	1	...	86
7. Outline.....	...	1	6	0	4	...	3	57
8. Names of scholars with one initial.....	5	1	1	71	7	...	...	100
9. Monogram.....	4	1	2	57	6	...	1	86
Mean.....	3.2	1.5	2.2	46	6.3	0.1	0.6	90.5

E = executed intention.

SE = subsequently executed intention.

F = forgotten intention.

¹ Birenbaum, Table 10, p. 271.

Experimental Simplification of the Structure of the Person: Regression.

The above-mentioned investigation of Dembo on anger goes more extensively into the problems of the whole person and of the change in its structure. Anger, for example, can show itself in extraordinarily different, indeed in opposed, ways. Dembo investigates the different kinds of pure emotional expression and emotional behavior, the criteria of emotional intensity, and the dynamics of emotional outbursts. The functional firmness of the boundaries of the strata between the inner psychical systems and the environment is of decisive signifi-

cance. The paradoxical circumstance, that superficial emotions lead more readily to emotional expression than the more serious ones, is explained (Figs. 10 and 11).

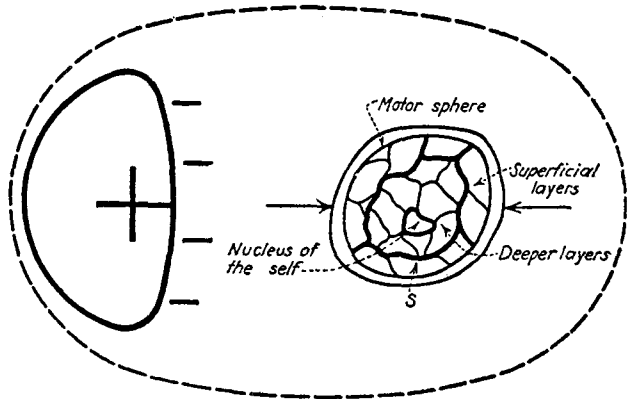


FIG. 10.—Structure of the psychological environment and the person in superficial emotion. (Dembo, Fig. 18, p. 109.)

Dembo follows the change in the finer structure of the person with increasing affective tension, and the displacement of the chief boundary between the inner psychical systems and

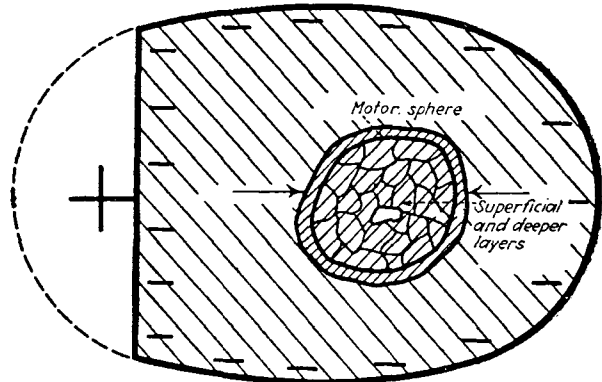


FIG. 11.—Structure of the psychological environment and the person in deeper lying emotion. (Dembo, Fig. 19, p. 110.)

the environment with special reference to the motorium. The results on de-differentiation, that is, on the changes of the person in the direction of a more primitive, a dynamically

less differentiated unity, seem to me of especial significance. This process goes hand in hand with the simplification [*Primitivierung*] of the structure of the environment and is of decisive significance for emotional outburst. There result essential common features between the world picture [*Weltbild*] of the affectively de-differentiated adult and that of the still relatively un-differentiated child. The dynamic homogeneity of the child and the difference in its whole person in emotion and in fatigue are discussed.

Menstruum and Intermenstruum.

Freund, On Satiation in and between Menstrual Periods.¹ Freund investigated the influence of the menstrual and intermenstrual periods on the speed of satiation for certain tasks. Because of the great individual differences the same subjects were investigated in both conditions. There resulted a very marked difference in the speed of satiation, which held indeed without exception for every individual (Fig. 12). This difference in *inclination* is the more noteworthy since there occurred no regular difference in speed or quality of performance when the same subjects were set definitely limited tasks of the same sort.

Psychopathology.

Some not very systematically executed experiments on psychopathic children seem to show that certain types of these children are more rapidly satiated than normal children of the same age.²

It may be of interest, as an example of our way of work, that these individual differences in speed of satiation, as well as the difference in the behavior of the same person in different conditions (during and between menstruation) and, finally, the difference between peripheral and central tasks, may be deduced in unitary fashion.

¹ *Psychol. Forsch.*, 1930, 13, 198-217.

² Cf. Lewin, *Trieb- und Affektäusserungen psychopathischer Kinder* (Motion pictures of psychopathic children compared with normal and feeble-minded children), *Zeitschr. f. Kinderforsch.*, 1926, 32, 414-447.

The dynamic concepts (such as degree of structuredness, fluidity, state of tension) which resulted from investigations of the general laws form the foundation of the experimental study of the feeble-minded and the psychopathic child.

Feeble-mindedness.

Köpke. Köpke found essential differences between normal and feeble-minded children in regard to the substitution value of substitute activities (see Chap. VI, page 180).

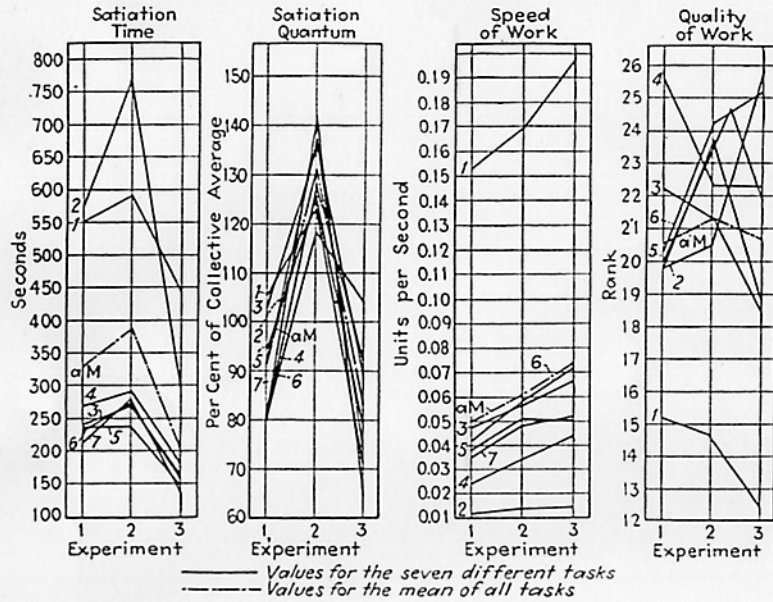


FIG. 12.—(Freund, Fig. 6, p. 214.)

Erfurth, Saathop, and Wöhrmann. Erfurth, Saathop, and Wöhrmann investigated the speed of satiation in normal and feeble-minded children. On the basis of these experiments it is possible to determine more precisely the dynamic characteristics of a certain type of feeble-mindedness (see Chap. VII, page 194). As we noted above, one finds special determinations

Modes of Execution, Perceptual and Cognitive Structure of the Environment

In conclusion three works should be mentioned which do not fit well into the selected grouping. These investigations center about problems for which the nature of the stratum between the inner psychical systems and the physical environment is chiefly determinative, the stratum to which one may refer the motor tasks [*Ausführungshandlung*] and the processes of perception. Since these questions are closely related to problems of which one usually thinks in speaking of experience in learning, a few words on our general position toward the problem of "experience" should precede discussion of these investigations.

The results of the investigation of the fundamental law of association¹ are sometimes misinterpreted to mean that I hold "experience" to be unimportant. The articles on satiation, on the effect of success and failure, on lapses in relearning, among others, show that such a conception is far removed from my view. It is only that the effect of experience cannot be sufficiently characterized by means of the concept of association. The effect of experience always consists in the fact that a person (*P*), upon the repetition of a situation, reacts not in the same way but in another way than that in which he reacted the preceding time. If the behavior (*B*) is really in both cases the same, it means that the person has remained unchanged. (Thus if $B_1 = B_2$ and $E_1 = E_2$, P_1 must equal P_2 in accordance with the general law: $P = f(BE)$). The effect of experience is always a change of the person or of the psychological meaning of the environment. A theory of experience can consist only in a determination of the various possible changes in the structure of the person, of the environment, and of the forces dominating that environment. I am inclined to doubt that a unitary theory of the whole field of these changes in terms of experience is possible.

Schwarz, On Relapses in Re-learning, I and II.¹ Building upon the negative findings of my investigation of association, Schwarz attempted to formulate, on the newly found basis, the conditions under which a change in a repeatedly executed task presents difficulties and to determine what the nature of the errors occurring under these conditions might be. Schwarz distinguishes between errors of confusion and errors of relapsing. He separates the question of the momentary source of the energy for the execution of the task from the form of its expression and especially from its dependence upon constraining forces. He finds that the two kinds of error are dynamically of essentially different nature. Both occur only when, in the learning process, systems of quite definite form have been built up and have also become sufficiently rigid. He treats in detail the question of action unities, their different forms, their genesis, and their change; he further discusses the significance of the valences for the execution of the task.

Forer, An Investigation of the Decroly Method of Learning Reading.² Forer compares the retention of children from five to six years old for single letters, words, and sentences. She investigates their memory for (1) these written forms of different extent; for (2) their significance; and for (3) the coordination of written form and significance. In general, it is shown that a group of relatively heterogeneous written forms and meanings is more easily learned than a homogeneous group. The written form of a sentence and of a word are about equally well, that of a letter a little better, retained. But the meaning of a word and the meaning of a sentence are very much better retained than letters; further, words referring to things are better retained than words referring to activities or to properties. The spatial juxtaposition of the written form and the related object constitutes an essential advantage for the retention of children in contrast to that of adults. This difference seems to me to be related to the magical world picture of the child in that, at this age, the written forms designate objects and not concepts.

¹ *Psychol. Forsch.*, 1923, 2, 86-158, and 1933, 18, 143-190.

² *Zeitschr. für Kinderforsch.*, 1933, 42, 11-44.

Voigt, Precision of Direction at a Distance.¹ Voigt treats the problem of the steering of the execution of a task by the perceptual field. His subjects shot with a light-pistol, without taking aim, at targets of various kinds and at varying distances. He found that within certain distances the angular precision of the shooting increased with the distance of the target (Fig. 13). Voigt investigates exhaustively the dependence of these

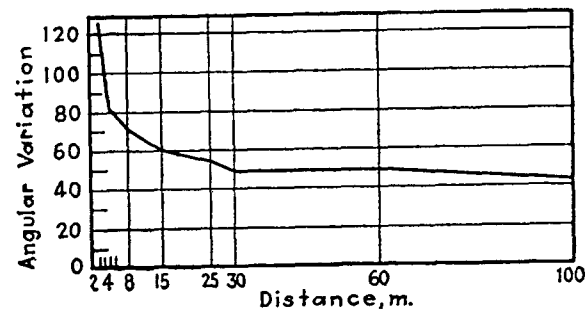


FIG. 13.—(Voigt, Fig. 16, p. 91.)

results upon the structure of the perceptual field and upon the motor apparatus used (shooting with the right hand, the left hand, and with both hands). He demonstrates the significance of the motor field [*Handlungsfeld*], which embraces in unitary fashion the person and the goal. Voigt also goes into the question of the learning of that sort of activity.

SURVEY OF THE EXPERIMENTALLY HANDLED PROBLEMS IN TERMS OF TRADITIONALLY USED KEY WORDS

(The names of authors treating a given topic most exhaustively are printed in italics.)

Action, activity (<i>Handlung</i>)	Schwarz (wholeness), Voigt (steering), Zeigarnik and Ovsiankina (kinds). On dynamics see Need, Emotion, etc.
Anger (<i>Ärger</i>)	Zeigarnik, Karsten, Ovsiankina, Hoppe, Fajans, II, Dembo.
Attention (<i>Aufmerksamkeit</i>)	Karsten, Dembo, Fajans, I and II, Schwarz, Wiehe.
Attitude (<i>Einstellung</i>)	Zeigarnik, Ovsiankina, Karsten, Schwarz, Freund, Brown.
Character (<i>Charakter</i>)	Ovsiankina, Hoppe, Dembo, Fajans, I and II, Wiehe.

¹ *Psychol. Forsch.*, 1932, 16, 70-113.

- Compensation See Substitute.
- Conflict (*Konflikt*) Ovsiankina, Zeigarnik, Karsten, Birenbaum, Hoppe, Dembo, Jucknat, Fajans, I and II, Rosenfeld, Schwarz, Wiehe.
- Depth (*Tiefe*) Lewin and Sakuma, Voigt.
- Development (*Entwicklung*) See Problems of child psychology.
- Embarrassment (*Verlegenheit*) Fajans, II, Karsten, Jucknat.
- Emotion (*Affekt*) Zeigarnik, Karsten, Ovsiankina, Birenbaum, Hoppe, Fajans, II, Dembo, Freund, Wiehe.
- Experience (*Erfahrung*) See Learning, Satiation, Success.
- Failure (*Misserfolg*) See Success.
- Fantasy (*Phantasie*) Zeigarnik, Dembo.
- Fatigue (*Ermüdung*) Dembo, Brown, Hoppe, Mahler.
- Force (*Kraft*) See Structure of environment, Conflict.
- Gestalt (*Gestalt*) See Whole, unity
- Gesture (*Geste*) Fajans, II, Hoppe, Dembo. See also Unreality.
- Goal (*Ziel*) Hoppe, Dembo, Jucknat (ideal and real goal, level of aspiration), Mahler (inner and outer goal of action), Karsten.
- Habit (*Gewohnheit*) Lewin (measurement of the will), Schwarz, Karsten, Freund, Jucknat, Hoppe.
- Hallucination (*Halluzination*) Dembo.
- Ideal (*Ideal*) Hoppe, Jucknat, Dembo. See also Unreality.
- Instrument (*Werkzeug*) Dembo (substitute), Voigt (steering), Hoppe (ascription of the effect).
- Individual differences (*Individuelle Unterschiede*) Köpke (feeble-mindedness), Zeigarnik, Ovsiankina, Karsten, Fajans, II, Freund.
- Intention (*Absicht*) Voigt (significance for steering). See also Purpose, Need.
- Lapse (*Rückfall*) See Habit.
- Learning, relearning, forgetting (*Lernen, Umlernen, Verlernen*) Schwarz, Voigt, Forer, Karsten.
- Memory (*Gedächtnis*) Lewin (measurement of the will), Zeigarnik, Schwarz, Birenbaum, Jucknat, Brown, Forer.
- Need (*Bedürfnis*) Zeigarnik, Ovsiankina, Birenbaum, Hoppe, Karsten, Mahler, Rosenfeld, Jucknat, Lissner, Freund, Lewin (measurement of the will).
- Perception (*Wahrnehmung*) See Depth.
- Persistence (*Ausdauer*) Karsten, Hoppe, Freund, Birenbaum.
- Person, structure of the whole person (*Person, Struktur der Gesamtperson*) Dembo, Köpke, Karsten (stratification) Freund, Hoppe. See also Individual differences, Problems of child psychology.
- Play (*Spiel*) Dembo, Schlossberg. See also Unreality.
- Problems of child psychology (*Kinderpsychologische Probleme*) Zeigarnik, Ovsiankina, Fajans, I and II, Mahler, Wiehe, Rosenfeld, Jucknat, Forer.

- Purpose (*Vornahme*) Zeigarnik, Ovsiankina, Birenbaum, Brown, Hoppe.
- Reading (*Lesen*) Forer.
- Reality (*Realität*) See Unreality.
- Restlessness (*Unruhe*) See Emotion, Conflict, Satiation.
- Satiation (*Psychische Sättigung*) Karsten, Freund.
- Satisfaction (*Befriedigung*) See Need.
- Self-consciousness (*Selbstbewusstsein*) Hoppe, Fajans, II, Jucknat.
- Self-control (*Selbstbeherrschung*) See Conflict, Emotion, Success.
- Skill (*Geschicklichkeit*) Voigt, Schwarz.
- Social relations (*Soziale Beziehungen*) Dembo, Wiehe, Hoppe, Jucknat, Fajans, I and II.
- Structure of environment (*Umweltstruktur*) Voigt (connection with steering), Forer, Dembo (concept of the world), Zeigarnik, Ovsiankina, Fajans, I (environmental forces), Zeigarnik, Hoppe, Fajans, II (topology). See also Conflict, Social relations.
- Struggle (*Kampf*) Dembo, Wiehe, Karsten.
- Substitute (*Ersatz*) Zeigarnik, Ovsiankina, Birenbaum, Hoppe, Dembo; Mahler, Jucknat, Fajans, II.
- Success (*Erfolg*) Dembo, Hoppe, Fajans, I and II, Jucknat.
- Superstition (*Aberglauben*) Dembo.
- Unreality (*Irrealität*) Brown, Dembo, Fajans, II, Mahler, Hoppe, Forer, Schlossberg.
- Valence (*Aufforderungscharakter*) Ovsiankina, Karsten, Dembo, Fajans, I (and distance). See also Conflict, Need.
- Whole, unity (*Ganzheit*) Voigt (visual wholeness and performance), Forer (differentiation of word and meaning), Birenbaum, Zeigarnik (wholeness, unity of tension systems), Dembo (structure of the whole person). See also Success, Substitute.
- Will (*Wille*) See Purpose, Need, Conflict.
- World, concept of (*Weltbild*) Forer, Dembo, Hoppe. See also Unreality.