

writers, ranging in time from Plato to Pilzecker, and including writers in physiology and in biology as well in psychology.

Claparède conceives of association as the 'connection of the elements of an acquired experience' (p. 399 *et al.*). He explains it by the following 'law' of objective, or cerebral, simultaneity: 'when two cerebral processes occur simultaneously, a relation is established between them, such that the reëxcitation of one tends to propagate itself to the other' (p. 51). From this it follows that the so-called 'association by similarity' may be reduced to 'association by contiguity.' Claparède considers the question of the particular direction of the association, under the heading 'évation,' and presents a useful condensation of the experimental studies of the subject. His classification (p. 227) of the forms of association according to the four factors, *Préparation, Induction, Association, Induit*, is too long to quote, and perhaps too detailed to be of real value.

Claparède's discussion of disputed problems of association is independent, yet always based on the results of previous study and investigations. He admits, for example, that the laboratories have failed to demonstrate the existence of mediate association, and yet he makes out a strong case for it, as a probable explanation of the occurrence of so-called free images.

In the second, and shorter, part of the book, the author considers the rôle of association in the mental life. This affords an opportunity for a general outline of psychic processes and for a vigorous criticism of associationism, 'le mirage associationiste,' as it is called.

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La Dissociazione Psicologica. A. RENDA. Torino, 1905. Pp. 83.

Association presents consciousness as a stereopticon succession of psychoses. But in addition to such a law of regularity there is a universal element of corrosion, disaggregation, reduction, *i. e.*, dissociation. Of the three forms, conative, emotive, and representative, the first is immanent in all automatic and secondary reflex action. Dissociation exercises its disintegrating work when the incessant task of adaptation requires acts accommodated to new ends, by separating the primitive motor series, eliminating the useless parts and forming new synergetic series. The rapidity of movements, their economy and correspondence to ends, presupposes dissociative action, which develops the more fully, the greater is the functional differentiation of the nervous centers, and the more distinct the series of kinetic images corresponding to acts. Of emotive dissociation more ought to be made because

of the inhibition of certain expressions of mimicry, the elimination of affections and passions and even the isolation of a state of consciousness. Perceptive dissociation is exhibited in visual acts, in the formation of abstract ideas and concepts, in the creative activities of imagination—in fine, in all the subjective coördinating of the chaotic objective world.

The universality and importance of dissociation have been minimized by considering it as a state of fragmentary consciousness, a mere side of a process of association. Rather should it be considered as one of the modes of manifestation of a single process, in fact a veritable function. Dissociative elements, relegated by others to the obscurity of primitive association, are found in artistic imaginations, in the discovery of scientific principles, in the incoherent flight of ideas of a paranoiac, in the syntheses of genius, *i. e.*, the products of the mind form a plenum of associations, full of profound dissociative elements. In the study of dissociation there are difficulties extrinsic and intrinsic. The associational school has obscured the dissociative phenomena. From fourteenth century nominalism to Newton's mechanical interpretation of nature; from the dogmatism of Hobbes to the subjective idealism of Berkeley, the conscious life was interpreted without the supposition of a reactive spontaneity. But after Mill and with the study of memory and the researches of German psychologists upon the active reactions of consciousness, allowance was made for processes of corrosion, of elimination, of abstraction. Here arose the intrinsic difficulties of the dissociative principle. That which is revealed to consciousness is always a synthesis; a dissociating consciousness always resolves itself into a new unity; the non-associative in a representative activity. Connected with this difficulty of a psychosis disappearing under introspection, like the mysterious horseman in the Holy Grail, is the difficulty of defining in what sense dissociation may be called unconscious. The secret work of fermentation has been referred to an unconscious psychic activity (Hartmann), to a subliminal consciousness (Meyers), to unconscious cerebration (Carpenter), to a psychic disposition (Höfdding); in fine, to the general nature of thought, presupposing that that, in its elaboration, is always physiological, and, in its completion, manifests itself as a conscious fact (Sergi). Disregarding the mythical conceptions of an unconscious activity, how are we to regard the latent dualism of the physiological hypothesis, the difference between cerebral acts accompanied by consciousness or those without it, or the transformation of the former into psychic phenomena? The theory of psychic disposition, followed by most Italian psycholo-

gists, is dubious. To explain it as a potential energy, is to give a physiological basis for unconscious processes which rise into general consciousness but not into self-consciousness. The facts are partly negative, often being explained as a forgetting of the processes, or a weakening or doubling of consciousness, or even, as in the case of indistinct and non-individuated processes, as parts of a collective consciousness. Here dissociation means those processes which are revived either as independent states, or as parts of other series. Dissociation may coexist with obscurity or weakened representation, it must not be confounded with them. It conduces to common images and concepts; they merely to silhouettes or larvæ of past representations. Dissociation is not to be classed with incomplete imagination (Ribot), or with the eclipse of a representation by its fusion into an abstraction (Baldwin), or finally with the process of distinction (James). In the distinctive processes there is a single act of attention for every attribute of an object; in the dissociative a single state, a fragment of one more complete, occupies the focus of consciousness.

Proceeding in part II. to the conditions and modes of dissociation, the author considers its value as great as that of association. Physiologically, dissociation may be attributed to obstructions in neural conduction, such as mutilations of the cerebral lobes. But the doctrine of neurons has no validity, since the reticulations of the nervous system have not yet been fully explored. Nor is the psycho-physical parallelism exact, since the correlation does not fulfil the laws of totalization. Yet dissociations should be connected with the reintegration of cellular groups and with accidental physiological excitations, as in sleep, hypnotism, excessive work, etc. The psychological conditions of dissociation are: (1) The consciousness must not receive impressions in succession, since simultaneous impressions form fusions; (2) all impressions must remain unanalyzable; (3) the consciousness must not be in a state of indifference. Other favoring circumstances are words, familiarity with certain representative or perceptive series, the schematic tendency of the mind, peculiarities of mnemonic type and hypertrophy of attention.

There are three kinds of dissociation: Spontaneous, teleological, congruent. The first is neither voluntary nor reducible to mechanical representations, but has regard to involuntary attention. Teleological dissociation is concerned with the elements fitted to a final cause determining a state of consciousness. It is neither the arbitrary mixture of fragments of experience which form new experiences, nor a mechanical imposition which creates the materials of thought. Congru-

ent dissociation is distinguished from teleological by its emotional quality. It does not deal with mere intellectual syntheses, but is colored permanently by the sensorial type. It has reference to the characteristics which distinguish persons and races, and is finally concerned with the moral progress of society by the rejection of old conceptions.

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SUGGESTION.

L'examen de la suggestibilité chez les nerveux. L. SCHNYDER.

Arch. de Psychol., 1904, IV., 44-57.

The apparatus used consisted of a metallic ring so connected with a dummy electric apparatus that the patient supposed that the ring was charged with electricity. The ring was held around the arm of the patient, without touching, and the question was asked, 'Do you feel anything?' The following table summarizes the results, showing what per cent. of cases, in each type of disease, were amenable to the suggestion, *i. e.*, felt the electric current:

	Men.		Women.	
	No. Cases.	Per Cent. Affirmative.	No. Cases.	Per Cent. Affirmative.
Neuraesthesia,	51	61	53	77
Hysteria,	9	44	28	43
Melancholia and related troubles,	22	36	13	3
Traumatic neuroses.	10	60	17	5

Reasons for these characteristic differences in suggestibility are suggested and discussed.

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MEMORY.

De la mémoire. J. LARGUIER DES BANCELS. Arch. de Psychol., 1904, III., 145-163.

This article is an elementary and general presentation of the facts and theories of organic memory in which the writer teaches that that principle which conditions organic memory in nervous tissues is also to be found in vegetable and inorganic matter.

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