etc.). "The term psychology includes several distinct studies, which should be separately defined." These are (1) behavior, "psychologie de réaction," (2) consciousness, "psychologie de conscience ou de sympathie," (3) reflective or critical psychology, and (4) ontological or rational psychology; finally (5) in a concrete sense the term is applied to "the totality of mental states and dispositions of a being or class of beings," e.g., the psychology of an artist or statesman. Among other terms having psychological implications may be noted Personnification, Phénomène, Plaisir, Projection, Questionnaires, Réaction, Réflexe, and Rythme.

References

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The claims of the behaviorists are discussed in three articles. Pillsbury (10) prefers to define psychology as the science of behavior, thus best avoiding any implication that the object is a peculiar kind of entity or force, but asserts that this alteration in the description need not alter "the treatment of the subject as ordinarily presented"; in fact the character of the existing science determines the definition of it. Any method which gives results is to be accepted. Introspection has given most, but "observation," the method of the behaviorists, is required for the study of many processes which have little or no consciousness: it should be admitted, however, that consciousness is "an essential determinant of behavior" (p. 377). We should broaden the term consciousness, and should "include in consciousness and among ideas the fundamental states upon which all effective mental life depends. More immediate than the image, more certainly made out than any slight movement, is the series of assurances that we have that certain events, subjective or objective, take place. We know that
we recall, we are sure that we recognize, believe, see objects,” (p. 379). These are “the primary facts of mental life,” “the fundamental reality.” Experiments, statistical methods, etc., permit the discovery of the laws of these processes. But whether one is to use introspection or observation as the method of psychology is a question which arises only when one seeks an explanation of mental laws, not while one is discovering them. “For this explanation introspection, observation, and speculation on the basis of both and of knowledge obtained from all related fields can, I believe, all be used to advantage” (p. 379). The primary facts of the mental life are themselves obtained probably partly by introspection, partly by observation, and partly by experiment added to these. Jones (8) advocates the functional and relational view of consciousness, as opposed to the subjective and dualistic view. Consciousness is “just an attribute or function” of the physical organism: one is “as little body and knower as . . . body and walker” (p. 467). Introspection is “just a special form of ordinary knowing,” in which “attention is . . . chiefly directed away from the nature of things as they are in themselves, which is the usual concern of men, to the character of the knowing process itself, and to the changes in content that are correlated with it” (p. 468). Behaviorism is needed, as a chiefly quantitative “interpretation of consciousness,” but structuralism is also needed, as chiefly qualitative. Herrick (7) holds that “conscious processes are biological realities,” and that a description of them can be obtained only by introspection. But, since consciousness is apparently a causal factor in behavior, a study of behavior is also required, to give knowledge of the function of consciousness.

The doctrine that psychology should be essentially a study of selves is attacked and defended. Against Calkins self-psychology Curtis (4) objects that the concept of the self is left obscure; that, while a distinctive method is claimed, the only such method specified is “reflection,” which is of logic rather than of psychology; that the problem stated for this psychology—to understand and interpret as well as to describe—is rather one of metaphysics or of logical analysis than of scientific observation; and finally that statements concerning the self are not based on verifiable experimental observations. Gamble (6) defends self-psychology at least as coordinate with structural psychology. “Self” is an indefinable for the first, as “experience” is for the second. The self is not found by reasoning: it is found “not by introspection, but in intro-
spection” (p. 196). It is possible to be immediately conscious of the self; but “this form of awareness . . . is not like any other”; “the self can have itself as an object, but not as subject matter for introspection in the standard sense” (p. 197). Introspection, as attention under instruction and report, is inadequate for study of affective experiences e. g., and cannot be claimed as the only valid method of psychology. Reflection, in Calkins’s definition, is not a logic-process but is retrospection. Self-psychology is important less for discovery of facts about the individual self as such than for giving a basis for social psychology; and the relation of self to self may turn out to be open to “the semi-experimental method of ‘controlled introspection’” (p. 200). Calkins (3) also writes in defense of self-psychology. Only in a limited sense can experiment be called a method of psychology, and it is in any case not a satisfactory method for obtaining knowledge of the self, which is unemphasized in perceptual and imaginative experiences. The self is never missing from any experience, however, and is therefore harder to isolate in attention. Introspection, in essentially the meaning given this term by such structuralists as Titchener, is the characteristic method of self-psychology as it is of structural psychology. “The self can have no status in scientific psychology unless it can be discovered by this method” (p. 505) when used by competent persons. And reports are quoted to show that systematic introspection under the best controlled conditions, “experimental introspection,” does in fact find a direct experience of self.

Dealing also with introspection, De Sarlo (5) emphasizes the limitations of this method, and of quantitative study of mental facts. Introspection is an essential method of any psychological investigation; but the data so obtained must be also interpreted: there are probably other “manifestations of spiritual activity” which are not to be found by introspection but which may be inferred as necessary conditions of what is found. Bonaventura (2) finds there are several types of inherent introspective ability. In memory he considers that three factors determine the subjective certainty: memory proper, automatic reconstructive activity, and “introspection,” which is an “assertion of the personality” as superior to this mechanism. When this third factor is weak there is illusion of memory, as, e. g., in suggestion.

The term method is used in psychological literature, Ruckmich (12) finds, in four meanings, for each of which a distinct term is
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suggested, thus: a general mode of investigation (method); a specific type or order of procedure for purposes of control or treatment (procedure); the point of view taken, or the intention assumed, in an investigation (point of view); the type of reasoning involved in any of the three preceding forms of operation, or in the systematization of the results obtained (rational principle).

In other writings which may form a miscellaneous group under this topic: Russell (13) develops the use which scientific method must make of recent improvements in the theory of logic. Poincaré (11), in German translation, discusses the mental processes by which important discoveries of scientific theory are made. Kelly (9) defines three kinds of directly comparable measures. Barrett (1) finds the method of paired comparisons not superior to the order of merit method. And Spearman (14) is inclined to hope a new era in psychology may date from the practical demonstration, by his formula, that "the theory of the two factors" in mental performance is correct.

REFERENCES