"I would subdivide the pre-Rolandic part, or frontal lobe, into a posterior or psychomotor area which is concerned with the evolution of such physical complexes as are necessary to give external expression to the results of cerebral association; and into an anterior or pre-frontal area which is able to control, select, and coördinate certain of the results of post-Rolandic cerebral association, and either to allow these to undergo psychomotor transformation or to inhibit this process. Both these functions I regard as proved, and I consider the outer cell- or pyramidal lamina of the cortex to be at least the chief seat of their actual performance . . . and the middle cell- or granule-lamina of the projection areas as the region concerned with the reception and immediate transformation of sensorial impressions." "The inner cell- or polymorphic lamina . . . must be regarded as subserving such organic and instinctive activities as are not acquired by education."

On the pathological side, the author divides all diseases into amentia on the one hand, and dementia on the other. Amentia is defined as "the mental condition of patients suffering from deficient neuronic development" and includes such troubles as recurrent insanity, hysteria, epilepsy, and paranoia. Dementia is defined as "the mental condition of patients who suffer from a permanent psychic disability due to neuronic degeneration following insufficient durability." The point of view throughout the pathological portion of the work is, thus, that of brain pathology and is quite innocent of any appreciative tinge of the more modern psycho-therapeutic thought. Hysteria is, for instance, divided into neuropathic and psychopathic types, the latter including "cases of psychasthenia who are fit subjects for treatment by suggestion, or, to use the modern terminology, psychoanalysis and psychotherapy." (Italics the reviewer's.)

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DISCUSSION

A DEFENCE OF PSYCHOLOGY AS SCIENCE OF SELVES

I am writing in reply to the paper on "Psychology as Science of Selves" which appeared in the American Journal of Psychology for January under the name of Josephine Nash Curtis. This paper criticizes the teachings of Miss Calkins explicitly, unfavorably

and in minute detail.¹ I am not a thoroughgoing self-psychologist. On the contrary, I have always been proud to wear the colors of the arch-structuralist from whom I received my training. Nevertheless, I feel called to defend self-psychology. My qualification consists in the fact that I believe that I understand Miss Calkins's doctrine of the self better than Miss Curtis understands it. I can, in all sincerity,—at least, so I believe—take the doppelte Standpunkt recommended by Miss Calkins years ago. If I be a self-psychologist, I am still at the level of the double standpoint. I have not kept pace with the "increasing claims" of self-psychology. I have never thought for a moment that psychology could be most "effectively" treated if worked out exclusively from its point of view.

Miss Curtis takes up in order the root of Miss Calkins's psychology—namely, her doctrine of the self—her method, her problem, and her results, and rejects or depreciates each in turn. I shall follow the same order.

1. The doctrine of the self is the crux of the whole matter. one can once understand what Miss Calkins means by that self of which one is always conscious, then one finds all her other contentions at least intelligible. The understanding comes suddenly like the reversal of perspective in the staircase illusion. When you have once had the reversal, you can always get it again but you can also go back at will to seeing your staircase in the old way. Miss Calkins's self is the individual (separate) "I am," I-being conscious—am, cogitans sum. The self is the knower, the experiencer. How can the knower get out of himself to define himself? Every effort to do so must move in a circle, but to borrow an old figure for a new use, "it is a circle within which everything lies." Miss Curtis notes that Miss Calkins says that the self cannot be defined, but because Miss Calkins says that everyone knows what the self is, Miss Curtis has taken pains to ask several specimens of "plain man" what they meant by the I (p. 73). But why should the plain man be expected to define the indefinable either better or worse than the psychologist? And why should the selfist be expected to define the self any better than the structuralist defines experience? The structuralist says: "We assume that everybody knows, at first hand, what human experience is. . . . Unless we

¹ It can scarcely be alleged that Miss Calkins is the only self-psychologist. Robert Yerkes appears to be another. Cf. his "Introduction to Psychology," pp. 15, 17, 53, et al. Approximations toward self-psychology are to be found in the writings of Angell, Judd, McDougall and others.

know, by experience itself, what experience is, one can no more give a meaning to the term 'mind' than a stone can give a meaning to the term 'matter.'" The structuralist deals with experience; the selfist deals with an experiencer; neither can define his material. Structural psychology may be greatly preferable to self-psychology—in many respects, I prefer it myself—but the advantage can scarcely be said to rest upon precision of definition.

Having stressed the indefinibility of the self, I shall pass to Miss Curtis's complaint that Miss Calkins does not make her conception of the self "clear" (pp. 72-75). If, as Miss Curtis says, Miss Calkins's self is evidently "not merely the sum-total of its perceptions, emotions and the like," how can Miss Calkins make it clear? It is only the sensational and imaginal components of consciousness which can be clear in the technical sense and only in so far as experiences are made up of them can experiences be described in such terms as to arouse clear ideas in the "reader's mind." clear Miss Curtis may simply mean inconsistent, but her insistence that Miss Calkins should at least distinguish the self from things, the subject from the object, the knower from the known, makes me suspect that she, as a sensationalist in psychology and an imaginalminded person in ordinary life, is craving for the sort of description which in the nature of the case, she can never have, a description which will make the self anschaulich.

The last sentence suggests a word or two as to the method by which Miss Calkins finds this self of hers. There are some mental make-ups which have a definite "set" toward sensationalism in psychology. I have one myself. Even when I am thinking about the self, my experience consists not merely of a pretty steady flow of internal speech but also of an eddy of visual images, ill-defined but brightly colored, and of faint dashes of visceral sensation, which come at times with the buts and ifs and the like. I do not find by introspection, in the narrow and standard sense, any non-sensational and non-affective elements in my own experience. Perhaps I do not know what to look for but, in any case, I cannot find any. Yet I am conscious of myself and I find it not by introspection but in introspection. Miss Curtis asks: "What answer can Miss Calkins make to the person who says, 'I do not know what the I is?'" The retort is easy. Miss Calkins would ask, "Who is this I who does not know what the I is?" The self is the introspector. When I can see my own eyes without a mirror, then I shall be able to find my own self by introspection. Neither do I find the self by reasoning. The fundamental I am is not a judgment and far less is it a verbal assertion. It is not peculiar to man as the talking animal; if it is peculiar to him, he must be the only conscious animal. When one is self-conscious in this sense, one is not conscious of being conscious of being conscious in any metaphysical merry-go-round. In Miss Calkins's words, one is "directly" or "immediately" conscious of oneself and this is all that can be said of this form of awareness because it is not like any other. When the self tries to examine itself as knower-a performance which no psychologist but only a philosopher would attempt—it fails because subject and object do indeed "coalesce." Since the self is in some way conscious of itself, it can have itself as an object but not as subjectmatter for introspection in the standard sense. Miss Calkins teaches, to be sure, that one may be attentively conscious of self but I do not see how this can be, for attention to the self should make it clear and the self is never clear in the same sense as that in which percepts and images are clear. The stressing and the slurring of the self seem to me something different from attention and inattention. But, in any case, the self can have, since it does have, both as object and as subject-matter for introspection in the narrower sense, its own experiences or "attitudes" or "relations." If the scope of psychology is to be confined absolutely to the data furnished by the kind of introspection which can be applied to sensation complexes. then selves in themselves must go, but, far gone in iniquity as I must seem, I do not grant the premise.

I now come to Miss Curtis's criticism of the characters which Miss Calkins attributes to the self (pp. 78-85). It is perfectly true that they do not serve to distinguish the self from ideas and mental functions, that uniqueness seems to reduce to the rather barren character of self-identity and that relatedness does overlap persistence, uniqueness and complexity. I do not understand, however, that Miss Calkins is trying to distinguish the self from ideas or functions or that she means the characters to be mutually exclusive. She is stating properties, not differentiae. Thus, one might describe experience as in constant flux without meaning such a description to be definitive. Since the self's relation to its object is used as a synonym for consciousness, relatedness must, of course, include the (direct) consciousness of persistence and the consciousness (which does not seem to me constant or direct) of uniqueness and complexity. I may say, in passing, that I think it unfortunate that Miss Calkins should use the word relation in the sense just noted and should also treat of relational elements of this relation. In the preface to the fourth edition of the First Book, she herself has attempted to remove all occasion of stumbling (p. xiii). I think, however, that the absolutely unique subject-object relation should have a term all to itself and I wish that Miss Calkins would fall back on the old term experience. Her other synonym, personal attitude, I much dislike, both because it suggests Bewusstseinslage and because it is symbolized for me by a most unfit concrete visual image, derived, I think, from an old picture of Moses with his arms held up by Aaron and Hur.

To one who understands what Miss Calkins means by the self it seems strangely beside the point to insist that one is as often conscious of one's non-persistence as of one's persistence, and that if one regards oneself as unique, one cannot always regard oneself as persistent (pp. 79-82). It is true that we—as plain men—speak of "losing ourselves" and being "beside ourselves." It is true that we have selfless moments, in Miss Curtis's sense of the term self, when we are absorbed in novel-reading. But whatever self-consciousness may mean to the plain man it does not mean the same thing to Miss Calkins and to Miss Curtis. To take an extreme instance of selflessness (suggested by one of Miss Curtis's quotations from James) (pp. 76-77), in the horrid moments of recovery from half-an-hour's general anæsthesia, the mass of organic sensations may be new to us, and all memory images—even the mental picture of that "outward man" which we tend day by day-may fail, and consciousness may be reduced to the level of an uncomfortable new-born baby's, but yet Miss Calkins's self will be there to do the feeling miserable. I think that I understand also what Miss Curtis means by the self and I fully agree with her that we are as often aware of the non-persistence as of the persistence of this self.

I now come to my last point in regard to the self. One of the charges which Miss Curtis presses most earnestly is that Miss Calkins fails to distinguish the self from things (p. 73). How can she? Why should she try? Can any of us put into words the difference between mental process and bodily process? As psychologists do we need to try? The structuralist has experience, a nervous system with its processes, and extra-bodily stimuli, environment, situations. The self psychologist has an experiencer, its experience, impersonal objects, which include nervous systems and extra-bodily stimuli, and personal objects other than self. No scientist is called upon to define his fundamental postulates. This

is axiomatic. The trouble with Miss Calkins is that she has in full swing two more indefinables than has the structuralist, namely, the experiencer and the other selves. The reason that I prefer to be a structuralist whenever I can is that I am afraid of indefinables. They lead one into mischief. I fully agree with Miss Curtis that the structuralist method of regard is to be preferred just because it is abstract (pp. 96-97)—i. e., I think it is to be preferred as far as it will go and it will go far. But if one realizes that indefinables are there, one cannot get rid of them; one can only abstract from them. And sometimes they compel one to notice them. I have yet to see an adequate treatment of social psychology by a consistent structural psychologist. To my mind self-psychology is worth while, not because it tells us anything worth knowing about the self in itself, that self which is not open to introspection, but because it gives standing ground for the scientific treatment of the relation of person to person.

- 2. In regard to Miss Curtis's criticism of Miss Calkins's method (pp. 89-91), I have five points to make:
- (1) Miss Calkins indicates explicitly that when she uses the term reflection technically, she means looking-back or retrospection.² Now although the method of the trained observer approximates more and more to true introspection yet the line between retrospection and introspection remains pretty hard to draw. It is not so very long since we were all taught that introspection is essentially retrospection.
- (2) If introspection is valid only when it is "attention under instruction and report" how do we ever dare say anything about such elusive processes as pleasantness and unpleasantness? Introspection in the sense of the definition quoted by Miss Curtis is, of course, the standard method of psychology, but to maintain that it is the only method worth applying seems to me to lead to absurd consequences.
- (3) Miss Curtis's bald statement that "it is not true that reflection is a method of science" is to me astounding. If reflection in the ordinary sense, is a necessary adjunct to observation (as Miss Curtis grants), it is, of course, a part of scientific method. This is not mere cavil on my part. To depreciate "reflection" is to go back historically from Galileo to Francis Bacon.
 - (4) I never yet saw a classification of emotions, habits, instincts

² First Book in Psychology, p. 12, second paragraph, every edition.

^{*} Second foot-note to p. 89.

or temperaments, structuralist or otherwise, which was not largely a product of reflection in the sense in which reflection is reprehended by Miss Curtis. But this point is simply argumentum ad hominem and I will not press it. I am reminded of the old lines:

"Geographers, in Afric's maps, With bears and lions fill their gaps, And over uninhabitable downs Paint elephants instead of towns."

The sword cuts both ways—cuts most of us, in fact. But the mere mention of bears and lions makes me wonder whether Miss Curtis would confine animal psychology to the observation of movement and, if not, how she would outline for it a consistent and fruitful procedure. Even the plainest argument from analogy is reflection, not observation.

- (5) Self-psychology is avowedly in its infancy. It seems not impossible that in the future the relation of self to self should be submitted at least to the semi-experimental method of "controlled introspection." I do not think that this relation is entirely open to such introspection but I believe it is partially open.
- 3. As regards Miss Calkins's problem, Miss Curtis argues that because Miss Calkins holds that self-psychology is closely "allied" to a discipline suggested by Munsterberg and christened "history," and because Münsterberg's problem is to interpret the willing subject, therefore Miss Calkins's interest is primarily in finding "logical" meanings and practical applications (pp. 91-92). To this I can only say that if Miss Calkins's problem is either metaphysical or ethical, she has solved it rather badly and has introduced only a little relevant and a vast deal of irrelevant matter.
- 4. Miss Curtis's criticisms of Miss Calkins's results reduce to three. (1) Miss Calkins, she notes with surprise (p. 94), treats the conventional list of psychological topics. But why should Miss Calkins refrain from doing so? Self-psychology differs from other forms of psychology in its method of regard but it claims the whole subject-matter of psychology. Why should Miss Calkins not draw from the common stock of results experimentally established? As a matter of fact, she does draw from it pretty liberally—more so than one who reads her books with an eye only for her peculiarities is likely to realize. Incidentally, it may be remarked that not all of her peculiarities are to be laid at the door of self-psychology.
 - (2) As regards the material peculiar to self-psychology, Miss

Calkins is said not only to speak ex cathedra but to speak as if from an arm-chair and the teachings which issue from this place of repose are said to be such as any logician or "even any plain man who is skillful in drawing distinctions" could utter (pp. 94-95). Be this as it may, I do not believe that Miss Calkins would insist greatly upon any one of her doctrines excepting only upon the possibility and the need of having a self-psychology. A style which is as terse and vivid as hers in the First Book is apt to ring with a certain tone of finality, which may belie the real attitude of the writer.

(3) Miss Curtis suspects Miss Calkins of an unholy desire to make psychology propædeutic to sociology, ethics and pedagogy (p. 95; cf. p. 92) but hints that much of its material may have been actually filched from these sciences (pp. 97-98). But whether we like it or not, the sciences will overlap both one another and the technologies. It is part of that continuity of nature which led Anaxagoras to say "There is something of everything in everything"; and "Things are not cut off with a hatchet." Selfpsychology lies in the border-land between structural psychology and the other Geisteswissenschaften. Sometimes I have wished that another name could be found for a study so different as selfpsychology in some of its features is from structural psychology. Yet it is psychology in the wider sense and it seems to me to have a raison d'être. Such studies as Mahaffy's "Homeric Greek" and Taylor's "Mediæval Mind" do not seem to me history pure and simple. If the structural psychologist is to enter the field of social relations at all, he must at least talk of persons and I cannot myself think out the interrelation of persons in terms of a consistent structural psychology.

In conclusion, I wish to mention a point upon which I feel strongly. One can easily understand, upon historical grounds, why the psychologist should love the company of the physiologist and the physicist and should fight shy of the sociologist and the moralist, and studiously eschew the companionship of the philosopher. But at present, there seems to me no good reason for making the border-line between psychology and the physical sciences

It has occurred to me that an accident of style may contribute to the impression that Miss Calkins sets up her own introspection as authoritative. In describing experiences she habitually uses the pronoun I instead of the colloquial you, the intimate we or the rather awkward one. (Thus, for example, "As I look from the sail on the horizon to the rosebush on my window-sill my eyes converge.") Palpably absurd as it is to take this pronoun seriously, yet impressions which will not bear analysis often lead to unjust estimates both in literature and in life.

as tenuous as the boundary between the United States and Canada, and then guarding the opposite border with a double row of fortresses. The most dangerous invaders now to be discerned seem to me to be upon the biological and psychiatrical boundary-lines, even if they be not already over and making prisoners in our very midst. But in any case, commerce is usually advantageous even across an armed frontier.

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