THE PSYCHOLOGICAL BULLETIN

PROFESSOR TITCHENER ON THE THOUGHT PROCESSES.¹

In these lectures Professor Titchener clearly distinguishes two questions often confused: (1) Does imageless thought occur? (2) Is there an elemental kind of consciousness, neither sensational nor affective, which distinguishes thought? In my opinion, he argues decisively against the occurrence of imageless thought. On the one hand he successfully criticises the experimental arguments for imageless thought, showing that they are inconclusive; and, on the other hand, he shows by the brilliant analysis and description (Lecture I.) of his own thought-process what unsuspected richness of imagery may be included in thought. One outcome of the specific discussions of 'meaning' (pp. 104, 174 ff., *et al.*), of 'attitude' (pp. 101 ff., *et al.*), and of '*Aufgabe*' (pp. 120 ff., 175 ff., *et al.*) is, thus, a demonstration that all three include imagery.

Professor Titchener, however, goes further and denies the occurrence of elemental 'relational' (or 'thought') elements of consciousness. Here I believe that he is mistaken and I shall therefore consider his argument in more detail:

I. In the first place, Titchener urges, the experimental arguments furnish no final proof of the occurrence of a *sui generis* relational consciousness. To this conclusion, stated so generally, I am quite ready to subscribe. But decisive proof is hardly to be expected from any one experimental study of such a problem. In the nature of the case the experiments can do little more than simplify the problem, by good experimental conditions, and check introspection by repetition and control. Such experiments are no more than systematically and partially controlled introspection. They cannot be judged by the standards of experiments with variable sense-stimuli.

¹ *Lectures on the Experimental Psychology of the Thought Processes.* E. B. Titchener. New York, The Macmillan Co., 1909.

Furthermore, most of the experimental investigations under discussion were either too broad in scope to deal conclusively with the crucial question (the occurrence of elemental relational consciousness) or else their main interest lay elsewhere. Thus, Binet (p. 82²) undertakes to "carry investigation into the higher mental phenomena, such as memory, attention, imagination . . .," and Messer beginning with experiments in free association is "led from experiment to experiment by the suggestion of his own results" (p. 89). On the other hand, Marbe studies judgment exclusively, whereas Ach (p. 86) is "concerned primarily with . . . voluntary action" and only secondarily with thought; and Watt and Messer start with the study of association.

The feature common to all these experiments with those which Bühler planned more definitely to test the thought-element problem, is the fact that the purpose of them all is to secure full and correct introspection. And the result on which, I think, Titchener lays too little stress is that all these experimenters, each with his different outlook, concur in the view that our consciousness contains experiences other than sensational and affective. One may even agree with Titchener that no one of these experiments, taken by itself, excludes the possibility of introspection wrongly read, and one will yet find it probable that the cumulative outcome of the experiments tells strongly for the relational-element theory. In particular, I think that, so far as Bühler's experiments are concerned, it is more reasonable to accept at its face value the introspection of so trained an observer as Professor Külpe, one of Bühler's chief subjects, than to acquiesce in Titchener's view (p. 146) that Külpe confused his thought and its object, and described the latter not the former. Titchener notes as a point in his favor (p. 150) the fact that Dr. Dürr, another of Bühler's subjects, has recently criticized the experiments on the ground that they call for 'verbal expression' rather than for 'psychological description.'¹ Dürr's criticism, however, tells against the imageless-thought rather than against the relational-element conception. Indeed he expressly avows the belief that a *Beziehungsbewusstsein*, or consciousness of relation, is a non-sensational constituent of the *Vorstellungslieben* (*Zeitschr.*, XLIX., p. 326); and he defends Bühler against Wundt's criticism (*ibid.*, pp. 329 ff.).

II. The most serious of the criticisms made by Titchener on the relational-consciousness theory is the following: The advocate of the occurrence of relational elements is confusing the object of the psy-

¹ *Zeitschrift für Psychol.*, 1908, XLIX., pp. 315 ff.

chologist—feeling, psychosis, mental process—with the object, or thing, of common sense; he points out like objects but does not thereby prove the existence of a feeling of likeness; he tells us (p. 151) “not what consciousness is but what it is about.” In the case of the relational consciousness, this amounts to a confusion of logic with psychology, since the objects of thought are relations, not concrete things. But Titchener urges (p. 255), “if we are to classify mental processes as feelings ‘of’ anything, we can multiply our elements *ad infinitum*. . . . The psychical datum is the feeling itself.”

To this criticism the following reply may be made: In their efforts to analyze thought, psychologists certainly are sometimes guilty of the ‘object-error.’ I agree with Titchener (p. 69) that Witasek, for example, too uncritically follows logical classifications in his enumeration of relational elements. But the psychologist is also prone to make the parallel ‘stimulus-error,’ confusing the stimulus—ether waves or air vibrations—with the elemental feeling due to the stimulus; and we do not therefore forbid him to distinguish sensations from each other by referring each to its appropriate stimulus. We even permit a reference to everyday objects in the discussion of sensation. For example, Titchener himself (on page 59 of *A Text Book in Psychology*, I., 1909) writes thus of the “linear series extending from white through the lighter, neutral and darker greys to black. Language has very few words to denote the qualities of this series. We speak of black, for instance, as if it were a single quality. But glance in succession at black card-board, black cloth, black velvet, and the black of a comparatively lightless space, say the blackened interior of a long pasteboard tube. . . . You realize at once . . . that . . . these four blacks are qualitatively different.” Titchener is here, quite justifiably, pointing to everyday objects that he may thereby make his readers realize elemental differences which, as elemental, can not be further analyzed. He can hardly, however, deny to the upholder of relational consciousness who, in the nature of the case, can not refer the relational elements to specific physical stimuli, the parallel right of pointing out groups of objects such that the consciousness of them will bring to attentive observation the relational elements.

III. To my view¹ that the non-sensational (whether ‘relational’ or ‘attributive’) element is always realized as ‘belonging to’ some other element (or complex of elements), or else to two elements or complexes, Professor Titchener objects (p. 187) on the ground that, so, the non-sensational element would come to consciousness as a com-

¹ Cf. *An Introduction to Psychology*, chapters 9 and 10; *A First Book in Psychology*, 1910, pp. 330 ff. *et al.*

plex, "not as an element at all" (p. 302¹). This criticism seems to overlook my express teaching that the character of 'belonging to' other elements is no part of the relational element but a reflectively attributed character. That which is 'irreducible, unanalyzable' — to quote the terms which Titchener rightly applies (p. 170) to the mental element — certainly cannot be described by being further analyzed; and yet as Titchener also teaches (p. 257) "the exhibition of psychoses, their analysis, the discovery and formulation of their laws of connection, all this is precisely the business of psychology." But psychology cannot carry on this business so far as mental elements are concerned, unless it be allowed to reflect on them, and to classify them both by reflectively (not immediately) observed relations and by reference to physical stimuli or to common sense objects. There need be no confusion of the different points of view.

IV. It is unnecessary to consider at length Titchener's inability to find in his own experience relational elements, for he himself points out (pp. 22 ff., 187 *et al.*) that the divergence, on this point, of introspecters may be due to individual differences. The vividness of Titchener's imagery, in particular of his visual and organic imagery, makes it altogether probable that relational experiences (supposing them to exist) would be but pale and evanescent flecks upon his marginal consciousness.

Professor Titchener supplements his criticism by what he calls (p. 187²) a 'sensationalistic reading of the relational consciousness.' "What," he asks (p. 185¹), "do we experience when we have a 'feeling of relation'?" And he answers: "What I myself experience depends upon circumstances. It was my pleasure and duty, a little while ago, to sit on the platform behind a somewhat emphatic lecturer, who made great use of the monosyllable 'but.' My 'feeling of but' has contained, ever since, a flashing picture of a bald crown, with a fringe of hair below, and a massive black shoulder, the whole passing swiftly down the visual field from northwest to southeast. . . . In this particular instance, the picture is combined with an emphatic attitude; and all such 'feelings' — feelings of if, and why, and nevertheless, and therefore — normally take the form in my experience of motor empathy."

Against this view of the relational element the following objection seems to me to tell heavily: The words 'but,' 'if,' 'like' and the rest must stand for relatively distinct and definite experiences, else we should never understand each other in the use of them — or rather, there would be no such words. But by Titchener's express statement,

the image part of his feeling of 'but,' 'if' and the like varies with circumstances — and, it would follow, with individuals. What was his feeling of 'but' before it became 'a flashing picture' plus an emphatic attitude? And what of people who have never heard a bald-headed lecturer emphasize the word 'but'? It should perhaps be inferred that their 'feeling of but' contains an 'emphatic attitude'; but this attitude is not described. Opponents of the relational theory should, however, be able to describe certain definite images, or types of images, which correspond to such words as 'like,' 'if' and 'but,' in the experience of thinking people, somewhat as the words 'red,' 'apple,' 'joy' stand for similar experiences, or types of experience, in the consciousness of the different people who use them.

I have been chiefly concerned to discuss Titchener's own doctrine, but I cannot forbear to express the thanks which every reader must feel for his masterly summaries of the recent literature, analytic and experimental, of the thought-processes. The effort to equate the varying terminology of Ach, Meyer and Orth, Messer, and the rest, is of real value though not completely carried through. An adequate 'harmony' of these different terminologies is very much needed and demands, in my view, not only a great care to distinguish psychical from bodily attitude but, in particular, these three factors: first, the recognition that meaning, attitude, *Bewusstsein*, *Bewusstseinslage* and the rest reduce to relations of which they are special forms, temporal and untemporal; second, the distinction of what I have elsewhere called unsensational *attributive* from unsensational *relational* elements; and third, a care to differentiate 'relation' and 'related term' from 'consciousness of relation.' Titchener's discussion of meaning (pp. 174 ff.) seems to me to disregard this last named distinction. In making 'meaning' virtually synonymous with association, or associated experience ('context'), he hardly touches on the problem of the nature of the *consciousness* of meaning.

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