THE TONAL SPIRAL

TATSURO YATABE

The diagram below was designed by Tatsuro Yatabe as an attempt to clarify the tonal qualities, just as Ruckmick's Tonal Bell.

The shade shows brightness: the lower part is darker and the upper part is lighter. The width of the belt shows volume: the lower, the wider, and the upper, the narrower. The spiral of the continuous ascending belt shows octave quality. The breadth of the spiral increases and is broadest at the middle part. This indicates that pitch discriminations are most acute at this part. The number of discriminable pitches is indicated on the right side of the diagram. The upper part which has no spiral, means that octave is not discriminated at this part. 'ch', 'f' etc. on the left side which correspond to the 'c' note on the right side are meant to show what is called Köhler's vocality. The limit of a human voice in the diagram is the limit which can be reached clearly, so the actual limit may broader than this.

PROFESSOR TATSURO YATABE: Life and Works.

- 1893 Born in Tokyo City on October 24.
- 1915 Graduated from the First National College, Tokyo.
- 1918 Graduated from Tokyo University (majoring Psychology).
- 1918-20 Studied at the Graduate School, Tokyo University
- 1920-24 Studied at Sorbonne under Prof. Piéron and Prof. Delacroix.
- 1924-26 Lecturer to professor, Shizuoka National College.
- 1926-44 Associate professor, Kyushu University.
- 1944 Received Bungakuhakushi (Litt. D.) degree from Kyushu Univ.
- 1944-56 Professor of Psychology, Kyoto University.
- 1957 Professor of Educational Psychology, Waseda University, Tokyo.
- 1958 Died on March 24.

Meanwhile, he worked as a member of the Managing Board and the Editorial Board of the Japanese Psychological Association, a member of the Editorial Board of the Journal of Genetic Psychology and Genetic Psychology Monographs, a member of the Japan Science Council, Editor of *Psukhe* (Kyoto), Editorial Consultant of *Psychologia*.

BOOKS

- Cassirer: *Die Sprache. Die Mythos. Die Erkenntnis*. (transl.) Tokyo: Baifukan. 1941, Pp. 694.
- A history of the psychology of will. Baifukan. 1942, Pp. 688.
- Werner: *Einführung in die Entwicklungspsychologie*. (transl.) Baifukan. 1943, Pp. 490.
- Words and mind. Tokyo: Eikasha. 1944, Pp. 395.
- Thinking in animals. Eikasha. 1945. (Rev. & enl. ed. Psychology of thinking. III. Baifukan. 1953, Pp. 501.)
- A history of the psychology of thinking. Baifukan. 1948, Pp. 580.
- Psychology of thinking. I. Baifukan. 1948, Pp. 386; II. Baifukan. 1949, Pp. 479.
- Language of children. Kyoto: Hieishobo. 1949, Pp. 294.
- Introduction to psychology. Tokyo: Sogensha. 1950, Pp. 437.
- Beginner's psychology. (with members of the Department.) Sogensha. 1952, Pp. 335. Rev. 1956, Pp. 399.
- Warren: A history of association psychology. (transl.) Sogensha. 1951, Pp. 262.
- Wertheimer: *Productive thinking* (transl.) Tokyo: Iwanami. 1952, Pp. 296.
- Perspective of modern psychology (ed.) Tokyo: Kadokawa. 1957, Pp. 439.

ARTICLES

- Of Piéron's "Pain." *Jap. J. Psychol.*, 1926, 1, 123-130.
- From the history of psychology. *Jap. J. Psychol.*, 1927, 2, 295-309.
- A contribution to theory of Japanese accent. *Jap. J. Psychol.*, 1927, 2, 393-399.
- On Dr. Obata's "Experimental investigations on the accent in Japanese." *Jap. J. Psychol.*, 1928, 3, 571-575.
- A meaning of inclination in depth-perception. *Proc. of I. Convention of JPA*, 1928, 1, 47-48 (with K. Sakuma). (In German, *Jap. J. Psychol.*, 3, 1-20.
- On the phenomena of displacement in simultaneous and successive exposition of parts of a figure. *Proc. of V. Convention of JPA*, 1935, 5, 333-335 (with Sachie Osaki).
- The meaning of organization in memory. *Proc. of V. Convention of JPA*, 1935, 5, 526-529.
- On the meaning of position of stimulus presentation in comparison of visual size. *Essays in memory of Dr. Hayami*, 1937, 279-298.
- Problems of facilitation and inhibition in learning process. *Essays of the Faculty of Laws and Letters*, Kyushu University, 1937, 277-360.
- A critique of operationism. *Jap. J. Psychol.*, 1940, 18, 310-328.
- Function of abstraction from psychological viewpoint. *Ann. Stud. Phil. Kyushu Univ.*, 1942, 3, 3-152.
- Cassirer's "Leben und Geist—Zur Kritik der Philosophie der Gegenwart." *Ann. Rep. Phil. Kyushu Univ.*, 1940, 1, 193-276.
- Psychological implications of thinking. *Phil. Stud. Kyoto Univ.*, 1946, 30, 211-230.
- Law of intelligence (Dessin). *Phil. Stud. Kyoto Univ.*, 1946, 30, 339-354.
- The scope of psychology. *Psukhe*, 1947, 1, 1-10.
- On Köhler's "The place of value in a world of facts." *Psukhe*, 1948, 3, 27-43. [1-8.
- On the sound of word as symbol. *Psukhe*, 1948, 4, Brain and mind. *Brain Stud.*, 1949, 5, 110-122.
- Construction of the Yatabe-Guilford personality inventory. *Proc. of the Faculty of Letters, Kyoto Univ.*, 1953, 161-166.
- How the present situation of Japanese Universities should be resolved.—Critique to the confusion of the New Education by American system—, *Chuokoron*, 1955, April, 18-28.
- On learning. *Phil. Stud. Kyoto Univ.*, 1956, 38, 407-410.
- Language behaviour in man. *Miscellanea Kiotiensia. Essays in celebration of the semicentennial of the Faculty of Letters of Kyoto Univ.*, 1956, 231-246.
- On mental test. *Phil. Stud. Kyoto Univ.*, 1957, 39, 1-18.