Ueber das Verhältnis der ebenmerklichen zu den übermerklichen Unterschieden auf dem Gebiet der optischen Raumwahrnehmung.

J. LAUB. Archiv f. d. gesamte Psychol., 1908, XII., 312-339.

Under the direction of Külpe and in continuation of work done by Ament, Fröbes, and Lehmann upon Fechner's claim that the just observable difference is a constant and may therefore serve as a unit of measure, Laub undertook a series of experiments in the field of space perception. He chose this field because (1) the absolute impression would play no part when the stimuli were kept within narrow limits, and (2) the time and space errors could be ruled out.

Method of Procedure. — Forty brass squares, measuring 47 mm. on a side, were procured. From the center of each was cut a disc so that a series was formed in which the area of each successive disc was $\frac{1}{100}$ smaller than that of the preceding one. The largest disc was 19.5 mm., the smallest 14.8 mm. The first part of the observer's task was to construct a series in which each disc was just noticeably different from its immediate neighbor; the second part was to find the disc R_m which represented the subjective middle between the two extreme discs of the constructed row. If liminal differences are equal, R_m should coincide with the geometrical middle M of this row.

Eight observers were used in eight ascending and descending series. The space error was eliminated by changing the relative positions of the disc.

Results. — If Z represents the number of stimuli in the series increasing by liminal steps, M the geometric middle, and R_m the subjective middle between its extremities, it was found that:

1. Z , M , and R_m are independent of ascending and descending series, *i. e.*, the time error does not influence the results.
2. Z is not the same for all observers.
3. The fact that M varies for the same observer as much as it does for different observers shows that individuality is no factor.
4. R_m is widely different from M . In all cases it is nearer the larger extremity.

From these facts the author concludes that liminal differences increase in size with the absolute value of the stimulus.

Laub shows further, first by introspective analysis and then by experiments requiring a common method of judgment, that the method of making the judgment plays no part in the results obtained.

Laub's results tally with those of Ament and of Wrinch, who worked with time perception, in showing that the Fechner unit of measure has no general validity.

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