to an angle with one edge vertical which is in reality larger. The small angle is evidently taken for larger than it really is, while the larger angle is correspondingly underestimated. Here is von Zehender's statement: "** * * dass (Spitze) Winkel, die sich mit einem ihrer Schenkel der verticalen Richtung anschliessen, irrthümlich leicht für grösser gehalten werden als sie sind, während ebensolche Winkel, die sich mit einem ihrer Schenkel der horizontalen Richtung anschliessen, ebenso leicht für kleiner gehalten werden als sie in Wirklichkeit sind.*"¹

If the conclusion were to be seriously considered in spite of its wrong statement, it might be objected that two acute angles which are parts of a right angle are hardly suitable examples on which to test the attributes of acute angles in general. But the further consideration of the paper may be omitted.

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Psychology and the Individual Teacher. CHARLES H. JUDD.
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The present article is a defence of the value of the study of experimental psychology to the teacher. The general standpoint is found in the relation of the teacher to the child.

Education is analyzed to be in its broadest sense the 'acquiring, arranging and applying experiences.' For such activities the teacher is not necessary. The child by itself will learn something, however little, and instruction becomes necessary only that the individual may economize time and energy in the acquirement of experience. The teacher has, accordingly, a twofold function in dealing 'with the content of human experience' and 'with the child who is to be put into possession of this content.' Material and method are alike indispensable to the teacher. With the first psychology claims to have nothing to do, and it is only from the point of view of method that the science can pretend to be of advantage to the teacher. The author assigns to the teacher the function of training the child to look at various experiences in the same manner as does the adult, and he shows that it is the plan and the duty of psychology to indicate how the higher level may be best and most easily reached. Experimental psychology shows the teacher how to analyze material for the better presentation to the growing mind, and it makes him familiar 'by analogy with the relation of children's mental lives and their external

¹P. 99.

conditions.' *Rules* for the teacher to obey should not be given by psychology, but *principles* should be established, which may be applied under varying conditions. This last factor, variation, brings out most clearly the value to the individual teacher of the study of psychology. If principles are understood, and some facts underlying the principles are known, new facts will be assimilated and arranged with the old, and methods will be changed accordingly. With fixed rules, however, new conditions find the teacher unprepared by training, and method becomes forced and stilted.

Finally, what the teachers need "is a broad, general course in psychology to bring them back into a vital sympathetic relation with the practical investigation of the child's mental condition. Such training places the individual teacher above the theory."

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The present volume includes (1) short studies by Professor Seashore on the Müller-Lyer illusion, a material-weight illusion, localization of sound, acuteness of hearing, pitch discrimination and motor ability; (2) an account of experiments upon the analysis of the perceptions of taste; (3) a discussion of some phenomena of the secondary personality, and (4) the description of two new pieces of apparatus.

1. The first series 'have been selected,' we are told, 'with reference to the need of data, their interrelations, and the adaptation of methods and apparatus.' Some of the experiments are standard ones, 'some have been developed by other investigators and are here developed a step farther, and some are new.'

(a) Various forms of the Müller-Lyer illusion were used to note the effect of the illusion under varying circumstances. The limiting lines were circles, coins, squares and angles. It was found that the force of the illusion decreased with the size of the coin, and when, instead of coins, circles were used the illusion was lessened. Complexity of outline increases the force of the illusion, and "it also appears that the fainter the outline is the more the eye strives to follow it." The introduction of a base line lessened the illusion, and the limiting lines greatly affect the amount of the illusion—circles, 13 %; squares, 1 %. "A vertical distance is overestimated when compared with a horizontal distance." Practice has no effect in increasing or diminishing the illusion if the subject remains in ignorance of its presence,