

Constancy, it should be noted, is not alone a jewel of the adult social consciousness; 154 of the girls and 104 of the boys want that very quality in their own associates—'a chum that won't desert you,' as a lad of nine years stated it, while a girl of 11 wanted something more than 'a fair-weather friend.' Selfishness is abominated by 99 of the children—62 girls and 37 boys. An affectionate, loving chum is desired by 52 girls and 29 boys; and a bright, talented chum by 38 girls and 20 boys. Modesty—a chum that is not bold—is esteemed worthy of mention by 44 girls and 20 boys, and obedience by 34 girls and 19 boys. Bravery, like size, fondness for play and abhorrence of profanity, tobacco and liquors, is masculine; 25 of the boys and 19 of the girls want a chum 'that is not a coward.'

Religion is one of the least important characteristics of these papers; 23 girls and 5 boys mention attributes that might be called religious. One wants a chum that is a Christian, another wants a chum that is a member of a certain church, and another specifies that his chum must attend church and Sunday-school and the society of Christian Endeavor regularly.

A 'respectable' chum is desired by 99 girls and 66 boys, and a 'nice' chum by 80 girls and 29 boys. Both these terms seem to the writer more or less indefinite and intended to include a variety of characteristics. 'Nice' was used almost exclusively by the younger children.

In spite of the fact that money is exalted to undue importance in the minds of American children, but 7 boys and 3 girls expressed a desire for a wealthy chum.

One girl wants a 'tough' for a chum; a boy of nine wants a policeman; a boy of eleven a negro; a girl of twelve wants her opposite—not what she is but what she would like to be.

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'THE REACTION-TIME OF COUNTING.'

In the last number of this REVIEW Professor Warren writes in the introduction to his interesting experiments on the reaction-time of counting as follows:

"The problem of counting was taken up by Cattell (*Philos. Stud.*, 1885, III., 121). * * * * The largest number for which the right answers exceeded the wrong varied between five and eleven, according to the subject. The higher numbers, however, were only correctly counted by those who had made many

trials; this leads to the suggestion that the subject may have become familiar with the number of lines on each card in the course of his practice, and that he may have afterwards judged the number from the width of space occupied by the lines on the card—an inferential process again. On this account Cattell's results seem open to question, and it was important that they be repeated with such changes in method as would avoid this possible criticism. This was one object in the present investigation."

In my paper I state that from three to six lines varying with the individual could be correctly given, with which the results now obtained by Professor Warren agree. None of the observers was always right in his estimation with more than six lines, and only one observer guessed more often correctly than wrongly with as many as ten lines. In these experiments I think the observers, especially he who did so well, were helped by 'inference.' Four may be 'grasped' as two two's and eight as four two's. Over thirty letters may be correctly seen when suitably combined in words and sentences. I do not understand, however, why Professor Warren questions my experiments on the ground that the higher numbers were only correctly counted by those who had made many trials. I state explicitly "*Die Uebung scheint auf die Genauigkeit der Schätzungen keinen Einfluss zu haben. Das zeigt die folgende kleine Tabelle,*" etc. The observer with the best record was right in 56 % of the cases with 10 lines and in 76 % of the cases with 7 lines, which is not surprising in view of the fact that he could give occasionally not only the number but the exact character and order of seven numerals. I do not think that the length of the card was an important factor, more especially in view of the circumstance that the observer required a much longer time to estimate the length of a line than the number of objects presented.

Professor Warren further writes:

"All the published experiments on recognition time having been made with the hand key, which gives decidedly shorter times than the mouth key here used, it is impossible to compare them directly with these results."

I have published numerous experiments (cf. Wundt's *Physiologische Psychologie*, II., p. 373, ff.) in which a mouth-key was used for experiments on recognition-time, and have compared the times with the hand and those with the organs of speech. Indeed I have made a few experiments exactly like Professor Warren's, measuring what he calls 'the reaction-time of counting.' The results will be found in *Mind*, Vol. XII., p. 74, 1887, and *Philos. Stud.*, Bd. IV., p. 250, 1887.

I call attention to these unimportant matters with some hesitation, as they in no way interfere with the thoroughness and value of Professor Warren's experiments.

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