WELLESLEY COLLEGE PSYCHOLOGICAL STUDIES.

DIRECTED BY MARY WHITON CALKINS.

I. DR. JASTROW ON COMMUNITY OF IDEAS OF MEN AND WOMEN.

BY CORDELIA C. NEVERS.

In an article called 'A Study in Mental Statistics,' which appeared in the December, 1891, number of the *New Review*, Prof. Joseph Jastrow discusses, among other subjects, "The Community of Ideas and Thought-Habits of Men and Women." His data are fifty lists of one hundred disconnected words, twenty-five from the men and twenty-five from the women of his Wisconsin University psychology class. His chief conclusions are "that women repeat one another's words more than men," and that "there is less variety among women than among men;" that the feminine traits revealed are "an attention to the immediate surroundings, to the finished product, to the ornamental, the individual, the concrete; while the masculine preference is for the more remote, the constructive, the useful, the general, the abstract."

For the purpose of testing these results the young women of the experimental psychology class at Wellesley College were asked to write out similar lists of one hundred disconnected words. That the thought-process might be as free as possible, no restriction was made. The students were not even asked, as in the case of Dr. Jastrow's class, to write as rapidly as possible, but this difference in the method cannot possibly be supposed to account for the wide difference in results. The subjects had no knowledge whatever of the purpose of the investigation. Twenty-five papers from those first completed were selected for the comparison; all were

rejected which were not declared by the writers to be the result of a natural flow of thought, and two were set aside because the words formed sentences.

According to Dr. Jastrow's first generalization, 'women repeat one another's words more than men.' He finds that "female students in their 2,500 words used only 1,123 different words, while their classmates used 1,375. Again with regard to classes, the women show different preferences from the men. The repetitions in the names of articles of apparel, of interior furnishings, predominate with women. Similarly the men have more repetitions in the names of animals, and mention more such names." The Wellesley lists tell a different story. Only fifteen lists, that is 1,500 words, have been studied from this point of view, but among the 1,500 are 1,103 different words, only 20 less than those among the 2,500 of the Wisconsin University women, and only 272 less than those among the 2,500 of the Wisconsin University men.

Further comparison is based upon Dr. Jastrow's division of his words into twenty-five classes. There may, of course, occur a deviation from Dr. Jastrow's principles of assignment of particular words to appropriate classes, but with reference to the classes which he especially emphasizes (words of wearing apparel, for instance, and abstract terms) there is no chance for difference of opinion. In the following tables of results Dr. Jastrow's order of frequency has been followed:

Comparative table of frequency of mention:

	Men of Wis. Uni.	Women of Wis. Uni.	Women of Wellesley.
1. Animal kingdom, - - - -	254	178	223
2. Wearing apparel and fabrics, - -	129	224	96
3. Proper names, - - - -	194	153	141
4. Verbs, - - - -	197	134	114
5. Implements and utensils, - -	169	121	132
6. Interior furnishings, - - -	89	190	84
7. Adjectives, - - - -	177	102	234
8. Foods, - - - -	53	179	56

9. Vegetable kingdom,	-	-	-	121	110	91
10. Abstract terms,	-	-	-	131	97	280
11. Buildings and building materials,	-			105	117	106
12. Parts of body,	-	-	-	101	105	34
13. Miscellaneous,	-	-	-	91	99	162
14. Geographical words,	-	-	-	97	80	142
15. Mineral kingdom,	-	-	-	74	96	54
16. Meteorological and astronomical,	-			85	76	26
17. Stationery,	-	-	-	60	89	26
18. Occupations and callings,	-	-		71	47	33
19. Conveyances,	-	-	-	62	52	79
20. Educational,	-	-	-	34	76	167
21. Other parts of speech,	-	-	-	96	5	41
22. Arts,	-	-	-	33	61	44
23. Amusements,	-	-	-	30	53	102
24. Mercantile terms,	-	-	-	30	29	15
25. Kinship,	-	-	-	117	32	18
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The differences between these Wisconsin and Wellesley women's lists are very striking. According to Dr. Jastrow's results, the class to which women contribute most largely is that of 'articles of dress.' Of every 11 words, 1 belongs to this class, and the women have 224 such words as 1 against 129 on the men's list. Our records, on the other hand, swell the numbers of this class to only 96 words, giving it but 1 word in every 26. And if arranged in the Wellesley order of frequency this class would have been twelfth instead of first.

In the sixth class, again, our results differ widely from those of Dr. Jastrow. He writes: "The prevalence of words denoting the common articles of furniture and interior fittings of a house—the peculiar field of woman's household instincts—is quite as marked, such objects being mentioned 190 times by women and 89 times by men." Our lists include only 84 such words, suggesting, perhaps, a lack of household instinct on the part of the Wellesley students, who appear less domestic than even the Wisconsin University men. In the class of 'foods' the disproportion of the Wisconsin record is even greater: the women mention words

of this class 179 times and the men only 53 times. The Wellesley records include, however, only 56 words of this sort.

In reference to words referring to amusements, arts and educational matters, our statistics corroborate the statement of Dr. Jastrow, that, in these subjects 'women show an excess over the men. "This," he observes, "points to a characteristic difference in the interests of the two sexes." The Wellesley students mention words referring to amusements with suggestive frequency—102 times.

"In the young men," Dr. Jastrow says, "we see marked preference for names of animals, of implements and utensils, the names of professions and similar relations." Up to this point our results agree, though the distinction which he notes is not in every case so marked. But the preponderance of abstract terms in the men's lists, which Dr. Jastrow accentuates strongly, vanishes utterly when these records are compared with those of the Wellesley students. Our lists contain 280 abstract terms, not only more than those (131) of Dr. Jastrow's men, but more than those (228) of all fifty of his students. In one paper alone occur fifty abstract words; the writer was specially questioned, and insisted that the progress of the thought had been entirely natural. If this unusual record be omitted, there still remains a number slightly greater than the Wisconsin total. It should be added that the Wellesley students earlier in the year had written several associated lists, involving almost necessarily the use of concrete terms, so that any artificial inclination to abstractness was unlikely. The prevalence both of abstract terms and of adjectives in the Wellesley lists is of questionable rhetorical import.

The conclusions from this study are thus chiefly negative, but not for that reason unimportant. The figures are too few to allow any positive deductions, but their uncompromising contradiction of Dr. Jastrow's results gives a needed warning concerning the dangers of such comparative study of the mental processes of men and women. If the serious study of the supposed psychic differences between the sexes ~~can lead to conclusions so~~ opposite to each other, the worth-

lessness of ordinary generalizations is made very clear—based as they are on purely personal observation and, usually, on the comparison of men and women of entirely different training.

II. PREVALENCE OF PARAMNESIA.

BY MARGARET B. SIMMONS.

An incidental corroboration of the ordinary opinion that paramnesia, in its various forms, is very common among normal people, was obtained in the course of some experiments on association¹ with the Wellesley subjects already mentioned, and with members of the Harvard Psychological Laboratory. A series of colors, each of them quickly followed by a numeral, was shown; and afterwards the colors alone were exposed, in succession, with the request that whatever numeral occurred to the mind of the subject, at the appearance of each color, should be written down. The main object of the experiment was to discover the number of times in which that numeral which had appeared in the first series in close connection with a color, would now be associated with the same color appearing alone. The subject was also asked, however, immediately after writing down a numeral, to record by the use of the signs +, — and ?, his opinion of the correctness of the association. These opinions form the material of the following summary of cases of a form of paramnesia, which may be called False Recognition.

Regarding first the totals, it will be observed that almost half (47%) of our entire number of recorded opinions are instances of paramnesia. The first vertical column of the table contains, as will be observed, the number of cases of what may be called negative paramnesia, not the persuasion that a mere object of imagination is a memory image, but the failure to recognize an actual reproduction. This distinction may best be studied by reference to the analysis of the phenomena of memory into two factors (objective and subjective), namely, recurrence or reproduction, and recog-

¹ Cf. *PSYCHOLOGICAL REVIEW*, Sept., 1894.