INDIVIDUAL DIFFERENCES IN JUDGMENTS OF THE BEAUTY OF SIMPLE FORMS

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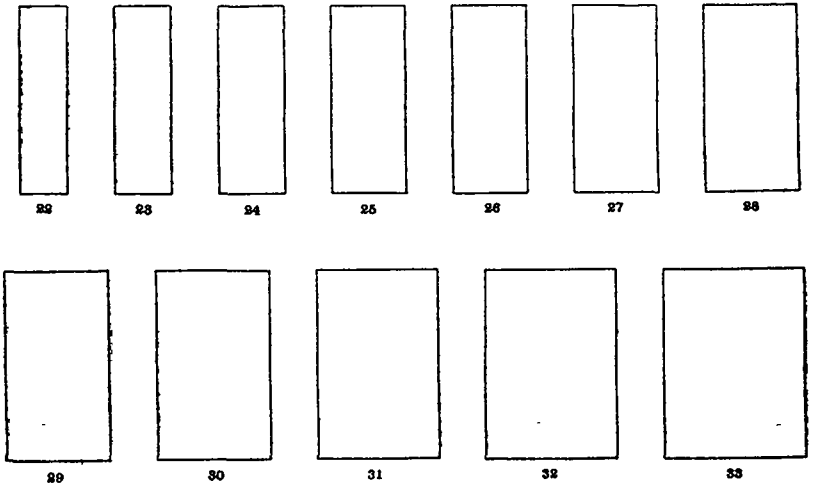
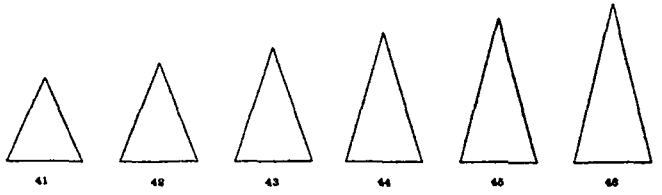
Students of esthetic appreciation have commonly been especially interested in the general drift or average tendency toward this or that preference and have perhaps given an impression of greater uniformity than exists. The diversity of the judgments whose average favors the golden section, for example, is really very great. It seems worth while therefore to report certain rather extensive measurements of esthetic preference which I have made.

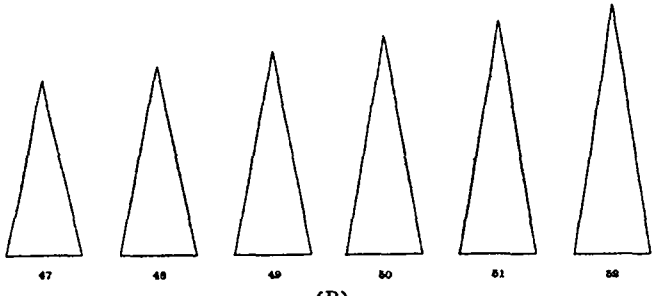


(A)

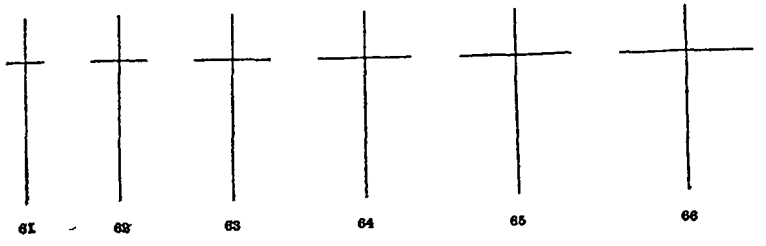
The subjects of the experiment were college juniors and, with few exceptions, of the female sex. The judgments made were of the order of esthetic merit (the question being, "Which rectangle do you like the looks of most? Next most? etc.") of (*A*) rectangles 22–33, (*B*) triangles 41–52, (*C*) Crosses 61–66 and 81–86, (*D*) designs *A*–*L* and (*E*)

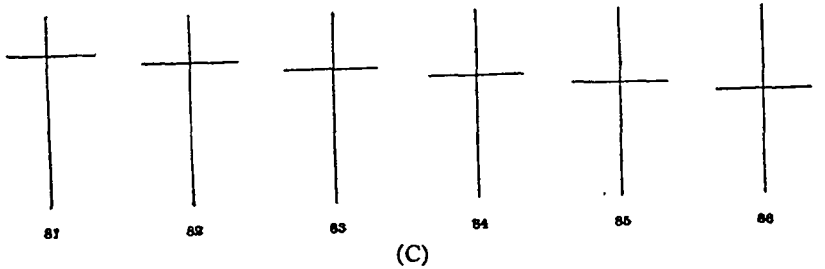
the 24 unnumbered designs. Each set was shown as here save that the dimensions were in each case double those here (quadrupling the areas).





(B)

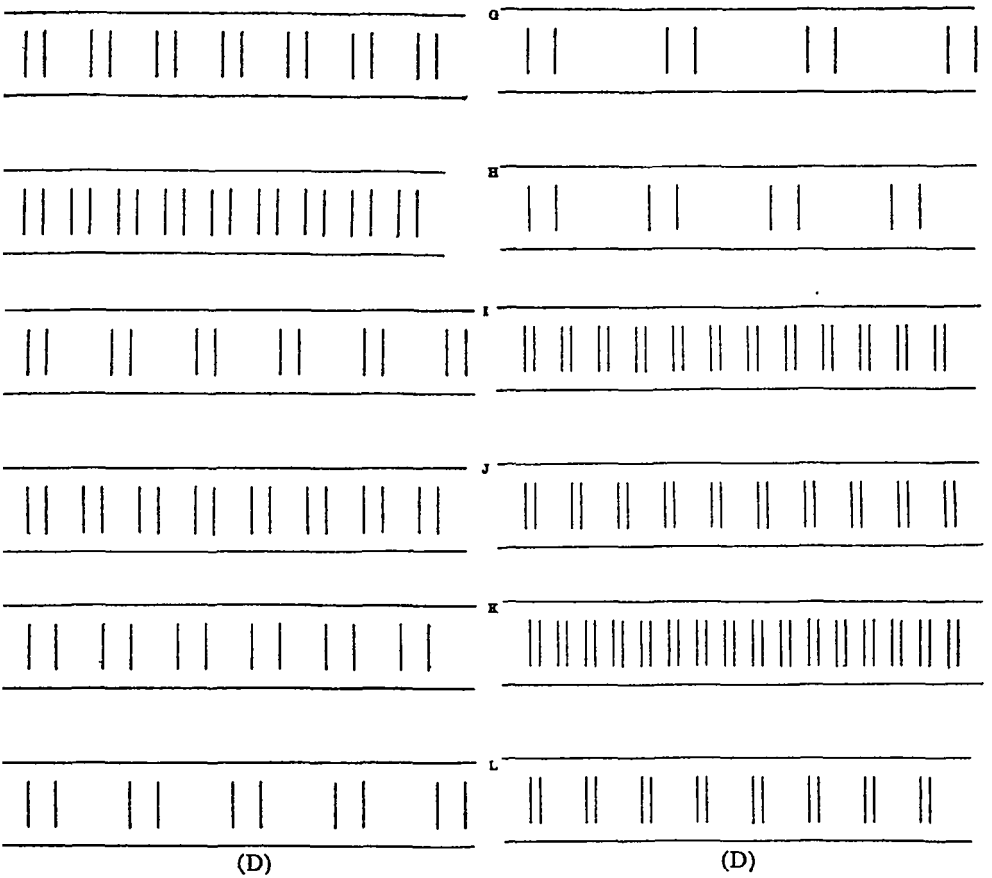




(C)

I give the facts for from *100* to *250* individuals who made the judgments, in the form of the percent of them assigning a given form to a given position.

In the case of the rectangles it will be observed that 27, 28, and 29, those most liked, still have some ratings in the lowest position of all; and that 33, the one least liked, still has ratings in the highest position. In only 3 cases out of 144 do over 25 percent of the ratings give a rectangle the same position.

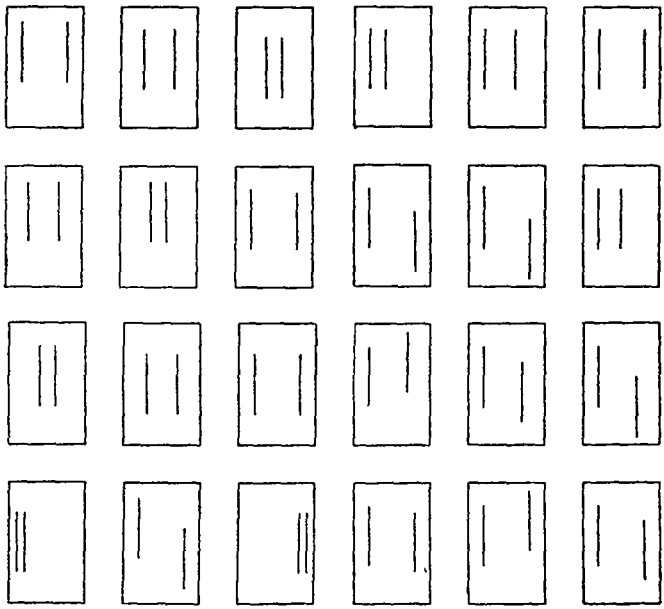


(D) (D)

In the case of the triangles there is a pronounced drift of opinion against the tall triangles, but even so almost every position has votes in the case of each. This is still more the case with the crosses.

In the case of the designs where the sequence by proportions is more hidden, the variability becomes enormous.

Although any one person may feel very decided preferences, these are never shared by enough of his fellows to make



(E)

TABLE I

FREQUENCIES OF EACH POSITION FOR EACH RECTANGLE COMPUTED FROM ORDERS OF MERIT REPORTED BY 200 INDIVIDUALS: IN PERCENTS

Positions	Rectangles											
	22	23	24	25	26	27	28	29	30	31	32	33
1	4.5	5	3.5	8.5	6.5	15	10.5	15	16	6.5	4.5	4.5
2	1.5	7	6	7.5	14	7	16	17	11	8	3.5	1.5
3	4	2.5	8	11	9.5	15	15	11	8.5	7	5.5	3
4	2.5	3.5	11	12	10	16.5	13.5	7.5	11	7	4.5	2
5	2	4	5.5	12	18	15.5	8.5	12	8	7	4	3
6	2	4.5	9	14.5	22	9	12.5	10	7.5	5.5	3	1.5
7	5.5	7.5	12	15	4	14.5	9.5	6.5	9	11	4.5	1.5
8	6	9	15.5	6	12.5	2.5	5.5	11	8	11.5	10	1.5
9	9.5	15	12	10	1.5	2	2	5	15	11.5	11	5.5
10	11.5	18.5	14	1.5	1.5	2.5	1	1.5	4.5	22	14	7
11	15	21	3	2	.. ..	..	3	2	1.5	3	35	14.5
12	36	2.5	0.5	.....	0.5	0.5	3	1.5	.....	..	0.5	54.5

anything like universal agreement. In the series of 12 designs, not one has 25 percent of ratings in any one position.

In the series of 24 designs, in only about one case out of thirty are there 10 percent or more of ratings in any one position.

TABLE II

FREQUENCIES OF EACH POSITION FOR EACH TRIANGLE COMPUTED FROM ORDERS OF MERIT REPORTED BY 250 INDIVIDUALS: IN PERCENTS

Positions	Triangles											
	41	42	43	44	45	46	47	48	49	50	51	52
1	26.0	14.0	21.2	14.0	7.2	4.8	3.6	2.0	1.2	3.2	.8	1.6
2	10.8	31.2	16.8	12.0	7.6	6.8	7.2	2.8	2.8	..	1.6	.8
3	8.8	14.8	30.4	16.4	12.0	3.6	3.6	3.6	3.2	2.0	1.2	.8
4	9.6	7.2	6.8	33.2	14.0	11.2	8.0	4.0	1.6	3.6	.8	.4
5	6.4	5.6	7.2	7.2	36.0	12.0	9.2	8.0	4.0	2.4	1.6	.8
6	7.2	3.2	4.4	6.4	6.4	41.2	12.0	7.6	7.2	.4	2.4	1.6
7	4.4	5.2	3.2	2.4	4.8	6.8	45.6	12.4	6.8	2.8	2.4	2.8
8	2.4	4.8	1.2	1.2	6.8	4.8	4.8	49.2	12.0	8.0	2.4	1.6
9	5.6	4.8	2.4	4.8	2.4	2.8	1.6	5.6	52.0	10.0	4.0	3.6
10	5.2	2.0	4.4	1.2	1.2	3.6	2.0	2.0	4.8	61.2	9.2	4.0
11	6.8	4.8	1.2	.4	.8	2.0	1.6	.8	3.2	4.8	67.6	4.4
12	5.6	2.8	0.8	.4	.8	....	.4	.8	1.2	1.6	5.6	76.8
?	.....	.....	.....	.....	....	.....	.4	1.2	.....	.....	.4	.8

No great value attaches to the general drift of the consensus, since the responses to the objects displayed as they were and with criteria of symmetry so strongly suggested

TABLE III

FREQUENCIES OF EACH POSITION FOR EACH CROSS COMPUTED FROM ORDERS OF MERIT REPORTED BY 140 INDIVIDUALS: IN PERCENTS

Positions	Crosses											
	61	62	63	64	65	66	81	82	83	84	85	86
1	2.1	.7	10.0	15.0	24.3	7.1	6.4	19.3	5.7	2.1	2.1	5.0
2	2.1	3.6	10.0	22.1	16.4	4.3	5.0	14.3	12.9	1.4	7.1	1.4
3	....	6.4	8.6	15.7	10.0	11.4	4.3	18.6	8.6	10.7	1.4	4.3
4	3.6	3.6	10.0	15.0	9.3	5.0	15.0	13.6	15.0	2.1	6.4	1.4
5	.....	7.9	15.7	7.1	10.7	6.4	13.6	15.0	15.0	4.3	3.6	1.4
6	3.6	8.6	11.4	9.3	5.7	8.6	13.6	7.9	12.1	11.4	3.6	4.3
7	1.4	5.0	11.4	3.6	11.4	12.9	12.1	4.3	15.7	10.7	5.7	5.0
8	5.0	10.0	3.6	2.1	6.4	17.9	10.7	3.6	2.9	24.3	9.3	5.7
9	2.1	11.4	5.0	6.4	2.9	9.3	7.1	2.1	6.4	17.1	24.3	4.3
10	11.4	10.0	13.6	2.9	.....	5.0	5.7	.7	4.3	8.6	17.1	20.7
11	15.0	32.1	....	.7	2.1	5.7	5.0	.7	1.4	3.6	17.1	15.7
12	53.6	0.7	.7	.....	.7	6.4	1.4	.....	.....	3.6	2.1	30.7

may be different from the responses to the same objects in isolation or in different surroundings. However, it may be of interest to some to record that: The most liked rectangles

TABLE IV

FREQUENCIES OF EACH POSITION FOR EACH LETTERED DESIGN COMPUTED FROM ORDERS OF MERIT REPORTED BY 100 INDIVIDUALS: IN PERCENTS

Positions	Designs											
	A	B	C	D	E	F	G	H	I	J	K	L
1	14	6	12	9	2	5	6	2	15	13	7	10
2	12	8	12	8	2	2	1	9	13	16	5	11
3	16	2	12	10	10	5	3	5	12	14	4	9
4	16	11	11	11	9	10	3	2	5	9	5	9
5	14	9	12	11	10	7	3	5	7	6	4	12
6	8	6	13	15	6	17	5	6	5	9	1	10
7	11	13	7	6	7	10	11	7	6	6	7	8
8	5	9	11	13	8	8	7	10	4	11	6	7
9	1	6	6	7	19	12	13	6	7	.. ..	10	12
10	2	7	2	5	12	16	7	19	10	11	3	5
11	1	10	.....	5	11	5	17	22	15	3	7	5
12	.....	13	2	.....	4	3	24	7	1	2	41	2

TABLE V

FREQUENCIES OF EACH POSITION FOR EACH UNNUMBERED DESIGN OF THE FIRST TWO ROWS COMPUTED FROM ORDERS OF MERIT REPORTED BY 250 INDIVIDUALS: IN PERCENTS. THE RESULTS FOR THE OTHER TWO ROWS SHOW THE SAME VARIABILITY

Positions	Designs											
Row	1	1	1	1	1	1	2	2	2	2	2	2
Number	1	2	3	4	5	6	1	2	3	4	5	6
1	2.8	10.0	12.8	2.8	1.2	4.4	2.0	.8	.4	7.2	2.4	1.2
2	4.0	9.6	8.8	2.0	.8	5.2	6.4	4.4	3.2	4.0	4.4	1.2
3	3.6	9.2	8.8	3.6	.....	6.8	4.4	2.8	2.8	4.8	2.8	.4
4	5.6	10.2	7.2	2.4	1.6	3.6	4.4	3.2	3.6	3.6	4.0	3.6
5	6.0	8.0	4.0	2.4	.4	8.0	3.6	6.8	5.6	3.2	2.0	1.6
6	4.8	8.4	3.6	2.4	3.6	8.4	9.2	7.2	7.2	2.8	1.6	2.4
7	8.0	4.4	7.2	3.6	4.8	4.4	7.6	4.8	4.8	4.8	2.8	3.6
8	7.2	3.2	2.0	2.8	4.4	8.4	7.2	6.0	6.0	4.4	4.8	2.8
9	6.0	4.4	1.6	3.6	4.8	7.6	4.8	4.0	4.8	6.4	6.0	3.2
10	3.2	3.6	2.8	4.0	6.0	5.2	4.8	6.8	10.0	4.0	5.6	3.6
11	5.2	2.4	2.8	4.8	5.2	4.8	4.8	4.4	7.2	6.0	4.0	4.4
12	3.2	4.4	4.0	2.8	6.0	3.6	5.2	4.4	6.4	7.2	6.4	5.2
13	5.2	4.8	2.8	6.4	4.0	4.4	4.8	3.6	2.8	3.2	6.0	6.0
14	4.8	3.6	3.2	2.8	4.0	3.2	5.2	2.8	3.6	8.8	5.6	6.4
15	4.0	1.6	2.8	3.2	4.0	3.6	3.6	5.2	4.0	4.8	10.0	4.4
16	4.4	1.6	1.2	4.0	4.8	2.4	6.4	4.8	4.0	4.8	6.0	4.4
17	2.8	2.0	3.2	2.4	4.8	1.6	4.4	3.2	5.6	6.0	3.6	2.4
18	2.0	1.6	3.2	5.6	6.8	1.6	2.0	6.0	2.8	1.2	5.2	4.4
19	3.2	2.0	4.0	4.8	8.4	4.0	1.2	3.2	3.2	4.0	3.6	4.0
20	2.0	1.6	3.2	8.4	5.6	1.6	1.6	4.4	3.2	1.6	4.0	8.4
21	2.8	1.2	3.6	10.8	6.8	2.0	2.8	5.2	2.0	2.4	2.4	10.0
22	3.6	.....	1.2	11.2	3.2	1.6	2.0	4.4	.8	1.2	3.6	10.0
23	1.6	.8	3.2	1.6	3.6	2.4	.8	1.2	1.2	.8	2.4	2.4
24	4.0	.8	1.2	1.2	4.4	.8	.8	.4	4.4	.4	.4	4.0

TABLE VI

ORDER OF MERIT ASSIGNED BY THE CONSENSUS OF COLLEGE STUDENTS

Rectangles	Triangles	Crosses	Lettered Designs	Unnumbered Designs. The Numbers Here Follow the Order of Printing*
29	43, 44	64, 82, 65		
28	42	81, 83, 66	A	14
27 and 30	41, 45	84, 63	J	2
26	46	62, 85	C D I L	3
25 and 31	47	61, 86	B F	6, 15
24	48		E	1, 7, 13
23 and 32	49		G. H.	8, 9, 10, 20
22 and 33	50		K.	11, 17, 22, 24
	51			4, 5, 12, 18
	52			16, 23
				19, 21

* That is, the first design in the second row is 7, the next is 8; the first design in the third row is 13, the next is 14, etc.

had, as the ratio of altitude to base, 1.83 to 1. The most liked triangles had, as similar ratios, 1.6 to 1 and 1.7 to 1 (43 and 44 being equally well liked). The most liked of the crosses had a bar half of the length of the upright and such a bar is best liked when it cuts the upright so as to leave one fourth above and three fourths below. A bar two fifths of the length of the upright is nearly as well liked. The most liked of the unnumbered designs is the second one of the third row. The first and third of the fourth row are the most disliked. In the lettered designs the space relations may vary widely so long as the design remains obvious, and so long as neither bareness nor crowdedness is suggested. *A* and *J* are liked about equally; *G*, *H* and *K* are disliked about equally.

The order of merit of the consensus is given for each group of designs in Table VI.