correlation coefficient is significant, the slope of the regression line is also significant.

It seems quite clear, therefore, that, since the latency of response is an increasing function of the number of panes reported, the Ss in this experiment generated a visual image and then proceeded to count the panes in the image rather than simply retrieve a verbal code of the number which had previously been stored. Indeed, all the Ss reported generating a visual image but, as one might expect, only those who reported more than about five panes said that they counted; whether this is due to subitizing or extremely rapid counting (Neisser, 1967) need not concern us here, the point being that an image was generated and counting does take place if the image is sufficiently complex. It may be argued that the increase in latency has nothing to do with counting at all but is a reflection of increasing time to *generate* an image as the image becomes more complex, i.e., it takes longer to generate a 12-paned image than a 2-paned one. Now, while there is probably some truth in this, the Ss' reports would tend to suggest that most of the variability in the latencies is attributable to counting and not image generation. Although this does not rule out, of course, that some of the variability is due to this factor, it would suggest that it is small relative to that due to counting, and further direct estimates of image generation times show that images of letters of the alphabet can be generated at about 2.5 images/sec (Weber & Bach, 1969).

The equation relating latency of response (L) to number of panes reported (n) is given by $L = 2.09 + 0.351n$. The slope of 351 msec/pane is a measure of counting time per item—it is not completely pure, however, since many of the Ss reported, for example, counting up one half of the image and then doubling the result. This value, then, probably underestimates the true counting time for this type of image. (The intercept of 2.09 sec presumably is made up of the time taken to encode the question, generate the appropriate image and set up the output processes.)

It is of interest to compare the counting time in this situation with that in a perceptual situation, i.e., in a situation where the objects of the count are physically present rather than being imaged as they are here. The rate of counting in perceptual (tachistoscopic) situations is a function of practice, brightness of the background, and regularity or irregularity of the objects. It is not easy to say which effects, apart

perhaps from regularity, will be important in an imaged situation, but counting times in perceptual situations seem to vary from about 100 msec/item under optimum conditions to about 350 msec/item under less than optimum conditions (Saltzman & Garner, 1948). It would, therefore, appear that counting the items present in an image is done at about the same rate as counting in conditions of low brightness and practice in perceptual situations.

In conclusion, therefore, this experiment demonstrates that retrieval and output in long-term memory can be an active constructive process based on a visual storage of information. Indeed, the type of retrieval process involved in a memory search may be peculiar to the particular type of recall task involved (Reitman, 1970).

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NOTE

1. There were two pane latency scores at (2,2.8), (4,2.7), and (8,5.0); therefore, only 59 points are shown in Fig. 1.

Topic importance and proportion of item agreements as significant variables in interpersonal attraction

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The proportion of item agreements between an individual and a hypothetical stranger represented by a test protocol has been repeatedly found to be a critical variable determining interpersonal attraction. Recent work, however, has indicated that the importance of the topic or item may also be of marked significance. The purpose of this investigation was to determine how Ss respond to hypothetical strangers on the basis of information differing in both importance and proportion. Both these variables were found to have a significant effect in determining attraction.

Recent work has indicated that the variable of topic importance may be of critical significance in the determination of interpersonal attraction. Byrne & Nelson (1964, 1965) found that proportion of similar attitudes had a significant effect on attraction, while topic importance did not. Findings from two other studies (Byrne, London, & Griffitt, 1968; Clore & Baldridge, 1968) indicated that importance of attitudinal topics can be a relevant variable under certain specialized conditions. These conditions occur in situations when

the items are heterogeneous and when similarity is at an intermediate level between .00 and 1.00. This highly specific circumstance in which topic importance is relevant appears to be the type of situation which is most likely to exist in real life relationships. Individuals usually have heterogeneous information about others, and there is neither complete agreement nor complete disagreement. Therefore, it becomes necessary to study how topic importance and proportion of item agreements determine attraction in situations which more closely parallel

real life interactions. Banikiotes (1971) contrasted the effect of topic importance with the effect of proportion of item agreements as they relate to interpersonal attraction. The protocols of the hypothetical strangers were contrived such that one stranger agreed to a greater proportion of the items but disagreed on the important items, while the other stranger agreed on a lower proportion of the items but agreed on the important items. Significant preference was shown for the latter, indicating the critical aspect of the topic importance variable.

Previous studies have manipulated the contrived information presented to an S by marking response alternatives on a particular attitude scale. It is the purpose of this investigation to study the effect of topic importance and proportion of item agreements on interpersonal attraction by using two different attitude scales to depict the hypothetical stranger in addition to the conventional approach of altering items. The two attitude scales were constructed such that each was homogeneous with regard to the importance of the item content. One scale was composed of important items, while the other was composed of unimportant items.

It was hypothesized that when the proportion of item agreements is held constant, the S reacts in a more extreme way to the hypothetical stranger depicted by the scale composed of important item content; that is, he likes the stranger more if the proportion of item agreements is low. Consistent with previous work, it was hypothesized that when topic importance is held constant, the S reacts on the basis of proportion of item agreements, liking the stranger who is more similar to him.

SUBJECTS

The Ss were 22 male and female graduate students who ranged in age between 21 and 30 years.

INSTRUMENTATION

Initially, a group of 30 attitudinal items was employed. These items were presented as simple six-choice scales and have been previously used in other simulated laboratory studies employing the interpersonal attraction methodology.

From the Ss' ratings of these 30 items on the basis of their importance, two six-item scales were constructed. One of these was composed of the most important and the other of the least important items.

The Interpersonal Judgment Scale (IJS) (Byrne, 1961) was used to evaluate the Ss' responses to the hypothetical individuals represented by the test data.

PROCEDURE

The study involved two testing sessions. In the first session, the 30-item attitude scale was administered to each S. In addition to choosing one of the six-alternative choices for each item, the S was asked to rate each of the items on a 5-point scale, according to its importance to him. From these ratings, two six-item attitude scales, homogeneous with regard to item importance, were constructed. One scale consisted of the most important items, while the other consisted of the least important items.

In the second session, each S was presented with four six-item test response protocols which were contrived to purportedly represent unknown individuals of the same sex and age. Two of the test protocols presented were the more important items, while two were the least important items. Of the two for each attitude scale, one agreed on five of the six items and the other agreed on one of the six items. Therefore, the four contrived protocols can be designated to be in the following categories: important-agreeing, important-disagreeing, unimportant-agreeing, and unimportant-disagreeing. The order of stranger presentation was counterbalanced so that each type of stranger appeared in each position an equal number of times.

After reading each test protocol, each S rated the hypothetical stranger on the IJS. In addition, each S was asked to rank-order the four strangers according to how much he thought he would like them.

ANALYSIS

A two-factor analysis of variance was used to determine the effects of attitude agreement and topic importance on attraction. A chi-square analysis was computed to compare differences in the distribution of the rankings between the various hypothetical stranger categories. The .01 level was held critical for all tests made.

RESULTS AND DISCUSSION

Proportion of item agreements was found to have a significant effect on the IJS ratings ($F = 9.17$). Topic importance was not found to have a direct effect on the IJS ratings ($F = 3.60$). An interaction effect between topic importance and proportion of item agreements was observed ($F = 18.92$). The attraction means are presented below in tabular form:

	Disagree	Agree
Important	5.14	11.32
Unimportant	8.27	10.09

The result of chi-square analyses showed significant differences between the rankings assigned to each of the four categories. Each category differed significantly from every other, with the order of liking being the same as the order of attraction, as measured by the IJS: important-agreeing, unimport-agreeing, unimportant-disagreeing, and important-disagreeing.

As hypothesized, when topic importance was held constant, the S reacted on the basis or proportion of item agreements. This confirms much previous work indicating that individuals like others who are similar to themselves.

As hypothesized, the effect of topic importance on interpersonal attraction was more complex. The S reacted in a more extreme way to the hypothetical stranger depicted by the attitude scale composed of important-item content. The hypothetical individual who agreed on the important items was liked significantly better than the one who agreed on the same proportion of unimportant items. The hypothetical individual who disagreed on the important items was liked significantly less than the one who disagreed on the same proportion of unimportant items.

Accumulating evidence seems to indicate the critical nature of the topic importance variable. It appears that attitude scales with important-item content provided the S with a greater amount of information on which to base his judgment about a particular hypothetical individual. When the information communicated was positive (agreement), then this resulted in greater liking. When it was negative (disagreement), this resulted in lesser liking.

Although proportion of item agreements was again found to be a significant variable, the necessity for the study of topic importance was further demonstrated.

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