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PERCEPTION OF PERSONS IN GROUPS.(U)

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DEC 80 J B PRYOR, T M OSTROM

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Perception of Persons in Groups

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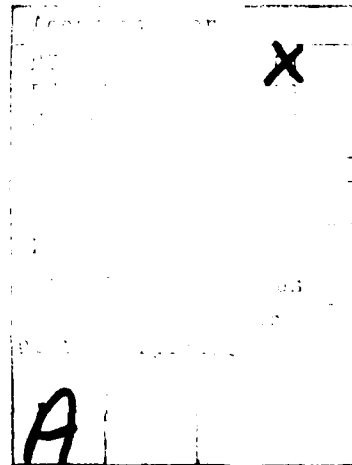
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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) The role of persons as mental foci in organizing memory for social information is questioned. Three studies, representing a multiple operationism approach, are reported that examined the role of person familiarity as a mediator in memorial organization. Two studies that examined the role of person-based memorial organization in the context of other salient competing organizational schemata are also reported.											

Perception of Persons in Groups

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Running head: Person Perception

Person Perception

Abstract

The role of persons as mental foci in organizing memory for social information is questioned. Three studies, representing a multiple operationism approach, are reported that examined the role of person familiarity as a mediator in memorial organization. Two studies that examined the role of person-based memorial organization in the context of other salient competing organizational schemata are also reported.

Person Perception

Many advances have been made in person perception research since Asch's pioneering investigations into the area of impression formation. Asch was influential in steering subsequent social psychological researchers into a rich, new content area. He was also influential, more subtly perhaps, in his creation of a methodological approach for the study of person perception. A critical feature of Asch's methodology that was to be modeled again and again across subsequent investigations by other researchers was that Asch studied the perception of one person at a time. Subjects were exposed to information regarding some hypothetical person and subsequently made impression ratings of that person. Studies along these lines which included ratings of more than one person did so in the form of multiple replications of the same basic procedure.

Even casual reflection reveals that the perception of isolated individuals constitutes what may be only a small subset of social experience. In trying to capture some of the qualities of person perception as it occurs in the course of actual social experience, we developed a conception of social information (Ostrom, Pryor, and Simpson, 1980) which embodies the following characteristics. Social information: a) consists of several items of information about each of several persons, b) is encountered sequentially over time c) is often encountered in haphazard rather than systematic order and d) has some items that are encountered on repeated occasions (for example, physical characteristics or names). Thus, person perception often occurs in some sort of group setting. The group may sometimes be a number of persons who are simultaneously physically present as in a classroom, a work group, or a gathering of friends at lunch. Other times the group may be represented by the flow of different people in and out of one's realm of experience across some time period such as the five people who came by your

office this morning. Thus, the term, group, will be used here to refer to a collection of individuals represented in the perceiver's social experience rather than the more specific notion of some externally formed social entity. In the research described herein the reader will discover some utility inherent in this broad conceptualization.

Asch (1946) assumed that persons automatically emerge as organizational foci in the flow of social experience. Unfortunately, the methodology of presenting information about one person at a time does not allow one to test this assumption. A critical analysis of this assumption was the embarking point for our research program. We proposed (Ostrom, Pryor, Simpson, 1980) that the degree to which persons serve to organize social information is subject to wide variation. Furthermore, it seemed likely to us that abstract, unfamiliar persons such as those who constitute the vast majority of stimulus persons used in person perception research may play only a minimal role in cognitive organization. The converse of this argument is that cohesive cognitive representations of persons tend to evolve only after repeated experience. Hence, the variable, familiarity, emerges as a mediator of the organizational influence of persons.

We have conceptualized the nature of familiarity using terminology derived from associative network theories of memory (Anderson & Bower, 1973; Collins & Loftus, 1975; Kintsch, 1974). This general framework describes memory in terms of a series of idea nodes which are interconnected by a network of associative linkages or pathways. Some of these linkages form hierarchical structures, thus depicting the organizational properties of memory. A mental representation of a person may be depicted by a central node (a person node) which is associatively connected to various items of social information (e.g., physical attributes, traits, behaviors, possessions,

social roles, etc.). The person node itself may be best conceptualized as an abstract nexus of association. Operationally, it may be accessed via the information item most strongly associated with other items of social information concerning a person. Familiarity determines the strength of the associative connections between the person node and the social information items. For familiar persons these associative bonds may be relatively strong, whereas, for unfamiliar persons they may be relatively weak.

There are two distinct advantages of utilizing an associative network model in describing the mental representation of persons. First, this broad associative model implies that a variety of different measures may be used to determine the organizational influence of persons. In line with this advantage, we developed a multiple operationism approach to study the role of person familiarity as a variable influencing the cognitive organization of social information. The first three studies described below summarize our initial research efforts using this approach (Pryor & Ostrom, Note 1). The second advantage of an associative network model is that it allows us to conceptualize different forms of cognitive organization within a common framework. Social information is certainly multiply organized in memory. For example, the term "psychologist" may be associatively connected to the person node, "Sigmund Freud," in memory and it may also be connected to various other nodal structures such as an "occupation" node. In the final section of this paper we discuss two empirical investigations of the person-by-person organization of social information in the context of competing modes of organization. (Pryor, Simpson, Ostrom, Mitchell, & Lydon, Note 2).

Familiarity and Person-based Organization

A multiple operationism strategy was adopted to test the prediction

that familiarity affects the manner in which social information is cognitively organized. The use of this strategy served two basic functions: (1) It allowed us to assess the influence of familiarity across a wide range of information processing tasks; (2) The use of multiple operational definitions of cognitive organization enables us to assert with enhanced confidence that our results stemmed from actual cognitive phenomena rather than methodological artifacts (Garner, Hake, & Eriksen, 1956).

We selected three tests that reflect different phases of information processing. The first was an input task that was relevant to how people classify or categorize social information into person categories. The second was a processing task that measured the ease with which one thought leads to another when both are about the same person. The third was an output task that looked at how person organization is reflected in the free recall of social information.

The three studies summarized below all used the same basic stimulus materials and all shared certain procedural and design features. A set of generically familiar persons was assembled by asking a group of Ohio State University students to list the names of several well-known persons. In addition, the students were asked to list several commonly known facts or characteristics of each person. From this normative information base, we prepared four different sets of five persons whose names were mentioned most often (e.g., George Washington, Elvis Presley, Muhammed Ali, Christopher Columbus and Napoleon Bonaparte) along with five facts about each. For each stimulus set of five famous persons, we used the twenty-five facts to construct five hypothetical (unfamiliar) stimulus persons. Each unfamiliar person was described by one fact from each of the five familiar persons.¹

The presentation of the information items across all three experiments

followed essentially an arbitrary or random order. The manipulation of familiarity was in all cases accomplished within subjects. Meticulous care was taken in counter-balancing presentation orders and the combination of experimental conditions and stimulus sets. The basic prediction examined in these studies was that the information items would be more readily organized by persons when they are associated with familiar persons than with unfamiliar persons.

The first study used an input task; it assessed the ease with which subject grouped (or encoded) items of person information into person categories. Subjects were given randomly ordered decks of index cards and asked to sort them as quickly as possible into piles according to persons while simultaneously checking for spelling errors on each card. Each card contained the name and descriptor of a person in sentence form (e.g., "George Washington was a general"). The simultaneous spelling error task insured that subjects processed the entire information sequence on each card. (Bogus trials containing obvious errors were presented among the experimental trials so that the spelling scan would be taken seriously). The prediction was that familiar persons would be more available during encoding for organizational use than unfamiliar persons. Hence, classifying information into familiar person categories would be easier than classifying it into unfamiliar categories. This prediction was supported by sorting speed differences ($F(1,20) = 13.19, p < .003$). The average per card sorting time for familiar checks was 1.98 seconds; for unfamiliar decks it was 2.17 seconds.

The second study in this series (utilizing a processing task) involved the ease or speed with which one thought follows from another. If two items of social information are both strongly associated to a person node (as with familiar persons), then thought concerning one item should trigger

thought concerning the other. For unfamiliar persons the associative linkages are presumed to be substantially weaker. Therefore, thinking about one unfamiliar person information item is not as likely to facilitate bringing to mind other items concerning the same person.

These ideas were tested using a probe reaction time task modeled after a similar task used by Johnson (1979). Subjects were presented with randomly ordered decks of index cards. On each card there was a sentence concerning a person as in the input study. The descriptor in each sentence was underlined (e.g., "George Washington was a general"). Subjects were instructed to try to commit the descriptors to memory. They read each deck aloud three times, each time in a different random order. Subsequently, they were shown a series of slides projected on a screen. On each slide there were two words, one situated above the other. Subjects were instructed to press a "Yes" button as quickly as possible if both words had been descriptors in the information sets they had seen. They were to press a "No" button if either one of the words had not been in the information set. The time from the onset of the slide to the pressing of either button was measured in milliseconds. Slides were of three basic types: (1) Within person probes, where both words were descriptors from the set and concerned the same stimulus person; (2) between person probes, where both words from the information set, but concerned different persons; and (3) foils, where one word was from the information set and the other was a word foreign to the set.

Analyses were performed on the average reaction times for correct responses in the between and within person probe conditions. These analyses revealed that subjects responded more quickly to within person probes than between person probes if the persons in the information set had been familiar.

However, when the persons had been unfamiliar, there was no difference in response times (Interaction $F(1,12) = 5.12, p < .05$). Theoretically, this finding reflects the strong associative bonds of the information items to person nodes in familiar conditions. Such an organization is extremely weak or perhaps even non-existent in unfamiliar conditions.

The output study, the third in this series, was based on the assumption that mental organization is reflected in the order in which items are recalled from memory. Bousfield (e.g., Bousfield & Bousfield, 1966) and his colleagues have found that items of information that are associatively related tend to cluster sequentially in free recall. Using the same stimulus materials used in the previous studies, in this study we found that randomly ordered sequences of social information tended to be recalled in a person-by-person order when the persons were familiar. When the persons were unfamiliar, we found evidence for person clustering only after repeated exposures. Even then, the magnitude of clustering was not large. (Parenthetically, we should note that in other studies significant person clustering did not emerge for unfamiliar persons even after repeated exposure). To date, the bulk of our research endeavors have used the output task of the third experiment. We have replicated these basic familiarity findings in clustering again and again, using various operational definitions of familiarity and various quantities of information in the stimulus sets (cf. Simpson, Pryor, Ostrom, Dukerich & Joest, Note 3).

Taken collectively, these three studies provide compelling evidence that, contrary to Asch's assumption, unfamiliar persons do not automatically emerge as the organizational foci of social information. While the input study provided only a relative comparison of the organizational influence of familiar versus unfamiliar persons, the processing and output studies additionally afford some absolute analysis of the organizational role of

unfamiliar persons. No differences were found between the response times to within and between person probes and initial person clustering did not exceed a chance level when the stimulus persons were unfamiliar in these two studies. Therefore, our studies indicate that unfamiliar persons performed a minimal organizational role in processing social information. The natural question which seemingly arises from these studies is: how is social information organized when it is not organized by persons? Only one mode of memorial organization was studied in these studies, person-based organization. Presumably, it is possible that several modes of mental organization might be used simultaneously when social information is experienced. However, associative network models of memory such as the spreading activation model proposed by Collins & Loftus (1974) suggest that activation of one organizational structure would decrease the probability that others would also be activated. In our own laboratories we are just beginning the exploration of multiply organized memory for social information. With about one half dozen studies completed and as many more currently under way, it seems that we are yet at the tip of the iceberg. Below we will describe two studies along these lines which cast the problem of multiple organization into a methodological mold similar to the one used in the output study described above.

Multiple Organization of Social Information

The two studies reported here contrasted person-based organizations to descriptor category and contextual organizations, respectively (Pryor, Simpson, Ostrom, Mitchel & Lydon, Note 2). The descriptor categories were derived from a survey which asked undergraduates the kinds of information they thought useful to form an impression of another person (Ostrom, 1975). Examples of these include occupation, religion, age and race. The contextual organization was defined by a spatial-temporal blocking sequence (Cofer,

Bruce & Reicher, 1966; Puff, 1966). Information was blocked into three equal segments, each on a different page of an information booklet. Each segment was labeled with a day of the week so as to provide subjects with a naturalistic analogue to social experience (e.g., at the top of the page subjects read: "Imagine that on Monday you found out the following information").

In each study, one of these organizational schemata was set at odds with person-based organizations. This was accomplished by creating what we call a "competing categories design" in the selection or presentation of the stimulus materials. To illustrate this arrangement using the description categories study, each information set used in this study consisted of nine descriptors or facts, three about each of three persons. Each of these three descriptors about each person also represented an instance of a general descriptor category (e.g. "singer" for "occupation," "Protestant" for "religion," and "middle-aged" for "age"). Thus, the descriptor category organizational schemata ran orthogonally to the person-based schemata throughout the stimulus sets. A similar effect was achieved in the contextual organization study by blocking the information sets orthogonally with respect to the persons.

Familiarity was also manipulated in these studies. In the descriptor category study we selected our information sets from descriptions of famous persons as in the first three studies reported above on familiarity. The only difference was that unfamiliar persons were created here simply by substituting an unfamiliar name. In the contextual organization study, familiarity was operationalized identically to the operationalization described for the first three familiarity studies. (For a thorough analysis of the various components of familiarity see Simpson, et al., Note 3).

As mentioned above these studies employed an output task similar to the one used previously. In the descriptor category study the information sets were presented in a completely random order. Subjects were asked to commit information items to memory and subsequently wrote them down in a free recall. In the contextual organization study the order of the items were partially determined by the blocking sequence. Within blocks the order of the items was counterbalanced. As in the previous studies, familiarity was manipulated within subjects by presenting each subject with both familiar and unfamiliar versions of stimulus sets.² Our major hypothesis was that descriptor-category-based organization and context-based organization would dominate when the persons were unfamiliar and that evidence for person-based organization would only emerge when the persons were familiar.

Insert Table 1 About Here

Clustering indices from these studies, broken down by familiarity, are depicted in Table 1. The data seem to fit the predictions quite well. Person-by-person organization of free recall was highest across both experiments under familiar conditions. When the persons were unfamiliar, person clustering was at about a chance level and organization by the competing schema dominated. (Both of the interactions depicted here are statistically significant at the $p < .05$ alpha level). It is also interesting to note that descriptor category clustering tended to be generally stronger than person-based clustering, whereas the opposite was true in comparing context-based clustering to person-based clustering. This probably reflects the fact that the descriptor categories were frequently used in everyday social experience by our subjects, while the context categories were somewhat abstract.

and newly formed. In general, the descriptor category schemata tended to offer a more strongly competing organizational alternative to person-based organizations.

In summary, these studies show that social information processing may employ a variety of organizational strategies. When social information consists of several facts about several people encountered haphazardly, the special organizing role of persons that Asch described seems to be limited to familiar persons. And even the organizational influence of familiar persons may be vitiated by other competing organizational schemata. Future research along these lines may focus on identifying the variety of organizational schemata used in structuring social experience and the process by which a perceiver chooses between alternative associative schemata when several are possible.

Footnotes

1. The Input and output experiments also incorporated variations in the number of persons in the stimulus sets (5 vs. 3 persons) and in the number of descriptors per person (5 vs. 3 descriptors). These variations were achieved by taking subsets of the four basic stimulus sets. The Processing experiment used only 3 persons by 3 descriptor subsets because of potential fatigue effects involved in using larger sets. For a more detailed account of these variations, see Pryor and Ostrom (Note 1).
2. Another manipulation, that of instructional set, was also employed in both of these studies. This did not vitiate any of the findings reported here. Space limitations do not permit a full description of this manipulation and its effects. For a complete description and analysis, the reader is referred to Pryor, Simpson, Ostrom, Mitchell and Lydon (Note 4).

Reference Notes

1. Pryor, J. B., & Ostrom, T. M. The cognitive organization of social information: A multiple operationism approach. Unpublished manuscript, University of Notre Dame, 1980.
2. Pryor, J. B., Simpson, D. D., Ostrom, T. M., Mitchell, M. & Lydon, J. E. The representation of social information in memory: Studies of the influence of competing organizational schemata on free recall. Unpublished manuscript, University of Notre Dame, 1980.
3. Simpson, D. D., Pryor, J. B., Ostrom, T. M., Dukerich, J. & Joest, I. Familiarity and the recall fo social information. Unpublished manuscript, Carroll College, 1980.

References

- Anderson, J. R. & Bower, G. H. Human Associative Memory. Washington: Winston, 1973.
- Asch, S. Forming impressions of personality. Journal of Abnormal and Social Psychology, 1946, 41, 258-290.
- Bousfield, A. K. & Bousfield, W. A. Measurement of clustering and of sequential consistencies in repeated free recall. Psychological Reports, 1966, 19, 935-942.
- Cofer, C. M., Bruce, D., & Reicher, G. M. Clustering in free recall as a function of certain methodological variations. Journal of Experimental Psychology, 1966, 71, 858-866.
- Collins, A. M. & Loftus, E. F. A spreading-activation model of semantic processing. Psychological Review, 1975, 82, 407-428.
- Garner, W. R., Hake, H. W. & Eriksen, C. W. Operationism and the concept of perception. Psychological Review, 1956, 63, 149-159.
- Johnson, N. The memorial structure of organized sequences. Memory and Cognition, 1978, 6(3), 233-239.
- Kintsch, W. The representation of meaning in memory. Hillsdale, N. J.: L. Erlbaum & Associates, 1974.
- Ostrom, T. M. Cognitive representation of impressions. Paper read at American Psychological Association, Chicago, September, 1975.
- Ostrom, T., Pryor, J. B., & Simpson, D. The organization of social information. To appear in E. Higgins, C. Herman & M. Zanna (Eds.), Social cognition: The Ontario symposium on personality and social psychology. Hillsdale, N. J.: L. Erlbaum & Associates, in press.
- Puff, C. R. Clustering as a function of the sequential organization of stimulus words. Journal of Verbal Learning and Verbal Behavior, 1966, 5, 503-506.

Table 1

Clustering in Free Recall in the Two Competing Categories Studies

Familiarity Conditions

		Familiar Persons	Unfamiliar Persons
Descriptor Category Experiment	Person Clustering	.24	-.03
	Descriptor Clustering	.27	.44
Contextual Category Experiment	Person Clustering	.49	-.07
	Contextual Clustering	.12	.23

Note: The clustering indices represented are mean Aadjusted Ratio of Clustering (ARC) scores (Roenckner, Thompson, & Brown, 1971). An ARC score of zero indicates clustering at a chance level: the maximal possible clustering in a recall protocol results in an ARC score of one.

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