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Persons as Categories
in the Organization and Recall of Social Information:
The Influence of Processing Objectives

Patricia A.R. Csank

A Thesis
in
The Department
of
Psychology

Presented in Partial Fulfillment of the Requirements
for the Degree of Master of Arts at
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ABSTRACT

Persons as Categories in the Organization and Recall of Social Information The Influence of Processing Objectives

Patricia A.R. Csank

The present study addresses the extent to which people organize information that pertains to different individuals around the category of person. The influence of three processing objectives (anticipated interaction, impression formation, memory set) on the organization and recall of information pertaining to several target persons was examined. Limitations in previous research were addressed; subjects in the anticipated interaction condition expected to meet with each target separately. Subjects read four descriptions of each of four target persons in a random order. The clustering of the descriptions by person category and subjective organization in free recall was assessed. Significant organization by person category and subjective organization was obtained in each condition. No group differences emerged. The results suggest that individuals who anticipate interaction, form impressions, or attempt to remember information pertaining to several target persons, organize the information around the category of person and differentiate persons from one another during social perception. The present findings are discussed in terms of associative network models of person memory and the ongoing debate concerning person clustering effects in multiple target perception.

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This thesis is dedicated to Jean, Zoli, and Ray- the three individuals who have shown me what psychology is all about.

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Persons as categories

in the organization and recall of social information:

The influence of processing objectives

People often meet and interact with several individuals throughout the course of a day. They may acquire an abundance of information about the individuals they meet, and may devote much time to thinking about others' behavior and personalities. How people perceive and think about other individuals has been a concern for researchers in social psychology. An unresolved issue in the literature on person perception concerns the extent to which people think about others as separate individuals, differentiated from one another in the social environment. Early theories of impression formation (Asch, 1946; Anderson, 1962) rest on the assumption that when people learn about the personality traits of an individual, they necessarily associate these characteristics with the person and integrate them to establish a view of the person as a whole. That is, it was assumed that people readily incorporate information they learn about a target individual to organize and construct a unique mental representation or gestalt of the person (Sedikides & Ostrom, 1988). The idea that people can organize information about an individual to form a person gestalt is also compatible with the concept of a person schema which is thought to act as a cognitive structure that

guides the processing of information about others (cf. Fiske & Taylor, 1991).

That people structure and organize social information acquired in ongoing experience so as to perceive others as individuals indeed seems necessary for a number of social cognitive processes to occur. For example, such organization would be necessary for people to perceive others as agents when making attributions for others' behavior (Fiske & Taylor, 1991). It also seems necessary for people to perceive others as distinct and separate from one another when making evaluative judgments and predictions about others' behavior. Yet the question of whether individuals actually organize social information into person schemas or around the category of person has only recently been the topic of empirical investigation (Lynn, Shavitt, & Ostrom, 1985; Pryor, Kott & Bovee, 1984; Sedikides & Ostrom, 1988).

Associative Network Models of Person Memory

The recent research that examines the use of persons as organizing categories is based on associative network models of memory. Current models of person memory (Hastie, 1980; Pryor & Ostrom, 1981; Srull, Lichenstein & Rothbart, 1985; Srull & Wyer, 1989) have largely been derived from the Human Associative Memory theory of Anderson and Bower (1973). According to these metaphorical models, the characteristics or items that describe a target individual become

represented in memory during encoding. As the items are associated with a particular target they are thought to be linked by associative pathways to a higher-order representation of the target individual in memory. The name, or physical image, of the target may serve as a cue to access the higher-order representation of the target individual in memory (Pryor & Ostrom, 1981). Organization by person category is thought to reflect the creation of associative paths between the descriptive items and the representation of the target (Pryor & Ostrom, 1981). As well, the descriptive items pertaining to one target individual may be interconnected by associative paths as the items may be considered in relation to each other (Hastie, 1980; Wyer & Srull, 1989). The strength of any given pathway may be determined by the elaboration of elements that are considered in relation to one another (Wyer & Srull, 1989).

Initially, these models were used to describe the processes that occur when individuals encode and retrieve information about a single individual in the context of social perception. In such person memory models, the highest level of representation in memory is the single target (Srull et al., 1985). During the retrieval of descriptive information, the search process is said to usually originate at this highest level of the network. There may also be other, intermediate levels of

representation such as those that define different trait categories (see Figure 1). The search process may be initiated and proceed from these intermediate levels of representation as well. If all pathways are of equal strength, the search process follows a randomly selected pathway until a descriptive characteristic is reached and the item is recalled. The search is then said to continue in one of two ways. If there exists an associative pathway between the recalled item and another item describing the person, the search will then proceed along this inter-item pathway until the item is retrieved and recalled. If, however, no direct association had been made between the recalled description and other descriptive items during encoding, then the search is interrupted and the retrieval process resumes from the higher-order representation of the target person, or from an intermediate level.

Much of the empirical support for such models of person memory stems from research examining how individuals structure and organize the different behaviors and characteristics that describe a single target person concerning which they are told to form an impression. Results from this single target research suggest that individuals do organize behavioral information about a person in terms of higher-order descriptive categories that characterize the conceptual similarity between two or more behaviors (Hamilton, Katz, & Leirer, 1980). These

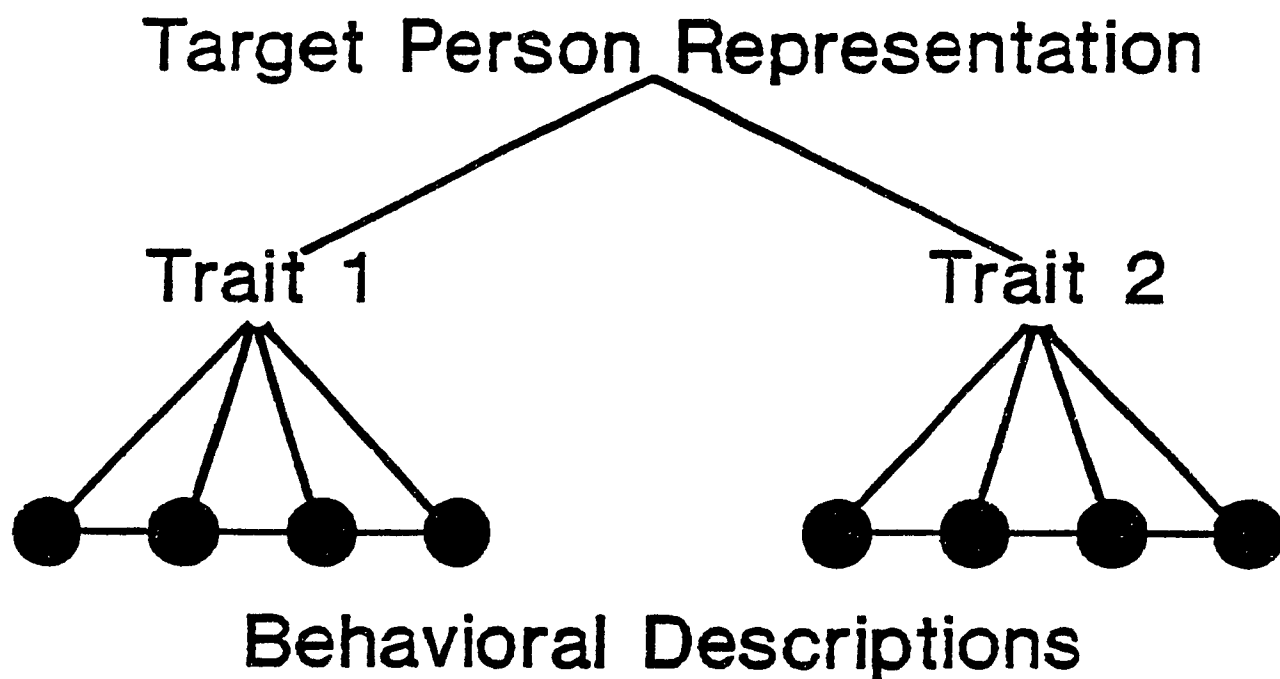


Figure 1. Associative network model of target person representation in memory.

descriptive categories may pertain to different types of activities (e.g., athletic, social or, religious activities), or different trait concepts (e.g., intelligence, friendliness, honesty). Evidence for such organization has been obtained in research where subjects are asked to form an impression of an individual, are given descriptive information about him or her, and are unexpectedly asked to recall the information. Items that pertain to a common descriptive category are often found to be recalled contiguously even though the items were presented with items from other categories in a random order. Hence, descriptive information about a target does seem to be encoded in terms of higher-order categories that are thought to be linked to a representation of the target person, creating associative pathways that guide the retrieval sequence.

Other research that supports the utility of the associative network model of person memory examines the organization and recall of behavioral information that is consistent or inconsistent with an initial description supplied about a single target person (e.g., Hastie, 1980). The greater recall of inconsistent items and the order in which consistent and inconsistent items are recalled seems to reflect a greater elaboration of inconsistent items relative to consistent ones and a resultant richer pattern of associations (Wyer & Srull, 1989). For example, if a

target is initially described as unfriendly, an inconsistent behavioral description of the target, such as she or he offered to take two classmates out for a drink, generally has the highest probability of being recalled as compared to consistent or irrelevant information (Srull et al., 1985).

As the above research suggests, associative network models provide a useful description of how information about a single individual may be encoded and retrieved. The research suggests that individuals integrate, associate, and structure behavioral information about a single target person when the target is considered in isolation and is the focus of the processing activity. In contrast, the recent research on the use of persons as organizing categories is concerned with the organizational processes that occur when an individual learns many different things about different people encountered at one occasion. The application of this person memory model to how people process and organize information about more than one target is, to date, rather speculative and has received little attention (cf. Wyer & Srull, 1989).

Memory for Target Persons

One often learns information about an unfamiliar person for the first time in the "presence of information" about other unfamiliar individuals. For example, this is usually how one acquires information about others at social occasions, conferences, in committees, a new work

environment, when considering job applicants, or when learning about others described in the media or about characters in a novel. In these multiple target person settings, associative memory may be said to include separate higher-order representations of each of the target persons (Wyer & Srull, 1989). As an individual learns about the behaviors and characteristics of each target person, these features may become uniquely associated with the representation of the particular target (e.g., his or her name or physical image) they describe. That is, the descriptive information that pertains to a particular target may be held together through association with the representation of the target, and perhaps with one another.

In the typical study on the use of person categories in the organization of social information concerning different targets, subjects are not told to form impressions of the individuals, but are informed that the study concerns memory for information about people. Subjects are then presented with a number of descriptions about each of several target individuals. The descriptions of each target are randomly interspersed with the descriptions of the other targets. Free recall of the information is then assessed and analyzed for organization by person using a measure of categorical clustering. Clustering measures typically reflect the number of within-category repetitions that occur in free recall. When several individuals are each described by a

number of descriptions, within-category repetitions represent the number of times consecutive items in recall describe the same target. The clustering of items about target individuals in free recall is thought to reflect the association of the descriptive items with the higher-order representation of each person and potentially with each other in memory (Pryor, Ostrom, Dukerich, Mitchell, & Herstein, 1983; Devine, Sedikides, & Fuhrman, 1989).

Rather than providing unequivocal evidence for, or against, the use of person categories, the multiple target research has promoted new theoretical and methodological approaches to the study of person memory. Recent meta-analyses indicate that the occurrence of person based organization is weak and depends upon a number of stimulus properties (Mullen & Copper, 1989; Sedikides & Ostrom, 1988). Long exposure to the stimulus material and the use of familiar names have been found to increase organization by person category (Mullen & Copper, 1989). Long exposure times are thought to allow for more rehearsal of the information, and hence may strengthen the resultant associations made between items and the representation of the person in memory. Familiar names may be easier to encode than less common names because the perceiver may already have a representation of the name in memory. As stated earlier, the name of a target may be used as a cue to access one's representation of the target.

Organization by person may also be augmented if the unfamiliar target individuals differ from one another in their physical characteristics (e.g., hair color, skin color) (McCann, Ostrom, Tyner, & Mitchell, 1985). Different physical characteristics may make the targets distinctive from one another and may act as strong unique cues to access the representation of the target in memory.

The Influence of Processing Objectives on Organization. In addition to the intrinsic characteristics of the social information, the objectives a person brings to a processing task may also affect how information is elaborated and, in turn, the extent to which it is organized in memory (Jeffery & Mischel, 1979, Srull, 1983). That is, the expectations people have concerning the ways in which social information is to be used may determine the selection of elements that will be considered in relation to one another, and the amount of elaboration that occurs while the associations are established.

In most of the studies that evaluate the organization of information that pertains to multiple targets, all subjects have been informed that "the study concerns memory for information about people". The processing objective encouraged in these studies is that of a memory set. In their classic study of person memory, Hamilton, Katz, & Leirer (1980) found that a memory set instruction led to less categorical organization of descriptive information

pertaining to a single target than an instruction to form an impression. The exclusive use of a memory set instruction in most of the research on memory for multiple targets may call into question the weak person clustering effects obtained. Several other processing objectives, such as impression formation, may be relevant for how an individual encodes information about different targets. When people form an impression of an individual, they attempt to integrate the information and understand the individual's behaviors by reference to their preexisting knowledge of personality traits and goals (Fiske & Taylor, 1991; Jeffery & Mischel, 1979). In doing this, people may make associations between information items in an attempt to understand the person as a whole.

One may also question the ecological validity of the memory set instruction typically employed in multiple target research. It does not seem likely that people actively attempt to memorize the information they learn about others in everyday life. It would be important to understand what influence more naturalistic processing objectives have on the use of person categories as a basis for the organization of social information. An impression formation processing objective may be considered more appropriate than the traditional memory set for an examination of multiple target perception.

The impression formation processing objective has been

included in some studies on the use of person categories in a multiple target setting. In one study, subjects were presented with information pertaining to a number of target individuals. Half of the subjects were asked to form impressions of the individuals and were told that they will later be asked to recall the descriptive information, whereas the other half were only told that they will be asked to recall the information (Pryor, Simpson, Mitchell, Ostrom, & Lydon, 1982). Subjects given the impression-memory set instruction demonstrated more overall organization in free recall than subjects in the memory set condition. As well, categorical clustering by person was the dominant mode of organization in the impression-memory set but not in the memory set condition. The generalizability of their results to a situation in which people are solely attempting to form impressions may, however, be questioned due to their inclusion of a memory instruction in the impression formation condition.

The impact of instructions to only form impressions of other individuals has been investigated in another multiple target study. Half of the subjects were told to form impressions of the individuals described and the other half were given a memory set instruction (Srull, 1983). The impression formation processing objective led to greater person category clustering of the information about the target individuals than the memory set. These findings

suggest that an impression formation instruction does enhance the organization of information about several unfamiliar target individuals.

Instructing people to form impressions of unfamiliar individuals is thought to stimulate processes that are similar to those that occur when one meets with other individuals for the first time. However, in real world social interaction, people are not explicitly instructed to form impressions of others. Aside from actually having subjects interact with a number of unfamiliar target individuals, having them anticipate such an interaction is one possible naturalistic means of encouraging the impression formation process. Anticipated interaction is thought to elicit the impression formation process that people may engage in as they attempt to gain a better understanding of the person or persons they are expecting to meet (Srull & Brand, 1983). Some research has examined the influence of anticipating actual interaction with a target individual on the recall of social information. Indeed, the anticipated interaction instruction has been employed as an alternative to or in addition to instructions to form impressions of an individual in single target research (e.g., Srull et al., 1985). Anticipated interaction seems to lead to greater organization of information pertaining to a single target than other instructional sets (Srull & Brand, 1983; Srull et al., 1985). Few attempts have,

however, been made to examine the influence of this processing objective in multiple target research.

The influence of anticipated interaction on the perception of target persons was examined in a study that compared it with instructions to form impressions, or to remember social information. All subjects were presented with different descriptions that pertained to different individuals. Subjects in the anticipated interaction condition were, however, told to focus on one target individual who was identified as the one they would later meet (Devine, Sedikides, & Fuhrman, 1989). Those in the impression formation and memory set conditions were also told to focus only on one of the target individuals. As well, the descriptions associated with each target were presented consecutively such that the information was blocked-by-person to begin with. The free recall data were analyzed using a conditional probability index that measured "the extent to which after recalling an item about a person the next item recalled is also about that person" (Devine et al., 1989; p. 684). Anticipated interaction led to greater conditional probabilities for the target individual, relative to the other instructional sets. As well, subjects in the memory set condition produced significantly lower average conditional probabilities across all targets than subjects in the impression formation and anticipated interaction conditions.

Although Devine et al. (1989) have considered the possible unique influence of an anticipated interaction instruction on the differentiation or individuation of a target individual from a group of individuals, their results remain limited to the narrow condition of focusing on one individual in a multiple target setting. As well, the blocked-by-person presentation order of the descriptions, which may explicitly encourage person based organization (cf. Postman, 1972), seems to call into question the conditional probability results they obtained.

The only other study to examine the influence of the anticipated interaction processing objective on the use of persons as organizing categories has been that of Sedikides et al. (1991). Some subjects were led to believe that they would be working together to solve problems with the five described target individuals. Other subjects were given only an impression formation set for all five targets, while others were told to memorize the information pertaining to the targets for a later recall task. In contrast to previous research (e.g., Devine et al., 1989), subjects in the anticipated interaction condition did not use person categories to a greater degree than the subjects in the impression formation or memory set conditions. In fact, subjects in the anticipated interaction and impression formation conditions, but not in the memory set, preferred to organize information in terms of an alternative category

scheme (e.g., pet peeve, home town, college major) that had been made salient in the descriptions. Hence, having subjects consider different descriptions pertaining to several target individuals at one time seemed to influence organization in a way not found in studies that encourage subjects to focus on one target individual.

One potential limitation of the Sedikides et al. study is that the subjects in the anticipated interaction condition were told that they would be interacting with the entire group of target individuals all at once. This manipulation may have undermined the person-focused orientation that anticipated interaction can encourage. Instead of promoting individuation of the targets, this anticipated group interaction objective may have encouraged subjects to think in terms of group processes (e.g., cohesiveness) (see Srull, 1981; Srull & Wyer, 1989, for a discussion of the group impression process). The study by Sedikides et al. may have addressed processes related to group impression formation and group perception (e.g., Wyer & Gordon, 1982; Wyer, Bodenhausen, & Srull, 1984).

Most of the literature on the influence of processing objectives on the organization of social information suggests that as the situation of the person changes from rote memorization to impression formation and anticipated interaction, the organization of the information is enhanced. Research that concerns the extent to which

persons are used as organizing categories has, however, failed to examine fully the influence of an anticipated interaction instruction. Specifically, studies that have used an anticipated interaction instruction have not considered its influence on the categorical clustering by person of social information that pertains to several target individuals who do not constitute a group. It would be important to determine whether the use of person categories is enhanced by eliciting this more naturalistic processing objective when the independence of the target individuals from one another is made salient. Such a manipulation would be relevant for comparison with the previous research on multiple target perception. Encouraging people to think about the targets they are expecting to meet as individuals may enhance the use of person categories in organization.

The Present Study

The present research examined the effects of anticipated interaction, impression formation, and memory set instructions on the organization of social information that pertains to different target individuals. In contrast to the methodology employed by Sedikides et al. (1991), the anticipated interaction instruction used in the present study consisted of telling subjects that they will be meeting with each of the target individuals, separately, to solve problems. It is argued that this individual-focused instruction would be less likely to promote the perception

of the target individuals as a group.

As in the typical procedure used to examine organization, all subjects were presented with different descriptive items about different target individuals and were later asked to recall the information in the order that it came to mind. As well, the stimuli used in the present study exhibit some of the characteristics that have been found to predict organization by person category (e.g., target individuals that look different from one another and familiar names). The clustering of the descriptive information around the category of person in free recall was assessed. The major hypothesis of the study was that individuals who anticipate interaction, form impressions, or are asked to remember information pertaining to several target persons will demonstrate significant organization by person category. In addition, a secondary hypothesis was that anticipated interaction instructions and impression formation instructions lead to greater organization by person category than memory set instructions.

In most previous research that examines the impact of processing objectives on the organization of social information, amount of recall is also assessed. Instructions to anticipate interaction and to form impressions have been found to promote greater recall of social information than memory set instructions in both single target (e.g., Hamilton et al., 1980), and multiple

target research (e.g., Devine et al., 1989; Pryor et al., 1982; Sedikides et al., 1991). The greater recall of the social information with anticipated interaction and impression formation instructions is thought to result from the enhanced elaboration of the information items that occurs during encoding, relative to memory set instructions. Hence, another hypothesis of the present study was that anticipated interaction and impression formation instructions lead to greater recall of information that pertains to different targets than memory set instructions.

Three additional measures of organization have been included in the present study so as to evaluate further possible differences in organization that may be promoted by the different processing objectives. The subjective organization of the social information across two recall trials was assessed in an attempt to identify the occurrence of any alternative idiosyncratic organizational strategies. Seriation in recall was also evaluated to examine the extent to which subjects recall the information in the order that it was presented. A name-to-item matching questionnaire was also included to examine the degree to which subjects form associations between a target's name and the behavioral descriptions. No hypotheses were made concerning the influence of processing objectives on subjective organization, seriation, or name-to-item associations. The inclusion of these measures may, however,

allow for a more complete description than has been obtained in previous research of the organizational processes that may occur when individuals receive information about several target individuals.

Method

Subjects

Subjects were recruited from a booth in the lobby of the Hall building on the Sir George Williams campus of Concordia University. At that time, subjects were asked to complete a form that would enable our research group to contact them and invite them to participate in a study at the Psychology department. Women whose native tongue was not English, who had already participated in research, or who were enrolled in Psychology programs were excluded.

Fifty-five undergraduate women between the ages of 18 and 26 years ($M = 22$) participated in the study. Men were not selected to participate in the study due to a lack of subject availability. Subjects were randomly assigned to one of the three processing objective conditions. The data of one subject was eliminated as she did not follow recall instructions. The final sample size per condition was 18. One subject was present at each session. Subjects were paid \$8.

Materials

Practice Booklet. A practice booklet that contained information about different cities was constructed to provide subjects with an opportunity to orient themselves to the procedures of the study. The inclusion of a practice trial is consistent with the methodology employed in most previous research in this area (e.g., McCann et al., 1985;

Pryor & Ostrom, 1981; Pryor et al. 1983). The 16 page practice booklet contained four descriptive statements about each of four unfamiliar (e.g., Bangui) cities. The descriptive statements represented 16 different categories of information (e.g., temperature, population, political situation). Four descriptive statements were randomly assigned to each city. Each page of the booklet contained the name of a city and an underlined descriptive statement (e.g., Seattle is a humid city). The order of the information in the booklet was random, with the constraint that the order reflected a chance level of categorical clustering by city. Hence, three times in the sequence a descriptive statement pertaining to one city was followed by another descriptive statement pertaining to the same city. The position of the three repetitions in the booklet was randomly determined (see Appendix A for a list of the statements included in the practice booklet). The same practice booklet was provided to all subjects.

Social Information Booklet. Following the presentation of the practice booklet, subjects received a social information booklet that contained information pertaining to four target individuals. The booklet was similar in appearance and organization to the practice booklet. The social information booklet contained 16 pages. Each page of the booklet presented a photograph of a target individual, her name, and a descriptive statement. The photographs were

used to provide visual images of the target individuals in the social information booklet. The names and descriptive information pertaining to the target individuals were fictitious. The stimulus characteristics that emerged as significant predictors of person clustering in the meta-analysis of Mullen and Copper (1989) were incorporated in the social information booklet. These characteristics will be noted below.

Photographs of four women were required to construct the social information booklet. Women between the ages of 20 and 26 were selected to have their photographs taken based on their physical characteristics. The women were acquaintances of the experimenter and were fully informed about the details of the study in which their photographs would be used. The women were different in appearance from one another as a consequence of their differing ethnic backgrounds or differing hair color (i.e., one white with blond hair, one black, one Asian, and one white with black hair). Women who appeared different from one another were selected to represent the target individuals so as to increase the distinctiveness of the targets (cf. McCann et al., 1985) and, hence to promote person clustering. Four very similar 5 cm X 5 cm color photographs were taken of each woman with a Polaroid camera. The women were asked to pose as if for a passport photograph.

Familiar names were generated for the target

individuals by asking eight psychology graduate students to list common names of women. Names that were mentioned by more than two students were selected. The targets were identified by familiar names so as to potentially facilitate access to the representation of the target in memory and to promote organization by person (Mullen & Copper, 1989). Each set of four photographs of the four women was randomly assigned to one of the four familiar names.

The four target individuals were each described by four descriptive statements in the booklet. Each descriptive statement pertained to one of 16 different categories (e.g., hobbies, home town, university major). A different category of information was chosen to generate each statement so as not to create explicit descriptor based organizational units in the stimulus materials. That is, no individual target, and no two target persons were described by information that could be grouped together (e.g., Mary enjoys playing hockey, Mary enjoys swimming, Sue enjoys playing tennis) on the basis of their shared descriptor category (athletic activity). This lack of overlap in the descriptive statements between target persons was implemented so as to promote the use of person based organization (Pryor et al., 1983). Fourteen of the categories were selected from those used by McCann et al. (1985) and represent information that undergraduate students tend to know about each other. Two other categories were generated for use in the present

study; type of car driven and preferred store for shopping. These categories were generated to replace two of the trait terms used by McCann et al. because research suggests that supplying trait information promotes the use of a different quality of retrieval cue than other types of descriptive information (Bassilli & Smith, 1986; Wyer & Srull, 1989). Descriptive statements were then chosen to represent each of the 16 descriptor categories. The descriptive statements were based on those used by McCann et al. (1985). Some of the original statements were modified for the present study to eliminate out dated items (e.g., "likes to watch Chips" replaced by "likes to watch Cheers") and to be more representative of the Concordia University population (e.g., "comes from Louisville" replaced by "comes from Ottawa"). Four of the 16 descriptive statements were then randomly assigned to each target individual. The photograph and name of a target individual, and an underlined descriptive statement (e.g., "Sally has hay fever") were presented together and placed on a page in the booklet.

The presentation order of the information in the social information booklet was random with the constraint that the order reflected a chance level of clustering. Hence, three times in the sequence of presentation a descriptive statement pertaining to one target was followed by another descriptive statement pertaining to the same target. The position of these repetitions in the booklet was randomly

determined.

The information contained in the social information booklet was presented to subjects a second time in a different random order. As such, there was a trial 1 and a trial 2 social information booklet. The trial 2 booklet contained the same photograph-name-description combinations as the trial 1 booklet. The pages of the booklets were, however, in a different random order. The order of the information in the trial 2 booklet also reflected a chance level of clustering.

Stimulus Set Replication. Parallel sets of trial 1 and trial 2 social information booklets were constructed in the manner described above. This stimulus set replication was constructed to allow for an evaluation of the generalizability of the results. Each subject received only one of the stimulus sets across both trial 1 and trial 2. Approximately equal numbers of subjects in each condition received each stimulus set. In total, the construction of the two stimulus sets involved obtaining photographs of 8 different women, generating 2 different descriptive statements from each of the 16 descriptor categories, and selecting 8 different familiar names (see Appendix B for a list of the descriptive statements and names used in each stimulus set).

Dependent Measures

Adjusted Ratio of Clustering. The adjusted ratio of

clustering index (ARC; Roenker, Thompson, & Brown, 1971) was used to measure person category clustering in free recall. It is derived from the sequence in which items are listed in recall. The unit of measurement from which the index is derived is the number of times two items pertaining to the same person are recalled adjacently (i.e., person category repetitions). The ARC index is independent of the amount recall (Murphy & Puff, 1982). An ARC score of zero indicates a chance level of clustering, whereas an ARC score of one indicates perfect clustering. In the present study, an ARC score of one would indicate that subjects recall all the information items they remember about one person, one after the other, followed by all the information items they remember about another person, and so on.

Subjective Organization. Subjective organization measures provide an index of the consistency in the adjacent co-occurrence of items between two or more successive recall trials (Murphy & Puff, 1982). Its measurement requires that subjects receive at least two presentations of the same stimuli presented in a different random order, each followed by free recall. The measure of subjective organization used in this study is referred to as the Adjusted Ratio of Clustering Prime (ARC') as it is mathematically derived in a manner parallel to the ARC index and is on the same scale of measurement (Pellegrino & Hubert, 1982). This ARC' index will henceforth be accompanied by the subscript g to

indicate that it is an index of subjective organization as ARC' can also be used to index other forms of organization. An ARC', score of zero reflects a chance level of intertrial consistency, whereas perfect consistency in recall order between trials is reflected in an ARC', score of one. Measures of subjective organization provide an indication of whether individuals organize information without allowing for a specification of the comparisons, elaborations, or dimensions imposed. In addition, intertrial consistency in recall output may not necessarily be independent of person category clustering.

Seriation. Seriation refers to the consistency in the serial position of items between their presentation and recall output. That is, seriation is said to occur when items presented adjacently are recalled adjacently (Murphy & Puff, 1982). The ARC' index can be used to compare the similarity between recall order and presentation order, and, therefore, can reflect seriation. The ARC' index will be accompanied by the subscript s to indicate that it is an index of seriation. An ARC',_s score of zero reflects a chance level of seriation and an ARC',_s score of one represents perfect serial recall.

Name-to-Item Matching Questionnaire. Two name-to-item matching questionnaires, one pertaining to each stimulus set, were constructed to assess the strength of name-to-item associations in memory (see Appendix C). The construction

of the questionnaires was based on procedures described by Sedikides et al. (1991). A questionnaire presented the names of the four target individuals, followed by a list of the 16 descriptive statements of the stimulus set. The subjects were asked to write the names of the target individuals beside the statements that they remembered described the targets. Subjects were instructed to guess if they were uncertain of a match.

Manipulation Check. A separate manipulation check questionnaire was developed for each processing objective condition (see Appendix D). All questionnaires asked subjects to describe the purpose of the study. In addition, subjects in the anticipated interaction condition were asked to indicate if they will be meeting with other participants in the study and, if so, to identify the number of other participants they will be meeting.

Procedure

Subjects were contacted by telephone by the female experimenter and asked if they would like to participate in one of the social psychology studies being conducted by the research group. When subjects arrived, they were greeted by the experimenter and were provided with a written introduction to the study which the experimenter read aloud. Following the presentation of the introduction, subjects were invited to sign a consent form.

Processing Objective Manipulation. Subjects in each of

the three processing objective conditions received a different introduction to the study. The introductions presented cover stories that were created to promote the three different processing objectives (i.e., anticipated interaction, impression formation, and memory set).

Anticipated Interaction: Subjects in the anticipated interaction condition were led to believe that the study was investigating how problem solving in pairs is influenced by the type of problem under consideration and the amount of information a person knows about the person with whom she is solving a problem with (see Appendix E). Subjects were told that they would read information about 4 female problem solving partners and that they would later meet individually with each of them to complete different problem solving tasks. To increase the plausibility of the cover story, subjects were told that the problem solving partners were recruited as they were themselves for participation in the study. In addition, subjects were led to believe that these participants had been randomly selected to meet with the research group at an earlier time to have their photographs taken and to complete "general information questionnaires" that would supply the information to be used in the present study. Subjects were told that their problem solving partners had no information about them, but that these individuals knew that some of the participants in the study would be seeing their photographs and reading information

about them before meeting with them to engage in the problem solving tasks.

Impression Formation: Subjects in the impression formation condition were told that the study concerned how people form impressions of a number of different individuals who are described to them (see Appendix F). Subjects were told that they will be asked to read descriptions pertaining to different individuals and that they will be asked to focus on forming impressions of each of the people described. They were led to believe that they would later be asked to describe their impressions.

Memory Set: Subjects in the memory set condition were told that the study concerned how people remember information about other individuals (see Appendix G). Subjects were told that they will be asked to read and remember a number of descriptions pertaining to different people and that they will later be asked to write down what they remember.

Instructions for Completing the Multiple Target Perception Task. Following the presentation of the initial introduction that promoted the processing objectives, subjects were provided with a set of instructions for completing the multiple target person perception task. All subjects were first supplied with an example page of the social information booklet, followed by instructions for reading the social information booklet and the practice

booklet. Subjects then read through the practice booklet. Before reading through the social information booklet subjects were reminded of the instructions for reading the booklet. All instructions were as similar as possible across processing objective conditions (See Appendices H, I, and J for copies of the instructions supplied to subjects in the anticipated interaction, impression formation, and memory set conditions, respectively). Differences in the instructions supplied between conditions will be noted below.

Subjects were first presented with an example what a page in the social information booklet was like with the exception that no photograph of the target person in the example was supplied. Subjects were told that when reading through the booklet they are to focus on the underlined descriptive portions of the sentences, not on the person's name or photograph.

Subjects were then presented with the practice booklet that described different cities. All subjects were informed that the purpose of the practice booklet was to familiarize them with the procedure and the organization of the materials. Subjects in the anticipated interaction condition were simply told to read through the booklet. Subjects in the impression formation condition were told to try and get an idea of what the cities are like. Subjects in the memory set condition were told to try and remember

the descriptions and that they will later be asked to write down what they remember. Subjects were paced through the practice booklet at a rate of 12 s per page. After reading through the practice booklet, subjects then completed a 20 s distractor task that involved counting backwards aloud by threes from a three digit number provided by the experimenter. This constituted the end of the practice trial for the anticipated interaction and impression formation conditions. Recall was included in the memory set condition, as in previous research. Subjects in the memory set condition were supplied with an 18 page recall booklet, and were asked to write down what they remembered in the order that it came to mind. These subjects were told to write only one description per page. The amount of time supplied for recall was 5 minutes; all subjects finished within this time period. Recall was not included in the anticipated interaction and impression formation conditions so as not to sensitize subjects to the true nature of the study and to retain the integrity of the processing objective manipulations.

The social information booklet was then presented to the subjects. Those in the anticipated interaction condition were told to read the information in the booklet. Subjects in the impression formation condition were told to form impressions of the people described. Subjects in the memory set condition were told to remember the information

in the booklet. All subjects were told to focus on the underlined descriptive parts of the sentences. Subjects were paced through the social information booklet at a rate of 12 s per page. This relatively long exposure time was used to promote person clustering (Mullen & Copper, 1989). Subjects then performed a distractor task that involved counting backwards aloud by threes from a three digit number for 20 s. All subjects were then provided with an 18 page recall booklet. They were told to write down all they can remember about the sentences describing the people, not necessarily the names, in the order that it comes to mind (cf. McCann et al., 1985). Subjects were also told to write only one sentence per page starting with the first sentence that comes to mind. The amount of time supplied for recall was 5 minutes; all subjects completed their recall within that time.

All subjects were then presented with the trial 2 social information booklet that contained the same information about the targets in a different order. Subjects had not previously been informed that they would read this trial 2 booklet. The presentation of the trial 2 booklet was justified by telling subjects that it is important that they have sufficient time to view the material in different ways. They were informed that the second booklet contained the same information as the first, but that it was arranged in a different manner. Subjects in

each condition were then reminded of the instructions for reading through the booklet. Subjects were paced through the booklet at a rate of 12 s per page. Following the 20 s distractor task, subjects were asked to write down what they remembered in the order that it came to mind.

Subjects then completed a name-to-item matching questionnaire and the manipulation check questionnaire. Subjects were told that the manipulation check measure would be used to examine whether participants were able to follow the instructions accurately and if they understood the study. All subjects were then fully debriefed and remunerated for their participation.

Results

Manipulation Check

Examination of the manipulation check measure revealed that the processing objective manipulations were successful. All subjects in the anticipated interaction condition indicated that they expected to meet with four other participants in the study. In addition, all subjects in the impression formation condition believed that the study was examining impression formation. The manipulation check measure was given to participants after the two recall trials and administration of the name-to-item matching questionnaire. As may be expected, some subjects in the impression formation ($n = 7$) and anticipated interaction ($n = 4$) conditions also indicated that they thought that a secondary purpose of the study was to examine their memory for the information they received.

Recall Scoring

In scoring recall, errors in spelling and word form were ignored. As well, only the descriptive statements were scored. That is, the inclusion of a correct or incorrect name in a recalled statement was ignored. The same intrusion error occurred for three subjects. The intrusion consisted of the recall of the example presented during the initial instructions (Helen enjoys cross-country skiing). This intrusion error occurred to the same extent in each condition.

Each subject's recall was scored for person category clustering (ARC), subjective organization (ARC'_o), seriation (ARC'_s), and total amount of recall. In calculating subjective organization, the recall data of one subject in the impression formation condition resulted in an undefined ARC'_o score and hence ARC'_o for this subject could not be included in analyses. In calculating seriation scores for trial 1 and trial 2 recall, the data of one subject in the impression formation condition, and of one in the memory set condition resulted in undefined ARC'_s scores and hence their ARC'_s scores could not be included in analyses as well.¹ See Table 1 for the mean ARC, ARC'_o, ARC'_s, and total recall scores in each processing objective condition.

¹ As explained by Murphy & Puff (1982), the equations for calculating clustering, seriation, and subjective organization tend to produce undefined scores when there is a limited amount of recall from different categories, or when there is little overlap in recall output between successive trials. The undefined subjective organization scores obtained in the present study were a result of there being little overlap in recall output between trial 1 and trial 2. The undefined seriation scores were a result of low recall output.

Table 1

Mean organization and recall scores for each processing objective condition

Condition	n	Trial 1		Trial 2		Subjective Organization	Name-to-item Matching	
		ARC	ARC's	ARC	ARC's			Recall Frequency
Anticipated Interaction	18							
M		.21*	.04	.43**	.03	15.17	.14**	13.62
SD		.34	.15	.37	.12	1.20	.13	4.33
Impression Formation	18							
M		.31**	.00	.66**	.03	14.72	.10*	14.06
SD		.34	.17	.41	.11	3.27	.16	4.27
Memory Set	18							
M		.48**	.09	.59**	.03	14.44	.25**	12.61
SD		.46	.21	.49	.16	2.15	.27	5.01

*t-test $p < .05$. **t-test $p < .01$.

Analyses

Prior to analyses, the organization and recall data were examined for univariate outliers and in regard to assumptions for univariate analyses. For the data collapsed across condition, one case with a high positive z score on ARC', was found to be an univariate outlier. The subject with this outlying score was in the memory set condition. This case was not an outlier with respect to the ARC', distribution in the memory set condition. For analyses of ARC', on ungrouped data, the score of this case was replaced with a score that is three standard deviations above the overall ARC', mean. Analyses of ARC', on grouped data were conducted without altering the score of the extreme case; the results for these analyses are reported below. The same results emerge if the extreme score is replaced by a value that is three standard deviations above the overall ARC', mean.

Preliminary analyses were conducted to examine whether there were any significant correlations between the measures of organization and recall. Measures of total recall frequency and organization were generally uncorrelated (see Appendix K for a table of the correlations between all measures of organization on trial 1 and trial 2, recall frequency on trial 1 and trial 2, and inter-trial recall order consistency or subjective organization). However, ARC scores were significantly positively correlated across

recall trials, as was recall frequency. As well, ARC scores on trial 1 were significantly positively correlated with ARC' scores. This pattern of correlations generally represents the correlational results that emerge within each processing objective condition. However, ARC scores on trial 1 were significantly positively correlated with ARC' scores only in the impression formation condition (Anticipated Interaction: $r = .05$, ns; Impression Formation: $r = .57$, $p < .05$; Memory Set: $r = .24$, ns).²

Person Clustering. It was hypothesized that organization by person category occurs when individuals process information about target persons for the processing objectives of anticipated interaction, impression formation, and memory set. Analyses were conducted to test whether the mean ARC scores at trial 1 and trial 2 in each processing objective condition differed significantly from zero. Significant clustering by person was found in all processing objective conditions on trial 1 (Anticipated Interaction: $M = .21$, $SD = .34$, $t(17) = 2.65$, $p < .02$; Impression Formation: $M = .31$, $SD = .34$, $t(17) = 3.82$, $p < .01$; Memory Set: $M = .48$, $SD = .46$, $t(17) = 4.40$, $p < .01$). In addition, mean person clustering scores in each processing objective condition on

² All statistical tests in the Results section are two-tailed.

trial 2 were also found to be significant (Anticipated Interaction: $\underline{M} = .43$, $\underline{SD} = .37$, $\underline{t}(17) = 5.00$, $p < .01$; Impression Formation: $\underline{M} = .66$, $\underline{SD} = .41$, $\underline{t}(17) = 6.90$, $p < .01$; Memory Set: $\underline{M} = .59$, $\underline{SD} = .49$, $\underline{t}(17) = 5.00$, $p < .01$). Hence, the major hypothesis is supported. Subjects in all conditions significantly organized the information according to the category of person on trial 1 and trial 2.

A secondary hypothesis was that anticipated interaction and impression formation lead to greater organization by person than a memory set. A 3 (processing objective) X 2 (stimulus set) X 2 (trial) between-within analysis of variance (ANOVA) on the ARC scores revealed no main effect for condition ($\underline{F}(2,48) = 1.62$, $p > .05$). Hence, the secondary hypothesis was not supported. There was also no main effect for stimulus set ($\underline{F}(1,48) = .15$, \underline{ns}). In all conditions, person clustering occurred to the same extent across the two different stimulus sets. The analysis did reveal a highly significant main effect for trial ($\underline{F}(1,48) = 19.30$, $p < .0001$), and a significant Trial X Stimulus Set interaction ($\underline{F}(1,48) = 7.80$, $p < .01$). Clustering by person increased from trial 1 ($\underline{M} = .33$, $\underline{SD} = .40$) to trial 2 ($\underline{M} = .56$, $\underline{SD} = .43$). However, this increase occurred mainly with stimulus set 2.

Recall Frequency. It was also hypothesized that anticipated interaction and impression formation lead to greater total recall than a memory set. A 3 (processing

objective) X 2 (stimulus set) X 2 (trial) between-within ANOVA on the total number of items recalled revealed no main effect for processing objective condition ($F(2,48) = 1.34$, $p > .05$). Hence, the hypothesis was not supported. There was no main effect for stimulus set ($F(1,48) = .53$, ns). The analysis did reveal a highly significant main effect for trial ($F(1,48) = 145.23$, $p < .0001$). Hence, recall increased significantly from trial 1 ($M = 12.15$, $SD = 2.44$) to trial 2 ($M = 14.78$, $SD = 2.34$). The analysis also revealed a significant Processing Objective X Stimulus Set interaction ($F(2,48) = 4.95$, $p < .05$); none of the post-hoc comparisons were significant.

Seriation. The mean ARC' scores in each processing objective condition on trial 1 were not significant (Anticipated Interaction: $M = .04$, $SD = .15$, $t(17) = 1.16$, $p > .05$; Impression Formation: $M = .00$, $SD = .17$, $t(17) = .02$, ns; Memory Set: $M = .09$, $SD = .21$, $t(16) = 1.70$, $p > .05$). There was no tendency for subjects to recall the information in the order that it was presented. In addition, the mean seriation scores in each condition on trial 2 were not significant (Anticipated Interaction: $M = .03$, $SD = .12$, $t(17) = 1.0$, $p > .05$; Impression Formation: $M = .03$, $SD = .11$, $t(16) = 1.23$, $p > .05$; Memory Set: $M = .03$, $SD = .16$, $t(17) = .68$, ns).

A 3 (processing objective) X 2 (stimulus set) X 2 (trial) between-within ANOVA on the ARC' scores revealed

neither a main effect for processing objective condition ($F(2,46) = .16$, ns), nor a main effect for stimulus set ($F(1,46) = .09$, ns), nor a main effect for trial ($F(1,46) = 1.18$, $p > .05$). There was, however, a significant Stimulus Set X Trial interaction ($F(1,46) = 8.92$, $p < .01$). Post-hoc analyses indicated that a significant difference in seriation between set 1 ($M = -.004$) and set 2 ($M = .09$) occurred only on trial 1 ($t(52) = -2.08$, $p < .05$).

Subjective Organization. The mean ARC' scores in all processing objective conditions were significant (Anticipated Interaction: $M = .14$, $SD = .13$, $t(17) = 4.60$, $p < .01$; Impression Formation: $M = .10$, $SD = .16$, $t(16) = 2.50$, $p < .05$; Memory Set: $M = .25$, $SD = .27$, $t(17) = 3.87$, $p < .01$). These results indicate that subjects in all conditions showed significant consistency in recall order across trials.

Analyses were conducted to examine whether the processing objective conditions had a differential impact on subjective organization. A 3 (processing objective) X 2 (stimulus set) between-subjects ANOVA on the ARC' scores revealed neither a main effect for condition ($F(2,47) = 2.48$, $p > .05$), nor a main effect for stimulus set ($F(1,47) = .03$, ns).

Subjective organization may reflect the adjacent co-occurrence of items between trials that are members of the same person category or that are from different person

categories. The number of inter-trial repetitions of adjacent items that are from the same person category (Inter-Trial-Within-Category-Repetitions) was calculated for each subject. For example, the adjacent co-occurrence of the statements "Jane enjoys gardening" and "Jane has a 3.3 GPA" on trial 1 and trial 2 represents an Inter-Trial-Within-Category-Repetition. As well, the number of inter-trial repetitions of adjacent items that are from different person categories (Inter-Trial-Between-Category-Repetitions) was calculated for each subject. For example, the adjacent co-occurrence of the statements "Cathy shops at Eaton's" and "Sally likes to drink milk" on trial 1 and trial 2 represents an Inter-Trial-Between-Category-Repetition. The Inter-Trial-Within-Category-Repetitions and the Inter-Trial-Between-Category-Repetitions represent the total number of repetitions of adjacent items across trials; this total is the primary measure used to calculate ARC'.

The percentage of Inter-Trial-Within-Category-Repetitions relative to the total number of inter-trial repetitions was calculated on a subject by subject basis. A 3 (processing objective) X 2 (stimulus set) between-subjects ANOVA was conducted on the ARCSIN transformation of the Inter-Trial-Within-Category-Repetition percentage scores (Winer, 1971). This analysis revealed no main effect for condition ($F(2,48) = .32, p > .05$), nor for stimulus set ($F(1,48) = 1.31, p > .05$). The means of the raw score

percentages of Inter-Trial-Within-Category-Repetitions were 64.1 ($SD = 38.5$) in the anticipated interaction condition, 77.8 ($SD = 31.8$) in the impression formation condition, and 73.8 ($SD = 37.7$) in the memory set condition. These percentages suggest that inter-trial consistency in recall output is related to person based organization. The derived percentages, however, supply only a description of the raw number of inter-trial repetitions that occur. The ARC' index takes into account other factors in addition to the number of inter-trial adjacent item repetitions, such as the total number of items recalled on trial 1 and trial 2, the total number of items recalled on trial 1 that are also recalled on trial 2, and the number of inter-trial repetitions that are expected by chance for a given recall output.

Name-to-Item Matching. A 3 (processing objective) X 2 (stimulus set) between-subjects ANOVA on the name-to-item matching scores revealed no main effect for processing objective condition ($F(2,48) = .55, ns$), and no main effect for stimulus set ($F(1,48) = .41, ns$). All subjects obtained high name-to-item matching scores. Subjects correctly matched, on average, 13.42 ($SD = 4.50$) of the 16 items (see Table 1 for means).

Discussion

The results of the present study indicate that people who anticipate interaction, form impressions, or attempt to remember information pertaining to several target individuals organize social information around the category of person. Hence, the major hypothesis is supported. That significant organization by person category was found to occur in all processing objective conditions suggests that people do structure social information that pertains to several individuals so as to perceive individuals as differentiated from one another. The results also indicate that organization by person occurs to the same extent whether people anticipate interaction, attempt to form impressions, or are instructed to remember information describing several individuals. That is, the different processing objectives examined in the present study did not have a differential impact on individuals' organization of social information around the category of person. In addition, the results indicate that anticipated interaction, impression formation, and memory set instructions lead to similar amounts of recall for information describing a number of individuals. Hence, the results failed to support the secondary hypotheses that anticipated interaction, impression formation, and memory set processing objectives have a differential influence on both organization by person and the amount of recall of social information. This may

have occurred, in part, as a consequence of attempting to promote person clustering. It is possible that the promotion of the person clustering effect minimized the potential differential influence of the different processing objectives.

The results of the present study suggest that associations are formed between descriptive items and the representation of a target person in memory during multiple target perception. It has been suggested that associations may also develop between the different items that describe a particular target person (Sedikides et al., 1991). The present finding that adjacent item inter-trial repetitions largely occurred for items from the same person category provides preliminary evidence for inter-item associations occurring within person clusters. The correlations between indices of person clustering and subjective organization suggest that this was particularly the case in the impression formation condition.

Current formulations of the network model state that inter-item associations occur only when perceivers are uncertain about whether their encodings of the descriptive items, in terms of a higher-order category, are correct (Wyer & Srull, 1989). For example, in a multiple target context, such inter-item associations may occur if an individual questions whether a specific descriptive item actually corresponds to the person category that was used to

encode and exemplify the item, or earlier items, in memory. Indeed, this may occur if individuals perceive a description pertaining to a particular target as being inconsistent with a previously encoded descriptive item (e.g., Mary is very health conscious, Mary never drinks milk). In the present study, as in all previous research on multiple target perception, the descriptions of a particular target person were not selected to promote an evaluation of their consistency with one another. That is, the items that described a particular target were not explicitly inconsistent with one another. The results of the present study suggest that factors other than item inconsistency may contribute to the occurrence of inter-item associations within person clusters.

In addition to person based organization, individuals may have also made associations between items from different person categories. Some of the adjacent items that were recalled across the presentation trials were from different person categories. The development of associations between items that describe different individuals may occur if an individual makes comparisons between targets and encodes the descriptive items in terms of such comparisons. As well, some stability in the order of recall output across trials may be a function of individuals having created idiosyncratic associations between items during encoding. For example, an individual may associate the descriptor

"skips class frequently", which describes Cathy, with the descriptor "watches Night Court", which pertains to Sue, as a consequence of, perhaps, thinking about how students may sometimes skip class to watch television. This type of organization is said to be subjective and idiosyncratic in that the associations that occur may be determined by the individual and his or her, potentially, unique means of encoding social information.

That no differences in amount of recall were found between processing objective conditions in the present study is inconsistent with previous research on both single-target and multiple target person perception. Most studies have found that recall is enhanced by instructions to anticipate interaction and to form impressions of the target(s), relative to memory set instructions (Srull et al. 1985, Sedikides et al., 1991). Associative network models (Wyer & Srull, 1989) assume that when there is elaboration of behavioral descriptions that are then organized according to higher-order categories (e.g., persons, traits) accessing these categories during retrieval produces enhanced recall. In the present study, organization by person category occurred to the same extent in all processing objective conditions. Hence it is consistent with the model that, in turn, no recall differences were found. Similar levels of organization by person may also account for the similar levels of name-to-item associations found between processing

objective conditions.

The significant person clustering results obtained in the present study are relevant to the debate concerning the strength of organization by person in social perception (Mullen & Copper, 1989; Sedikides & Ostrom, 1990). The results support the view that individuals organize social information on a person by person basis and that they do this whether they employ naturalistic or memory set processing objectives. The present results do not, however, imply that organization by person is therefore automatic; the attentional resource requirements of the process were not examined in the present study. Some researchers seem to assume that the mere existence of the person clustering effect confirms that it is an automatic process (e.g., Sedikides & Ostrom, 1990). To determine empirically whether a cognitive process is automatic one must, however, assess the attentional requirements of the task in question. To date, no such assessment has been made in the research on multiple target perception.

The discrepancy between the results of the present study and that of Sedikides et al. (Experiment 1, 1991), in which organization by person category in the anticipated interaction condition was found to be nonsignificant, suggests that an anticipated group interaction instruction may discourage people from thinking about target persons as individuals. As noted earlier, subjects in their

anticipated interaction condition expected to meet with the entire group of targets all at once. Subjects may have been led to think about how the targets function as a group.

Another aspect of the debate in the literature on multiple target perception concerns the relative use of person based organization as compared to other organizational schemes. Researchers have attempted to assess whether the category of person holds a privileged position as a basis for organization through a comparison of its use with that of other categories, such as those that define descriptor content (e.g., occupation, favourite fast food restaurant). Results from a meta-analysis (Mullen & Copper, 1989) indicate that use of person category organization is reduced when descriptor based organization is made available by the nature of the stimulus materials. In addition, anticipated interaction and impression formation have been found to lead to a preference for descriptor based organization over person category organization (Sedikides et al., 1991). Examination of descriptor based organization requires that the stimulus information be constructed so as to include descriptive information from different descriptor categories (e.g., athletic activities, occupations) that repeats across descriptions of all target individuals (e.g., Jane plays tennis, Sue plays hockey, Mary enjoys swimming, Jane is a lawyer, Sue is a teacher, Mary is a chiropractor). The

major objective of the present study was to determine whether person based organization occurs under the different processing objectives of anticipated interaction, impression formation, and a memory set. Hence, the present study did not include a competing category for comparison with person based organization. As suggested by Mullen and Copper (1989), the comparison between person category organization and descriptor category organization may be irrelevant for an understanding of the strength of person category organization in that the two represent different qualities of information. As well, it may be suggested that descriptor categories are not necessarily naturally occurring components of information concerning others, but rather that they are experimenter-defined. In contrast, the category of person is, by definition, an implicit structure in information pertaining to different targets.

Although significant person clustering did occur to the same extent across processing objective conditions, the case of anticipated interaction may be the most ecologically valid and appropriate context in which to examine the organization of social information and its consequences for social perception. Individuals under different processing objectives may achieve the same level of person category organization; however, the consequences of that organization on how the targets are subsequently perceived cannot be assumed to be similar. It remains possible that, in a

multiple target context, different processing objectives have their impact not only on organization, but on how that organization influences judgments and evaluations of the targets. It seems likely that the expectations an individual has for using information at the time of encoding will have an impact on how the information is used in the future. It is only recently that person memory theorists have considered the relation that may exist between organization in recall and judgments (cf. Srull & Wyer, 1989). Most of this theorizing has been concerned with perceptions and evaluations of a single target person (Srull & Wyer, 1989). The study of how individuals make judgments about a number of targets may be an important avenue for future research and may generate a better understanding of the consequences and relevance of different organizational processes for person perception.

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Appendix A
Descriptive Statements and Names of Cities
Included in the Practice Booklet

Leningrad is a religious center
Leningrad is a conflict ridden city
Leningrad has a high crime rate
Leningrad is an industrial city

Seattle has many beautiful statues
Seattle has a high population
Seattle is a mountainous area
Seattle is known for its beautiful architecture

Kyoto is an art center
Kyoto is known for its many gardens
Kyoto is a modern city
Kyoto is a humid city

Bangui has many fine restaurants
Bangui is beside a river
Bangui is a multicultural city
Bangui is a tourist city

Appendix B
Descriptive Statements and Names of Target Persons Included
in the Social Information Booklets

Stimulus Set 1

Diane is a Physics major

Diane is a member of the ski club

Diane enjoys playing the piano

Diane drives a red Honda

Cathy wants to be an artist

Cathy shops at Eaton's

Cathy is a Buddhist

Cathy skips class frequently

Sue is a part-time security guard

Sue likes to listen to Bruce Springsteen

Sue watches Night Court

Sue has a 2.7 GPA

Sally has hay fever

Sally is a swimmer

Sally likes to drink milk

Sally comes from Ottawa

Stimulus Set 2

Debbie shops at The Bay

Debbie is a Presbyterian

Debbie has allergies

Debbie comes from Toronto

Anne gets parking tickets

Anne is a member of the photography club

Anne likes to listen to the Beatles

Anne likes to drink coffee

Jane enjoys gardening

Jane plays tennis

Jane has a 3.3 GPA

Jane watches The Journal

Judy wants to be an accountant

Judy drives a black Toyota

Judy is a part-time waitress

Judy is a Computer Science major

Appendix C
Name-to-Item Matching Questionnaires

NAME - DESCRIPTION MATCHING QUESTIONNAIRE

Please read through the descriptions and try to match each description with the name of the person that it describes. The names that you are to choose from are indicated below. Please write the name you choose on the line drawn before the description. EVEN IF YOU ARE NOT SURE WHICH NAME GOES WITH A DESCRIPTION PLEASE GUESS AND TRY NOT TO LEAVE ANY UNANSWERED.

NAMES

DEBBIE JANE ANNE JUDY

DESCRIPTIONS

_____ plays tennis
_____ is a Computer Science major
_____ shops at The Bay
_____ likes to drink coffee
_____ has a 3.3 GPA
_____ is a member of the photography club
_____ enjoys gardening
_____ drives a black Toyota
_____ likes to listen to the Beatles
_____ wants to be an accountant
_____ gets parking tickets
_____ has allergies
_____ is a part-time waitress
_____ is a Presbyterian
_____ watches "The Journal"
_____ comes from Toronto

AME - DESCRIPTION MATCHING QUESTIONNAIRE

Please read through the descriptions and try to match each description with the name of the person that it describes. The names that you are to choose from are indicated below. Please write the name you choose on the line drawn before the description. EVEN IF YOU ARE NOT SURE WHICH NAME GOES WITH A DESCRIPTION PLEASE GUESS AND TRY NOT TO LEAVE ANY UNANSWERED.

NAMES

DIANE SALLY SUE CATHY

DESCRIPTIONS

- _____ is a swimmer
- _____ wants to be an artist
- _____ drives a red Honda
- _____ shops at Eaton's
- _____ watches "Night Court"
- _____ is a member of the ski club
- _____ has a 2.7 GPA
- _____ skips class frequently
- _____ comes from Ottawa
- _____ is a Buddhist
- _____ has hay fever
- _____ enjoys playing the piano
- _____ likes to listen to Bruce Springsteen
- _____ is a Physics major
- _____ is a part-time security guard
- _____ likes to drink milk

Appendix D
Manipulation Checks

Manipulation Check for the Anticipated Interaction Condition

Please answer the following questions:

1. How easy was it for you to deal with the information supplied about the people in the booklet? (PLEASE CIRCLE THE NUMBER ON THE SCALE THAT BEST REPRESENTS YOUR ANSWER).

1	2	3	4	5
VERY	FAIRLY	NOT TOO EASY	FAIRLY	VERY
DIFFICULT	DIFFICULT	OR TOO	EASY	EASY
		DIFFICULT		

2. How well do you think you have followed all of the instructions? (PLEASE CIRCLE THE NUMBER ON THE SCALE THAT BEST REPRESENTS YOUR ANSWER)

1	2	3	4	5
NOT WELL	QUITE	FAIRLY	QUITE	VERY
AT ALL	BADLY	WELL	WELL	WELL

3. Briefly describe what you think the purpose of the study is:
(point form is fine)

4. How well do you think you remembered the descriptions of the people in each booklet? (i.e. "MY MEMORY FOR THE DESCRIPTIONS WAS ...")

VERY POOR	POOR	FAIR	GOOD	VERY GOOD
-----------	------	------	------	-----------

5. Do you think that the information you read about the people in the booklet will be useful to you later in the study? (i.e. "THE INFORMATION WILL BE...").

VERY	SOMEWHAT	FAIRLY	QUITE	VERY
USELESS	USELESS	USEFUL	USEFUL	USEFUL

6. Will you be meeting other participants? _____

If, so, how many? _____

Manipulation Check for the Impression Formation Condition

Please answer the following questions:

1. How easy was it for you to deal with the information supplied about the people in the booklet? (PLEASE CIRCLE THE NUMBER ON THE SCALE THAT BEST REPRESENTS YOUR ANSWER).

1	2	3	4	5
VERY	FAIRLY	NOT TOO EASY	FAIRLY	VERY
DIFFICULT	DIFFICULT	OR TOO	EASY	EASY
		DIFFICULT		

2. How well do you think you have followed all of the instructions? (PLEASE CIRCLE THE NUMBER ON THE SCALE THAT BEST REPRESENTS YOUR ANSWER)

1	2	3	4	5
NOT WELL	QUITE	FAIRLY	QUITE	VERY
AT ALL	BADLY	WELL	WELL	WELL

3. Briefly describe what you think the purpose of the study is:
(point form is fine)

4. How well do you think you remembered the descriptions of the people in each booklet? (i.e. "MY MEMORY FOR THE DESCRIPTIONS WAS ...")

VERY POOR	POOR	FAIR	GOOD	VERY GOOD
-----------	------	------	------	-----------

5. Do you think that you were given enough information about each person described?(i.e. "THERE WAS...")

NOT ENOUGH
INFORMATION
WAS GIVEN

THE AMOUNT OF
INFORMATION WAS
SUFFICIENT

TOO MUCH
INFORMATION
WAS GIVEN

Manipulation Check for the Memory Set Condition

Please answer the following questions:

1. How easy was it for you to deal with the information about the people in the booklet? (PLEASE CIRCLE THE NUMBER ON THE SCALE THAT BEST REPRESENTS YOUR ANSWER)

1	2	3	4	5
VERY	FAIRLY	NOT TOO EASY	FAIRLY	VERY
DIFFICULT	DIFFICULT	OR TOO	EASY	EASY
		DIFFICULT		

2. How well do you think you have followed all of the instructions? (PLEASE CIRCLE THE NUMBER ON THE SCALE THAT BEST REPRESENTS YOUR ANSWER)

1	2	3	4	5
NOT WELL	QUITE	FAIRLY	QUITE	VERY
AT ALL	BADLY	WELL	WELL	WELL

3. Briefly describe what you think the purpose of the study is:
(point form is fine)

4. How well do you think you remembered the descriptions of the people in each booklet? (i.e. "MY MEMORY FOR THE DESCRIPTIONS WAS ...")

VERY POOR	POOR	FAIR	GOOD	VERY GOOD
-----------	------	------	------	-----------

5. Do you think that you were given enough time to view the information in the booklets? (i.e. THERE WAS...")

NOT ENOUGH	THE AMOUNT OF	TOO MUCH
TIME	TIME WAS	TIME
WAS GIVEN	SUFFICIENT	WAS GIVEN

Appendix E
Introduction Supplied to Participants in the
Anticipated Interaction Condition

A great deal of research in psychology has been devoted to the study of problem solving. In everyday life people engage in many different types of problem solving activities. Problem solving is involved when we do such things as choose consumer products, decide where to go on holiday, or in planning our daily schedules. Problem solving is also very important in our social lives. We use problem solving in resolving conflicts with others and when coordinating activities with different people. In general, problem solving may be said to occur any time we make a decision or plan a course of action.

Most of the problem solving research has examined how people solve problems by themselves. Recently, however, some researchers have begun to study how people solve problems with others, jointly. An understanding of joint problem solving may be very important. We are often required to work with other individuals to find solutions to problems (e.g. at work or in school). As well, people often choose to consult with others when they are faced with a problem that needs to be resolved.

There are many factors that may influence the outcome of joint problem solving. Joint problem solving may be beneficial when dealing with certain types of problems. There may, however, be other types of problems that are better solved individually. For example, solving problems with other individuals is usually productive when the

solution requires objective reasoning, such as in math or numerical problems. Joint problem solving may, however, interfere with the resolution of problems that require more subjective analysis, such as in solving interpersonal problems.

Another important factor that may influence joint problem solving is the extent to which the individuals know each other. Most of the problem solving we do in daily life is with people that we know at least a bit about. All of the research on joint problem solving has, however, only examined how people solve problems with another individual whom they know nothing about.

In this study we are interested in better understanding the factors that influence joint problem solving. Specifically, we are interested in how problem solving is influenced by the amount of information a person knows about the individual he or she is solving the problem with. We are also interested in how problem solving in pairs is influenced by the type of problem under consideration. We are studying problem solving in women who are of similar age. We are doing this because we are not interested in sex or age differences at the present time.

In the study, you and other participants will be asked to work in pairs to solve problems. In all you'll be paired up with four other participants during the study. Each time you are paired up with someone, you'll be asked to solve a

different type of problem. Each problem should take about 5 minutes to solve. After doing each problem participants are asked to fill out a short questionnaire concerning their problem solving approach.

As stated earlier, we are interested in whether knowing something about the person you are solving problems with influences how the problems are solved. Some participants are given information about the people they will meet; other participants are not. You will be given information about the individuals you will be working with. This information was obtained earlier. Let me tell you about how we got this information. We randomly selected people who, like you, had filled out the questionnaires in the Hall building. We asked these particular people if we could obtain more information about them for the purposes of this study. These participants met with us to fill out some general information questionnaires concerning their hobbies, interests, and school activities. We also took their photographs. These participants were told that some information and photos would be shown to some of the other participants in the study before they would meet with them to solve problems. Obviously, since we did not ask you for more information about yourself, the other participants do not have any information about you. Some of the participants you will meet do, however, have information about some of the other people they are meeting.

To come back to what we will be doing today, we are looking at whether joint problem solving is influenced by the type of problem and the amount of information someone knows about the person she is solving problems with. Some participants are not given any information about the persons they meet. Others, such as yourself, are given information and pictures of the people, before meeting with them. You will be given a different type of problem to solve with each of the four people you will be meeting with and working with in pairs. After working on each problem you will be asked to fill out a questionnaire about the problem solving you did. You will also be asked to fill out a brief questionnaire that will help us better understand the results of the study. Please note that all of your responses are anonymous and confidential.

Appendix F
Introduction Supplied to Participants in the
Impresssion Formation Condition

In everyday life much of our time is spent with other individuals. Even when we are alone we sometimes think about the individuals that we know or who we have just met. Often we think about how other individuals behave, their beliefs, goals, occupations and how they appear. We do this to try and understand what other individuals are like. Thinking about individuals in this way allows us to form impressions of them. Our impressions of other individuals are usually important in helping us decide how, or whether, we would like to interact with them. For example, our impression may help us decide how to interact with an employer, teacher, or co-worker. Our impressions may also be used to decide whether someone will make a good friend or room mate. We form impressions of others quite a bit in our social lives. In psychology we study how people form impressions of other individuals in order to better understand how people see their social worlds.

Research on how people form impressions has mainly been concerned with how people form an impression of one individual at a time. This, however, may be somewhat artificial when you consider that we sometimes meet and form impressions of many individuals each day. For example, at work or in school people may often be introduced to many individuals in a short period of time. Little is known about people forming impressions of many individuals encountered at one occasion.

In this study we are interested in the different impressions that people form of other individuals that they learn about or are being introduced to in the same period of time. In order for us to better understand the different impressions that people form of different individuals, we ask participants to read sentences that describe different individuals. These sentences describe characteristics that you would be likely to discover if you actually met these individuals in social situations. I'll be asking you to read these sentences in a standardized way, but this will allow us to better understand how impressions are formed in our every day lives. After you have read the sentences describing these individuals I'll ask you to describe your impressions of them. You will also be asked to fill out a short questionnaire that will help us better understand the results of the study. Please note that all of your responses are anonymous and confidential.

Appendix G
Introduction Supplied to Participants in the
Memory Set Condition

A great deal of research in psychology has been devoted to the study of memory. Most of the memory research has, however, only examined how people remember such things as objects, stories, or lists of words. Little is known about how people remember information that they learn about other individuals. Some researchers have argued that our memory for information about people may be very different from our memory for other types of information.

Our memory for people may be very important. In everyday life much of our time is spent with other individuals. Even when we are alone we sometimes think about the individuals that we know or who we have just met. Often we think about how other individuals behave, their beliefs, goals, occupations and how they appear. In order to think about others in this way, it is important that we remember some of the information that we have learned about them. Indeed, remembering information about other individuals is necessary if we wish to think about them when they are not there.

In this study we are interested in people's memory for the information they learn about others. In order for us to examine what people remember about others, we ask people who participate in the study, such as yourself, to read a number of sentences that describe different individuals. These sentences describe characteristics of individuals that you would be likely to discover if you actually met them. After

you have read the sentences describing other individuals we will ask you to write down what you remember. You will also be asked to fill out a short questionnaire that will help us better understand the results of the study. Please note that all of your responses are anonymous and confidential.

Appendix H
Instructions Supplied to Participants in the
Anticipated Interaction Condition

What I would like to do now is go over some specific instructions with you. As I said earlier, you will be working on different types of problems. For each problem you'll be working with one person, so in all you'll be meeting with four different people. Before you meet the person in your first problem solving session you will be given some information about each of the individuals you will be working with in the study.

The information about the participants you will be working with is written in sentence form and is contained in a booklet like this one. Each sentence is on a separate page and gives the name of the person and some information about her. You'll also find a photograph of the person on the page. For example (show example sheet), one page might have both the sentence "Helen enjoys cross-country skiing" and a picture of Helen (point) here. When you're reading through the booklet, I'd like you to focus on what's underlined, not the people's names or the photographs. You'll be introduced to each partner by name when you meet them anyhow.

I'll ask you to read through the booklet in a standard way. That is, I'll ask you to spend 12 seconds on each page of the booklet. You're supplied with the information about all four of the people you will be meeting with all at once in a mixed up order. We do this to make the study a bit more realistic, that is, to simulate real life conditions

where you learn different things about the people you interact with.

After you go through the booklet you will meet with the first person you will be solving a problem with. There will, however, be a short delay after you go through the booklet and before you meet this first person. We are introducing this delay because in real life we don't usually solve problems with people who we have just learned something about. Instead, it is often at a later time, after many other things have happened in our day that we may be involved in a problem solving situation with others that we know something about. Usually this happens quite spontaneously and we are not always thinking of the person right before meeting with them. To simulate this, what we'll do is after you have gone through the booklet, I will ask you to count backwards by threes from some number. So for example, I'd give you the number 97 and you'd go 94-91-88-85 and so on. I will ask you to say the numbers out loud when you do the counting.

Do you have any questions?

Let's take a look at an example booklet, so you will know what to expect. (give subject "practice set" booklet).

This booklet is basically organized the same way as the booklet you'll be getting later. But the practice booklet gives information about cities, not people. And it contains no photographs. Because it is important that all

participants receive the information about the people they will meet in a standard way, I want to review all the steps with you, using the practice booklet. O.K. First of all I'll ask you to open the booklet to the first page. Then after about 12 seconds I'll say "OK" to indicate to you when to turn the page. We'll do this for the whole booklet. We'll go through the practice booklet now, so that you get an idea about the amount of time you have to read each sentence, and so you can see how the sentences are arranged. I'll tell you when to open to the first page and when to turn pages. Please open the booklet to the first page. (go through booklet)

Please return it to me.

Now I would like you to count backwards by threes from number 372. Please do this counting out loud. (Wait 20 sec.)

O.K. so that's the basic set up; you'll go through the booklet then you'll count backwards.

Do you have any questions before we go on to the booklet that supplies information about the people you will meet? We are ready to begin.

Here is the booklet. Try to focus on the underlined parts, not really the names or the photos. Again, I'll tell you when to open to the first page and when to turn the pages.

Please open the booklet to the first page. (go through

booklet).

Please return the bookle' to me.

Please count backwards by threes from the number 426.

Please do this counting out loud. (20 seconds).

Ok that is fine.

(While handing subject the recall paper) say:

OK. At this point, I would like you to please write down all you can remember about the sentences describing the people, not necessarily the names. Don't worry about spelling, punctuation, or the order in which you write things down. Just write it in the order that it comes to mind. So you would write the first sentence that comes to mind on the first page, the second one on the second page and so on. You'll have 5 min. to write things down, if you finish before that just wait. (wait five minutes).

Please put the answer book in this envelope and place it in the box on the shelf.

Because it is important that you have long enough to view the material in different ways; I'm going to give you the same information in another booklet. Again, try to focus on the underlined parts, not really the names or the photos. like before, I'll tell you when to open to the first page and when to turn the pages.

Please count backwards by threes from the number 284.

Please do this counting out loud. (20 seconds).

(While handing subject the recall paper) say:

Please write down all you can remember about the sentences, not necessarily the names. Don't worry about spelling, or the order in which you write things down. Just write it in the order that it comes to mind. So, write only one sentence per page.

O.K. Please put the answer book in this envelope and place it in the box on the shelf.

O.K now before we go on I have two questionnaires I would like you to fill out. They will help us to get a better understanding of how familiar you now are with the people in the booklet and one will help us check out how the instructions are followed. Here they are, they are stapled together. I'll leave you with this for a few minutes while I check on the next part of the study. When you're through just put them in the envelope and add them to the box on the shelf.

Appendix I
Instructions Supplied to Participants in the
Impression Formation Condition

What I would like to do now is go over some specific instructions with you. As I said earlier, you will be asked to read sentences that describe different individuals. I will be asking you to form impressions of the people that are described. Let me discuss in more detail what we will be doing.

The sentences I'll ask you to read are in a booklet like this one. Each sentence is on a separate page and gives the name of a person and some information about them. You'll also find a photograph of the person on the page. For example, (show example sheet) one page might have both the sentence "Helen enjoys cross-country skiing" and a picture of Helen (point) here. When you're reading through the booklet, I'd like you to focus on what's underlined; not the people's names or the photographs. When I ask you to describe your impressions, I'll provide you with the name and the photo anyhow. So like I said just focus on the underlined part.

I'll ask you to read through the booklet in a standard way. That is, I'll ask you to spend 12 seconds on each page of the booklet. You'll notice that there are women of different ethnicity described in the booklet. We do this to make the study a bit more realistic.

As I said, we are interested in your impressions of the different individuals described in the booklet. I will ask you to read through the booklet and try to form impressions

of these different individuals. After you go through the booklet I'll ask you to describe your impressions.

There will be a short delay after you go through the booklet and before you describe your impressions. We are introducing this delay because in real life, we don't usually think in great detail about our impressions of others right after meeting them. Instead, it is often at a later time that we may stop to think about others after many other things have happened in our day. To simulate this, what we'll do is after you have gone through the booklet, I will ask you to count backwards by threes from some number. So for example, I'd give you the number 97 and you'd go 94-91-88-85 and so on. I will ask you to say the numbers out loud when you do the counting. After you count backwards for a little while, I will ask you to describe your impressions.

Do you have any questions?

Let's take a look at an example booklet, so you will know what to expect. (give subject "practice set" booklet).

This booklet is basically organized the same way as the booklet you'll be getting later. But this practice booklet describes cities, not people. And it contains no photographs. Because it is important that all participants are exposed to the information in exactly the same way, I want to review all the steps with you, using this practice

book. O.K. First of all I'll ask you to open the booklet to the first page. Then after about 12 seconds I'll say "Ok" for you to turn the page. We'll do this for the whole booklet. We'll go through the practice booklet now, so that you get an idea about the amount of time you have to read each sentence, and so you can see how the sentences are arranged. In this practice we are using cities, so just try to get an idea about what they are like.

So, I'll tell you when to open to the first page and when to turn pages. Please open the booklet to the first page. Go through booklet.

Please return it to me.

Now I would like you to count backwards by threes from number 372. Please do this counting out loud. (Wait 20 sec.)

So that's the basic set up; you'll go through the booklet and then you'll count backwards.

Do you have any questions before we go on to the booklet that describes people? We are ready to begin.

Here is the booklet. Try to form impressions of the different individuals described in the booklet. Focus on the underlined parts, not really the names or the photos. I'll tell you when to open to the first page and when to turn the pages.

Please open the booklet to the first page.

Please return the booklet to me.

Please count backwards by threes from the number 426.
Please do this counting out aloud. (20 seconds).
Ok that is fine.

(While handing subject the recall paper) say:
At this point I would like you to please write down all you can remember about the sentences describing the people, not necessarily the names. Don't worry about spelling, punctuation, or the order in which you write things down. Just write it in the order that it comes to mind. Write the first sentence that comes to mind on the first page, the second one on the second page and so on. You'll have 5 min. to write things down, if you finish before that just wait. (wait five minutes).

Please put the answer book in this envelope and place it in the box on the shelf.

Because it's important that you have long enough to view the material in different ways, I'm going to give you the same information in another booklet. Again, while your reading through the booklet, think about your impressions of the individuals. I'll tell you when to open to the first page and when to turn pages.

Please count backwards by threes from the number 284.
Please do this counting out loud. (20 seconds).

Again, please write down all you can remember about the sentences, not necessarily the names. Don't worry about spelling or the order in which you write things down. Like

before, just write it in the order that it comes to mind.
So write only one sentence per page. (wait 5 minutes).
Please put the answer book in this envelope and place it in
the box on the shelf.

O.K now I have two questionnaires I would like you to
fill out. They will help us to get a better understanding
of the impressions you have formed and one will help us
check out how the instructions are followed.
Here they are, they are stapled together. I'll leave you
with this for a few minutes while I check on some things.
When you're through just put them in the envelope and add
them to the box on the shelf.

Appendix J
Instructions Supplied to Participants in the
Memory Set Condition

What I would like to do now is go over some specific instructions with you. As I said earlier, you will be asked to read sentences that describe different individuals. I will be asking you to remember the information that you read. In particular, I'll ask you to write down what you can remember. Let me describe in more detail what we will be doing.

The sentences that I will ask you to read are in a booklet like this one (point to booklet). Each sentence is on a separate page and gives the name of a person and some information about them. You'll also find a photograph of the person on the page. For example, (show example page) one page might have both the sentence "Helen enjoys cross-country skiing" and a picture of Helen (point) here. What we are interested in is your memory for the information that you read. When you're reading through the booklet, I'd like you to focus on what's underlined; not the people's names or the photographs.

I will ask you to read through the booklet in a standard way. That is, I'll ask you to spend 12 seconds on each page of the booklet. You'll notice that there are women of different ethnicity described in the booklet. We do this to make the study a bit more realistic.

As I said, we are interested in your memory for the descriptions that you read. I will ask you to write down all you can remember after you go through the booklet, but

you won't be doing this right away. There will be a short delay after you read the sentences and before you write down what you remember. This is because in real life, we don't usually try to remember what we learn about others right after being with them. Instead, it is often at a later time, after many other things have happened in our day, that we may stop to think about other individuals. To simulate this kind of delay, what we'll do is after you have gone through the booklet, I will ask you to count backwards by threes from some number. So for example, I'd give you the number 97 and you'd go 94-91-88-85 and so on. I will ask you to say the numbers out loud when you do the counting. After the counting, you'll write down what you remember from the booklet. You'll have five minutes to write the sentences down. This should be plenty of time. Do you have any questions?

Let's take a look at an example booklet, so you will know what to expect. (give subject "practice set" booklet). This booklet is basically organized the same way as the booklet you'll be getting later. The difference is that this one describes different cities, not people. And it contains no photographs. I'd like you to read through the practice booklet just so you get used to the setup.

When I tell you to open the booklet please turn to the first page. Every 12 seconds I'll say "ok" for you to turn to the next page, and so on throughout the booklet. Please

try to remember the sentences that you read. Let's begin.
"Please open the booklet to the first page." (go through
booklet)

"Please return it to me."

Now I would like you to count backwards by threes from
number 372. Please do this counting out loud. (Wait 20
sec.)

"Please write down all you can remember on these sheets of
paper. Don't worry about spelling, punctuation, or the order
in which you write things down. Just write it in the order
it comes to mind. So you would write the first sentence
that comes to mind on the first page, the second one on the
second page and so on"

(Wait 5 min.)

Please put the answer sheets in this envelope and place it
in the box. Do you have any questions before we go on to
the booklet that describes people? O.K. we are ready to
begin.

Here is the booklet. Just focus on the underlined
parts, not really the names or the photos. Again, I'll tell
you when to open it to the first page and when to turn
pages. Please open the booklet to the first page.

Please return the booklet to me.

Please count backwards by threes from the number 426.
Please do this counting out loud. (20 seconds).

(While handing subject the recall paper) say:

Please write down all you can remember about the sentences describing the people, not necessarily the names. Don't worry about spelling, punctuation, or the order in which you write things down. Just write it in the order that it comes to mind. Write the first sentence that comes to mind on the first page, the second one on the next page and so on.

Please put the answer book in this envelope and place it in the box on the shelf.

Because it is important that you have long enough to view the material in different ways; I'm going to give you the same information in another booklet, and once more I would like you to read through it and try and remember the underlined parts. Like before I'll tell you when to open the booklet to the first page and when to turn pages. Open the booklet to the first page...

Please count backwards by threes from the number 284. Please do this counting out loud. (20 seconds). OK that's fine.

Please write down all you can remember about the sentences, not necessarily the names. Don't worry about spelling or the order in which you write things down. Like before just write it in the order that it comes to mind. So write only one sentence per page.

Please put the answer book in this envelope and place it in the box on the shelf.

O.K now I have two questionnaires I would like you to fill

out. They will help us to get a better understanding of your memory for the descriptions and one will help us check out how the instructions are followed.

Here they are, they are stapled together. I'll leave you with this for a few minutes while I check on some things. When you're through just put them in the envelope and add them to the box on the shelf.

Appendix K

Correlations Among All Measures of Organization and Recall

Appendix K

Table 2
Correlations among all measures of organization and recall

Measure	2	3	4	5	6	7	8
1. ARC (Trial 1)							
2. ARC's (Trial 1)	-.07						
3. Recall Frequency (Trial 1)		.30*					
4. ARC (Trial 2)			.46**				
5. ARC's (Trial 2)			.23	.05			
6. Recall Frequency (Trial 2)			.23	.02	.13		
7. ARC's			--	.05	.05	-.24	
8. Name-to-Item-Matching				--	--	.02	
						--	
							.25
							.17
							.19
							.26
							.12
							.13
							.19
							--
							--

* $p < .05$. ** $p < .01$.