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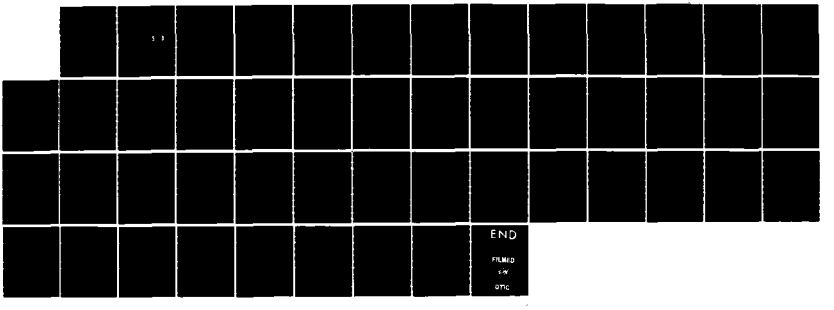

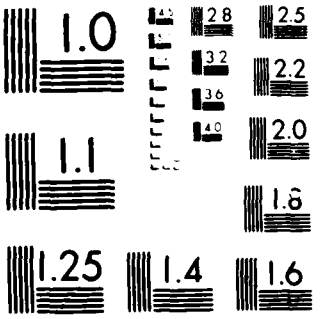

MICROCOPY RESOLUTION TEST CHART

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THE COMPUTER-MEDIATED PANEL STUDY:

METHODOLOGY

Beverly Wiggins, John Barefoot, and Bibb Latané

University of North Carolina at Chapel Hill

Technical Report

February 15, 1985

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The UNC Computer Administered Panel Study (CAPS) is an innovative data collection procedure which combines positive qualities of several social science methodologies and offers distinct advantages over more traditional data collection procedures. The project allowed for the collection of a vast amount of data from each of a large sample of individuals, presenting a more complete and in-depth picture of the life history, personality, attitudes and behavior of each participant than is possible with most methodologies. Moreover, these data have a longitudinal component allowing one to follow the development of the respondent and their social

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relationships over the duration of the project and offering the potential for long-range follow- up in the future. The computer-based system of administration not only made it possible to collect such a large volume of data, but it did so efficiently, eliminating the work and risk associated with manual coding and data entry. It also permitted the precise measurement of behavioral variables (such as time spent on each task) which are often difficult to gather in more traditional settings, and the selection of items or tasks based on prior information about the respondent or the respondents' own previous answers. The longitudinal nature of the project allowed the researcher to take advantage of natural manipulations (e.g. political events) and to induce manipulations (e.g., membership in standing groups) permitting experiments otherwise difficult or impossible to conduct.

Are there costs associated with these benefits? It is also possible that the qualities of CAPS which produce these advantages might somehow reduce the comparability of the data collected with other methodologies. The computer-based administration of the tasks could lead respondents to be especially self-conscious or could lessen the impact of manipulations, especially social ones, because of the impersonal nature of the setting. The longitudinal nature of the design could produce a variety of maturation effects not normally encountered in cross-sectional studies. Another potential source of difference is the sample, which is special in that it was composed of invididuals willing to commit themselves to a lengthy project requiring a good deal of effort.

This paper examines the data collection procedures used in CAPS and evaluates the quality of the data which were gathered.

ABSTRACT

The UNC Computer Administered Panel Study (CAPS) is an innovative data collection procedure which combines positive qualities of several social science methodologies and offers distinct advantages over more traditional data collection procedures. The project allowed for the collection of a vast amount of data from each of a large sample of individuals, presenting a more complete and in-depth picture of the life history, personality, attitudes and behavior of each participant than is possible with most methodologies. Moreover, these data have a longitudinal component allowing one to follow the development of the respondents and their social relationships over the duration of the project and offering the potential for long-range follow-up in the future. The computer-based system of administration not only made it possible to collect such a large volume of data, but it did so efficiently, eliminating the work and risk associated with manual coding and data entry. It also permitted the precise measurement of behavioral variables (such as time spent on each task) which are often difficult to gather in more traditional settings, and the selection of items or tasks based on prior information about the respondent or the respondent's own previous answers. The longitudinal nature of the project allowed the researcher to take advantage of natural manipulations (e.g. political events) and to induce manipulations (e.g., membership in standing groups) permitting experiments otherwise difficult or impossible to conduct.

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The goal of this paper is an examination of the data collection procedures in CAPS and an evaluation of the quality of the data which were gathered. We will a describe the methodology, assess the completeness and accuracy of the data, and compare the results to data gathered in more traditional experimental settings.

Overview of Project

In the early fall of 1983, ninety-six students were employed as respondents in the CAPS project. They came from a larger sample of students chosen randomly from the UNC undergraduate student body. Their employment committed them to spend

approximately one hour per week for the entire school year engaged in the research. For this effort they received $4 per session (less if they dropped out of the project early) plus various bonuses, some based on performance and some distributed randomly. A one-thousand dollar bonus was to be divided among those who completed the entire project, with the form of the division determined by a vote of the participants. Respondents were appraised of their account balance at the beginning of every session, but were paid at the end of each term.

There were 20 sessions during the year, eight in the fall semester and twelve in the spring. During each session respondents participated in a wide variety of tasks. There were questionnaires measuring aspects of the respondent's personality, social life, attitudes, and background. A number of experimental tasks included creativity, decision-making and standard laboratory procedures. Most of the latter were of studies dealing with the social loafing phenomenon. (See Appendix 1 for a chronological listing of tasks with brief descriptions.) In addition, respondents had the opportunity to participate in weekly teleconferencing by exchanging messages with the other members of their CAPS group, a standing group of three participants which was set up to provide familiar co-workers on some tasks. Finally, respondents evaluated the session, their group, and the computer system at the conclusion of each session. They were also given the opportunity to send personal messages to the project manager.

Each of the major tasks (modules) was designed to take less than 30 minutes to complete. Usually there were two modules per session with the remainder of the hour taken up with teleconferences, evaluation of the session, messages to and from the experimenter and "filler" tasks. Filler tasks were short modules which were presented to the respondent if they finished their scheduled tasks before a specified amount of time had elapsed. The content and procedures for administering these tasks differed between the two terms. In the fall semester, respondents who finished their work before 50 minutes had elapsed were given the option of working on a task involving guessing the weight of stimulus individuals on the basis of their body measurements. These modules were 15 items long and the respondents could complete as many modules as they wished. In the second term, completion of the filler modules was not voluntary. The computer presented filler tasks to the respondents until 60 minutes had elapsed in the session. The nature of the filler tasks also differed. In the second term, filler modules were composed of questionnaires and short experiments rather than the weight-guessing problem.

An important part of CAPS was the formation of groups. Each respondent belonged to a regular group of three people whose members were known and to an anonymous three-person group whose members were not identified. This arrangement provided the basis for manipulations of anonymity in studies of group productivity.

The regular group provided the network of individuals for messages sent during the teleconferences and both the regular and anonymous groups provided work partners for tasks. The groups also served an administrative function in that they were the basis of assignment of individuals to conditions in tasks involving experimental manipulations. In the first term, all groups were mixed sex, half MMF and half FFM. A new group structure was instituted in the second term , with equal numbers of FFF, MMM, MMF, and FFM groups.

Sampling Procedure

From the population of all students registered for the fall semester, two samples of 500, one for males and one for females, were drawn according to the following criteria: students registered at other schools were excluded as were special, graduate and professional students; only those with birthyears from 1961 to 1965 were included.

From each of the samples, systematic subsamples of 150 names were drawn. These persons received an invitation to participate in the CAPS study, along with a postcard to indicate their intention to attend an orientation session. Fifty-five percent of the invitees returned the cards indicating they would attend an orientation session; sixty-three males (43% of the sample) and sixty-six females (46% of the sample) actually did so. All those who attended the orientation session completed forms indicating that they did wish to participate in the project and gave permission necessary for access to their university records. Four of these later declined to participate when called. The ninety-six CAPS respondents were chosen from the remaining 125 willing participants on the basis of scheduling flexibility.

During the course of the project, 7 participants either quit of their own accord or were dropped due to failure to keep up with their sessions. All seven were replaced by other volunteers from the initial pool. Two of the drops were during the fall semester and these replacements were made as needed at the time of the drop. Three drops took place between fall and spring semesters and these replacements were made prior to the beginning of the spring sessions. At the same time, two extra participants were hired from the volunteer pool to begin in the spring. The remaining two drops were replaced by these two extra persons. All replacement participants did some makeup sessions so that all background data are available for them. They did not make up experimental units which had been completed by the other respondents. They did do experimental units that were "in progress" when they were added.

Sample Characteristics

Table 1 summarizes the demographic and academic characteristics of the CAPS sample and compares them to the

population of UNC undergraduates. Since the sample was stratified on the basis of sex, the sex ratio in the study does not match that of the general population. Otherwise, there is a good match between the CAPS sample and the UNC population on nonacademic variables. CAPS participants are higher in academic achievement than the average in the population, however. Comparing the means of the self-selected sample to the population mean, we find that CAPS participants have higher grade point averages, $t(99df) = 11.96$, $p<.001$, higher math SAT scores, $t(128df)=3.44$, $p<.001$, and higher verbal SAT scores, $t(128df) = 2.36$, $p<.02$. They did not differ from the population in high school standing. These differences are not unexpected since only the more motivated and academically serious students are likely to undertake a long-term committment such as participation in CAPS.

Reliabilty

One way of assessing the impact of the computer environment on the behavior of respondents is to administer tasks in both the computer setting and with the more traditional paper and pencil format. If the mediated setting serves to make respondents more self-conscious or induces other types of response bias, it should presumably change the way that they perform these tasks. In order to assess this possibility three scales were administered under both formats. Half of the respondents received the computer format first and half received the paper and pencil version first. The two administrations were one week apart. The three scales were the Bem Sex Role Inventory (Bem,1974), Snyder's self-monitoring scale (Snyder,1974), and the Type A adjective check list (Herman et al.,1981). Table 2 presents the results. The test-retest reliabilities were exceptionally high for all scales. Only the Type A adjective check list had mean scores which differed between the two administrations, with respondents describing themselves as more Type A when taking the test in its paper and pencil version. While this finding is statistically significant, the small absolute difference and the direction of the means make it extremely difficult to interpret with any confidence.

Comparison with Other Samples

Another approach to the assessment of CAPS data quality is to compare it to data gathered in a more traditional fashion: from psychology student volunteers in a standard laboratory setting. These data will differ from CAPS data in several ways, the method of task administration, the characteristics of the sample, and the institutional setting which differs from CAPS in its duration, incentive structure and level of committment.

Two comparison samples, both composed of volunteers from undergraduate psychology courses at UNC were employed in our analyses. The first consisted of males and females who volunteered to participate in order to fulfill a course

requirement for Introductory Psychology during the 1983 summer session. These students were given the Cohen-Hoberman Interpersonal Support Evaluation List (CHISEL) (Cohen et al.,1983), the Cook and Medley Hostility scale (Cook and Medley,1954), the Buss Shyness and Sociability scales (Cheek and Buss,1981), the UCLA Loneliness scale (Russell,1982) and the Marlowe-Crowne Social Desirability scale (Crowne and Marlowe, 1964). A second group of students (46 males and 75 females) were recruited from Introductory Psychology classes during the Fall term of the 1983-1984 school year. They were administered the Philosophies of Human Nature (PHN) scale (Wrightsman,1974), the Cook and Medley Hostility scale, and the UCLA Loneliness scale. The results of the studies are presented in Table 3 along with scores on the same scales from the CAPS respondents.

A multivariate test for differences between the CAPS and summer samples reveals a highly significant effect, $F(8,201)= 4.04$, $p<.001$. Univariate analyses show that these differences occur most strongly for the Marlowe-Crowne social desirability scale, but also for the Cook and Medley hostility scale, the belonging subscale of the CHISEL, and the Buss sociabilty scale. None of the other comparisons approach significance.

Comparisons of the CAPS data to that from the Fall volunteers also revealed significant differences with the multivariate F (9,207 df)$=4.38$, $p<.001$. Once again the Marlowe-Crowne scale showed the largest difference, with CAPS respondents giving answers that revealed stronger beliefs that people can control their own outcomes and that people are able to form and maintain their own opinions in the face of contrary group pressure. There was a tendency for the CAPS respondents to score lower on the hostility scale as they did in the comparison with the summer sample, but this was only marginally significant ($p=.07$).

Several interpretations of these differences are possible. One might take the high scores on the social desirability scale as an indication of a response bias in the direction of giving socially desirable answers. This might account for the fact that they appear to be more desirable in their responses to the other scales as well. On the other hand, one can take the Marlowe-Crowne scores to be a reflection of reality rather than a contaminant of data quality. The observed differences would also be accounted for if CAPS respondents did in fact have more socially desirable qualities than the psychology student volunteers. Such an interpretation is supported by our knowledge that CAPS respondents were superior to the average UNC undergraduate in academic achievement and the very nature of the commitment required of the respondents was likely to exclude less socially desirable individuals from the sample. Even though the Marlowe-Crowne scores are higher than those of the other samples, the mean is still within the normal range (Crowne and Marlowe, 1964). It should also be noted that some of the scales which differed between samples (Sociability, the belonging scale of the

CHISEL, and the will and reason subscale of the PHN) are not correlated with the Marlowe-Crowne scale, although the hostility scale and the independence subscale of the PHN are related to social desirability (-.44 and .21 respectively). A final interpretation has elements both previous explanations. It is the suggestion that responses to the Marlowe-Crowne and hostility scales were more affected by social desirability needs than the other scales since they were among the very first tasks given to the respondents and the desire to make a good impression may have been more salient.

Reactions of Respondents

By all available measures, CAPS was received extremely positively by the respondents. The low rate of attrition, informal comments sent to the project manager or recorded in teleconferences and formal ratings of the project all lead to the conclusion that the respondents generally enjoyed their experience and felt that it was worthwhile. The mean evaluations of the sessions are presented in Figure 1. These are based on responses to the question, "How do you feel about this session?" which was asked at the conclusion of every session. Answers given on a seven-point rating scale (1="bad,awful"; 7="good, nice") were high with females tending to have more positive ratings than males. Naturally, some sessions were rated less highly than others, but in no case does the mean fall near or below the neutral point on the scale.

Respondents were also asked to express their feelings about the computer on a seven-point scale at the end of every session. The means of these ratings are presented in Figure 2. Again, the evaluations were very high and ratings by females were higher than those by males. Feelings were especially positive in the first two sessions of the project, probably reflecting the excitement and novelty of the setting, but they did not fall close to the neutral point of the scale on any session. There was also a rise in the ratings on the last session of each term (Sessions 8 & 20). These trends suggest that there is no basis for concern about potential contamination of the data from unusual reactions to the computer system. Initially we feared that learning to use the computer might be difficult and frustrating for novice users. While a number of respondents did encounter minor difficulties in the early sessions, these problems were quickly resolved and did not appear to produce frustration. Likewise, boredom did not appear to be a factor in the later sessions. These reactions cannot be explained by the selection of those already familiar with computers into the project, as the majority of respondents reported minimal computer experience prior to their entry into CAPS.

Time Trends

One of the important questions to be asked about CAPS is the effect of the longitudinal component of the project, since this

is perhaps the most distinctive aspect of the undertaking. We have already seen that there were no important trends across time in respondents' feelings about the session or the computer. A number of other maturational effects could have had an important impact on the data, however. Skill levels of the respondents undoubtedly increased as the year progressed, allowing them to be quicker in their performances and changing the subjective difficulty of the tasks. Motivation may have waned as the novelty of the project wore off and the competing demands of school work became more salient. Respondents may have become less attentive to instructions as tasks became more routine, resulting in weaker experimental manipulations. Manipulations may have lost their impact as a result of repetitive presentation, or for a host of other reasons as well. All of these things suggest that the results of CAPS studies should be different depending upon the time of year that they were administered. This is not a flaw of the project, but a strength, for these time-associated factors are also present in most settings which experiments attempt to mimic, but fail to be captured in research which is not longitudinal.

We have already seen (Figure 1) that there are no obvious time trends in the respondents' evaluations of the sessions, even though there was a good deal of variability in the mean ratings. This conclusion is somewhat misleading, however, because the longitudinal trends are clouded by the large amount of variability due to the liking of individual tasks. Since several tasks (e.g., anagrams, brainstorming, paired associates) were repeated during the project, we can examine time trends in the evaluation of those tasks. The evaluation of individual tasks was accomplished with a magnitude estimation procedure which was administered following every module. Respondents were asked to rate the enjoyability of the task they had just completed by comparing it to reading a newspaper assuming that reading a newspaper equalled a rating of 100. Since this practice was not instituted until midway in the first term of the project, these comparisons were restricted to tasks performed in the second term. Medians were used for the comparisons due to the dramatic skew of the distributions. It was found that the median rating of the anagrams task dropped from 187.5 in Week 18 to 150 when it was administered in Week 19. The rating of the brainstorming task fell from 100 in Week 11 to 87.5 in Week 13. Similarly, ratings of the paired associates task went from 200 in Week 16 to 150 in Week 18. This trend was found on other tasks as well.

Despite the tendency for respondents to report that tasks became less enjoyable with repetition, performance did not suffer in later replications of the tasks. This is probably at least in part, due to improving skills. This can be illustrated with the data on Anagram performance contained in Table 4. There was a slight tendency for respondents to produce more correct solutions in Week 5 than in Week 2. A more dramatic rise in performance is seen from Week 18 to Week 19. Performance in the

first two sessions was not comparable to the last two sessions since the stimulus material differed between the two terms. On the other hand, respondents actually spent a little less time on the task in the second session of each term. This can be explained by changes in skill level as reflected in the rates (correct responses per minute).

There is no evidence that respondents worked with less care as the project progressed. One indication of the high level of conscientiousness is the fact that the respondents often sent messages to the project manager explaining their responses or noting some error in the data that they had entered. The frequency of these messages did not diminish during the course of the year.

A final issue concerns time trends in the impact of experimental manipulations. This question can be examined with some precision since studies of performance in individual and group settings were interspersed throughout the year. The typical finding in these studies was that respondents spent more time on tasks they were performing as individuals. This was a consistent finding in the four administrations of the anagrams task, but Figure 4 shows that the magnitude of this effect diminished during the course of the project. The interaction between the individual-group factor and session was statistically significant, $F(3,255) = 3.2$, $p = .02$. There are a number of possible explanations for this finding. Skill on the task may improve to the point that performance in the individual condition approaches a ceiling. Respondents may have attended less to the instructions with task repetition, making the manipulation less salient in later sessions. It is also possible that there is something in the nature of social loafing which leads to its decay over time. These explanations are potentially testable, but not within the scope of the data currently in hand.

Table 1
1983-84 CAPS Sample Information

		Undergraduate Population	Sample of 1000	Self-selected Sample
Sex	M	42	50	52
	F	58	50	48
Ethnic Group	Other	2	3	1
	BLA	11	10	9
	WHI	87	88	90
Marital Status	S	98	99	99
	M	2	1	1
Class in University	1	23	22	19
	2	23	23	19
	3	25	25	28
	4	29	30	34
State Residence	NC	86	84	87
	Other	14	16	13
Age	17	3	3	0
	18	22	20	18
	19	22	24	12
	20	23	25	29
	21	19	23	33
	22	6	5	9
Cum GPA 2.70		1.98	2.03	
Math SAT		523	535	562
Verbal SAT		483	495	513
Total SAT		1006	1030	1075
HS Standing (upper %)		.08	.09	.09

Note: Data other than academic scores are expressed in percentages.

Table 2

Comparison of Computer with Paper and Pencil Test Administration

Scale	Test-Retest Correlation	Mean		t	p
		Computer	Paper-Pencil		
Self-Monitoring	.85	13.0	13.1	.3	
Bem Masculinity	.91	4.93	4.95	.1	
Bem Femininity	.85	4.99	5.00	.1	
Type A	.88	115.1	116.7	1.96	<.05

Table 3

Comparison of CAPS with Volunteer Samples

Scale	CAPS		Summer Volunteers		CAPS vs Summer Volunteers	
	Male	Female	Male	Female	F	P
n	53	49	66	46		
CHISEL						
Appraisal	9.96	10.47	9.26	10.56	<1	
Tangible	10.59	10.37	10.29	10.85	<1	
Self-esteem	9.33	8.80	8.72	8.80	1.83	
Belonging	9.24	8.12	9.12	9.26	2.97	<.05
Hostility	20.89	19.63	24.15	22.72	9.32	<.01
Buss						
Shyness	14.13	13.33	14.70	14.67	1.28	
Sociability	14.11	14.94	14.85	15.91	3.76	<.05
Marlowe-Crowne	15.30	15.51	12.23	12.82	16.21	<.001

Scale	CAPS		Fall Volunteers		CAPS vs Fall Volunteers	
	Male	Female	Male	Female	F	P
Philosophies of Human Nature	53	49	46	75		
Trust	2.94	5.25	2.04	2.00	1.11	
Will & Reason	12.04	13.00	7.96	10.32	5.55	<.02
Altruism	-.22	2.73	-.57	2.35	<1	
Independence	3.87	4.02	-.02	2.68	4.00	<.05
Variability	14.59	17.80	11.33	16.00	3.53	<.06
Complexity	5.00	6.92	3.35	6.71	<1	
Loneliness	35.70	35.21	35.59	36.44	<1	
Hostility	20.89	19.62	23.11	20.91	3.24	<.07
Marlowe-Crowne	15.30	15.51	10.91	13.01	22.48	<.001

Figure 1

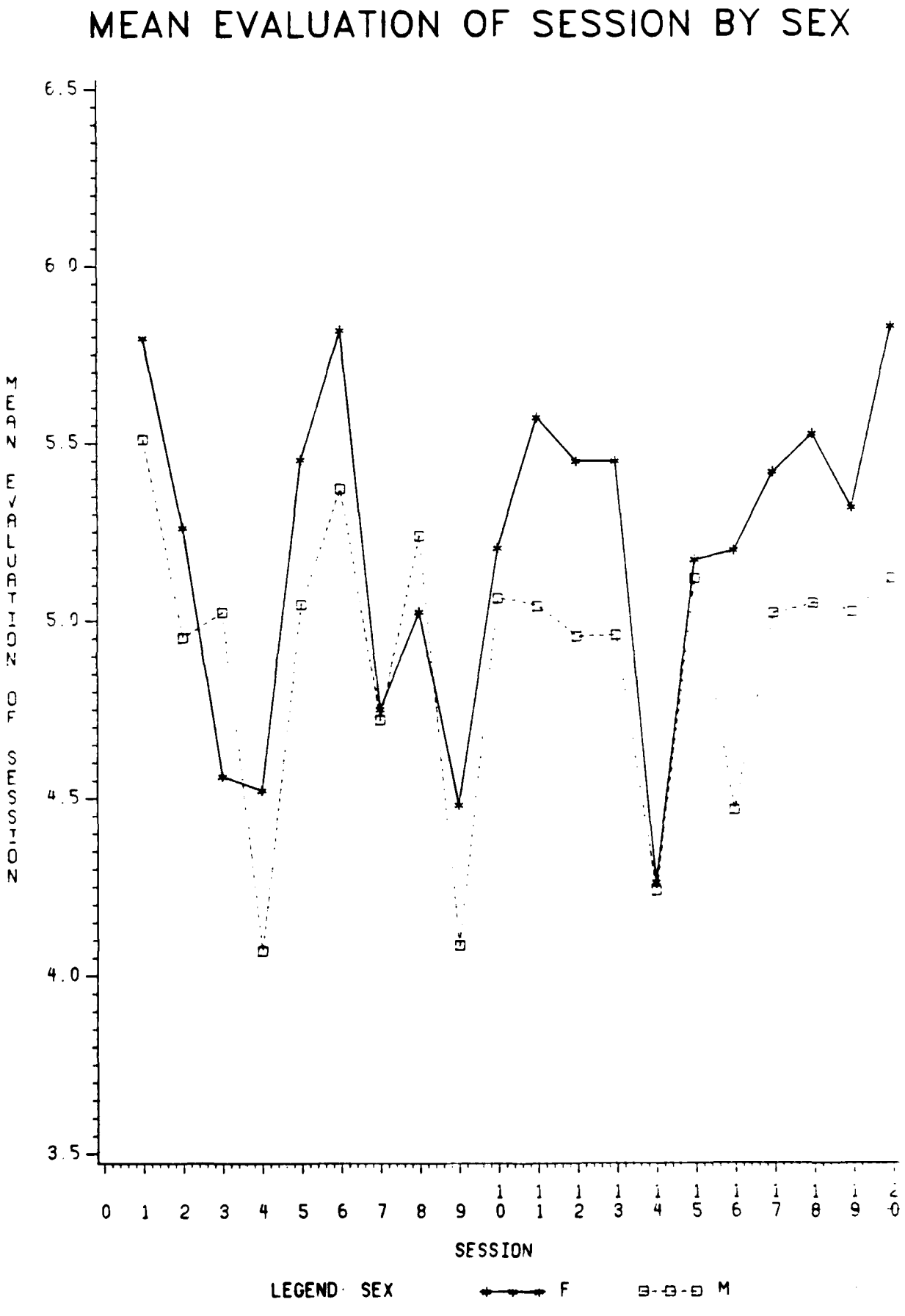
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Figure 2

MEAN EVALUATION OF COMPUTER BY SEX AND SESSION

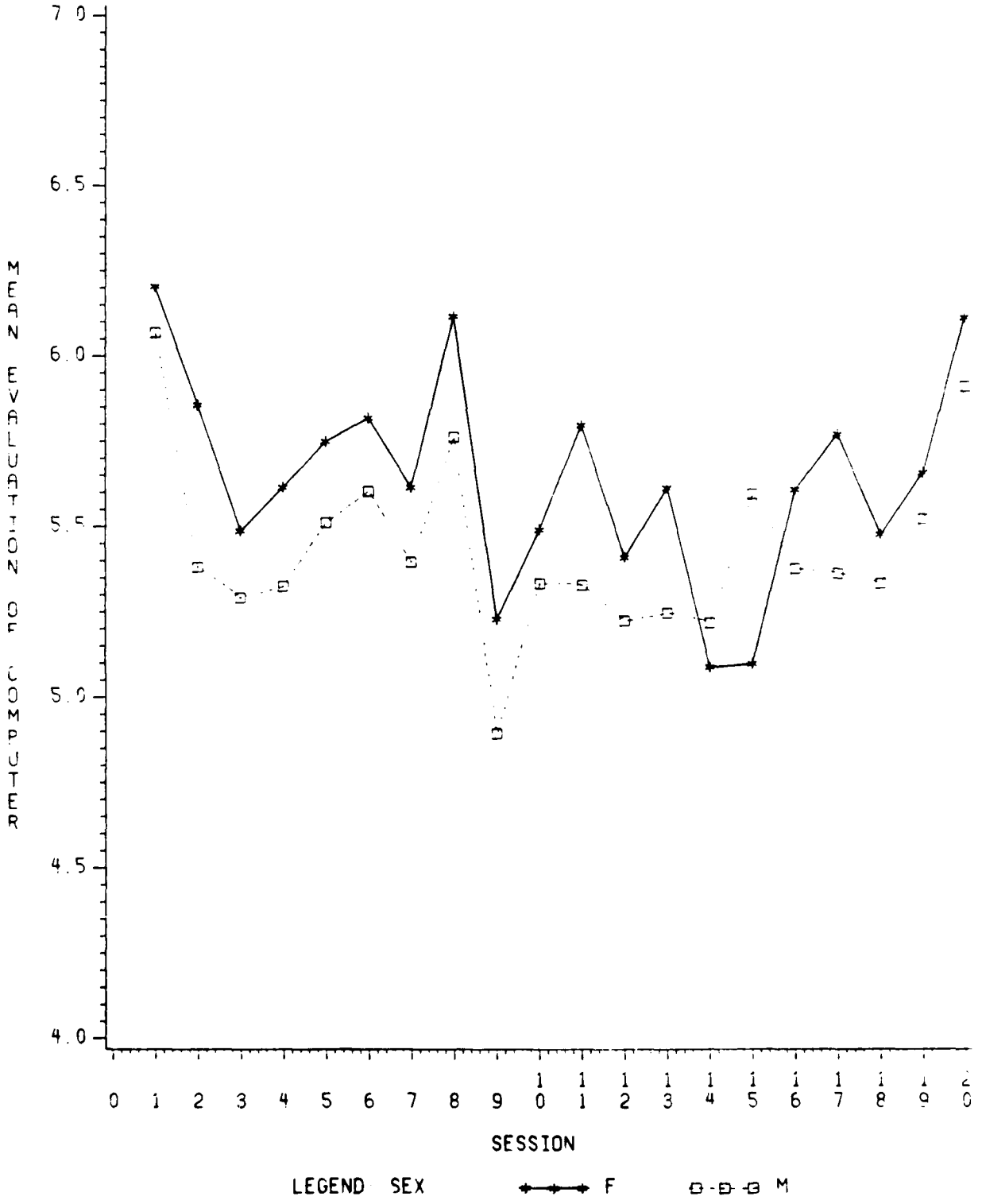

Table 4

Mean Performance on Anagrams Task by Session

Measure	Week			
	2	5	18	19
Correct Responses	14.3	15.7	11.8	14.0
Time (secs.)	623	578	460	459
Correct/Minute	1.60	1.94	1.74	2.02

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APPENDIX 1

Chronoloical Listing of Tasks Administered to CAPS Respondents in 1983-84

WEEK ONE October 5-10, 1983

A. Tutorial: an introduction to the terminal and the procedures for answering questions.

B. Background questionnaire on demographics and description of the respondent's living conditions and social life on campus.

C. Cohen-Hoberman Interpersonal Support Evaluation List
Cohen,S. and Hoberman, H., "Positive events and social supports as buffers of life-change stress.",Journal of Applied Social Psychology, 13, 1983, 99-125.

D. Teleconference - introduction to members of each respondent's standing group and initial opportunity to send messages to them.

E. Cook and Medley Hostility scale randomly mixed with items from Marlowe-Crowne Social Desirability scale.
Cook,W. and Medley, D.,"Proposed hostility and pharasaic virtue scales for the MMPI." Journal of Applied Psychology, 38, 1954, 414-418.
see also Barefoot, J., Dahlstrom, W.G., and Williams, R. "Hostility, CHD incidence, and total mortality:A 25-year follow-up study of 255 physicians." Psychosomatic Medicine, 45, 1983,59-63.
Crowne,D. and Marlowe, D. The Approval Motive. New York: Wiley, 1964.

F. Wrap-up Questionnaire.
A questionnaire given after every session asking for evaluations of the session, the computer, and the regular group, following by an opportunity to send messages to the experimenter.

WEEK TWO October 12-17, 1983

A. Teleconference.

B. Anagrams I
An anagram task making words of four or more letters from the following stimulus words :MASTER ROTATES VIRGINAL ANGELIC. There were three sets of instructions :individual, anonymous groups, regular standing groups. Each subject worked on two of the words under the individual and the other pair of words underone of the group instruction sets.
The order of instructions and words varied by the letter of the respondent's group.

C. Buss Shyness and Sociability Scales.
Cheek, J., and Buss, A., "Shyness and sociability." Journal of Personality and Social Psychology, 41, 1981,330-339.

D. UCLA Loneliness Scale
Russell, D., Peplau, L. and Ferguson, M., "Developing a measure of loneliness."Journal of Personality Assessment, 1978,42,290-294.

D. Teleconference.

E. Policy-capturing. Respondents were given the sex and eight body measurements of stimulus individuals. Their task is to guess the weight of the person in the description. Correct answers were then

revealed. This task is performed in blocks of fifteen items, with the subject given the choice of whether or not to continue after each block. The condition (group vs.individual scoring) alternated with each block.

Stimulus materials were based on the measurements of 100 college students made by Karen Williams. An equation based on those observations was used to generate the measurements of other stimulus people.

F. Wrap-up questionnaire.

WEEK THREE October 24-29, 1983

A. Bonus
At the beginning of the session, respondents were informed of a lottery for an extra $1.00. Half of the participants were told that they had won while the others were informed that they had lost. In the middle of the Cultural Cognition module (see below), another lottery was held. Those who did not win the first time won on this second chance and vice versa.

B. Cultural Cognition I
1. Free response generation of up to three traits for each of seven nationalities (Americans, Mexicans, Germans, Russians, people from India, Japanese, and British).
2. Evaluation of those seven nationalities on a 1-7 scale.
3. Estimations of what % of the world's people are members of each of the nationalities.
4. Bonus lottery (see above).
5. Magnitude estimation.
Comparison to standard (Walter Cronkite =100)
a.combinations of sexes and 4 nationalities (Germans,Mexicans, British, and Japanese).
b. combinations of sexes and six traits (religious, small,poor, pleasure-loving, efficient, and intelligent).
c. combinations of the six traits, four nationalities and two sexes.

C. Teleconference.
Because of the length of the overall session, respondents were only allowed to read the messages from the previous week and were not given an opportunity to send new messages.

D. Questionnaire dealing with whether or not subjects had met their group members in person.

E. Lost on the Moon, Round 1.
Respondents were asked to rank order the importance of fifteen items for survival in the lunar environment. They were also given the opportunity to write up to two lines of comments explaining their reasoning. They were told that their ratings and comments would be shared with two others and that the rating procedure would be repeated in the future. The two respondents sharing the information were either the members of of the person's regular group or two anonymous individuals.

F. Policy-capturing.

G. Wrap-up questionnaire.

WEEK FOUR October 31-November 4,1983

A. Teleconference.
B. Brainstorming I.
Respondents were asked to generate uses for two objects. Some subjects were given "easy" objects (small kitchen knife and shoebox) while other got more difficult items (detached doorknob and burned-out lightbulb). Each item was given under different conditions. Some did one item under individual orientation instructions and the other with their regular group members. The remaining respondents worked on one item under individual instructions and one under anonymous group conditions.
This task was taken from a study by Steve Harkins and Richard Petty: "Effects of task difficulty and task uniqueness on social loafing." Journal of Personality and Social Psychology, 1982,v.43, 1214-1229.

C. Cultural Cognition II.
1. Evaluation of 15 nationalities (Americans, British, Germans, Japanese, Mexicans, people from India, Russians, Canadians, French, Chinese, Israelis, Egyptians, Nigerians, Iranians, and Venezuelans) on a seven-point scale.
2.Evaluation of 12 traits on a seven-point scale (religious, small, intelligent, pleasure-loving, efficient, poor, communist, ignorant, materialiistic, industrious, sophisticated, dark-featured) plus evaluation of the free traits nominated by the respondent in Cultural Cognition I (minus duplicates with the fixed trait list).
3.Estimates of what percentage of four nationalities (German, Russian, people from India, and Americans) have the fixed and free traits evaluated in (2) above.
D. Policy-Capturing.
E. Wrap-up questionnaire.

WEEK FIVE November 7-11,1983

Beginning this week, each major task (module) is followed by a question asking for a rating of the subject's liking for the task. This is a magnitude estimation question with "reading a newspaper" the comparison stimulus set at 100.

A. Lost on the Moon, Round 2
Respondents were allowed to view the products of the other group members from Round 1 and review their own solutions to the lunar survival problem. If they were in the condition where they worked with their regular group, they viewed the ratings and comments of the other group members associated with the apporpriate name. If they were in the anonymous group condition, they saw the ratings and comments of the two members of their anonymous group, identified only as "Member A" and "Member C". They were then asked to rate the items again. This was followed by a series of questions concerning their perception of social influence.
B. Anagrams II
This is identical to Anagrams I except for assignment of

words. Respondents who worked on MASTER and VIRGINAL in the earlier task worked on ANGELIC-ROTATES in this session and vice-versa.

C. Teleconference
D. Policy-capturing
E. Wrap-up

WEEK SIX November 14-18,1983

A. Bonus
A "lottery" was held, with winners receiving an extra dollar and losers receiving nothing. Control subjects were not informed of the lottery and did not participate in it.

B. Automobile decision.
Respondents were asked to make a choice between six hypothetical automobiles. They were given the opportunity to search for information about the automobiles on nine attribute dimensions. They could search for as much information as they needed until they were ready to choose a car for purchase. After they recorded their choice, they were asked to explain their choice and to rate the nine attribute dimensions in their importance. This task is based on a study by Alice Isen and B. Means : "The influence of positive affect on decision-making strategy" Social Cognition, 1983,v.2,18-31.

C. Arctic Survival Round 1.

Respondents were asked to take part in group decision-making using essentially the same format as the Lunar Survival problem. The only difference between the two tasks are the nature of the survival problem and the condition assignments. The problem was taken from "The subarctic survival situation" by J.C. Lafferty of Human Synergistics (39819 Plymouth Rd. Plymouth,MI 48170).

D. Questionnaire dealing with CAPS administration.

E. Teleconference

F. Policy-capturing.

G. Wrap-up.

WEEK SEVEN November 28-December 2,1983

A. Arctic Survival Round 2.
Respondents saw the ratings and comments of their group members as well as their own, then completed the ratings of the survival items again. They were then administered a questionnaire concerning their perceptions of interpersonal influence in the group.

B. Brainstorming II.
This was identical to Brainstorming I except that respondents worked on the pair of objects that they did not work on in the earlier session.

C. Cultural Cognition
Questions asking what per centage of all the world's people have the fixed plus free traits.

D. Teleconference

E. Policy-capturing

F. Wrap-up

WEEK EIGHT December 5-9,1983

A. Cultural Cognition .
   1. Evaluation of 15 nationalities and all the world's people.
   2. Estimates of the percentage of 4 nationalities (British, Mexican, Japanese, American) and all the world's people having the 12 fixed plus free traits. BONUS inserted in this section (see below).
   3. Free response question asking what traits are important in evaluating people.

Two lotteries were held during section 2 of this task. The first was held after the respondents had completed 45 questions and the second was held after they had completed 90 questions. Respondents either won a dollar, were told about the lottery but did not win, or they were not informed of it.

B. Political attitudes questionnaire.

C. End of semester evaluation of the panel.

D. Teleconference.

E. Policy-capturing.

F. Wrap-up.

For the second term, respondents were reassigned memberships into standing groups. One quarter of the groups were all male, one quarter all female, one quarter FFM, and one quarter MMF.

WEEK 9: JAN 23-27

A. Gender Stereotypes. Respondents were asked the question "What percent of all (males/females) are (trait)? Traits were 33 selected from listing in Chris Averett's dissertation. That document contains EPA ratings on all of the adjectives selected. They were presented to Rs in random order. Respondents were them asked the same question about the other sex, using 33 different traits.

Respondents were asked to generate three traits characteristic of the following: mother, father, husband, wife, sister, brother, woman, man, girl, boy. The concepts were presented in random order.

B. Teleconferences. The first module told the respondents that they would have new group members for the second semester and gave them the opportunity to say goodbye to their old group members. For new respondents who didn't have old groups, this module was skipped.

The second half of this teleconference introduced the respondent to new group members and offered the opportunity to send messages to them.

B. Political Attitudes. This is a questionnaire about political identification and attention to politics. For the most part, it replicates the questionnaire which was administered in week 8, except that the political knowledge questions were deleted and the attention questions were rephrased to reflect only the past week's activities.

The second part of the unit replicates candidate knowledge, liking, and liberal-conservative questions that were included in session 8. The unit includes the question "List everything you know about each of the following political figures," where the political figures are those from a list of figures with which the respondent has indicated some familiarity.

C. John Henryism Scale. This short 10 item scale was submitted by Dr. Sherman James. He believes that it measures a personality dimension related to attitudes toward work and achievement. See

WEEK 10: JAN 30 - FEB 3

A. Investment Strategy. This unit was submitted by Dr. Henry Latane~. It is one of two units which measure the respondents' willingness to choose risky, high-payoff investments over safe, low-payoff investments. In this task,

the probabilities of good and bad years and the payoffs of two portfolios in both good and bad years are presented. There are twenty of these stimulus situations. Portfolio A always has the same, low payoff in both good and bad years. Portfolio B's payoffs vary, as do the differences in payoff for good and bad years. Responedents were asked to choose a portfolio for Mr. Adams, whose financial situation has been described to them. In this unit, they must put all of Adam's wealth in one or the other of the portfolios. In another module, administered later in the term as a filler unit, they were given the same scenario and the same stimulus situations, but could invest any portion of the money in both of the portfolios.

B. Teleconferences. Respondents were allowed to read the messages sent to them by their OLD group members the previous week, then read the messages sent to them the previous week by their NEW group members. They were then given the opportunity to send another message to their nes group members.

C. Gender stereotypes. This unit is identical to that presented in the previous week, except that the traits associated with male and female stimuli were switched from those in the previous unit (Those previously associated with male were now associated with female and vice versa).

WEEK 11: FEB 6-10

A. Gender Stereotypes. In this unit, Rs were asked to evaluate on a seven point scale of unfavorable to favorable, the 66 traits used in the previous two sessions . The order of presentation was randomized. There are 60 unique traits. Six traits are repeated for the purposes of checking reliability.

B. Teleconference.

C. Brainstorming. This unit is similar to the one administered in weeks 4 and 7 during the fall semester, except that the objects used were different and the instructions stressed that the uses generated for the objects should be creative. (The instructions in weeks 4 and 7 indicated that quantity, not quality should be considered.) The objects used in this unit were a brick and an empty beer can.

D. Pettigrew Category Width Scale. Administration of this scale was preceded by a bonus, with 1/3 of the respondents winning an extra one dollar, one third being told of the "lottery" but losing, and 1/3 not informed of the "lottery".
See Pettigrew, T.

WEEK 12: FEB 13-17

A. Gender Prototypes. Respondents were presented with a list of gender types (different for males and females). They were

asked to choose a person they know who is a good example of one of the types. If the person was a good enough example (>5 on the question that measures this), they were asked to answer a series of questions about that person. These include such items as a typical piece of clothing, the person's favorite topic of conversation, type of men/women attracted to, etc. In the following weeks, Rs were be asked to think of two more examples of the types in the list. This week, the questions were followed by an opportunity to comment on the task.

B. Gender Stereotypes. Respondents were asked to evaluate on a seven point scale, the traits that they had previously entered as characteristic of ten gender identities.

C. Teleconference.

D. Income transfer.Respondents were presented with hypothetical situations in which a transfer of money is proposed from high income families to low income families. The incomes of the families and amount to be transfered is varied and Rs are asked how much leakage (money lost because of unsolved technological problems... like a leaky bucket) they would tolerate and still approve of the transfer. The first question is iterative, and the later questions ask for the amount to be specified. Alternative questions are provided for Rs who do not approve of such transfers under any conditions or who approve only under certain conditions.

WEEK 13: FEB 20-24

A. Gender Prototypes. Second of three units on gender stereotypes described in week 12.

B. Teleconference.

C. Brainstorming 4. Same instructions as Brainstorming 3 (see week 11), but items were different and condition assignments were reversed. The new items are a toothpick and out of date telephone directory.

D. Brainstorm Judging 1. In this task, respondents rated the ideas of other respondents from the Brainstorming 3 task on a 1-10 creativity scale. Each respondent rated the responses of his/her real group and anon group members but did not know that this is the case. Each respondent rated half of the ideas under and only-judge condition and half under a multiple-judge condition (thinks five other judges are making the same ratings). All Rs rate 4 bogus files as well as the real and anon group files. The scores created by this unit will be used for quality scores for the Brainstorming 3 task and will also provide data which can itself be analyzed as a loafing task (comparison of the only-judge and multiple-judge conditions). In the latter task, extremity of ratings and variance can be used as dependent variables.

WEEK 14: FEB 27 - MARCH 2

A. Election attitudes.Respondents were asked to indicate who they would pick for President if they could choose any American who is living and has been active in politics. It then asked them to explain why they chose that person. The familiarity, thermometer, and liberal-conservative units that were administered in weeks 8 and 9 (see week 8 for a description) were repeated. Respondents were asked to list "everything they can think of" about each of the political candidates with whom they previously indicated they were familiar .

B. John Henryism II. This replication of the John Henryism Active Coping Scale also administered in weeks 9 or 10*, will allow the assessment of reliability.

C. Gender Prototypes. This was the third of three unit described in week 12 .

D. Teleconference.

E. CULGEN5A and CULGEN5B: In order to prepare CULGEN units 5A&B through 8A&B, the standard identity file: GENDERS.1B, was randomized (separately for each R) and divided into two smaller files located in the Rs directories. These files are called: GDERS.1 and GDERS.2. In addition, the ten fixed traits in file: MTRAIT.5:
emotional
gentle
ambitious
compassionate
strong
agressive
indecisive
vengeful
stubborn
touchy
and the edited version of the free traits generated by the R in CULGEN1B and evaluated by the R in CULGEN2B (edited version in file:GENDER.4; unedited in GENDER.1B.)
were merged and randomized, again separately for each R, and divided into two smaller files located in the Rs directories. These are files: GTRT.1 AND GTRT.2.

The use of these files is described below:

CULGEN 5A:	GDERS.1	GTRT.1
5B:	GDERS.1	GTRT.1
CULGEN 6A:	GDERS.1	GTRT.2
6B:	GDERS.1	GTRT.2
CULGEN 7A:	GDERS.2	GTRT.1
7B:	GDERS.2	GTRT.1

CULGEN 8A: GDERS.2 GTRT.2
8B: GDERS.2 GTRT.2

In each session, half of the Rs got the A program (letters A-H) and half the B (letters I-P). Only the order of presentation differed for these two programs. The nature of that difference is described below:

CULGEN A asked Rs to indicate "What % of (identity) have the following characteristic (trait)?"
The first trait was asked for all of the identities (maximum of 5 identities) before going on to the second trait (maximum of 20 traits).

CULGEN B asked Rs to indicate "What % of (identity) have the following characteristic (trait)?"
All of the traits (maximum of 20) were asked for the first identity before going on to the second identity (maximum of 5 identities).

*Note: Rs getting 5A got the A version of 6,7, and 8. Those getting 5B got the B version of 6,7, and 8. This will allow us to compare (between subjects) whether order of presentation (by identity, which maximizes trait comparisons and minimizes identity comparisons or by trait, which does the reverse) significantly affects the results.

SPRING BREAK: MARCH 4 - 10

WEEK 15: MARCH 12 - 18

A. Personnel decision. This unit was designed as a test of social impact theory. Respondents were asked to imagine that they were the director of a unit in a small computing firm which was about to expand its operations and needed to hire a manager. In thsi scenerio, twelve of the respondent's employees have interviewed fourteen applicants for the position. The respondent was given a little information about each of the employees and told which two applicants that employee recommended for hiring. (All employees have interviewed only four applicants each. Applicants have not necessarily been interviewed an equal number of times.) Half of the respondents were told that they alone were responsible for making the decision about which applicant would be hired. The others were told that they were part of an employment committee consisting of 9 other members and that the committee would make the final decision about which applicant to hire. The respondent was shown the descriptions of six of the employees, along with their hiring recommendations. They were then asked to rate of the applicants plus one unrated applicant using a magnitude estimation procedure. This procedure was presented twice, once with the six employees who made the recommendations described positively (high status) and once with low status employees.

B. Election attitudes.Respondents were who they would pick for president if they could choose any American who is alive and has been active in politics and then why they would pick that person.

Respondents were then asked to rate Reagen, Hart, Glenn, Helms, Hunt, and Mondale on four trait dimensions (strong leader, compassionate, knowledgeable, and dynamic). They were then asked which of Glenn, Hart, and Mondale was most and least likely to win the Democratic nomination and what percent of the popular vote each of those three, would win if they ran against Reagan. They were then asked who won the Iowa caucus, NH primary, Maine caucus, and VT primary.

C. Teleconference.

D. Administrative questionnaire. Respondents were asked to choose among 8 alternative ways of dividing the $1000 end-of-project bonus.

F. Brainstorm Judging 2. Same as Brainstorm Judging 1 (see Week 13) except that the stimuli were generated in the Brainstorm 4 task.

F. Brainstorm Feedback : This unit gave Respondents information about how their Brainstorm 3 ideas were rated by others in Brainstorm Judging 1. For each set of ideas for a single object, an average of the raters scores was presented. This feedback was intended to lend credibility to future tasks and to satisfy the respondents' desires to know how they were doing. No data were produced by the unit.

WEEK 16: MARCH 19 - 25

A. Paired-associates learning 1. In the task, Rs are shown lists of paired words. Two of these lists were comprised of easily remembered pairs(highly associated within a pair and not across pairs). For these lists dominant responses are correct. The two remaining list were difficult, consisting of a few highly associated pairs but mostly low intrapair and high interpair associations. For these lists, dominant responses are generally incorrect. Respondents were instructed to type in the second of the two words from the pair when the first was presented. Respondents first completed a practice list consisting of five easy pairs, administered to ensure that they understood the instructions. The list was presented three times with the order of pairs randomized each time.

In this session, and in the administration of the task in week 18, respondents workedon one easy and one difficult list. In one session, both lists were worked on in the group condition. In the other session, both lists were administered in the individual condition. This means that individual/group condition

was confounded with session as a within variable.

As with the practice list, the word pairs were initially presented for about eight seconds. Then the list of stimulus words was presented five times. The order of words within the list was randomized for each trial. Eight seconds was allowed for each response. If the eight seconds without a response, the correct match was presented and then the next stimulus word. If the respondent entered an answer within the eight seconds, it was displayed along with the correct responses before the presentation of the next stimulus word.

Half of the respondents worked under an incentive condition in both sessions. In this condition, that the nine individuals (individual condition) and each member of the three groups (group condition) that scored highest on the task received a three dollar bonus.

Practice list for session 1 : week 16

Stimulus	Response
Trouble	Worry
Glory	Praise
Relic	Old
Decoy	False
Tourist	Visitor

Practice list for session 2: week 18

Stimulus	Response
Prefix	Before
Device	Gadget
Region	Section
Buffoon	Clown
Omen	Sign

WORDLIST 1 : Easy

Stimulus	Response
Insane	Crazy
Stanza	Verse
Adept	Skillful
Wisdom	Truth
Frigid	Arctic
Complete	Thorough
Distant	Remote
Empty	Vacant

WORDLIST 2 : Easy

Stimulus	Response
Device	Gadget
Belief	Faith
Urgent	Pressing
Pious	Devout
Hermit	Alone
Mammoth	Oversize
Stubborn	Headstrong
Wicked	Evil

WORDLIST 3: Difficult

Stimulus	Response
Barren	Fruitless
Little	Minute
Petite	Yonder
Desert	Leading
Arid	Grouchy
Undersized	Wholesome

WORDLIST 4: Difficult

Stimulus	Response
Quiet	Double
Serene	Headstrong
Migrant	Agile
Gypsy	Opaque
Roving	Nomad
Tranquil	Placid

B. Teleconference.

C. Administrative questionnaire. This asked whether they have met or talked with regular group members outside of CAPS sessions and other questions about the groups, the computer, and telconferences. Many of these questions are repeated from earlier units. It also asked for the bast-liked and least-liked units in the 2nd semester.

D. Tax attitudes: This unitasked respondents to indicate their agreement with 21 attitude statements regarding federal income taxes and the maximum amount that should be paid as federal tax by taxpayers who earn $10,000, $25,000, and $100,000 per year. They were then asked to suggest reasons why taxpayers fail to pay the full amount of their taxes and to answer several questions about their own filing of tax returns in the past three years. They were also asked to indicate their confidence in their answers.

In a later unit (WEEK 20), respondents were shown the

answers of their regular group members to the 21 attitude questions and questions about maximum taxes of the three income groups and then reanswer each of those questions.

E. CULGEN6A and CULGEN6B: In order to prepare CULGEN units 5A&B through 8A&B, the standard identity file: GENDERS.1B, was randomized (separately for each R) and divided into two smaller files located in the Rs directories. These files are called: GDERS.1 and GDERS.2. In addition, the ten fixed traits in file: MTRAIT.5:
emotional
gentle
ambitious
compassionate
strong
agressive
indecisive
vengeful
stubborn
touchy
and the edited version of the free traits generated by the R in CULGEN1B and evaluated by the R in CULGEN2B (edited version in file:GENDER.4; unedited in GENDER.1B.)
were merged and randomized, again separately for each R, and divided into two smaller files located in the R. directories. These are files: GTRT.1 AND GTRT.2.

The use of these files is described below:

CULGEN	5A:	GDERS.1	GTRT.1
	5B:	GDERS.1	GTRT.1
CULGEN	6A:	GDERS.1	GTRT.2
	6B:	GDERS.1	GTRT.2
CULGEN	7A:	GDERS.2	GTRT.1
	7B:	GDERS.2	GTRT.1
CULGEN	8A:	GDERS.2	GTRT.2
	8B:	GDERS.2	GTRT.2

In each session, half of the Rs got the A program (letters A-H) and half the B (letters I-P). Only the order of presentation differed for these two programs. The nature of that difference is described below:

CULGEN A asked Rs to indicate "What % of (identity) have the following characteristic (trait)?"
The first trait was asked for all of the identities (maximum of 5 identities) before going on to the second trait (maximum of 20 traits).

CULGEN B asked Rs to indicate "What % of (identity) have the following characteristic (trait)?"
All of the traits (maximum of 20) were asked for the first identity

before going on to the second identity (maximum of 5 identities).

*Note: Rs getting 5A got the A version of 6,7, and 8. Those getting 5B got the B version of 6,7, and 8. This will allow us to compare (between subjects) whether order of presentation (by identity, which maximizes trait comparisons and minimizes identity comparisons or by trait, which does the reverse) significantly affects the results.

E. Brainstorm Feedback 2: This unit gave respondents information about how their Brainstorm 4 ideas were rated by others. For each set of ideas for a single object, an average of the ratings from Brainstorm Judging 2 was presented.

WEEK 17: MARCH 26 - APRIL 1

A. Restaurant Choice 1:The restaurant choice task was designed to assess the effects of social loafing on decision-making strategy. We hypothesized that in a group setting a tendency to social loafing would lead to the use of effort-saving heuristics by respondents in their decision-making strategies. This would produce a less complete information search, less time to reach a decision, and a higher concentration of search time spent on important attributes.

The second goal of the restaurant choice task was to assess the effect of group size on decision-making strategy. Social impact theory holds that audience size (the target group, which in this study is size of party to dine at a particular restaurant) is a variable which will affect performance. We hypothesized that the more people affected by the decision, the more thorough the information search behavior.

Respondents were asked to choose between five fictitious restaurants for dining selection. They were presented with a 5 by 5 matrix with the columns consisting of the five restaurant names and the rows containing five attributes (average cost, type of food, service, atmosphere, and taste). Service, atmosphere, and taste were rated on a scale of 1 to 10, with 10 being the highest score and 1 the lowest. This task was performed in two sessions.

Each cell of the matrix contained a number; the respondent requested the information in a cell by entering that number on the computer keyboard. Information for that cell was then presented .Respondents were allowed to search any of the cells of the matrix to gather information to aid their decision. The following two tables present the matricies of information used in the restaurant choice task:

Matrix for Restaurant 1 : Week 17

	Restaurant				
Attribute	L	R	D	P	G
Average cost	$4.50	$5.00	$10.00	$8.00	$6.50
Type of food	Chinese	Greek/ American	American	Mexican	Italian
Service (1-10)	3	8	6	7	8
Atmosphere (1-10)	7	6	5	8	4
Taste (1-10)	8	5	9	4	6

Matrix for Restaurant 2 : Week 19

	Restaurant				
Attribute	E	R	N	O	G
Average cost	$7.00	$5.50	$10.50	$8.00	$4.50
Type of food	Seafood	American	American	Japanese	Italian
Service (1-10)	6	8	5	7	9
Atmosphere (1-10)	3	9	8	7	6
Taste (1-10)	8	4	10	7	6

The restaurant choice task was performed in two sessions, in weeks 17 and 19. In one session, the respondent was the

sole decision maker. In the other session, the respondent was one of a three-person decision-making group. The order of presentation of group or individual conditions was balanced across respondents.

In both conditions, respondents were choosing a restaurant for a party of either three or six people. This party size variable was constant for each respondent across sessions, creating a between-subject variable.

Respondents were given as much time as they needed to search as many cells as desired until they were ready to make a decision. When they were ready to make their choice, respondents typed in their selection on the computer. Following the choice, respondents were asked to indicate why they chose the restaurant they did, and to indicate, on a seven point scale, how important each of the attributes was to their choice.

The tendency for the respondent to use heuristics was measured with four dependent variables which reflect the extensiveness of the respondent's information search. The number of different cells searched, the number of cells searched more than once, and the amount of time spent searching are all indicators of the volume of the information search. The variance of the search across attributes also was measured since heuristics such as elimination by attributes would lead the respondent to concentrate the search on fewer attributes, thereby producing high variability across attributes in the number of cells searched.

B.Teleconference.

C. Administrative questionnaire. Questions dealing with the division of the $1000 end-of-project bonus.

D. Election attitudes. Respondents were asked to indicate who they would pick for President if they could choose any American who is living and has been active in politics. It then asked them to explain why they chose that person. They were also asked to answer questions concerning their knowledge of several candidates.

The next questions asked which of the three Democrats, Jackson, Hart, Mondale, was most likely to win the Democratic nomination and what % of the popular vote they would get if they ran against Reagan. The unit also had several questions about how much the respondent cares about who wins the election, whether anyone has tried to influence their presidential choice,their choice for the Democratic nomination, whether they talk about politics with familiy and/or friends, the most important problems facing the US, differences between the candidates Hart and Mondale on several policies, whose policy would prefer, and who they would vote for if election held today (pits each Dem.Mondale, Hart, Jackson against Reagan).

E. Noncomputerized tasks. Half of the respondents did these tasks in Week 17 and half did them in Week 18. If In the week that they were not performing the noncomputer tasks, they answered three questionnaires (see below) in a computer-administered format. Since these scales were also administered in a noncomputerized format, this provides the opportunity to test the impact of administration settings on scale reliability.

Respondents were scheduled for the sessions in pairs and were welcomed by a male experimenter. They then completed the Bem Sex Role Inventory, the Type A Adjective Check List, and the Self-Monitoring Scale, tasks also administered in the CAPS computer setting.

The sound production unit was a replication of the Latane' and Harkins procedure, which demonstrated that people work harder when they believe that they are working alone than when they believe they are working with others. Respondents were brought into an isolated room in pairs, seated on opposite sides of a divider , assigned a color (red or green) for identification, and told that the purpose of the study was to investigate the impact of reduction of auditory feedback on sound production. The task was to clap or shout as loudly as possible on cue, provided by a tape. Respondents wore headphones and blindfolds. Specific instructions to clap or shout were delivered by tape. In actuality, only one respondent was clapping or shouting at a particular time, a fact hidden from the respondents by a masking noise. On some trials they believed that another respondent was also clapping or shouting at the same time. Thus, one respondent, say green, heard "Red clap alone." (So green didn't clap or shout on this trial.) At the same time, red hears "Red and green clap together." (So red clapped, but believed that green also received the instruction to clap on that trial.) There were 35 trials of this task.

At the end of this procedure, respondents were asked to fill out a short questionnarie indicating how loudly they felt they actually shouted or clapped overall, when shouting or clapping alone, and when shouting or clapping with the other person. They were asked to answer these questions by comparing their performance to how loudly they could shout or clap if their life depended on it, assuming that they would rate that degree of loudness as 100.

Counting. For this task, Rs were taken to a separate room in pairs and assigned a color for identification. They were told that the purpose of the study was to investigate performance on a difficult auditory task. Their task would be to count tones which would be heard in thier left ear, right ear, or both, and to indicate how many tones they had heard by holding up fingers in a particular way. They were told that they would sometimes count tones with the other person and sometimes alone. On other trials, they would count the middle (both ears) tones with the other person and one would count right and the other left tones alone (these are called choice trials).

A practice series, slower than those used in the actual test, was presented to familiarize respondents with the procedure and to insure that they understood the instructions. Next, six sets of regular paced practice tones were presented. Afterward, Rs had a chance to ask questions before the real trials began.

The tones were presented via a stereo tape to either the right or left ear, or to both ears (creating the effect of being in the middle of the auditory field). Each tone series included right, middle and left tones and ranged in total length from six to twelve tones. On each trial, participants were instructed to count the both ears), and either the left or right tones, ignoring whichever type was remaining. Rate of presentation of the tones was two tones per second, with a .125 second inter-tone interval.

Participants indicated the number of tones counted by holding up fingers after each tone series. One hand was used for each type of tone and hands were held up in positions relative to the face, corresponding to the type of tones counted. For example, if a participant were asked to count middle and left tones and thought that two middle tones and three left tones had been presented, he or she would hold up two fingers of the right in front of the face , and three fingers of the left hand on the left side of the face.

A set of five consecutive tone series comprised one "trial". Difficulty was held constant over trials, and participants never heard the same tone series more than once throughout the experiment.

The entire stimulus set consisted of two blocks of five trials each, with each trial including a set of five tone series of varying difficulty. Participants received on of three types of instructions prior to each trial that distinguished group and individual effort. On individual-effort trials, one participant was asked to count either left and middle or right and middle tones while the other participant removed his/her headphones. On group-effort trials, both participants wore headphones and counted either left and middle or right and middle tones. On the "choice" trials, participants were placed in a situation in which they could choose to allocate more attention to tones that both were counting simultaneously or to tones that they were counting alone. In these trials, one participant was instructed to count left tones, the other to count right tones, and both to count middle tones.

WEEK 18: APRIL 2 - 8

A. Anagrams 3.

This task is very similar to the Anagrams 1 and 2 units

which were administered in the fall semester. There are two major differences: First, respondents in the group condition were told that even though they were working with members of a group for a group score, each member of the group was working on a different word. Second, half of the Rs in Wordgames 3 and 4 worked under an incentive condition (described later).

Respondents were given one word from each of four sets of anagrams: 1. marble, ramble, ambler; 2. marine, airmen, remain; 3. nectar, trance, canter; and 4. detail, tailed, dilate. They were instructed to form words at least 4 letters long from each stimulus word. Proper names were not valid responses. After each response, the computer informed the subject whether the word was correct, incorrect, or a duplicate of a previous response. It also continuously displayed the correct responses that the respondent already had produced.

The task was performed over two sessions, one week apart (weeks 18 and 19). Respondents worked on two words per session, one in the individual condition and one in the group condition. Instructions for the individual condition stated that the respondent was working alone and that the record of performance would be entered under his/her file name. Group instructions informed respondents that they were working with either their regular standing group or a collection of anonymous individuals, and that performance results would be entered in the files as a group product. This manipulation of group type was a within-subject variable with each respondent working with only one group type per session. The order of condition assignments and word presentation was counterbalanced across subjects and sessions.

Half the respondents also worked under an incentive condition. If a respondent in the incentive condition was working on a word under individual instructions he/she was told that the nine individuals with the highest scores would receive a $3 bonus. Incentive respondents working on group words were told that $3 bonuses would be given to the members of the 3 highest scoring groups.

In both anonymous and standing group situations, respondents were told they were the only member of their group working on a particular word. In the group condition, each member was given a different word from the same anagram set to eliminate the possibility that respondents would feel their individual efforts were redundant.

B. Teleconference

C. Questionnaire concerning split of bonus.

D. Paired associates. See description in Week 16.

E. Type A Adjective Check List, self-monitoring scale and Bem sex-role inventory for those who have done the paper and pencil

versions of these scales.

WEEK 19 : APRIL 9 - 15

A. Anagrams 4: See WEEK 18 for description.

B. Gender Stereotypes: See description in WEEK 14.

C. Teleconference.

D. Restaurant Choice: See WEEK 17 for a description.

WEEK 20 : APRIL 16 - 22

A Candidate Attitudes Questionnaire.

This repeated earlier units except that the respondent was asked to locate self, mother and father on the liberal-conservative scale instead of political candidates. The other scales were the same as in earlier units.

The other questions asked the respondent about the four candidates (Reagan, Mondale, Hart, and Jackson), "Is there anything in particular about (name) that might make you want to vote FOR him?" If the respondent answers Y, then he/she is asked "What is that?" and is given 5 lines to answer. Sequence is repeated with "vote AGAINST".

C. Teleconference.

D. Tax Questionnaire.

Respondents viewed their own answers and those of their regular group members to a series of questions about taxes. These questions were answered in WEEK 16. Then Rs reanswer those questions. Respondents also indicate how confident they are about their answers and how much they were influenced by each of their group members and how much they think each group member will be influenced by them.

E. Gender Stereotypes. See WEEK 14 for a description.

F. Final questionnaire.

This asked miscellaneous background questions (religion, labor unions, family situation) as well as questions about the respondents experience with his/her regular group, the computer, telcons and CAPS in general). It also included some questions about the SHOUT/CLAP and COUNTING tasks and got summer and long-term addresses from the respondents for follow-up.

SPRING FILLER LIST

In the spring term, respondents who finished their assigned modules for the week in less than 50 minutes were given tasks from a list of filler units which they worked on until they had worked for at least 50 minutes.

Anger/Guilt Coping Scale

This unit measures willingness to express anger and guilt over the expression of anger.

Adjective Checklist

This unit is the first 150 items of the 300 item adjective checklist. Items were presented to Rs in a fixed (alphabetical) order. Rs answered T if the adjective was descriptive of themselves and F if it was not.

Race Relations Questionnaire

This unit contains questions about Rs living arrangements and dorm choices, attitudes about race relations on campus, and personal contact with members of another race.

Article Readability

Respondents were asked to read an article and then answer questions about its readability and enjoyabilty. Half of the respondents got the original version of the article and half get a "degraded" version produced by substituting for every fifth word one generated by a prior task in which respondents fill in blanks for those words. After answering the questions, Rs have a chance to correct any errors in their ratings and to reread the article if they wish. The hypothesis is that the degraded version of the article will be rated as less enjoyable and readable than the original (i.e., that predictability contributes negatively to these things). Other studies have shown that structural predictability increases readability and enjoyability ratings. This article was about the US lunar landing.

Type A

This is a 21 item scale, measuring Type A behavior tendencies.

Adjective Checklist #2

This is the second half of the 300 item adjective checklist. Question wording and order can be found in the questionnaire.

Perceived Stress Scale

This 14 item perceived stress scale is designed to measure the degree to which situations in one's life are appraised as stressful. Designed for use with community samples with at least a high school education, the PSS is a 14-item global measure of the levels of stress ecperienced in the last month. Items measure the extent to which respondents find their lives unpredictable, uncontrollable and overloading. Administration of the scale has proven it to possess substantial reliability and validity, and to be a potential tool for predicting the role of appraised stress levels in etiology of disease and behavioral disorders.

Self-Descriptive Characteristics

This questionnarie consists of 30 scales on which the respondent is asked to indicate whether the trait listed is very much characteristic of him/her or not at all characteristic of him/her. See: Markus, H. Self-schemata and the processing of information about the self. JPSP, 1977,35,63-78.

Importance of Characteristics to self concept

This questionnaire repeats the 30 traits from the one above, but asks respondents to indicate how important the trait is to his/her self-concept.

Philosophies of Human Nature

This 84 item questionnaire measures the attitudes about "people in general" that reflect interpersonal behavior. The scale is designed to measure substantive beliefs about human nature, such as Trusworthiness, Strength of Will and Rationality, Altruism and Independence. As well, the scale measures dimensions of individual differences: the simplicity versus the complexity of human nature and the similarity versus the variability of human nature (are people basically alike or is each person unique). Each of the subscales, or dimensions, contains 14 items with a balanced number of negative and positive statements.

Social Class Questionnaire

This questionnaire deals with the respondent's social class background, the subjective social class of his/her family of origin, and educational and social class aspirations and expectations.

Investment Strategy

This unit is very similar to a unit administered in week 10 (INVEST1). See week 10 for a description. This unit differs only in that Rs are told that they may invest a portion of Adams' wealth in each of the hypothetical portfolios if they wish. All stimuli are the same.

Honor Code Questionnaire

This short questionnaire asks respondents about their observations of academic cheating on the UNC campus.

Perceptions of INfluence

In this unit, respondents were asked to describe a situation in which they had been influenced by another person or had influenced another person (half of the Rs are in each condition). Then respondents answer twelve questions about that situation. Next, they describe the reverse situation (having influenced or having been influenced, whichever they didn't do first) and answer the same twelve questions about that situation.

Tax Questionnaire

Respondents were asked to respond to questions about the effectiveness of IRS enforcement procedures. There are two versions, of this unit. One (answered by 3/4 of the Rs) asked, "If the IRS audited x% of all tax returns, would most taxpayers be completely honest in reporting their income and deductions?" The "X%" was begun at 95% and iterated downward in units of about 5% until the R responded "no". Similar questions were asked regarding the monetary penalties as a percentage of tax not paid, and about effectiveness of prison sentences for unpaid tax. Version 2 of this unit, administered to 1/4 of the Rs in order to assess the effects of different question wording, asked "If the IRS audited X% of all tax returns, what percentage of taxpayers would be completely honest?" The X% was iterated downward in unequal increments from 100%. Similar questions were asked about monetary penalties and prison sentences.

Article Readability #2

This unit was similar to the article readability unit described above. Only the article differed.

Gender Stereotype Questionnaire

This unit builds on the gender stereotype units which are described in the list of non-filler, spring units. That unit has female respondents describe types of males and male respondents describe types of females. This unit, which was administered twice in different sessions, shows respondents parts of the descriptions made by other respondents (same sex), and has the respondent try to guess what type is being described. From a list of 24 items of information, the respondent chooses which 5 he/she wishes to see in order to guess the type. Types are listed and R chooses from the list after viewing the information chosen. Certainty of the respondent's guess is recorded and statement by the describing respondent is shown which tells why that respondent thought the person being described was a certain type. The current respondent is given another guess about the type and certainty is remeasured along with perceived attractiveness of the person whose type is being guessed.

Sensation Seeking Scale

Measures sensation-seeking tendencies.

Masculinity-Femininity Scale

This Masculinity-Femininity Scale developed by Baucom is based on select items from the California Psychological Inventory. The scale is composed of 54-item MSC scale and a 42-item FMN scale. Separate scores can be obtained for the masculinity and femininity dimensions and four fold typologies can be constructed.

Monetary Valuation of Time

This unit is designed to measure and summarize Rs valuation of time in monetary terms and to study causes of interpersonal differences in their valuations. Rs were asked, for a number of different scenarios, how much they would be willing to pay to save a given amount of travel or waiting time. In another scenario, they are asked how much they would have to earn to give up an hour's time. Scenarios vary in terms of whether work or free time is described. Additional questions ask about R's financial resources and amount of spare time available.

Tax Questionnaire #2

Similar to the tax Questionnaire described above. Questions combine assumptions about the percentage of returns audited and the penalty as a percent of tax not paid. Version one of this unit, administered to 3/4 of the Rs, used the wording, "If the IRS audited X% of all tax returns and the penalty was X% of every $100 of tax not paid, would most taxpayers be completely honest in reporting their income and deductions?" Version two, administered to 1/4 of the Rs, used the wording, "If the IRS audited X% of all tax returns and the penalty was X% of every $100 not paid, what percentage of tax payers would be completely honest in reporting their income and deductions?"

Television Veiwing Questionnaire

The TV Scale is designed to assess viewing motivations and viewing patterns in adult audiences. A hypothesis by Rubin is that television use motivations can explain or predict television pattern (behavior & attitude) consequences of television use. Items from the scale correspond to various viewing motivation categories. Viewing patterns were measured by behaviors (viewing levels and program preferences and attitudes (affinity and reality).

See Rubin, Alan M. (1983) Television Uses and Gratifications: The Interactions of Viewing Patterns and Motivations.

Smoker Scale

The Smoker Scale consists of 44 items from the Minnesota Multiphasic Personality Inventory (MMPI). Several hypotheses have been advanced about personalities of cigarette smokers:

1) Manic-depressive tendencies vary directly with smoking,
2) Hysteria varies inversely with amount of smoking, and
3) Psychopathic deviate tendencies vary directly with smoking.

Manic (Ma), Depressive (D), Hysteria (Hy), and Psychopathic deviate (Pd) subscales from the Smoker Scale have been used as measures of tendencies indicated in the hypotheses. For futher information, see Daniel, S.P. "Personality Implications of Cigarette Smoking Among College Students," Journal of Consulting Psychology, 23 (1959), 376.

Gender Stereotypes Term Generation

This unit asks female respondents to describe male types (each of a list of 15) by matching them with types on a list of 28. Rs make a best match and a second best match. Male respondents do the same task using lists of female types. The researcher believes that she can predict how the matches will be made using information gathered in previous interviews on gender stereotyping.

Time Utiliztion Questionnaire

This questionnaire asks respondents to indicate how they spent their time in the previous five weekdays. First they indicate how many hours during the week they spent sleeping. Then they are asked to allocate the non-sleeping hours among a list of other activities. Rs are cued if the allocation of hours does not total to the non-sleeping hours available and are asked to adjust their ratings to account for the total time. (One of the categories is "other", so all time should be accounted for.) The process is repeated for the previous weekend.

END

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