1975

An investigation of the development of immediacy patterns in a dyadic mediated interview situation as affected by feedback.

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AN INVESTIGATION OF THE DEVELOPMENT OF IMMEDIACY PATTERNS IN A DYADIC MEDIATED INTERVIEW SITUATION AS AFFECTED BY FEEDBACK

by

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B. A., University of Windsor, 1973

A Thesis
Submitted to the Faculty of Graduate Studies in
Partial Fulfillment of the Requirements
for the Degree of Master of Arts
at the University of Windsor

Windsor, Ontario, Canada

1975

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ABSTRACT

To examine the nonverbal psychodynamics of electronic co-presence 48 undergraduate students were each asked 48 questions by a female graduate student during a 2-way closed circuit TV interview. The independent variables studied were 1. Location of Self-View Monitor (on the right of the monitor carrying the interviewer's image vs. on the left vs. absent), 2. Intimacy of Question Content (intimate vs. neutral), 3. Apparent Distance of Interviewer's Image (Close vs. far), 4. Time effects (two Blocks of 24 questions each with 4 Trials within each Block, each Trial consisting of a set of six questions, 5. Order of Intimacy and Apparent Distance Effects (Intimacy and Distance effects were alternated after Block 1 and were counterbalanced). Sixteen proxemic, verbal behaviour, and ocular dependent variables were studied, along with responses to five questionnaires. Results indicated unexpectedly pervasive effects of Monitor Location which dominated other results. Subjects avoided looking at their own picture by averting their gaze up and to the opposite side when beginning to formulate an answer to each question. During the course of the interview they felt ever more at ease and less nervous. Although they moved their chairs slightly further away from the interviewer's image they compensated by increasing the size of their own image by means of zoom controls and replying more at length. They also began to match the size of their own image to that of the interviewer and responded to intimacy of questions with less looking at the interviewer and a prolonged movement of their chairs away from the interviewer's image.

ACKNOWLEDGEMENTS

I am indebted to a number of people, all of whom gave generously of their time and effort during the long months that it took to complete this literary masterpiece.

Firstly, I would like to thank my Chairman, Dr. William L. Libby, Jr., who played an integral role from start to finish, and who gave up many Saturday afterncons to further the cause. I am grateful to my committee members: Dr. J. Ferguson, Dr. J. A. Malone, and Dr. F. Schneider for their time and suggestions. My thanks to Hau Lei for his invaluable assistance at the Computer Centre, and to Bruce Smith for his illustrations.

I can truly say that I couldn't have done it without the efforts of four lovely ladies: Elizabeth Havelock (Media Advisor); Diane Ramey (my interviewer and partner in crime); Mary Anne Martin (who if I'm ever rich and famous I will hire as my personal secretary); and my special lady who encouraged me when I needed it the most!

Oh yes, thanks Communications Canada for paying the shot!

LIST OF TABLES

CHAPTER I

INTRODUCTION

The key assumption of this study is that man has a basic need to communicate. Recent technological progress in telecommunications has stressed the hardware, i.e., computer communications, satellite broadcasting and Bell Picturephones, and has overshadowed the human factor. A communication-technology explosion has taken place in recent years without a concomitant growth in empirical knowledge of its software (human) aspects. Several important questions remain unanswered: what effect does the new technology have upon human interaction?; why is physical travel, whether inter-office, inter-city, or international, still chosen by most individuals when telecommunications media are available, faster and perhaps cheaper?; are there differing detectable (i.e., analyzable) attitudes towards the new technological advances, especially the newly available interactive telecommunications media? If so, what effect do these attitudes have on the behaviour of these individuals when they are confronted with the technology?

One approach to the study of some important aspects of the above questions is offered by the concept of proxemics. Hall (1968) defines proxemics as the study of man's perceptions and use of space. It involves the use of spatial cues to convey a message, and may be consciously manipulated by S or more usually it may be part of his unintended, unconscious repertoire of behaviours.

Proxemics, then, is somewhat analogous to the notion of territoriality used by ethologists (Brown, 1965). In an earlier report (1963b) Hall said, "Proxemic patterns, once learned, are maintained largely out of awareness, and thus have to be investigated without resort to probing the conscious minds of one's Ss". Hall found several factors which affect the distancing behaviour of two people including their relationship and the nature of their meeting; and furthermore (Hall, 1959, 1966) that people from different cultures, or from different groups or backgrounds (i.e., with different attitudes) often hold different concepts of personal space.

Another behaviour, eye contact or gazing behaviour, is closely related to proxemic patterns as shown by Argyle and Dean (1965). In summarizing the functions of eye contact, they note that it signals information seeking, indicates that the channel is open, permits concealment or exhibitionism, shows recognition of social relationships, and reflects approach-avoidance motivation. Argyle and Dean (1965) have put forth a hypothesis of compensation which predicts that when an equilibrium point is reached in the nonverbal expression of interpersonal intimacy, any substantial change in one of the behaviours (e.g., physical distance, eye contact, body orientation or body lean) on the part of one person requires a reciprocal change in one or more of the behaviours on the part of the other person. An example they cite is that "eye contact seems to increase as the communicating pair increase the distance between them." In this case, eye contact psychologically reduces the distance between communicators. Extensive research, both correlational and experimental support the proposed compensatory process (cf. Felipe and Sommer, 1966;

Watson and Graves, 1966; Goldberg, et al., 1969; Patterson and Sechvest, 1970; Romano, 1971; Aiello, 1972; Argyle and Ingham; 1972; Patterson, 1973; Stewart and Patterson, 1973).

Changes in ocular behaviour reflect more than proxemic or physical distance relationships. They also seem to reflect other kinds of psychological distance. Thus Argyle and Dean (1965) found that if Ss approached photographs with the intention of getting close enough to "see well", they would stand closer to photographs of faces with eyes closed than to those with eyes open. Other studies have sought out the specifics of the behaviour. Exline (1963) found that embarrassing and innocuous questions produced only slight differences in visual attention while S was listening, but that there was a significant decrease in eye contact when embarrassing questions were being answered. Somewhat related to this finding is a study carried out by Dosey and Meisels (1969) who found that when stress was artificially introduced into the experiment, Ss stayed further away from the experimenter. It may be that by reducing the degree of eye contact, one psychologically increases the perceived physical distance between himself and the person with whom he is interacting, thereby establishing a new personal space without physically moving. However, the results of a study done by Hobson, Strongman, Bull and Craig (1973) did not support the hypothesis that gaze aversion would increase as the anxiety of one or both of the participants increases. Female subjects exhibit more eye contact than male subjects do as shown by Patterson (1973); Exline, Gray and Schuette (1965), and Aiello (1972) and are more sensitive to experimental factors (Dosey and Meisels, 1969).

Patterson (1973) noted that there was greater eye contact in same sex pairs than in opposite sex pairs. Jurich and Jurich (1974) interviewed subjects about their sexual attitudes and found a high correlation between finger sweat index, rater's global rating, immediacy tone, postural relaxation, speech errors, filled pauses, editorial errors and eye contact. Thus eye contact and immediacy seem to be highly reliable to other indications of anxiety during an interview. Also, Patterson (1973) found that immediacy behaviours are highly consistent over time i.e., an individual will exhibit similar stable behaviours in various testing sessions.

Returning now to our question of how people react towards the new communication technology, Dinoff, et al. (1969) reported that subjects responded to a video-taped interviewer as though he were physically present proving that electronically mediated interviews are feasible both as a research and as an applied clinical device, however, they were concerned with the subjects' verbalizations and rating of the interviewer (e.g., "He was a very nice doctor) rather than their actual behaviour in the interview.

Effective utilization of the new communications media (e.g., Bell Picturephones) may be examined in terms of the extent to which electronically mediated communicative behaviour approximates "natural" face-to-face interaction. In an ongoing face-to-face interaction, communications, both verbal and nonverbal, (e.g., personal distancing and eye behaviour) give constant information as to the affective state of the participating members.

Will such behaviours occur in an electronically-mediated interview, i.e., where the participants interact via a closed circuit TV system? Further, what effect will feedback of one's own image during such an interview, or the lack of said feedback, have on the interviewee's behaviour.

In the present study it is proposed that 1) Subjects will choose more distant positions (either through chair movement or through use of the zoom controls) when preparing to answer a group of stressful i.e., embarrassing questions. 2) Subjects will avoid looking at interviewer (or at themselves in the feedback conditions) when answering embarrassing questions. 3) Subjects without feedback are in a more precarious situation, as will be shown in how subjects rate themselves and their present situation on semantic-differentials. 4) For all groups (feedback and nonfeedback) compensation will occur, i.e., eye contact will decrease or own image-size will decrease or both as the interviewer's image distance increases; and, the converse may be true as the interviewer's image-distance decreases.

Changes in own image size may be accomplished either through physical movement of subject's chair (forward or backward) or through electronic manipulation of image size (zoom controls).

METHOD

Apparatus

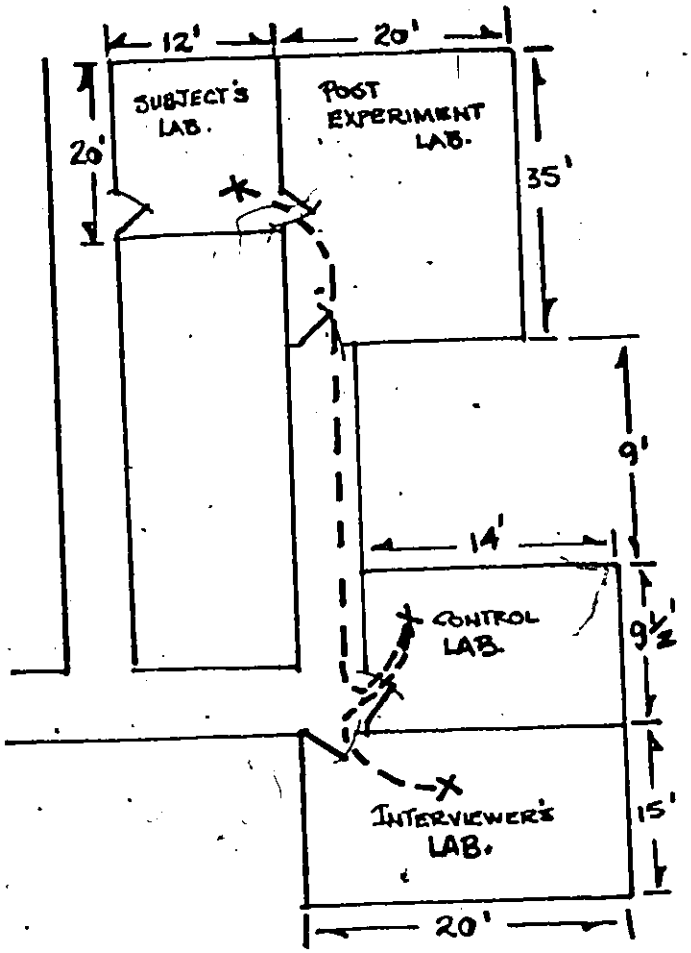
The following equipment was used:

1) One Sony Video Camera: Model DXC-2000A with Zoom Lens 12.5 - 50 mm. (on confederate).
2) One Sony Video Camera: AVC-3210 with Zoom Lens 16-64mm. (on subject).
3) One Sony Videocorder: AV-3650 (for taping Subjects' responses).
4) One Sony Audio Tapecorder: TC 105 (used as amplifier to send confederate's voice to Subjects' monitor).
5) Three Sony Video Monitors: CVM-11QUA (11" picture tube, measured diagonally).
6) Three Sony F-96 Dynamic Microphones.
7) One Bogen "Challenger" Amplifier, Model CHS-35; Series F-109, used as P.A. with one 8 ohm speaker to monitor the beginning and ending of confederate's question block.

Figure 1 depicts the subject's lab; it was completely symmetrical with curtains on the sides and in front. The panel behind the subject's chair served two functions: 1) it blocked vision of the doors, and 2) gave similar backgrounds in both the subject's and the interviewer's monitors.

Figure 2 represents the floor plan of the experimental setting. The dotted lines from the subject's lab and the interviewer's lab to the control lab represent wires. The experimenter could open audio and

FIGURE ②. FLOOR PLAN OF EXPERIMENTAL SETTING.



The post experimental lab: The subject was brought here after the interview to fill in semantic differentials and to be debriefed.
The subject's lab: See Figure 1.
Control lab: From here the experimenter could open audio and visual communication between the subject and the interviewer.
Interviewer's lab: Was made to appear similar to that of the subject in all aspects that were evident to the subject; thus while the interviewer's chair remained stationary and she had only one monitor, there were panels behind her to make her image appear as if it emanated from a setting similar to that of the subject's.

A: Monitor A carries the interviewer's image.
B: Monitor B carries the subject's image. Depending on experimental condition, it will be the left, right or not supplied.
C: Microphone carries subject's voice to the interviewer. The microphone was placed in between monitors A and B, thus being to the left or right of Monitor A depending upon experimental condition. When there was no feedback monitor (i.e., subject's own image), the microphone was to the best of our recollection, on the right side of Monitor A as viewed by the subject. Note: At the time the placement of the microphone in the "No Monitor" (i.e., Feedback) condition did not seem important.
D: Camera lens pokes out of curtain as close as possible to the top of Monitor A.
E_1: Zoom panel, with five buttons, attached to subject's chair. Four of the buttons are marked zoom 1 minimum 2 3 4 maximum, the fifth is marked focus. This panel is connected to a second panel (E_2) behind the front curtain. E_2 has the same configuration, but has lights rather than buttons.
F: Work Area: the subject moves her chair up to this position to fill in semantic-differential during pauses in the interview.
G: Pieces of masking tape from front of monitor table to background panels, tape-marked every eight inches back to eight feet.
H: Initial chair position; the subject moved the chair from here to her preferred seating distance from the TV camera and monitor.
I: Unobtrusive black boards added or removed to raise or lower Monitor A so that the eyes of the interviewer were on the same level as the eyes of the subject.
J: Curtains ran along the walls and hung from a frame in front such that the room was perfectly symmetrical.
K: The subject's and interviewer's labs were made to appear similar by the use of folding panels in the background.

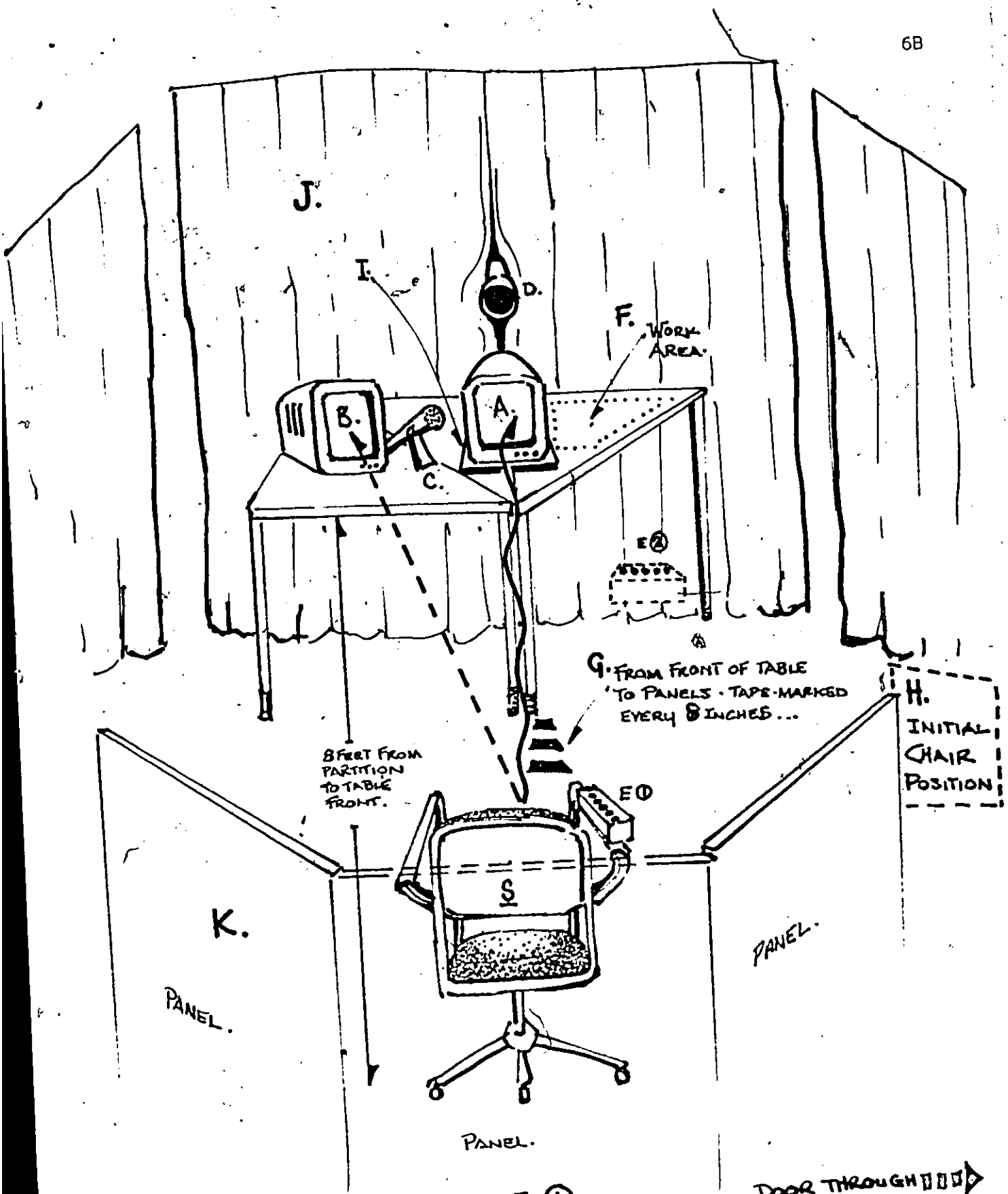


FIGURE ①.

SUBJECT'S LAB.

video communication between the interviewer and the subject from the control room. The post experimental lab was used for debriefing the subjects.

Subjects

Forty-eight female volunteer undergraduate students attending summer courses at the University of Windsor.[1]

Interviewer

Female University of Windsor graduate student, aged 24 years who had no previous acquaintance with the subjects.

Procedure

When the subject entered the subject's lab her chair, an office chair on coasters, was located on the far side of the room (the right side as viewed by subject) about parallel to the table on which were the TV monitors. The subject was asked to sit anywhere she liked inbetween Monitor A and the back panel as long as she remained in front of the camera. Subjects were seen individually. The experimenter engaged each subject in a brief casual conversation to make her feel at ease, during which she was told that the experiment was merely a pilot study in order to avoid "evaluation apprehension" (Rosenberg, 1965), that is, the subjects were made to feel as collaborators or confederates rather than as subjects.

Each subject was asked 54 questions, the first six being merely a warmup composed of some personal and some nonpersonal questions. The remaining 48 questions were divided into eight groups of six questions each,

[1] 48 additional Ss who went through the same experimental procedure, except for the order of questions were not used in the present analyses except for My feelings about the Mode of Communication, My feelings about the Interview Situation, and My Behaviour during the Experiment.

such that each group consisted of one type of question--either embarrassing (personal) or nonembarrassing (impersonal). (See Appendix K for schedule used).

Questions were randomized separately for each subject, and each group contained equal amounts of verbal, spatial, easy and difficult questions. (See Appendix F). These questions were asked by the interviewer via closed circuit TV. The interviewer memorized the question, looked at the subject, and slowly, while maintaining her gaze, asked the question. The interviewer continued looking at the subject until the subject finished answering, and then went on to the next question. In fact, in order to be seen to appear to be looking directly into the subject's eyes, the interviewer looked at the camera, rather than into the eyes of the subject's image on her monitor.

The camera was placed as close as possible to the top of Monitor A so that when looking into the eyes of the interviewer's image it was difficult to discriminate whether she was looking at the interviewer's face or at the camera. Thus feedback from her own image on Monitor B suggested to her, when viewed peripherally as she looked at the interviewer on Monitor A, that she was looking where she was in fact looking. To avoid perceived status differences, which might have resulted if the image of the interviewer's face had been other than on the same plane as the subject's face (Dickson, 1973) black boards, carefully cut to fit the bottom of Monitor B were added or removed so as to bring the eyes of the interviewer's image on the same plane as the eyes of the subject.

In Condition 1, there was a second monitor (Monitor B) to the right of Monitor A (carrying the interviewer's image) carrying the

subject's own image; and to the left was another table used to fill in Semantic Differentials between groups of questions. In Condition II, the second monitor was to the left of the one carrying the interviewer's image, and the work table was to the right of the others. In Condition III, only the monitor carrying the interviewer's image was present, with a table on each side of the monitor table.

The subject's attention was then brought to the television equipment, and the experimenter explained the purpose and procedure of the experiment (See Appendix F for actual script). The subject was told that the experimenter was attempting to develop an interview procedure using closed-circuit television. He was seeking a nonembarrassing method of studying Canadian attitudes towards sex and other topics, and was presently using the television technique since many people found face to face interviews somewhat intimidating.

On the arm of the subject's chair was a panel marked Zoom 1 minimum 2 3 4 maximum and Focus with buttons to press for the subject to indicate her preferred lens setting; a similar panel lit up according to the button pressed by the subject--from this, the experimenter made the necessary adjustments.

Once the subject was seated, the experimenter instructed the subject in the use of the zoom panel by changing the zoom position on the subject's camera to each of the four lens settings, calling them by number as he did so: "1 minimum 2 3 4 maximim", and relating them to the buttons on the subject's panels at the same time. Zoom 1 minimum was a half-body shot showing the body from the knees to the head, Zoom 4 maximum was a closeup of the face only. The experimenter demonstrated

the lens (or zoom) settings a number of times until the subject could identify the zoom positions (1, 2, 3, 4) by the size of her image on the monitor. In Condition III, this was done using the monitor which was to carry the interviewer's image. In Conditions I and II, it was done on the subject's monitor (Monitor B) while the interviewer's monitor (Monitor A) remained blank.

After the above practice, the subject was asked to press the button which indicated her preferred image-size; this lit up a corresponding light which the experimenter used as a guide for setting the zoom lens. The subject was asked not to verbalize her preference (on the pretense that the experimenter wished to simulate actual conditions with automatic equipment which was supposedly to be used in the "real" experiment), such that a physical involvement with the equipment was necessary.

Once the subject settled on a starting position (i.e., image-size), the experimenter mentally noted both lens setting and chair position (measured by strips of tape on the floor, ranging in equal intervals of eight inches from the monitor table-front back to the background panel--a total of eight feet). Then he went into the control room, recorded the noted information and caused the interviewer's image to appear. The interviewer communicated from a room down the hall and never met the subject face to face until after the experiment.

The first warm-up group of six mixed questions (first three were neutral, last three were personal) were then asked by the interviewer. The experimenter could hear the subject's responsesthrough an audio hook-up, and simply shut off the video-recorder at the end of each group

of questions. After every second group, the experimenter returned to the subject's lab and asked her to move up to the work area (i.e., table beside Monitor A) to fill in semantic-differentials on how she felt about herself and the interviewer during the preceding groups of questions.

At the end of each semantic-differential (See Appendix B_1 or B_2) was a brief description of the questions to be asked in the next two groups of questions, e.g., the next two groups of questions will be of the general, impersonal type; or the next two groups of questions will be personal and possibly embarrassing. The experimenter then went behind the curtain and asked the subject to indicate, via the zoom panel, any change in image-size. If the subject did so, the experimenter made the proper adjustments to the camera; an alternative, as previously explained to the subject, was to move her chair forwards or backwards, wherein she had to use the Focus button for a clear image; if the subject pressed the focus button, the experimenter made the adjustments. On leaving, the experimenter mentally noted lens setting and chair position, and then returned to the control room.

In the first four groups of questions, any change in image-distance made by the subject was presumably made on the basis of the interviewer's last image before fading. After the fourth group of questions was completed, and after the subject had chosen her preferred image-distance, the interviewer said, "Oh, I forgot that we're starting the second half of the interview, you get to see your interviewer's starting image and can adjust your image before the onset of questions." Thereafter the

interviewer's starting image was seen before the subject made a decision as to her image-distance (lens setting or chair position).

The interviewer's image schedule was chosen randomly from either CCCC FFFF or FFFF CCCC wherein C corresponds to Zoom 4 maximum (lens setting) and F corresponds to Zoom 1 minimum. The interviewer's chair position never moved. Changes in her image size were accomplished entirely by means of the zoom controls on her camera.

After all eight groups of questions were completed, the subject was taken to the post-experimental room and given more thorough semantic-differentials rating the mode of communication used; the interview situation; and her own behaviour. (See Appendices C, D and E).

The subject was then introduced face to face to the interviewer and debriefed by both the experimenter and the interviewer. She was told the general purpose, i.e., determining how people feel about, and react to this type of interview situation, but in order to avoid contaminating future subjects, the subject was not told any of the "hidden" purposes, for example, investigation of proxemic patterns or eye behaviours. All questions, though, were answered honestly and the subject was reassured of the value of her participation.

Reliability

Four observers were used to record the ocular responses for all 48 subjects. The first two observers scored together until they had scored at least ten subjects, and until they had agreed on at least forty-three out of forty-eight scores on five consecutive scoring attempts. These trained observers then repeated the same procedure with the other two observers. Checks were made regularly to insure continued agreement.

Over 100 questions, taken from various serouces, were administered to 12 females prior to the actual experiment. These people rated the questions as to degree of intimacy, the 24 questions rated as most intimate and the 24 questions rated as most neutral were used in this study.

Variables of Interest and Overview of Experiment

Five independent variables were of major interest:

1) location of self-view (SV) monitor: a. on right of monitor carrying interviewer's image (SV monitor right); b. on left of monitor carrying interviewer's image (SV monitor left); c. no SV monitor.

2) apparent distance of interviewer image (a. far, b. close).

3) intimacy of question content, as determined by groups of six questions (a. intimate, 2. neutral).

4) Time: the 48 questions were divided into eight sets of six questions each. Time effects were analyzed in terms of Blocks (Block 1 being responses to the first four sets of questions, Block 2 being responses to the second four sets of questions) and in terms of Trials (for trial effects the eight sets of questions were divided successively into four pairs. Trial 1 consisted of responses to the first set of six questions in a pair; Trial 2 consisted of responses to the second set of six questions in a pair).

5) Order of intimacy and distance effects which alternated after four trials.

There were 16 behavioural dependent variables, plus verbal dependent variables generated from subjects' ratings during and after the experiment.

Behavioural Dependent Variables

1. Lens setting (1 = half body shot including knees, 2, 3, and 4 = close up of face only) recorded by the experimenter according to the button pressed by the subject on her lens setting control panel.

2. Chair position (ranging from 0 = chair placed so that, if sitting upright, subjects' face was approximately six inches (15.34 cm.) from the monitor carrying the interviewer's image to 16 = chair placed so that, if sitting upright subject's face was approximately 8 1/2 feet from the monitor, measured to the nearest 8 inches). Thus 1 = 14" from monitor, 2 = 22" from monitor, 3 = 30" inches from monitor, etc.

3. Time spent looking at interviewer's image between the time the interviewer began asking a question and the time the subject began her answer 0 = not at all, 1 = some of the time, and 2 = all the time. Scored from videotape record.

4. Time spent looking at interviewer's image between the time the subject began her answer and the time she finished her answer (since the interviewer began her next question immediately when the subject finished her answer, no time is left unaccounted for). 0 = not at all, 1 = some of the time, and 2 = all of the time. Scored from videotape record.

5. Time spent looking at own image (on SV monitor) between the time the interviewer began asking a question and the time the subject began her answer. 0 = not at all, 1 = some of the time, and 2 = all of the time. Scored from videotape record.

6. Time spent looking at own image between the time the subject began her answer and the time she finished her answer. 0 = not at all, 1 = some of the time, and 2 = all of the time. Scored from videotape record.

7. Time to onset of verbal response. The time period (as measured by stopwatch to the nearest .5 second) between the moment when the interviewer finished asking a question and the moment the subject began to answer. Scored from videotape record.

8. Time to offset of verbal response. The time period (as measured by stopwatch in .5 seconds) between the time when the interviewer finished asking a question and the moment the subject finished her verbal response. Scored from videotape record.

9. Duration of verbal response: Variable 8 - Variable 7.

10. Maintained gaze at monitor carrying interviewer's image, scored 1 if gaze was maintained throughout the duration of her verbal response, otherwise scored 0.

11. Ups: Please refer to figure 3. If a subject looked away from the monitor carrying interviewer's image, in response to any given question, she either did not look up at all (i.e., looked directly to one side or another, directions 5 and 13) or looked down, directions 6 through 12) or else looked to some extent upwards. The Up score reflects the extent to which the subject looked up. A slightly upward look, directions 4 and 14 were coded 1, a look up at an angle of 45°, directions 3 and 15, were coded 2, a predominantly upward look, directions 2 and 16, were coded 3, and a look directly upward, direction 1, was coded 4.

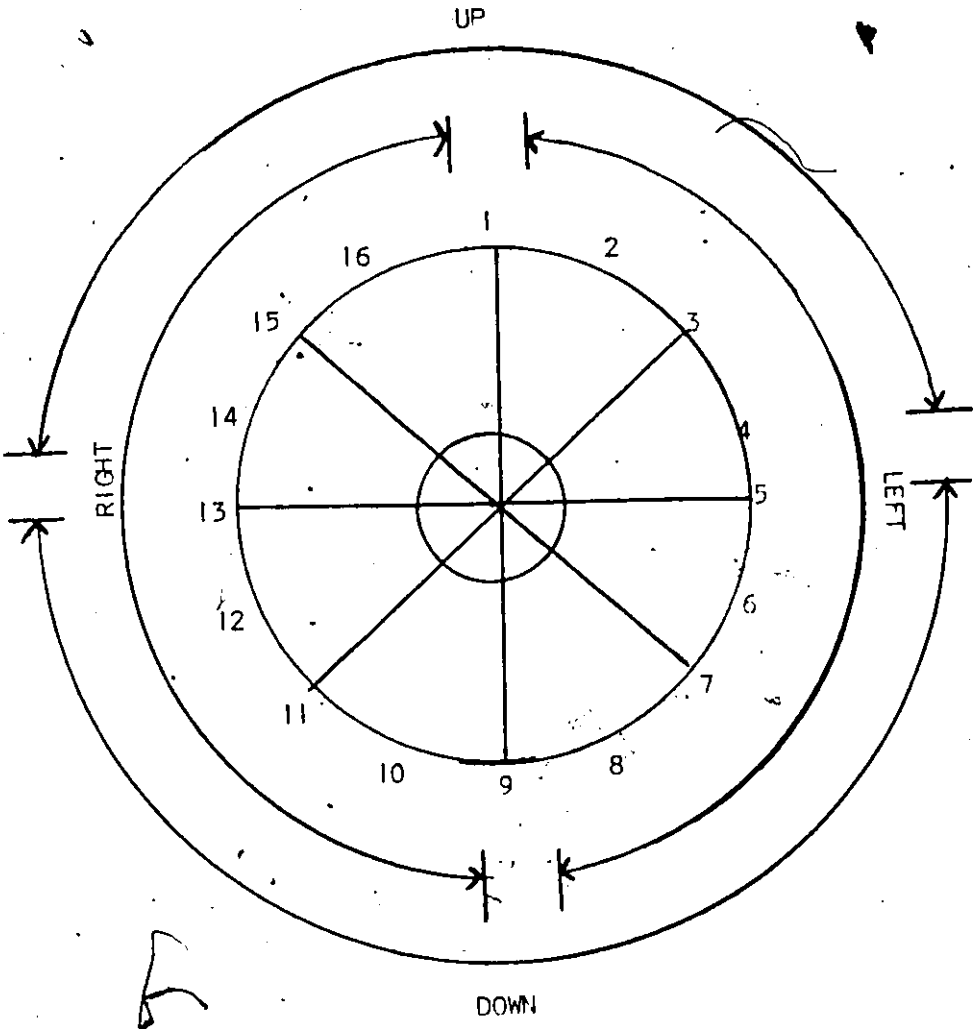


Figure 3: Diagram used for Computation of Scores for Direction of Gaze Aversion.

12. Downs: The down score reflected the degree to which the subject looked down, computed in a way analogous to Ups. See Variable 13 description and Figure 3.

13. Ups -Downs. Variable 11 minus variable 12.

14. Rights (cf. 12)

15. Lefts (cf. 12)

16. Rights-Lefts (cf. 13)

Verbal Dependent Measures

1. Semantic Differential: My feelings about myself during the last block of questions (completed after question sets 2, 4, 6, and 8, Appendix A).

2. Semantic Differential: My perception about the interviewer during the last block of questions (completed after question sets 2, 4, 6, and 8, Appendix B).

3. Semantic Differential: My feelings about the mode of communication (Appendix C).

4. Semantic Differential: My feelings about the interview situation (Appendix D).

5. Semantic Differential: My Behaviour During the Experiment (Appendix E).

An Overview of the Time Course of the Experiment, giving the measures taken and the experimental conditions upon which the subject may be presumed to have been acting at each point in the experiment is given in Table 1.[3]

[3]Several other questionnaires were given after the interview but were not relevant to the present thesis.

TABLE I

Time Course of the Experiment from Viewpoint of the Subject, Showing Information Available on which to Base Choice of Lens and Chair Positions, and Timing of Measures of Dependent Variables

		Receiver has received advance information		Chair Movements	Lens Setting	E Measures Lens & Chair	Behaviouree Measures Lens & Chair	Completes Semantic Differentials
		RE: Question Intimacy	RE: Image Distance					
Question Set #1	Pre	No	No	From Wall	Yes	Yes		
	During						Yes	
	Post							
#2	Pre	No	No	Optional	Optional	Yes		
	During						Yes	
	Post			Yes to table; yes from table				Yes
#3	Pre	Yes	No		Optional	Yes		
	During						Yes	
	Post							
#4	Pre	Yes	No	Optional	Optional	Yes		
	During						Yes	
	Post			Yes to table; yes from table				Yes
#5	Pre	Yes	Yes	Optional	Yes			
	During						Yes	
	Post							
#6	Pre	Yes	Yes	Optional	Optional	Yes		
	During						Yes	
				Yes to				Yes

2 of

Showing Information

ns, and Timing of

havlour osures ns & air	Completes Semantic Differentials	Other	ORDER 1		ORDER 2		
			Question Intimacy	Interviewer's Distance	Question Intimacy	Interviewer's Distance	Question Intimacy
Yes		S is briefed re: use of controls; 8 sets of questions.	Neutral	Close	Intimate	Close	Neutral
Yes	Yes		Neutral	Close	Intimate	Close	Neutral
Yes			Neutral	Close	Intimate	Close	Neutral
Yes	Yes	S is informed that part two is beginning & that she will see interviewer image size first.	Neutral	Close	Intimate	Close	Neutral
Yes			Neutral	Close	Intimate	Close	Neutral
Yes	Yes		Neutral	Close	Intimate	Close	Neutral

ORDER 1		ORDER 2		ORDER 3		ORDER 4	
estion timacy	Interviewer's Distance	Question Intimacy	Interviewer's Distance	Question Intimacy	Interviewer's Distance	Question Intimacy	Interviewer's Distance
utral	Close	Intimate	Close	Neutral	Far	Intimate	Far
utral	Close	Intimate	Close	Neutral	Far	Intimate	Far
utral	Close	Intimate	Close	Neutral	Far	Intimate	Far
utral	Close	Intimate	Close	Neutral	Far	Intimate	Far
utral	Close	Intimate	Close	Neutral	Far	Intimate	Far
utral	Close	Intimate	Close	Neutral	Far	Intimate	Far

#2	Pre	No	No	Optional	Optional	Yes		
	During						Yes	
	Post			Yes to table; yes from table				Yes
#3	Pre	Yes	No		Optional	Yes		
	During						Yes	
	Post							
#4	Pre	Yes	No	Optional	Optional	Yes		
	During						Yes	
	Post			Yes to table; yes from table				Yes
#5	Pre	Yes	Yes	Optional	Yes			
	During						Yes	
	Post							
#6	Pre	Yes	Yes	Optional	Optional	Yes		
	During						Yes	
	Post			Yes to table; yes from table				Yes
#7	Pre	Yes	Yes		Optional	Yes		
	During						Yes	
	Post							
#8	Pre	Yes	Yes	Optional	Optional	Yes		
	During						Yes	
	Post			Yes to Table				Yes

Optional	Yes	Yes	Yes		Neutral	Close	Intimate
Optional	Yes	Yes			Neutral	Close	Intimate
Optional	Yes	Yes	Yes	S is informed that part two is beginning & that she will see interviewer image size first.	Neutral	Close	Intimate
Yes		Yes			Neutral	Close	Intimate
Optional	Yes	Yes	Yes		Neutral	Close	Intimate
Optional	Yes	Yes			Neutral	Close	Intimate
Optional	Yes	Yes	Yes	S completes post-experimental questionnaires and is de-briefed.	Neutral	Close	Intimate

ral	Close	Intimate	Close	Neutral	Far	Intimate	Far
ral	Close	Intimate	Close	Neutral	Far	Intimate	Far
ral	Close	Intimate	Close	Neutral	Far	Intimate	Far
ral	Close	Intimate	Close	Neutral	Far	Intimate	Far
ral	Close	Intimate	Close	Neutral	Far	Intimate	Far
ral	Close	Intimate	Close	Neutral	Far	Intimate	Far
tral	Close	Intimate	Close	Neutral	Far	Intimate	Far
tral	Close	Intimate	Close	Neutral	Far	Intimate	Far

CHAPTER III

RESULTS

Since the design of the experiment purposely confounded time and order effects with experimental conditions, the general plan of analyses for both behavioural and verbal dependent measures required two separate analyses of variance for each measure, the first to identify time and order effects, the second to identify the effects of experimental conditions. Verbal measures required additional analyses preceding the application of analyses of variance to identify the major dimensions in terms of which subjects perceived the experiment. Therefore analyses of behavioural and verbal measures are reported in separate sections.

Analyses of Behavioural Dependent Measures

Analyses of variance of the effects of the three levels of self-view monitor location, four levels of order of intimacy and distance (both between subject effects) two levels of blocks of question sets and four levels of trials (both within-subject effects) are reported in Table 2). Of the 15 components of the analysis of variance, 11 have significant effects upon at least one of the dependent variables. The effects of five of these components involving only monitor location, blocks and trials, are detailed in Table 3 which gives the means for significant effects, along with results of Duncan Multiple Range tests to identify which means are significantly different.

TABLE 2

Combined Analyses of Variance Tables Showing Effects of Monitor Location (Right, Left,
Order of Experimental Effects (Question Intimacy and Apparent Distance of Intervi
Blocks of Question Sets (Two Blocks), and Question Sets (Four Sets per block) Upon th
Dependent Measures

	d.f.	Proxemic Behaviour		Verbal Behaviour				
		Lens Setting	Chair Position	Onset of Verbal Response	Length of Verbal Response	Offset of Verbal Response	Looking at Interviewer (beginning answer)	Looki Inte (dur answ
Monitor (M)	2	1.81	2.24	6.83**	7.06**	4.95*	6.70**	
Order (O)	3	1.96	2.95*	0.17	2.35	1.34	0.52	0
M X O	6	1.16	2.62*	1.69	1.06	1.15	2.44*	
Subjects/MO	36							
Blocks (B)	1	9.00**	5.96*	0.63	8.83**	6.12*	0.02	
M X B	2	1.40	0.13	0.22	3.59*	1.35	1.02	
O X B	3	2.39	1.30	1.41	1.29	0.20	2.59	
M X O X B	6	3.29*	1.05	0.01	0.52	0.23	0.48	
SB/MO	36							
Trials (T)	3	5.22**	4.05**	2.89*	2.01	2.62	0.69	
M X T	6	0.79	1.18	1.07	1.83	1-48	0.49	
O X T	9	0.51	2.29*	2.36	0.51	1.78	0.53	
M X O X T	18	1.15	1.93*	1.12	1.60	0.74	0.82	
ST/MO	108							
B X T	3	4.57*	1.06	0.16	1.92	0.55	1.05	
M X B X T	6	0.92	0.43	0.58	1.40	0.55	0.86	
O X B X T	9	0.77	0.73	1.67	0.75	1.56	1.29	
M X O X B X T	18	1.41	1.20	1.24	0.73	0.91	1.13	
SBT/MO	108							

*Mean squares for error terms are: Subjects/MO

(Right, Left, & None)
ance of Interviewer),
block) Upon the Sixteen

ooking at nterviewer eginning nswer)	Looking at Interviewer (during answer)	Ocular Maints	Up	Down	Up-Down	Right	Left	Right-Left	Looking at Self (beginnin answer)
6.70**	1.64	3.17	2.90	4.74*	4.50*	9.44**	11.52**	12.59**	2.00
0.52	0.61	0.44	0.21	0.67	0.23	0.75	1.67	1.33	0.67
2.44*	1.41	2.08	1.21	2.87*	1.85	2.61*	0.99	2.15	0.67
0.02	2.74	0.01	1.82	0.01	0.57	6.93	0.61	3.46	2.00
1.02	0.45	1.59	4.38*	0.89	2.89	1.76	1.58	2.02	2.00
2.59	2.91	7.59**	4.75**	1.02	3.24*	1.35	3.41*	0.31	0.67
0.48	0.65	1.67	2.66*	0.58	1.71	3.88**	2.92**	4.30**	0.67
0.69	0.26	0.64	0.12	0.58	0.18	0.58	0.19	0.44	0.67
0.49	0.91	0.99	0.34	0.41	0.47	0.91	0.90	0.62	0.67
0.53	0.35	1.00	1.29	0.61	0.96	0.87	0.59	0.86	1.11
0.82	0.72	1.12	0.46	0.67	0.45	0.83	0.87	0.93	1.11
1.05	0.32	0.94	2.38	2.53	3.48*	3.60*	1.19	2.32	0.67
0.86	0.60	0.96	0.24	1.16	0.42	1.59	0.51	0.78	0.67
				1.50	1.48	0.69	1.06	0.60	1.11
				0.54	0.77	1.43	0.60	0.90	1.11
1.29	1.73	1.70	1.08						
1.13	1.33	0.77	0.82						

2 of

& None)
lewer),
ne Sixteen

ing at rviewer ing er)	Ocular Maints	Up	Down	Up-Down	Right	Left	Right-Left	Looking at Self (beginning answer)	Looking at Self (During answer)
1.64	3.17	2.90	4.74*	4.50*	9.44**	11.52**	12.59**	2.00	--
0.61	0.44	0.21	0.67	0.23	0.75	1.67	1.33	0.67	--
1.41	2.08	1.21	2.87*	1.85	2.61*	0.99	2.15	0.67	--
2.74	0.01	1.82	0.01	0.57	6.93	0.61	3.46	2.00	--
0.45	1.59	4.38*	0.89	2.89	1.76	1.58	2.02	2.00	--
2.91	7.59**	4.75**	1.02	3.24*	1.35	3.41*	0.31	0.67	--
0.65	1.67	2.66*	0.58	1.71	3.88**	2.92**	4.30**	0.67	--
0.26	0.64	0.12	0.58	0.18	0.58	0.19	0.44	0.67	--
0.91	0.99	0.34	0.41	0.47	0.91	0.90	0.62	0.67	--
0.35	1.00	1.29	0.61	0.96	0.87	0.59	0.86	1.11	--
0.72	1.12	0.46	0.67	0.45	0.83	0.87	0.93	1.11	--
0.32	0.94	2.38	2.53	3.48*	3.60*	1.19	2.32	0.67	--
0.60	0.96	0.24	1.16	0.42	1.59	0.51	0.78	0.67	--
			1.50	1.48	0.69	1.06	0.60	1.11	--
			0.54	0.77	1.43	0.60	0.90	1.11	--
1.73	1.70	1.08							
1.33	0.77	0.82							

TABLE 3

Means for Significant Effects of Monitor Location, Blocks of Questic
Question Sets upon the Behavioural Dependent Variables.[1]

			Proxemic Behaviour		Verbal Behaviour			
			Lens Setting	Chair Position	Onset of Verbal Response	Length of Verbal Response	Offset of Verbal Respone	Looking at Interviewer (Begin
Monitor (M)		Right			21^{b}	21^{a}	42^{a}	44^{a}
		Left			30^{a}	15^{b}	45^{a}	20^{b}
		None			21^{b}	11^{b}	33^{b}	42^{a}
Block (B)		1	19	59		14	38	
		2	21	62		18	43	
M X B	Right	B1				17^{b}		
		B2				25^{a}		
	Left	B1				13^{bc}		
		B2				17^{b}		
	None	B1				11^{c}		
		B2				11^{c}		
Trial (T)		1	19^{b}	59^{c}	23^{b}			
		2	20^{a}	60^{bc}	24^{ab}			
		3	21^{a}	61^{ab}	24^{ab}			
		4	20^{a}	61^{a}	26^{a}			
B X T	B1	T1	18^{d}					
		T2	19^{cd}					
		T3	21^{ab}					
		T4	20^{bc}					
	B2	T1	21^{ab}					
		T2	22^{a}					
		3	22^{ab}					
		4	20^{abc}					

[1] Significance of Results Based on Table 1, order of experimental effects are omi
to rounding, some differences disappeared.

rion, Blocks of Question Sets and
Dependent Variables.

viour	Ocular Behaviour								
Offset of Verbal Respone	Looking at Inter-viewer (Begin	Maints	Up	Down	Up-Down	Right	Left	Right-Left
42^{a}	44^{a}			21^{b}	40^{a}	32^{b}	73^{a}	-42^{b}
45^{a}	20^{b}			30^{ab}	30^{a}	80^{a}	39^{b}	41^{a}
33^{b}	42^{a}			43^{a}	-3^{b}	70^{a}	31^{b}	39^{a}
38						57		
43						64		
			58^{ab}					
			63^{a}					
			68^{a}					
			52^{b}					
			41^{c}					
			39^{c}					
					25^{ab}	59^{a}		
					33^{a}	47^{b}		
					20^{ab}	65^{a}		
					19^{ab}	57^{ab}		
					25^{ab}	60^{a}		
					7^{b}	69^{a}		
					23^{ab}	62^{a}		
					27^{a}	66^{a}		

mental effects are omitted and given in Table 3. Due

Location of self-view monitor had the most pervasive and strongest effects of all the independent variables of the study. Indeed, the monitor location effects defied all expectations and forcefully call our attention to the fact that not only the present or absence of continuous feedback, but also its location on the left or right of the focus of main attention has truly remarkable consequences for non-verbal behaviour. These effects may be summarized in four categories:

(1) When the self view monitor is on the left of the monitor carrying the interviewer's image, as opposed to being on the right, both ocular and verbal response behaviour of the viewer is affected. She looks less often at the interviewer's image at the beginning of her answer to each question, and she waits longer to respond, and speaks for less time. Although in general looking at the interviewer at the beginning of an answer is closely related to maintaining eye contact, since the latter necessarily implies the former, it should be noted that no comparable effects held for maintained gaze. Subjects could, and evidently did, sometimes look away between the end of the question and the beginning of their answer, but look back at the interviewer as they began their answer. They were clearly less inclined to look back when receiving feedback of their own image from a monitor on the left. It seems as if it was more difficult for them to respond under these circumstances since they seemed to take more time groping for an answer and less time to say it once they found it.

(2) When a self-view monitor was present at all, either on the left or the right, subjects looked up more frequently then down as the first ocular response to the interviewer's question. When the monitor was absent they had a very slight tendency to look down. It seems that the very presence of a monitor provokes visual escape from the plane of their own image.

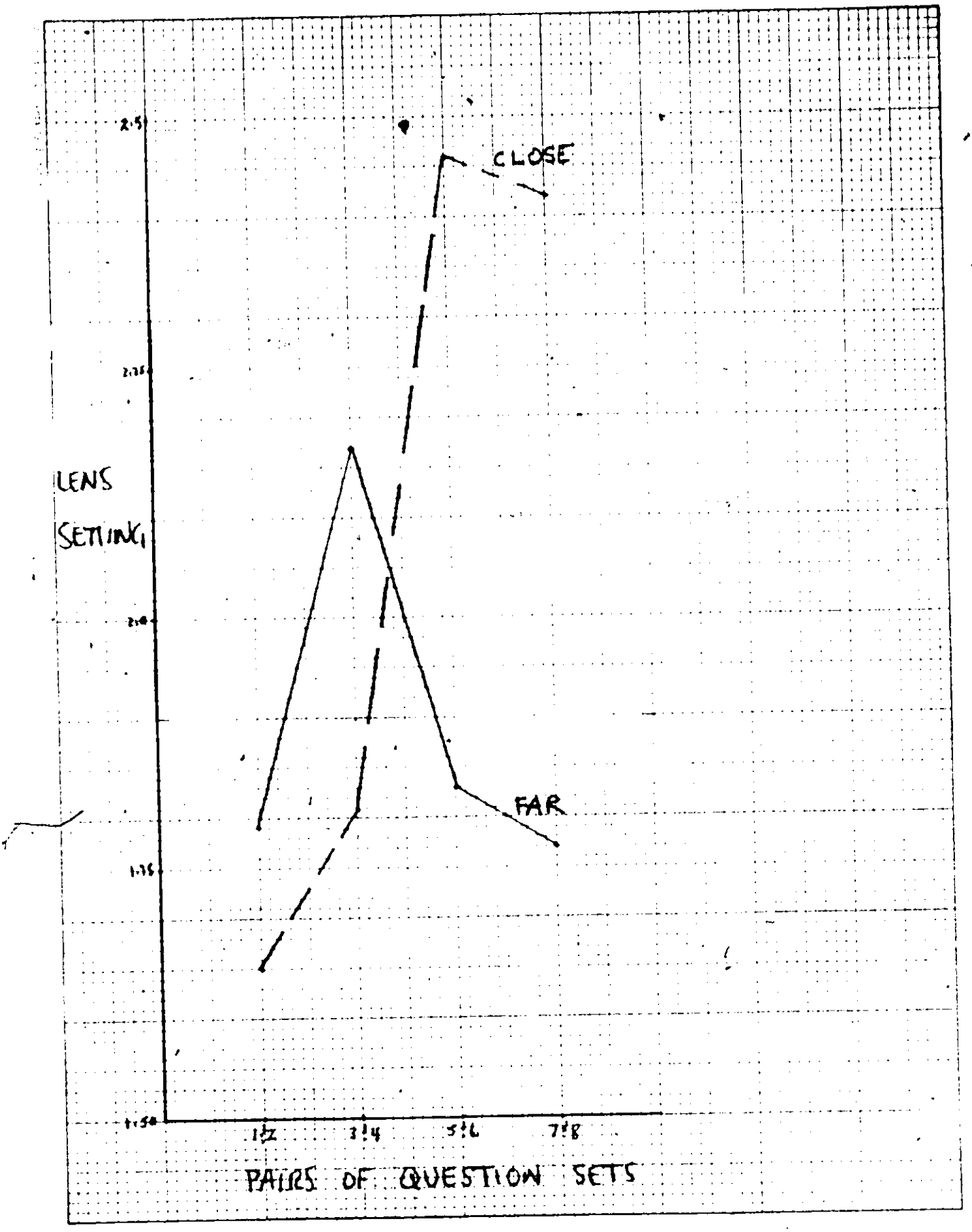
(3) When the self-view monitor was on their left, subjects averted their gaze more frequently to the right, than to the left; when the monitor was on the right they did the opposite, averting their gaze more frequently to the left than to the right. Evidently the monitor provoked visual escape. Although subjects certainly did look at their own image now and then it is clear that, when beginning to respond to a question they did not want to see themselves.

(4) Given significant differences between monitor right and monitor left, the effects of absence of the monitor were not consistent. Thus though the time to onset of their verbal response compared to the monitor right condition--that is, they waited less time to respond than when monitor was on left--the duration of their verbal response compared to the monitor left condition. Indeed their reply was even shorter than the monitor left condition. The frequency of looking at the interviewer was similar to the monitor right condition. Thus, when taking less time to give their response they were more likely to gaze at the interviewer at the time they began to reply to her. Finally, the direction of their horizontal gaze aversion corresponds to the monitor left condition; that

is, when there is no monitor they look away to the right. This behaviour was unexpected, since several previous studies (e.g., Libby and Yaklevich, 1973) suggest that the normal direction of horizontal gaze aversion may be to the left--certainly not significantly to the right! However, the location of the microphone on the right in the monitor absent condition may well explain the present findings. Perhaps, in the absence of visual feedback of own image, subjects look at the microphone. Since in both the self-view monitor present conditions the microphone was on the same side as the monitor it is clear that any positive valence the microphone may have had for visual attention was countermanded by the negative valance of subject's own image.

The significant effects of Blocks, Trials, and the Blocks x Trials interaction may be discussed together. During the time course of the experiment subjects' proxemic behaviour took an interesting twist. During the first block of questions their chair position averaged about 47 inches (119.4cm) from the interviewer's monitor; during the second block it averaged about 49 inches--both distances increasing slightly but significantly (only about 4% from trial 1 to trial 4 within each block). during their respective blocks. However, during the trials constituting the first block they continually adjusted their lens setting, making their image larger and larger, the average setting being 1.69 prior to trial 1 and increasing from 1.75 after trial 1 to 2.10 after trial 5, an increase of just over 17% as opposed to an increase in chair distance of just over 4%. Evidently, given the characteristics of the 16-64 mm

FIGURE 4 TIME COURSE OF LENS SETTING FOR CLOSE AND FAR INTERVIEWER IMAGES



zoom lens used in the study, any decrease in apparent distance due to actual chair movement away from the interviewer's monitor (and camera) was more than compensated by the increase in the size of their image due to technological manipulations of the lens setting controls. It is also important to note that lens settings stabilized by the beginning of the second block of questions; that is, although lens settings increased during Block 1 there was little further change during Block 2. Since chair position was also quite stable during Block 2 the second Block may be regarded as a more stable background for the observation of effects due to other experimental conditions.

Time also had a significant effect upon subjects' verbal behaviour. During Block 2 subjects talked longer in response to each question than during Block 1--shown in effects upon duration and offset of verbal response. If length of response can be taken as an index of immediacy it seems as if subjects felt more at home with the interviewer as time went by. In contrast to the Blocks effects upon duration of response, there was also a Trials effect within Blocks, upon onset of verbal response, indicating that subjects took longer and longer to begin their response from the first to the last question set within a Block. Were they becoming more reflective and concerned with the quality of their response, in line with an increasing immediacy interpretation, or were they becoming more anxious and tongue-tied?

There was also a Blocks by Trials interaction upon an ocular variable, Ups-Downs, which defied explanation and may be noted only in passing.

Table 3 shows only one other interesting result, qualifying the preceding effect of Blocks upon duration of verbal response. The significant Monitor Location by Blocks interaction shows that subjects' replies grow longer only when they have feedback of their own image. It does not matter whether it be from a monitor on the left or on the right, but if continuous feedback of own image is not present the length of their verbal responses does not increase. Particulary notable is the increase from Block 1 to Block 2 when the monitor is located on the right. If they are more comfortable when the monitor is on the right, as suggested by monitor location effects upon looking, how are we to interpret the fact that response length remains so short when there is no monitor?

The remaining six components of the analysis of variance in Table 2 with significant effects included order effects, which, in turn, include the experimental conditions of question intimacy and apparent distance of interviewer image. In order to assess order effect in more detail four separate analyses of variance were performed upon pairs of question sets. Independent variables for these analyses were Location of Self-view Monitor, Question Intimacy, Closeness of Interviewer Image (all between subjects) and Question Pairs (the only within subject variable). The significant effects of these variables for each of the four pairs of question sets are shown in Table 4. Duncan Multiple Range tests indicate the significant differences among means in the column for a given question pair for each component of the analysis of variance yielding significant effects for that question pair. In general, discussion will be limited to effects significant for at least two pairs of question sets. The Effects of Location of self-View Monitor merely confirm the pervasiveness and consistency

		Proxemic Behaviour				Verbal Behaviour				
		Lens Setting Block		Chair Position Block		Onset Block		Length Block		
		1 Pairs 1&2 3&4	2 Pairs 5&6 7&8	1 Pairs 1&2 3&4	2 Pairs 5&6 7&8	1 Pairs 1&2 3&4	2 Pairs 5&6 7&8	1 Pairs 1&2 3&4	2 Pairs 5&6 7&8	1 Pa 1&2
Monitor (M)	Right	16[b]			67[a]	192[b] 218[b]	192[b]	163[a]	280[a] 22	
	Left	16[b]			64[ab]	288[a] 313[a]	299[a]	119[b]	162[b] 18	
	None	22[a]			57[b]	201[b] 201[b]	218[b]	102[b]	108[b] 11	
Intimacy (I)	Intimate			63	58			100 111		
	Neutral			55	67			195 145		
Closeness (C)	Far		18 18							
	Close		25 24							
M X I Right	Intimate			71[a] 72[a]	56[a] 56[c]	186[b]	273[abc]			
	Neutral			51[b] 53[b]	71[a] 79[a]	199[b]	214[bc]			
Left	Intimate			63[ab] 66[ab]	56[bc] 59[bc]	351[a]	263[abc]			
	Neutral			58[b] 55[b]	68[ab] 70[ab]	225[b]	336[a]			
None	Intimate			52[b] 52[b]	60[abc] 61[bc]	187[b]	296[ab]			
	Neutral			57[b] 57[b]	53[c] 53[c]	228[b]	166[c]			
M X C Right	Far									
	Close									
Left	Far									
	Close									
None	Far									
	Close									
I X C Intimate	Far							94[b]		
	Close							107[b]		
Neutral	Far							239[a]		
	Close							152[b]		
MXIXC Right Intimate	Far		20[ab] 20[ab]							
	Close		20[ab] 20[ab]							
Neutral	Far		15[b] 15[b]							

TABLE 4

Significant Mean Effects of Monitor Location (Right, Left & None), Intimacy of Questions (In
and Neutral), Apparent Distance of Interviewer Image (Far & Close), and Pairs of Question Se
Upon the Behavioural Dependent Measures for Each of Four Pairs of Question Sets (Two Pairs I
Block 1 and Two Pairs in Block 2).[1]

	Ocular Behaviour											
	Offset Block		Looking at Interviewer (Begin)		Look at Interviewer (During)		Maints Block		Up Block		Down Block	
	1 Pairs 1&2 3&4	2 Pairs 5&6 7&8	1 Pairs 1&2 3&4	2 Pairs 5&6 7&8	1 Pairs 1&2 3&4	2 Pairs 5&6 7&8	1 Pairs 1&2 3&4	2 Pairs 5&6 7&8	1 Pairs 1&2 3&4	2 Pairs 5&6 7&8	1 Pairs 1&2 3&4	2 Pairs 5&6 7&8
	382	467	49	43 40			15			69	19	
	432	483	17	21 19			5			53	30	
	303	341	42	47 43			14			41	52	
				30	102		9	9	68			
				44	92		15	15	48			
		560										
		373										
		424										
		541										
		387										
		295										
			36 49	25 29	100		14	6 8		79	11 21	
			39 54	40 43	99		6	12 8		85	20 11	
			65 60	65 58	90		28	24 19		35	11 5	
			41 33	43 33	86		10	11 10		79	54 38	
										35	29 43	

2 of

of Questions (Intra
s of Question Sets
Sets (Two Pairs In

	Down Block		Up-Down Block		Right Block		Left Block		Left-Right Block	
2 Pairs 5&6 7&8	1 Pairs 1&2 3&4	2 Pairs 5&6 7&8	1 Pairs 1&2 3&4	2 Pairs 5&6 7&8	1 Pairs 1&2 3&4	2 Pairs 5&6 7&8	1 Pairs 1&2 3&4	2 Pairs 5&6 7&8	1 Pairs 1&2 3&4	2 Pairs 5&6 7&8
69[a]	19[b]		38[a]	36[a] 51[a]	31[b] 31[b]	34[b] 32[b]	69[a] 73[a]	75[a] 76[a]	-38[b] -42[b]	-41[b] -44[b]
53[ab]	30[ab]		37[a]	16[ab] 23[ab]	66[a] 80[a]	90[a] 85[a]	46[b] 41[b]	31[b] 38[b]	20[a] 39[a]	59[a] 46[a]
41[b]	52[a]		-17[b]	-6[b] 2[b]	63[a] 72[a]	69[a] 76[a]	39[b] 25[b]	31[b] 27[b]	23[a] 47[a]	38[a] 49[a]
			44							
			14							
							40			
							63			
									65[ab]	-22[bc]
									88[a]	-67[c]
									58[ab]	11[ab]
									19[c]	82[a]
									16[c]	68[a]
									39[c]	30[ab]
79[a]	11[c] 21[b]		25[b]		54[abc] 46[bcd]	28[c]	50[bc]		-5[bde]	-40[b]
85[a]	20[bc] 11[b]		14[b]		71[a] 25[cd]	50[bc]	21[c]		-88[e]	-20[b]
35[abc]	11[c] 5[b]		20[b]		15[abcd] 24[cd]	15[c]	36[bc]		-13[bde]	-56[b]
									[cde]	[b]

None	Far								
	Close								
I X C Intimate	Far							94^{b}	
	Close							107^{b}	
Neutral	Far							239^{a}	
	Close							152^{b}	
MXIXC Right Intimate	Far		20^{ab} 20^{ab}						
	Close		20^{ab} 20^{ab}						
Neutral	Far		15^{b} 15^{b}						
	Close		30^{a} 28^{a}						
Left Intimate	Far		15^{b} 14^{b}						
	Close		30^{a} 29^{a}						
Neutral	Far		18^{ab} 18^{ab}						
	Close		15^{b} 18^{ab}						
None Intimate	Far		23^{ab} 20^{ab}						
	Close		23^{ab} 23^{ab}						
Neutral	Far		20^{ab} 20^{ab}						
	Close		30^{a} 29^{a}						
Pairs (P)	1								
	2								
M X P Right	1							133^{b}	331^{a}
	2							194^{a}	229^{b}
Left	1							133^{b}	134^{cd}
	2							99^{b}	189^{bc}
None	1							99^{b}	112^{cd}
	2							105^{b}	104^{d}
L X P Intimate	1								
	2								
Neutral	1								
	2								
C X P Far	1					253^{a} 207^{b}			
	2					211^{b} 275^{a}			
Close	1					196^{b} 266^{ab}			
	2					256^{a} 229^{ab}			
I X C X P Intimate Far	1								
	2								
Close	1								
	2								
Neutral Far	1								
	2								
Close	1								
	2								

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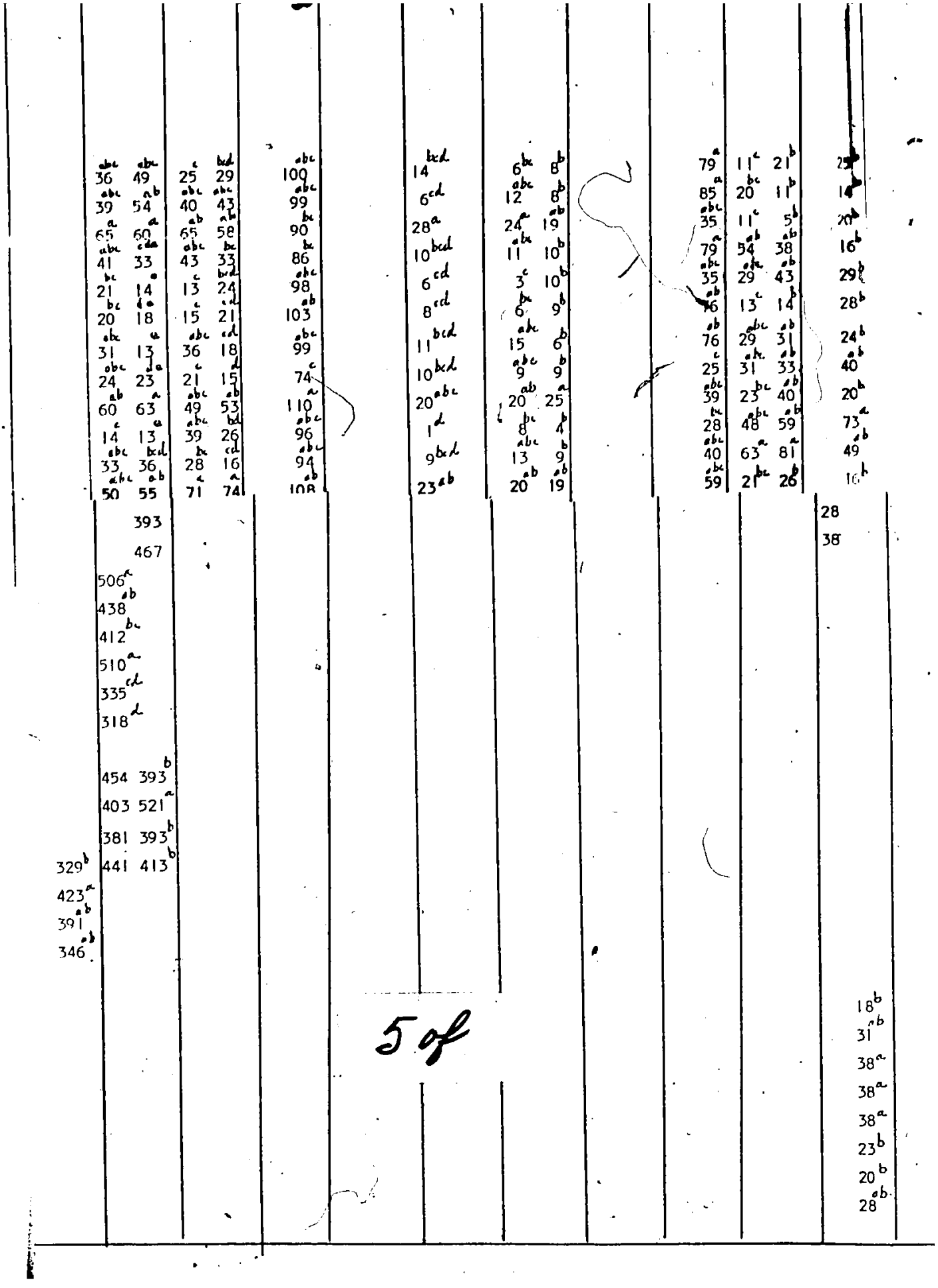
[1]Significance based upon Corresponding analyses variance.


5 of

								16			68[a]
								39[bc]			30[ab]
79[a]	11[c]	21[b]	25[b]	54[abc]	46[bcd]	28[c]	50[bc]		-5[bcde]	-40[b]	
85[a]	20[bc]	11[b]	14[b]	71[a]	25[cd]	50[bc]	21[c]		-88[a]	-20[b]	
35[abc]	11[c]	5[b]	20[b]	15[abcd]	24[cd]	15[c]	36[bc]		-13[bcde]	-56[b]	
79[a]	54[ab]	38[ab]	16[b]	63[ab]	28[cd]	30[c]	20[c]		-49[cde]	-53[b]	
35[abc]	29[abc]	43[ab]	29[b]	6[abcd]	83[abc]	108[ab]	94[ab]		49[abc]	95[a]	
76[ab]	13[c]	14[b]	28[b]	49[abc]	16[d]	36[c]	68[bc]		-70[de]	-35[b]	
76[ab]	29[abc]	31[ab]	24[b]	51[abc]	53[bcd]	61[abc]	43[bc]		4[abcde]	8[ab]	
25[c]	31[abc]	33[ab]	40[ab]	-19[cd]	114[a]	116[a]	135[a]		99[a]	89[a]	
39[abc]	23[bc]	40[ab]	20[b]	19[abcd]	51[bcd]	56[abc]	66[bc]		23[abcd]	38[ab]	
28[bc]	48[abc]	59[ab]	73[a]	-45[d]	95[ab]	108[ab]	78[abc]		54[ab]	86[a]	
40[abc]	63[a]	81[a]	49[ab]	-9[bcd]	70[abcd]	58[abc]	100[ab]		30[abc]	24[ab]	
59[abc]	21[bc]	26[b]	15[b]	43[abc]	34[cd]	68[abc]	60[bc]		-13[bde]	40[ab]	

28	25
38	7

34[c]
33[c]
74[b]
106[a]
71[b]
67[b]

18[b]	34
31[ab]	18
38[a]	18
38[a]	33
38[a]	4
23[b]	35
20[b]	38
28[ab]	23

6 of 6

of the effects already noted from Table 3. Of interest are the effects of intimacy and closeness and their interactions.

Question Intimacy affects two question pairs for three dependent variables, chair position, length of verbal response and maintained gaze. Of these effects, chair position is seemingly paradoxical, since the direction of effects during the last block is the reverse of that during the first block. The effect is best discussed in terms of the Monitor by Intimacy interaction. The remaining two effects of Intimacy are straightforward. First, people talk more in response to neutral questions than in response to intimate ones during the first block of questions. It would seem that early on intimacy begets uptightness. Second, subjects maintain eye gaze more for neutral than for intimate questions, a finding in line with those of Libby (1971). Apparently one may compensate for intimacy of topic by reducing ocular intimacy.

Effects of Apparent Closeness of Interviewer Image are especially important in view of the aims of the study to unravel the characteristics of electronic co-presence. By the second Block, when, as we have previously learned, lens setting behaviour has become relatively stable, subjects compensate for changes in Interviewer's Image size by corresponding changes in their own Image size. That is, they tend to match their own picture size to that of their Interviewer, just as in face-to-face behaviour physical approach by one partner which naturally increases the size of his Image for the other is necessarily complemented by a corresponding change in the size of the other's Image for him.

The Monitor Location by Intimacy interaction upon chair position is indeed intriguing since, on the surface it appears to contradict any rational explanation. When self-view monitors are present, and more especially when present on the right side of interviewer's image, the significant effects of intimacy during Block 1 are precisely the opposite of the significant effects of intimacy during Block 2. During Block 1, as anticipated, intimate questions produce greater distance of chair position from the monitor carrying the interviewer's image. However, during Block 2, to our surprize, it is the neutral questions that produce greater distance. A paradox? An uncanny example of a rare event? Probably not at all! Reference to Figure 5 will aid interpretation. It will be recalled that there are four orders of question set, two begin with neutral questions during Block 1 and end with intimate questions during Block 2; the other two begin with intimate questions during Block 1 and end with neutral questions during Block 2. It would seem that there may be a natural flow of interview content which, when observed by the interviewer, leads to greater immediacy or psychological closeness; but which, when not followed, leads to coolness and distance. Thus beginning an interview with neutral questions, followed by more intimate ones may produce an impression of increasing personal interest and caring; while beginning an interview with intimate questions, followed by neutral ones, may produce an impression of abrasive intrusiveness, followed by retreat and rejection. This latter sequence, especially when a cooperative interviewee has reacted to premature intimacy with honest attempts at self-disclosure, would seem logically to lead to erection of barriers to communication by the interviewee who perceives himself as rejected.

FIGURE 5 TIME COURSE OF CHAIR POSITION FOR FOUR ORDERS OF QUESTION INTIMACY AND CLOSENESS OF IMPROVISER IMAGE

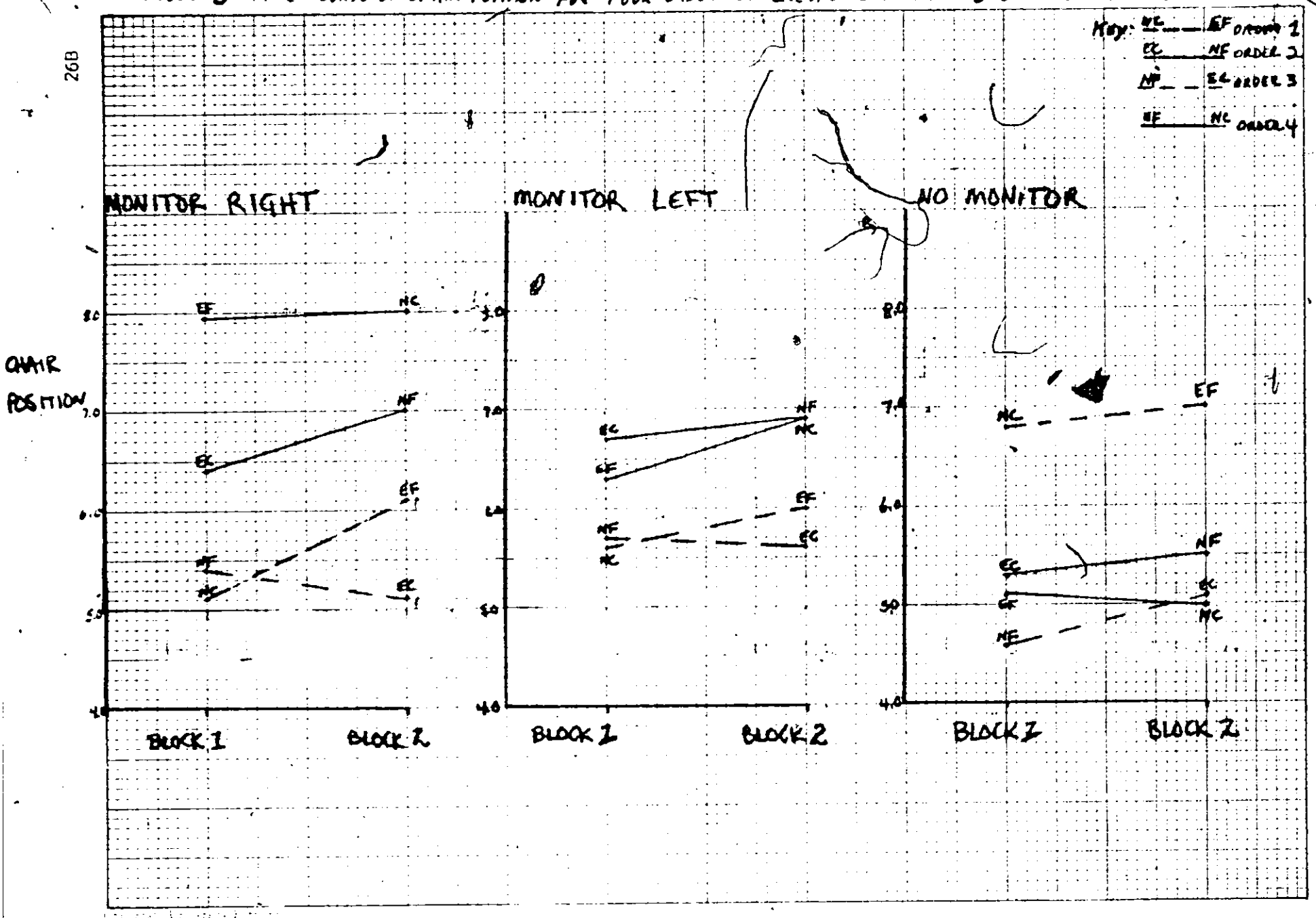


Figure 5 shows that when an interview begins with neutral questions, regardless of Apparent Distance of Interviewer Image, Interviewee's chair position is relatively close and becomes closer as questions switch to topics of greater intimacy. However, when the interview begins with intimate questions, Interviewee's chair position is relatively distant and either remains so, or becomes more distant as questions become more neutral.

The Monitor Location by Intimacy, by Closeness Interaction is significant for looking at the Interviewer at the beginning of the answer to a question and for the closely related variable, maintainance of eye gaze. Duncan tests show that the patterns of differences for the two variables are similar. However no neat interpretation comes to mind. The greatest frequency of looking at the Interviewer occurs for monitor right, neutral, far; monitor absent, neutral, close; and monitor absent, intimate far conditions. The least frequency of looking occurs for monitor left, intimate, far; monitor left, intimate, close; and monitor absent, intimate, close. It is difficult to interpret this interaction beyond the simple pattern shown by the main effects of monitor location and intimacy. If there is a pattern we have failed to detect it.

Additional significant effects are the Monitor Location x Pairs interaction upon duration of verbal response, the Intimacy x Pairs interaction upon time to offset of verbal response, and the Closeness x Pairs interaction upon time to onset of verbal response. No interpretable patterns for these effects are apparent.

Analyses of Verbal Dependent Measures

Each of the five verbal dependent measures consisted of a number of questionnaire items. In order to identify the major dimensions underlying responses to the items of each instrument principal components analysis were performed--one for each instrument. The resulting factors with eigenvalues greater than one were subjected to varimax rotation. An item was considered to load on a uniquely factor if its loading was at least .40 and was .20 higher than its loading on any other factors. Items which loaded .40 or greater on more than one factor were considered to have mixed loadings. Tables reporting the principle component analyses list the items in order of their unique loadings on factors, starting with the first factor; mixed loading items are listed after those with unique loadings. Factor names begin with description of the positive pole of the factor. Factor scores, along with individual scale items were subjected to analyses of variance analogous to those of behavioural dependent measures, and the significant mean effects resulting from these analyses, along with results of Duncan Multiple Range tests to identify significantly different means are reported. In general, results are presented only if both a factor score and at least one item loading on the factor yielded significant results.

Scale 1: My feelings about myself during the last block of questions.

The principle components analysis of the six items of this scale is reported in Table 5. For this analysis the four different administrations of the same item were treated as separate cases in order to yield four factor scores for each subject amenable to analyses of variance

TABLE 5

Principal Components Analysis Showing Factor Loadings After Varimax Rotation of the Six Items of Scale I (My Feelings About Myself During the Last Block of Questions)

Factor	Item	Factor Loadings			Mean
		I	II	III	
I	1. Tense vs. calm	-0.93	0.00	-0.07	4.45
	2. At ease vs. nervous	0.91	0.08	0.16	3.48
II	3. Ugly vs. beautiful	-0.00	-0.86	-0.03	3.95
	4. Goodlooking vs. Plain	0.06	0.86	0.02	4.35
III	5. Told truth vs. told Lies	0.09	0.01	0.79	2.07
	6. Dishonest vs. Honest	-0.11	-0.04	-0.77	.6.20

to identify time effects. From Table 5 it may be seen that there were three factors, named as follows: I. Nervous tension vs. Calm Ease; II. Ugly plainness vs. Good looking beauty; III. Dishonest Lying vs. Honest Truth Telling. Each factor was uniquely identified by two items loading .77 or higher.

Table 6 shows the significantly different means resulting from an analysis of variance of the effects of self-view monitor location, order of intimacy and distance (both between subject effects), blocks of question sets and trials (both within subject effects). The levels of monitor location, order and block effects are as before. There were two levels of trials consisting of the two administrations of Scale I after each two pairs of question sets. In view of the interesting and hard to interpret effects of monitor location and order upon behavioural dependent measures an exception to the general rule of reporting only effects significant for factor scores and at least on item loading on the factor will be made.

Location of Self-view monitor significantly affected only one item, tense vs. calm, the differences among the means suggesting that subjects experienced greater tension when the monitor was located on the left, than when it was on the right or absent.

Significant differences appeared among order effects for the good-looking vs. plain scale, which unreported previous studies suggest is a major component of self-ratings of self esteem under circumstances such as prevailed in the present study. The pattern of differences helps

TABLE 6

Significant Mean Effects from Analysis of Variance of Effects of Monitor Location, Question Order, Blocks and Trials Upon Items and Factor Scores of Scale I (My feelings about Myself During the Last Block of Questions).

		Tense vs. Calm	At ease vs. Nervous	Ugly vs. Beautiful	Good Looking vs. Plain	Told Truth vs. Told Lies	Dishonest vs. Honest	Factor Score I	Factor Score II	Factor Score III
Monitor	Right	4.56[ab]								
	Left	3.92[b]								
	None	4.89[a]								
Block	1	4.15					6.15	0.17		
	2	4.77					6.45	-0.20		
Order #1 Block	1				4.33[b]					
	2				3.92[c]					
Order #2 Block	1				4.54[b]					
	2				4.50[b]					
Order #3 Block	1				4.42[b]					
	2				3.92[c]					
Order #4 Block 1	1				4.67[b]					
	2				5.17[a]					
Trial	1						6.21	0.10		
	2						6.48	-0.13		

reinforce our interpretation of significant differences among orders for chair position. Specifically, when an order begins with a block of neutral questions and changes to intimate ones (orders 1 and 3) subjects experience themselves as significantly more good looking during the second block of questions; when an order begins with intimate questions and changes during the second block to neutral questions, subjects experience themselves as at least as plain or plainer. The interpretation seems to parallel and reinforce that suggested for Monitor x Intimacy effects upon chair position. It again seems as if the start with neutral items may be the common form of opening a relationship and that when opened in this way the switch to more intimate items may be taken as increasing interest and concern for getting to know the interviewee. However, the opening with intimate items, switching to neutral ones may come across as socially inappropriate intrusiveness followed, after self-disclosure by the interviewee, by rejection and coldness.

Finally, the significant block and trial effects, conforming to the rule of significance for both a factor score and a corresponding item, help elucidate the previous finding that subjects kept re-adjusting their lens setting during the first block of questions, but seemed to leave it alone more during the second block. We now learn that subjects experienced themselves as less tense, more calm and more at ease as time passed during the experiment, both from trial to trial within blocks, and from one block to the next.

Table 7 shows the significantly different means resulting from an analysis of variance of the effects of Monitor Location, Question

TABLE 7

Significant Mean Effects from Analysis of Variance of the Effects of Monitor Location, Question Intimacy, and Closeness of Interviewer Image Upon the Items and Factor Scores of Scale I (My Feelings About Myself During the Last Block of Questions)

			Tense vs. Calm	At ease vs. Nervous	Ugly vs. Beautiful	Good Looking vs. Plain	Told Truth vs. Told Lies	Dishonest vs. Honest	Factor Score I	Factor Score II	Factor Score III
Trial Set											
#1	Intimate	Far	4.75^{a}	2.67^{b}					-0.36^{b}		
		Close	3.50^{ab}	4.00^{a}					0.53^{a}		
	Neutral	Far	3.25^{b}	4.58^{a}					0.72^{a}		
		Close	4.08^{ab}	3.67^{ab}					0.22^{ab}		
#2	Monitor	Right	4.69^{a}	3.38^{ab}					-0.09^{b}		
		Left	3.63^{b}	4.25^{a}					0.54^{a}		
		None	4.88^{a}	3.00^{b}					-0.28^{b}		
	Intimacy	Intimate	4.83								
		Neutral	3.96								

Intimacy, and Interviewer Image Closeness (all between subject effects). Separate analyses were performed for each of the four separate administrations of Scale 2. The table is quite small because significant effects were confined to Trial sets 1 and 2 and to Factor 1, Nervous Tension vs. Calm Ease.

The most straightforward results occured for Location of Self-view Monitor during Trial set 2. It is evident that during this second quarter of the interview subjects experienced themselves as more tense and nervous when the self-view monitor was on the left than when it was on the right or absent. It was certainly not anticipated that the monitor left condition would create so much more anxiety and worry than the other two conditions, nor does it seem obvious why the monitor right and monitor absent conditions seem almost equally conducive to calmness and being at ease.

The effects of Question Intimacy and Interviewer Image Closeness are interesting and helpful in interpreting other results, but somewhat unexpected. During Trial 1 there is no direct main effect of either independent variable. Instead there is an Intimacy by Closeness Interaction such that the self is experienced as least tense and nervous when the interviewer's image is distant but she is asking <u>intimate</u> questions! The subjects feel more tense and nervous when the interviewer is either distant and asking neutral questions or when she is close and asking intimate questions! By the second Trial set the picture had become less complex, but still unpredicted. Subjects simply report themselves as feeling less tense and more at ease after intimate questions than after

neutral questions. This evidence does not strongly support interpretations of previous results depending upon the notion that intimate questions during the first Block of question sets were taken as inappropriately intrusive. However, it does appear that intimate questions became increasingly more relaxing, if not relatively enjoyable, as the first Block of questions progressed. Indeed, it must be remembered that the second administration of Scale I occurred after the end of the first Block of questions at which time subjects were already repositioning their chairs in anticipation of the second Block. Moreover, the intimate questions were described as "personal and perhaps embarrassing". Emphasis on the personal aspect could lead subjects to think of them as more involving and caring, relative to their typical interactions with the impersonal bureaucracy of the administration of the university.

Scale 2: My perceptions about the interviewer during the last block of questions. The principal components analysis of the six items of this scale is reported in Table 9. For this analysis the four different administrations of the same items were treated as separate cases just as for Scale I. For this scale only two factors emerged: I. Distant Smallness vs. Detailed Closeness; and II. Reliable Honesty vs. Undependable Dishonestly. Factor I was identified by four items, three of which loaded .88 or higher; Factor II was identified by two items loading .79 or higher.

Table 8 shows the significantly different means resulting from an analysis of variance of the effects of self-view monitor location, order of intimacy and distance (both between subject effects), blocks of question sets and trials (both within subject effects). Levels were as

TABLE 8

Principal Components Analysis Showing Factor Loading After Varimax Rotation of the Six Items of Scale 2 (My Perceptions About the Interviewer Duting the Last Block of Questions)

Factor	Item	Factor Loadings		Mean
		I	II	
I	Near vs. Far	0.89	0.00	3.75
	Image was Large vs. Image was small	0.89	-0.00	3.99
	Distant vs. Close	-0.88	-0.03	4.17
	Image Showed many details vs. Image showed few Details	0.60	0.08	3.71
II	Undependable vs. Reliable	0.07	0.81	5.58
	Honest vs. Dishonest	0.10	-0.79	2.30

TABLE 9

Significant Mean Effects from Analysis of Variance of Effects of Monitor Location, Question Order, Blocks and Trials Upon Items and Factor Scores or Scale 2 (My Perceptions about the Interviewer During the Last Block of Questions).

			Near vs. Far	Image was Large vs. Small	Distant vs. Close	Image Showed Details vs. Few Details	Undependable vs. Reliable	Honest vs. Dishonest	Factor Score I	Factor Score II
Order #		1				3.81^{ab}			0.13^{ab}	
		2				4.38^{a}			0.31^{a}	
		3				3.19^{b}			-0.11^{b}	
		4				3.75^{ab}			-0.25^{b}	
Order 1	Block	1	3.38^{bc}	3.29^{bc}	4.83^{ab}	3.25^{ab}			-0.35^{cdc}	
		2	4.42^{ab}	5.13^{a}	3.04^{d}	4.38^{ab}			0.62^{ab}	
2	Block	1	3.21^{bcd}	3.63^{abc}	4.33^{bc}	4.38^{ab}			-0.09^{bcd}	
		2	4.88^{a}	5.25^{a}	3.17^{cd}	4.38^{ab}			0.71^{a}	
3	Block	1	4.54^{ab}	4.88^{ab}	3.96^{bcd}	3.38^{ab}			0.31^{abc}	
		2	3.08^{cd}	2.71^{c}	4.63^{ab}	3.00^{b}			-0.53^{dc}	
4	Block	1	4.21^{abc}	5.08^{a}	3.83^{bcd}	4.67^{a}			0.45^{ab}	
		2	2.04^{d}	2.50^{c}	5.58^{a}	2.83^{b}			-0.95^{e}	
Monitor Right										
Block 1 Trial		1		3.69^{c}					-0.25^{d}	
		2		4.06^{bc}					0.04^{bc}	
Block 2 Trial		1		3.94^{bc}					0.12^{abc}	
		2		3.81^{bc}					-0.01^{c}	
Left										
Block 1 Trial		1		4.63^{a}					0.31^{a}	
		2		4.06^{bc}					-0.02^{c}	
Block 2 Trial		1		4.19^{b}					0.17^{abc}	
		2		4.06^{bc}					0.05^{bc}	
None Block 1 Trial		1		4.63^{a}					0.25^{ab}	
		2		4.25^{ab}					0.13^{abc}	
Block 2 Trial		1		3.69^{c}					-0.25^{d}	
		2		3.69^{c}					-0.32^{d}	

described for Scale I. Significant effects occured for a factor score and at least one corresponding item for Orders, Orders x Blocks, and Monitor Location, by Blocks by Trials.

The Order effect is interesting, revealing intimacy effects upon perception of experimental conditions. Specifically, for the two orders in which the interviewer's image first appeared as small and distant, the average impression of the interviewer over all four measures was as presenting a more distant, less detailed image, than when she first appeared as large and close. However, this overall impression must be qualified by the Order x Blocks interaction which clearly shows that impressions of the apparent distance of interviewer's image significantly matched her actual image size for all blocks of the experiment. Indeed, this significant correspondence prevails for all four scales associated with the Distance factor. Subjects were indeed aware of the distance manipulation of interviewer's image.

There is also a Monitor Location by Blocks by Trials interaction. The interviewer appeared most distant when the monitor was on the left for Block 1, Trial 1 and when there was no monitor for Block 1, Trial 1. She appeared closest when the self-view monitor was on the right for Block 1, Trial 1 and when there was no monitor for Block 2, Trials 1 and 2. No ready explanation is handly.

Table 10 shows the significantly different means resulting from an analysis of variance of the effects of Monitor Location, Question Intimacy,

TABLE 10

Significant Mean Effects From Analysis of Variance of the Effects of Monitor Location, Question Intimacy, and Closeness of Interviewer Image Upon the Items and Factor Scores of Scale 2 (My Perceptions about the Interviewer During the Last Block of Questions).

		Near vs. Far	Image was Large vs. Small	Distant vs. Close	Image Showed many details vs. Few Details	Undependable vs. Reliable	Honest vs. Dishonest	Factor Score I	Factor Score II
Trial Set I Closeness	Far	4.63	5.04			5.42		0.39	
	Close	3.42	3.58			6.08		-0.17	
Monitor Rt.	Intimate					4.75^{b}			-0.45^{b}
	Neutral					6.38^{a}			0.23^{ab}
Lt.	Intimate					6.25^{a}			0.52^{a}
	Neutral					5.50^{ab}			-0.35^{ab}
None	Intimate					6.00^{a}			0.29^{ab}
	Neutral					5.63^{ab}			-0.12^{b}
Trial Set II Closeness	Far	4.13	4.92	3.63				0.37	
	Close	3.17	3.33	4.75				-0.27	
Trial Set III Closeness	Far	5.04	5.33	3.04	4.38			0.76	
	Close	2.58	2.54	5.04	2.83			-0.74	
Monitor Rt. Intimate	Far	$^{abc}4.75$	$^{abc}5.00$	3.50^{cd}				$^{abc}0.54$	
	Close	$^{bcd}3.75$	$^{cde}3.00$	2.75^{d}				$^{bcde}0.01$	
Neutral	Far	6.50^{a}	6.00^{a}	2.25^{d}				1.34^{ab}	
	Close	1.25^{d}	1.75^{e}	[illegible]				-1.39^{f}	
Lt. Intimate	Far	6.25^{ab}	6.50^{a}	[illegible]				1.52^{a}	
	Close	2.50^{cd}	2.50^{de}	[illegible]				-0.99^{def}	
Neutral	Far	$^{abc}4.50$	$^{abcd}4.25$	$^{bcd}3.75$				$^{abcd}0.21$	
	Close	$^{bcd}3.75$	$^{bcde}3.50$	$^{abcd}4.00$				$^{bcdef}-0.06$	
		3.50^{cd}	$^{abcd}4.50$	$^{bcd}3.75$				$^{bcde}0.08$	

Lt. Intimate						6.25[ab]		0.35[bcde]
Neutral						5.50[ab]		0.29[abcd]
None Intimate						6.00[a]		-0.12[abcd]
Neutral						5.63[ab]		
Trial Set II								
Closeness	Far	4.13	4.92	3.63			0.37	
	Close	3.17	3.33	4.75			-0.27	
Trial Set III								
Closeness	Far	5.04	5.33	3.04	4.38		0.76	
	Close	2.58	2.54	5	2.83		-0.74	
Monitor Rt. Intimate								
	Far	4.75[abc]	5.00[abc]	3.50[cd]			0.54[abc]	
	Close	3.75[bcd]	3.00[cde]	2.75[d]			0.01[bcde]	
Neutral								
	Far	6.50[a]	6.00[a]	2.25[d]			1.34[ab]	
	Close	1.25[d]	1.75[e]	6.25[ab]			-1.39[f]	
Lt. Intimate								
	Far	6.25[ab]	6.50[a]	2.00[d]			1.52[a]	
	Close	2.50[cd]	2.50[de]	6.00[abc]			-0.99[def]	
Neutral								
	Far	4.50[abc]	4.25[abcd]	3.75[bcd]			0.21[abcd]	
	Close	3.75[bcd]	3.50[bcde]	4.00[abcd]			-0.06[bcdef]	
None, Intimate	Far	3.50[cd]	4.50[abcd]	3.75[bcd]			0.08[bcde]	
	Close	2.75[cd]	2.25[de]	4.75[abcd]			-0.70[cdef]	
Neutral	Far	4.75[abc]	5.75[ab]	3.00[d]			0.90[ab]	
	Close	1.50[d]	2.25[de]	6.50[a]			-1.30[ef]	
Trial IV								
Closeness	Far	4.25	5.04	3.17	4.38		0.56	
	Close	2.54	2.67	5.17	3.00		-0.74	
Monitor, Right Intimate								
	Far				4.25[ab]		0.54[abc]	
	Close				3.75[ab]		-0.12[abcd]	
Neutral	Far				4.25[ab]		1.12[a]	
	Close				1.75[b]		-1.58[e]	
Left Intimate								
	Far				5.50[a]		1.04[a]	
	Close				2.75[b]		-0.52[bcde]	
Neutral	Far				3.25[ab]		-0.06[abcd]	
	Close				4.00[ab]		-0.25[abcde]	
None Intimate								
	Far				3.25[ab]		-0.02[abcd]	
	Close				3.25[ab]		-0.85[cde]	
Neutral	Far				5.75[a]		0.74[ab]	
	Close				2.50[b]		-1.14[de]	

and Interviewer Image Closeness (all between subject effects). Separate analyses were performed for each of the four separate administrations of Scale 2. Significant effects upon Factor II. Reliability-Honesty will be described first; followed by effects upon Factor I. Distance.

During the first Trial set subjects perceived significant differences in the reliability of the interviewer, depending upon Monitor Location and Question Intimacy. She was perceived as more reliable when the monitor was on the left and the questions were intimate. She was perceived as least reliable when the monitor was on the right and questions were intimate. No ready explanation is available.

Effects upon Factor I were more strightforward. Closeness of Interviewer Image affected the Distance/Smallness vs. Detailed Closeness factor for all four Trial sets. With each succeeding administration it affected more of the corresponding scales. Thus during the first trial set differences in interviewer image size were perceived mainly in terms of near vs. far and image was small vs. image was large. By the second trial set the differences were perceived also in terms of distant, vs. close. For the third and fourth trial sets the differences in interviewer image size were perceived in terms of all three preceding items plus image showed many details vs. image showed few details. Moreover the perceptions became much more complex by the third and fourth trials. That is, there was a Monitor Location x Question Intimacy x Closeness interaction such that the interviewer was perceived as farther away if her image was in fact small and (a) the self-view monitor was on the right or absent and the questions were neutral or (b) the monitor was on the left and the questions were intimate; she was perceived as

closer if her image was in fact large and (a) the self-view monitor was on the right or absent and the questions were neutral, or (b) the monitor was on the left and the questions were intimate. Under other circumstances there was no significant difference in perceptions of interviewer's image size! Obviously environmental and psychological conditions coloured veridicality of perceptions. Why? Explanation defies us at present.

Scale 3: My feelings about the Mode of Communication. The principal components analysis of Scale 3 is given in Table 11. There were eight factors: I. Good and Involving vs. Bad and Useless; II. Easy to Understand vs. Hard to Interpret; III. Secure and Private vs. Public and Open to Tampering; IV. Not Tiring vs. Frustrating; V. Hot vs. Cool; VI. Feeling Observed vs. Feeling of Privacy; VII. Colourful vs. Colourless; and VIII. Simple vs. Complex. The first four factors were defined by unique loadings above .66 of at least two items; the remaining four were defined by only one uniquely loading items. Ten of the 26 items had mixed loadings.[2]

Table 12 gives the results of an analysis of variance of the effects of Monitor Location and Order of Intimacy and distance effects. The Monitor effects upon Factor III are particularly interesting. Evidently both Monitor present conditions are perceived as more secure and private than the monitor absent condition which is seen as more public and open to tampering! Whatever the disadvantages or distraction caused by the presence of continuous feedback of one's own image, it seems to convey that the

[2]The ANOVA reported for Scales 3, 4 and 5 are based on the responses of 96 Ss (see Footnote 1). It included both monitor location and order of questions, however only monitor location effects are reported.

TABLE II

Principal Components Analysis Showing Factor Loading

3 (My Feelings About the Mode of Comm

Factor	Item
I	1. Mode of Communication was weak vs. Strong
	2. Good vs. bad
	3. Direct vs. Indirect
	4. Useful vs. Useless
	5. Mode of Communication made me feel involved vs. mode of communicatio me feel left out
	6. Pleasant vs. Unpleasant
II	7. Hard to interpret what was meant vs. easy to interpret what was me
	8. Complicated vs. Easy to understand
III	9. Private vs. Public
	10. Mode of Communication was secure vs. mode of communication was open tampering by others.
IV	11. Taxing vs. Does not tire me
	12. Frustrates me vs. Is not frustrating
V	13. Hot vs. Cool
VI	14. Made me feel that someone else was constantly aware of what I was do vs. Made me feel like I was in private
VII	15. Colourful vs. Colourless
VIII	16. Complex vs. Simple
Mixed	17. Artificial vs. True to everyday life
	18. Natural vs. Phoney
	19. A safe way to communicate vs. A dangerous way to communicate
	20. Boring vs. Leaves me alert
	21. Unenjoyable vs. Enjoyable
	22. Allowed me to take an active role vs. Forced me to take a passive
	23. Leaves me uncertain what to think and do vs. Makes it clear what t and do
	24. Leaves me certain as to how I was supposed to respond vs. Leaves sure as to how I was supposed to respond
	25. Suitable for discussion with close intimate friends vs. Suitable f for common gossip
	26. Comfortable vs. Uncomfortable

11

)ading After Varimax Rotation of the 26 Items of Scale

f Communication)

	Factor Loadings								Mean
	I	II	III	IV	V	VI	VII	VIII	
	0.80	0.05	0.08	0.01	0.11	-0.13	0.06	-0.05	3.99
	-0.72	-0.01	-0.48	-0.17	-0.10	-0.04	0.03	0.07	3.52
	-0.68	-0.06	0.08	-0.71	0.03	-0.08	-0.17	0.00	3.39
	-0.61	-0.23	0.08	-0.03	-0.01	0.16	-0.16	0.05	3.54
cation made	-0.61	-0.04	-0.33	-0.15	0.03	-0.18	-0.20	0.40	3.72
	-0.55	-0.02	-0.25	-0.33	-0.16	0.21	-0.34	0.01	3.67
vas meant	0.16	0.84	0.14	-0.05	-0.14	-0.11	0.01	0.04	4.85
	-0.05	0.66	-0.22	0.34	-0.09	0.16	0.22	0.16	5.41
	0.02	0.08	-0.78	-0.04	0.09	0.19	-0.14	0.13	3.81
open to	-0.07	-0.02	-0.77	-0.14	-0.05	-0.02	-0.25	0.08	3.89
	0.02	0.13	-0.09	0.75	-0.29	0.04	-0.09	-0.06	5.05
	0.37	0.07	0.14	0.67	0.24	-0.05	0.05	0.05	4.65
	-0.11	0.04	-0.05	0.03	-0.82	-0.09	-0.15	0.08	4.39
was doing	0.08	0.08	0.05	0.05	-0.14	-0.80	-0.01	0.16	3.02
	-0.27	-0.14	-0.16	0.05	-0.15	0.00	-0.76	0.05	5.07
	0.13	0.20	-0.03	0,14	-0.41	-0.06	0.17	0.67	4.65
	0.61	0.14	0.42	0.02	0.05	0.20	-0.09	0.27	3.24
	-0.55	-0.11	-0.63	-0.03	-0.13	-0.20	0.01	-0.10	4.02
	-0.48	-0.10	-0.58	-0.27	-0.22	0.05	0.22	-0.05	3.99
e	0.41	0.12	0.34	0.21	0.34	0.39	0.18	-0.01	5.03
	0.55	0.14	0.18	0.45	0.01	-0.11	0.15	0.06	4.67
passive role what to think	-0.50	-0.07	-0.17	-0.07	0.16	-0.18	-0.17	0.64	3.90
	0.15	0.53	-0.09	0.47	0.31	-0.23	-0.00	-0.01	4.26
Leaves me not	-0.07	-0.55	-0.12	-0.12	-0.23	0.55	-0.02	0.12	4.05
table only	-0.16	0.08	-0.24	-0.38	-0.07	-0.24	-0.41	-0.18	3.32
	-0.29	-0.13	-0.28	-0.50	-0.03	0.31	-0.40	-0.05	4.10

TABLE 12

Significant Mean Effects from Analysis of Variance of the Effects of Monitor Location and Question Order Upon Items and Factor Scores of Scale 3 (My Feelings About the Mode of Communication)

		Mode of Communication was Secure vs. Was Open to Tampering	Factor Score III
Monitor	Right	3.50[b]	0.23[a]
	Left	3.56[b]	0.20[a]
	None	4.59[a]	-0.43[b]

self-impression one thinks one is giving off, is infact being transmitted. Effects of Orders and a Monitor by Order interaction are also given in the Table but are not readily open to interpretation.

Scale 4: My feelings about the interview situation. The principal components analysis of Scale 4 is given in Table 13. It yielded four factors, the first three of which were defined by two items each loading .66 or higher. The factors were named: I. Distractingness of own image vs. Helpfulness of Own Image; II. Communicating with Interviewer vs. Apartness from Interviewer; III. Indirectness of Felt Contact with Interviewer vs. Directness of Felt Contact with Interviewer; and IV. Look-away to Right vs. Look-away to Left.

Table 14 gives the results of an analysis of variance for the effects of Monitor Location and Order of Intimacy and distance effects. Only the Monitor Location had significant effects, these being upon Factors II and IV. Subjects apparently were quite well aware of their direction of look-away. For monitor location on left they significantly report looking away to the right; similarly for the monitor absent condition. For monitor location on the right they report looking away to the left. This, of course, is exactly what they did. The interpretation is reinforced by the results for Factor II which involve primarily the report of whether or not they looked at their own picture. Subjects say they avoided looking at their own picture when self-view monitor was continuously present, but that they did look at it when it was present only for a few minutes to orient them to the experiment. Notably,

TABLE 13

Principal Components Analysis Showing Factor Loading Af

(My Feelings About the In

Factor	Item
I	1. Seeing my own image made me relax vs. seeing my own image made
	2. Seeing my own picture was distracting vs. seeing my own picture w
II	3. I felt my interviewer sensed how I was reacting vs. I felt my int was reacting
	4. I looked at my interviewer vs. I avoided looking at my intervie
III	5. I felt the interviewer was never talking directly to me vs. I fel directly to me
	6. I felt my interviewer was uncertain whether I was listening vs. I certain whether I was listening
IV	7. I looked away to the left vs. I looked away to the right
Mixed	8. I looked at my own picture vs. I avoided looking at my own pictur

TABLE 13

Loading After Varimax Rotation of the Eight Items of Scale 4

out the Interview Situation).

	Factor Loadings				Mean
	I	II	III	IV	
mage made me nervous	0.87	0.16	-0.09	-0.15	4.75
picture was helpful	-0.79	0.17	-0.25	-0.12	3.91
felt my interviewer did not sense how I	-0.33	0.78	0.05	-0.09	2.33
my interviewer	0.28	0.66	-0.08	0.46	2.10
e vs. I felt the interviewer was speaking	-0.09	-0.19	-0.82	-0.13	6.07
ening vs. I felt my interviewer was	-0.05	0.07	-0.82	0.09	5.66
ght	-0.09	-0.01	0.04	0.96	4.17
own picture	0.37	0.49	0.18	-0.05	3.94

TABLE 14

Significant Mean Effects from Analysis of Variance of the Effects of Monitor Location and Question Order Upon Items and Factor Scores of Scale 4 (My Feelings about the Interview Situation)

		I looked to the left vs. to the right	I looked at my own picture vs. avoided looking	Factor Score II	Factor Score IV
Monitor	Right	3.63[a]	4.25[a]	0.16[a]	-0.44[b]
	Left	4.69[a]	4.50[a]	0.23[a]	0.34[a]
	None	4.19[ab]	3.06[b]	-0.39[b]	0.09[a]

however, they do not report strongly looking away from their own picture, rather they say they looked toward it in the monitor absent condition when it was only briefly present.

Scale 5: My Behaviour During the Experiment: This scale was included as a standard check on subjects' behaviour during the experiment and attitudes toward the experiment which may have influenced their behaviour. It was administered in conjunction with debriefing as it, insofar as it yields valid information, obviously requires subjects to step out of role and be honest in sharing their perceptions of their expectations and motivations during their participation in the interview. The principal components analyses shown in Table 15 yielded four factors: I. Perceived No Cues to Expected Behaviour vs. Perceived and Obeyed Cues; II. Desire to Provide Useful Data vs. Effort to Give Misleading Data; III. Deliberate Attempts Not to Bias Data vs. Unsuspicious Free Rein to Behaviour; and IV. Desire to Please Experimenter vs. Desire to Displease the Experimenter. Evidently strong experimental effects of these variables would cast doubt upon the validity of the data of the experiment.

Table 16 contains significant means resulting from the analysis of variance for the effects of Monitor Location and Order of Intimacy and Distance effects. Monitor Location affects Factor II, suggesting that placement of self-view monitor may affect whether or not subjects try to provide useful data. A glance at the means for the only item with significant results, "Leaned over backwards to be honest so the experimenter will not draw erroneous conclusions vs. tried to respond so the experimenter will draw erroneous conclusions" shows that all means are low; that is,

TABLE 15

Principal Components Analysis Showing Factor Loading After Varimax

During the Experiment)

Factor	Item
I	1. Perceived no cues as to how I was expected to behave vs. perceived which I inferred how I was expected to behave
	2. Perceived and acted on cues indicating how to appear well adjusted cues as to how to go about appearing well adjusted
II	3. Leaned over backwards to be honest so the experimenter will not dra sion vs. tried to respond so the experimenter will draw erroneou
	4. Tried to provide data of no use to science or the experimenter vs. data of use to science or to the experimenter
III	5. Tried not to bias the outcome of the study one way or another vs. b letting my own prejudices influence me
	6. Had no suspicions about true purpose of the study vs. had suspicion of the study
IV	7. Wanted to give data that would displease the experimenter vs. wante please the experimenter
Mixed	8. Had my own ideas about what the study would show if correctly inter had no idea what the study would show if correctly interpreted
	9. Unconcerned with giving impression of competence vs. perceived and indicated what to do to appear competent

TABLE 15

ər Varimax Rotation 6f the Nine Items of Scale 5 (My Behaviour

)erlment)

	Factor Loadings				Mean
	I	II	III	IV	
ercelved and obeyed cues from	-0.78	-0.01	-0.18	0.02	3.49
adjusted vs. perceived no	0.62	0.16	-0.17	-0.14	4.56
I not draw erroneous conclu- / erroneous conclusions	-0.00	-0.83	0.10	-0.02	2.73
ənter vs. tried to provide	0.11	0.72	0.15	0.18	5.19
ther vs. behaved as I felt,	-0.18	-0.16	-0.79	0.05	4.65
suspicions about true purpose	-0.43	-0.20	0.67	0.09	3.58
vs. wanted to give data would	-0.06	0.14	-0.06	0.71	4.66
ctly interpreted vs. rpreted	0.57	-0.11	-0.05	0.59	4.09
:elved and obeyed cues which	-0.44	0.17	0.28	0.60	3.95

TABLE 46

Significant Mean Effects from Analysis of Variance of the Effects of Monitor Location and Question Order Upon Items and Factor Scores of Scale 5 (My Behaviour During the Experiment).

		Leaned Over Backwards so experimenter will not draw erroneous conclusions vs. will draw erroneous conclusions	Factor Score II
Monitor	Right	3.13^{a}	-0.32^{b}
	Left	2.78^{ab}	-0.06^{ab}
	None	2.28^{b}	0.38^{a}

all subjects, regardless of monitor condition, say that they tried at least somewhat to be honest and avoid giving erroneous data. Differences reflect degrees of effort to be honest rather than contrasts of honesty with dishonest. The significant Monitor Location effects may thus be interpreted as indicating that although subjects tried somewhat to provide useful data when the monitor was located on the right, they tried significantly harder when there was no monitor at all. When the monitor was on the left their effort was in-between. Since other results have suggested that subjects may have been more relaxed in the monitor right condition it may be that the more reasonable interpretation of the present results is that these subjects did not feel so great a need as the more anxious subjects to "lean over backwards to be honest."

DISCUSSION AND CONCLUSIONS

The results may be discussed in terms of the similarities and differences between the nonverbal dynamics of electronic co-presence and physical co-presence (face-to-face interaction). Perhaps the leading approximation to a theoretical base for understanding nonverbal behaviour in the face-to-face situation is the Argyle-Dean hypothesis of intimacy equilibrium (Argyle and Dean, 1965) which may be rephrased as stating that for a given level of intimacy between two people in a face-to-face encounter, an increase in nonverbal behaviour implying greater or lesser intimacy will be compensated by a corresponding opposite change in some other form of nonverbal behaviour so as to maintain the given level of intimacy. There appear to be at least three aspects of intimacy equilibrium: 1) within-modal compensation. For example, physical approach may be compensated by physical retreat, an increase in looking may be compensated by a decrease on the part of the person observed. 2) cross-modal compensation. For example, physical approach may be compensated by less frequent looking or by turning the body. 3) a change in intimacy level may be compensated by corresponding nonverbal approach or avoidance. For example, as two people disclose more of themselves to each other they may stand, sit, or lie closer to each other, or look at each other more. These phenomena have been well documented by studies of physical co-presence (e.g., Aiello, 1972, Patterson, 1973). The present results suggest that electronic co-presence is characterized by similar phenomena but that the range of alternatives is different, if not greater. We shall consider how each of the three aspects of intimacy equilibrium was evidenced under the conditions of electronic co-presence and then proceed to consider some effects peculiar to the electronic situation, especially the effects of simultaneous visual feedback of one's own nonverbal behaviour.

Within-modal compensation, translated into terms appropriate for electronic co-presence was a major point of study. When two people

are physically co-present actual physical approach by one of them necessarily brings the other closer to him; thus within-modal compensation requires physical retreat, while "standing one's ground" implies increased tension or some cross-modal form of compensation. Electronic co-presence entails greater freedom, since approach in the form of making one's own image greater by movement toward a camera or by changing setting of a zoom camera lens does not necessarily imply a corresponding change on the part of one's partner. Our finding that people do indeed make within-modal compensations by matching their image size to that of their interviewer raises several questions. Does intimacy equilibrium imply discrete zones of personal space rather than a continuum, such that approach requires retreat only after exceeding a normal range? If so it might be that "standing one's ground" implies a return approach, perhaps to explore the boundaries of the present intimacy level. Thus matching by our subjects would imply "If you want to come closer I'll signify my own friendly intentions by doing the same." Certainly, in accord with the hypothesis of discrete degrees of personal space, our subjects' matching did not extend to the point of true reciprocation. They did not, on the average, make their own picture as large or as small as that of the confederate. Their matching was partial or symbolic, not complete.

It may be noted, however, that matching did not occur until the interview was half way over, and not until after the interviewer had made an obvious shift in her own image size. Until that time subjects gradually made their image larger, regardless of the apparent distance of the interviewer's image. Perhaps the image size of the interviewer was taken as unintentional and beyond her control until it was dramatically brought to the subject's attention that a change was possible. Perception of the intentionality of apparent distance during electronic co-presence thus appears worthy of investigation. Other changes during the experiment may also account in whole or in part for the switch to matching. Interviewees became notably less nervous and more at ease as the experiment progressed. Perhaps after tension decreased subjects became more aware of appropriateness of image matching. Moreover there is evidence that the quality of perception of interviewer's image size changed as time passed. Whereas during the first few question sets

image variations on the part of the interviewer were conceived in terms of near vs. far and small vs. large, as time went by the more psychological dimensions of "distant vs. close" and "many details vs. few details" became more salient. This latter aspect of the Distance dimension is associated with complexity and information content of image and reflects a different way of thinking about the size of the image one receives and presents. Moreover the repetitive administration of the rating scales may have called attention to new ways of acting and thinking about image size.

The within-modal compensation of image size is even more clear cut than heretofore mentioned. There were, of course, two ways for a subject to change the size of her image, by adjusting her zoom lens setting or by moving her chair toward or away from the camera. The same two ways were available to the interviewer. The interviewer chose the technological adjustment rather than physical movement; so did the subject. Thus our compensation is not only within the image size mode, but also within the technological mode.

In marked contrast variations in intimacy of question content were not compensated or at least not exclusively compensated, with in the verbal mode. Instead (or in addition—we cannot tell since no analyses of verbal content of subjects' answers were made) a cross-modal compensation was used. Specifically, when asked intimate questions subjects physically moved their chairs further away from the monitor carrying the interviewer's image, just as they may have moved their chairs away from her body if she had been physically present. Thus psychological over-intimacy was compensative by spatial movement. The cross-modal compensation may however, be regarded as within-modal on a higher level of abstraction. Both the psychological and spatial modes were typical of face-to-face behaviour. Thus the entire transaction, though occurring in the context of electronic co-presence, may be regarded as if it occurred in the physical, face-to-face mode, rather than the technological mode or across modes.

In addition to chair movements an additional cross-modal compensation for question intimacy was made by reducing eye gaze at the interviewer.

Thus intimacy of topic was compensated by reducing ocular intimacy.

To regard responding to verbal over-intimacy with proxemic movement under the conditions of the present study as a simple cross-modal compensation is, however, to disregard the intricacies of the context of electronic co-presence. Subjects consistently responded in this way only in the presence of self-view monitors which gave continuous feedback of their own image. Moreover, once they began responding to intimate questions by distancing, they continued to do so when questions became neutral and once they began responding to neutral questions by placing their chair somewhat closer to the monitor carrying the interviewer's image, they approached even closer when the questions became supposedly over-intimate and embarrassing. The appealing interpretation is that intrusiveness followed by neutrality comes across as rejection, especially after people may have opened up by interpreting the intrusiveness as interest. Opening neutrality followed by over-intimacy, by the same token, comes across as civil tact followed by increased concern and caring. Rejection calls for the response of keeping one's distance or increasing it; increased caring calls for reducing one's distance. And that is what happened—but only in the presence of continuous electronic feedback of own image. When feedback was not present there were no such clear cut effects. Thus, taking the whole electronic context into account we cannot interpret results strictly in terms of within- or cross-modal compensations for intimacy equilibrium, but must deal with the potentialities, novel or traditional, seemingly unnatural or desirable, of electronic co-presence.

The third aspect of maintaining intimacy equilibrium compensation for changes in intimacy level, was also shown by results. During the course of the interview subjects reported a continual decrease in tension and an increase in feeling of calmness and being at ease—apparently equivalent to increased intimacy with the interviewer. However, throughout the interview they kept moving their chair further away from the interviewer's image—to be sure only a matter of a few inches. If intimacy equilibrium were to be maintained other compensating behaviours would have to occur—and they did. Not only did subjects, on the average and disregarding matching effects, make their own image relatively much larger by increasing

zoom controls than they reduced it by moving their chair away. They also spoke longer when giving answers and took longer to answer, implying, under the circumstances, increased effort to give sound answers. Thus it would seem that feelings of greater intimacy were accompanied on balance with nonverbal behaviours reflecting increased immediacy. Again, however, the intricacies of electronic co-presence must be considered. Although duration of verbal response increased from the first to the second half of the interview, this happened only if self-view monitors were present!

The major key to interpretation of results and certainly the most pervasive and striking results were due to presence or absence and location, when present, of self-view monitors giving a subject continuous access to what she looked like to the interviewer. When self-view monitors were present:

1) subjects' first direction of gaze aversion after the end of a question was far more often up than down, as if they wished to avoid looking at their own image.
2) subjects avoided looking at their image by averting their gaze to the left, when monitor was on the right, and to the right, when monitor was on the left.
3) indicated some awareness of avoiding looking at their own picture by reporting looking away to the right in the monitor left condition and looking away to the left in the monitor right condition, as well as looking less frequently at their own image in both monitor present conditions than in the monitor absent condition when they were able to see themselves only very briefly.
4) reported seeing the communication mode as more secure and private, as opposed to open to tampering.
5) did not report presence of monitors as distracting on the average— some did see them as distracting, but others found them helpful.

On the whole then, the very presence of monitors, although they directly and indirectly affected almost everything that went on in the situation, may not be taken as undesirable without further examination. However, the location of monitor, when present turns out to be very important. When monitors are on the left:

1) subjects look at the interviewer less frequently at the beginning

of their answer, pause longer before responding, and curtail the length of their replies

2) experience greater tension and nervousness.

Evidently there is something about placement of a self-view monitor on the left which creates tension and anxiety. Previous studies have found that people's preferred direction of gaze aversion is to the left (e.g. Libby and Yaklevich, 1973). Although people may not mind, and indeed may prefer, having their own image accessible to them, they apparently do not want to look at it very often. To have it placed right where they would naturally look away from the object of their main focus of attention, the interviewer, may be disconcerting and tension producing. Our results would certainly suggest that feedback monitors should be placed on the right, and not on the left, of the main focus of attention.

APPENDIX A

1 & 7 = extremely
2 & 6 = very
3 & 5 = somewhat
4 = neutral or inbetween

MY FEELINGS ABOUT MYSELF DURING THE LAST BLOCK OF QUESTIONS

1.	at ease	1	2	3	4	5	6	7	nervous
2.	good looking	1	2	3	4	5	6	7	plain
3.	dishonest	1	2	3	4	5	6	7	honest
4.	told truth	1	2	3	4	5	6	7	told lies
5.	ugly	1	2	3	4	5	6	7	beautiful
6.	tense	1	2	3	4	5	6	7	calm

APPENDIX B_1

1 & 7 = extremely
2 & 6 = very
3 & 5 = somewhat
4 = neutral or inbetween

MY PERCEPTIONS ABOUT THE INTERVIEWER DURING THE LAST BLOCK OF QUESTIONS

near	1	2	3	4	5	6	7	far
honest	1	2	3	4	5	6	7	dishonest
undependable	1	2	3	4	5	6	7	reliable
image showed many details	1	2	3	4	5	6	7	image showed few details
image was large	1	2	3	4	5	6	7	image was small
distant	1	2	3	4	5	6	7	close

THE NEXT BLOCK OF QUESTIONS WILL BE PERSONAL AND POSSIBLY EMBARRASSING

APPENDIX B4

1 & 7 = Extremely
2 & 6 = Very
3 & 5 = Somewhat
4 = Neutral or In-between

MY PERCEPTIONS ABOUT THE INTERVIEWER DURING THE LAST BLOCK OF QUESTIONS

near	1	2	3	4	5	6	7	far
honest	1	2	3	4	5	6	7	dishonest
undependable	1	2	3	4	5	6	7	reliable
image showed many details	1	2	3	4	5	6	7	image showed few details
image was large	1	2	3	4	5	6	7	image was small
distant	1	2	3	4	5	6	7	close

THE NEXT BLOCK OF QUESTIONS WILL BE OF THE GENERAL, IMPERSONAL TYPE

APPENDIX C

1 & 7 = Extremely
2 & 6 = Very
3 & 5 = Somewhat
4 = Neutral or in-Between

MY FEELINGS ABOUT THE MODE OF COMMUNICATION IN THIS STUDY

1.	allowed me to take an active role	1	2	3	4	5	6	7	forced me to take a passive role
2.	mode of communication was weak	1	2	3	4	5	6	7	mode of communication was strong
3.	hot	1	2	3	4	5	6	7	cool
4.	direct	1	2	3	4	5	6	7	indirect
5.	complex	1	2	3	4	5	6	7	simple
6.	colourful	1	2	3	4	5	6	7	colourless
7.	mode of communication made me feel involved	1	2	3	4	5	6	7	mode of communication made me feel left out
8.	complicated	1	2	3	4	5	6	7	easy to understand
9.	hard to interpret what was meant	1	2	3	4	5	6	7	easy to interpret what was meant
10.	unenjoyable	1	2	3	4	5	6	7	enjoyable
11.	suitable for discussion with close intimate friends	1	2	3	4	5	6	7	suitable only for common gossip
12.	boring	1	2	3	4	5	6	7	leaves me alert
13.	frustrates me	1	2	3	4	5	6	7	is not frustrating
14.	comfortable	1	2	3	4	5	6	7	uncomfortable
15.	leaves me uncertain what to think and do	1	2	3	4	5	6	7	makes it clear what to think and do
16.	useful	1	2	3	4	5	6	7	useless
17.	made me feel that someone else was constantly aware of what I was doing	1	2	3	4	5	6	7	made me feel like I was in private

18.	leaves me certain as to how I was supposed to respond	1	2	3	4	5	6	7	leaves me not sure as to how I was supposed to respond
19.	private	1	2	3	4	5	6	7	public
20.	artificial	1	2	3	4	5	6	7	true to everyday life
21.	pleasant	1	2	3	4	5	6	7	unpleasant
22.	taxing	1	2	3	4	5	6	7	does not tire me
23.	mode of communication was secure	1	2	3	4	5	6	7	mode of communication was open to tampering by others
24.	natural	1	2	3	4	5	6	7	phoney
25.	a safe way to communicate	1	2	3	4	5	6	7	a dangerous way to communicate
26.	good	1	2	3	4	5	6	7	bad

APPENDIX D

1 & 7 = extremely
2 & 7 = very
3 & 5 = somewhat
4 = neutral or in-between

MY FEELINGS ABOUT THE INTERVIEW SITUATION

1.	I looked at my interviewer	1	2	3	4	5	6	7	I avoided looking at my interviewer
2.	I felt the interviewer was never talking directly to me	1	2	3	4	5	6	7	I felt the interviewer was speaking directly to me
3.	seeing my own picture was distracting	1	2	3	4	5	6	7	seeing my own picture was helpful
4.	I looked at my own picture	1	2	3	4	5	6	7	I avoided looking at my own picture
5.	I looked away to the left	1	2	3	4	5	6	7	I looked away to the right
6.	I felt my interviewer sensed how I was reacting	1	2	3	4	5	6	7	I felt my interviewer did not sense how I was reacting
7.	Seeing my own image made me relax	1	2	3	4	5	6	7	seeing my own image made me nervous
8.	I felt my interviewer was uncertain whether I was listening	1	2	3	4	5	6	7	I felt my interviewer was certain whether I was listening

APPENDIX E

1 & 7 = Extremely
2 & 6 = Very
3 & 5 = Somewhat
4 = Neutral and in-between

MY BEHAVIOUR DURING EXPERIMENT

1.	perceived no cues as to how I was expected to behave	1	2	3	4	5	6	7	perceived and obeyed cues from which I inferred how I was expected to behave
2.	had my own ideas about what the study would show if correctly interpreted	1	2	3	4	5	6	7	had no idea what the study would show if correctly interpreted
3.	wanted to give data that would displease the experimenter	1	2	3	4	5	6	7	wanted to give data that would please the experimenter
4.	unconcerned with giving impression of competence	1	2	3	4	5	6	7	perceived and obeyed cues which indicated what to do to appear competent
5.	leaned over backwards to be honest so the experimenter will <u>not</u> draw erroneous conclusions	1	2	3	4	5	6	7	tried to respond so the experimenter <u>will</u> draw erroneous conclusions
6.	perceived and acted on cues indicating how to appear well-adjusted	1	2	3	4	5	6	7	perceived no cues as to how to go about appearing well-adjusted
7.	had no suspicions about true purpose of the study	1	2	3	4	5	6	7	had suspicions about true purpose of the study
8.	tried to provide data of no use to science or the experimenter	1	2	3	4	5	6	7	tried to provide data of use to science or to the experimenter
9.	tried not to bias the outcome of the study one way or another	1	2	3	4	5	6	7	behaved as I felt, letting my own prejudices influence me

APPENDIX F

EXPERIMENTAL QUESTIONS

1. What would you do if you went to the store for bread and they didn't have any.
2. Try to form a mental picture of what I am going to tell you and tell me when the picture is as clear as you can get it: "An Ocean Liner".
3. What is the most embarrassing word do you think you could say to me?
4. Define the word "ability".
5. If you are engaged in an intimate sexual experience with someone, do you prefer the lights to be on or off?
6. Finish this sentence - "Ability is native, education is _____".
7. Think of your best female friend. What would you do if she expressed a desire to have sexual relations with you?
8. Which angle is greater: the smaller angle formed by the hands of a clock at 2:45, or the smaller angle formed by the hands of a clock at 2:30?
9. Try to form a mental picture of what I am going to tell you and tell me when the picture is as clear as you can get it: "A Forest".
10. What day comes before Wednesday?
11. What part of your body do you like to expose to men?
12. In pictures of Napoleon, which hand does he hold in his coat?
13. Name two small letters which go below the line of print like the letters p and y.
14. What was your first impression of me?
15. What do you do to attract someone to whom you are sexually attracted?
16. Imagine a rectangle. Draw a line from the upper left-hand corner to the lower right-hand corner. What two figures do you now have?
17. When was the last time you told a lie to someone close to you?
18. Make up a sentence using the words "thigh" and "kissed".
19. What is the most embarrassing word I could say to you?
20. How are a piano and violin alike?
21. What are you most afraid of?

22. Define the word "economics".

23. What part of speech is "the"?

24. Try to form a mental picture from the following quote and tell me when the picture is as clear as you can get it; "Is this a dagger which I see before me, the handle toward my hand".

25. What are the advantages of paying bills by cheque?

26. What is a four-letter word beginning with f?

27. Describe the scene of the most embarrassing situation you were ever in.

28. How often do you use underarm deodorants?

29. Compared with most people, how would you rate yourself on intelligence?

30. What do you think is the average length of an erect penis?

31. Make up a sentence using the words "exchange" and "stock".

32. Try to form a mental picture from the following quote and tell me when the picture is as clear as you can get it: "He could stand it no longer; he cried out, he sobbed helplessly against her tensed face..."

33. Try to get a clear picture in your mind of what I am going to tell you and tell me when it is as clear as you can get it: "A sexual orgy in your own room or apartment".

34. How many points are there on the Maple Leaf in the Canadian flag?

35. What aspect of your personality do you dislike or regard as a handicap?

36. If you are or were to have a sexual relationship with someone, how often would you like to engage in sexual activity?

37. How many corners are there in a solid cube?

38. Try to form a mental picture from the following quote and tell me when the picture is as clear as you can get it: "They grunted together, Karen squirming backward in the damp earth, Shar grinding himself against her".

39. Why do you think lesbian relationships are considered by some people to be as satisfying as heterosexual relationships?

40. What would you do if you lost a book that belonged to one of your friends?

41. What part of your body do you like to hide from men?

42. What does C.O.D. mean?

43. Try to form a mental picture from the following quote and tell me when the picture is as clear as you can get it: "She heaved and hurdled, arched and cried, clawed me, kissed me, even gave a shriek once..."

44. Imagine you are out with a man for the first time. You notice his fly is open. What would you do?

45. What is a letter that goes below the line of print in small writing and above the line in small printing?

46. Tell me five verbs beginning with "r".

47. Try to form a mental picture from the following quote and tell me when the picture is as clear as you can get it: "A birdie with a yellow bill hopped upon my window sill".

48. What is the meaning of the word "time"?

OCULAR RESPONSE

APPENDIX G

LOOK ALL THE TIME 2
LOOK AT LEAST SOME OF THE TIME 1
DON'T LOOK AT ALL —

G# INT. SELF
BA ___ ___
DA ___ ___

G# INT. SLF
BA ___ ___
DA ___ ___

G# INT. SLF.
BA ___ ___
DA ___ ___

G# INT. SLF.
BA ___ ___
DA ___ ___

G# INT. SLF.
BA ___ ___
DA ___ ___

G# INT. SLF.
BA ___ ___
DA ___ ___

G# INT. SLF.
BA ___ ___
DA ___ ___

G# INT. SLF.
BA ___ ___
DA ___ ___

G# INT. SLF.
BA ___ ___
DA ___ ___

G# INT. SLF.
BA ___ ___
DA ___ ___

G# INT. SLF.
BA ___ ___
DA ___ ___

G# INT. SLF.
BA ___ ___
DA ___ ___

G# INT. SLF.
BA ___ ___
DA ___ ___

G# INT. SLF.
BA ___ ___
DA ___ ___

G# INT. SLF.
BA ___ ___
DA ___ ___

G# INT. SLF.
BA ___ ___
DA ___ ___

G# INT. SLF.
BA ___ ___
DA ___ ___

G# INT. SLF.
BA ___ ___
DA ___ ___

G# INT. SLF.
BA ___ ___
DA ___ ___

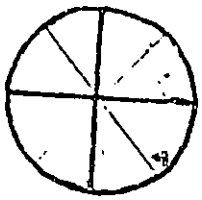
G# INT. SLF.
BA ___ ___
DA ___ ___

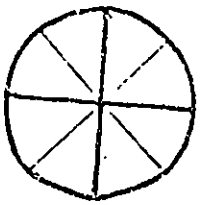
G* INT. SLF.
BA ___ ___
DA ___ ___

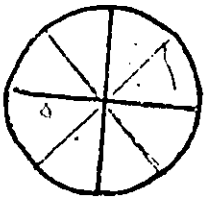
G# INT. SLF.
BA ___ ___
DA ___ ___

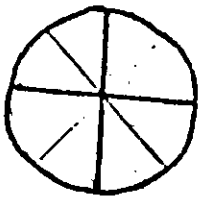
G# INT. SLF.
BA ___ ___
DA ___ ___

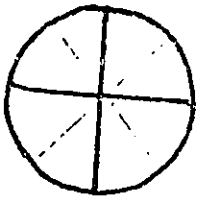
G# INT. SLF.
BA ___ ___
DA ___ ___

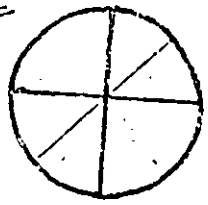


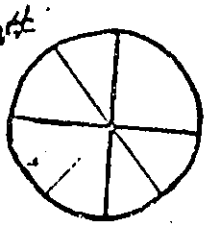


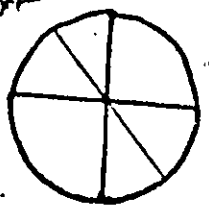


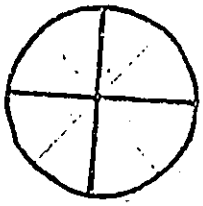


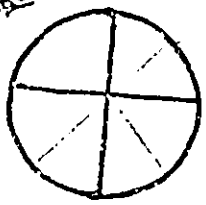


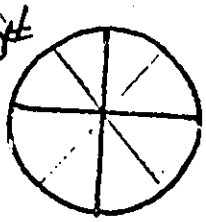


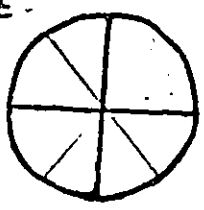


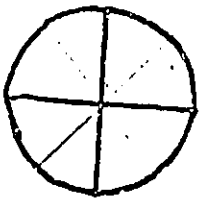


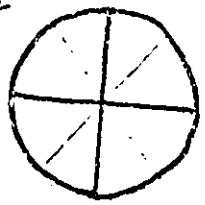


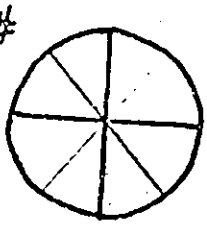


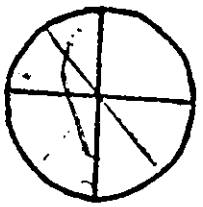


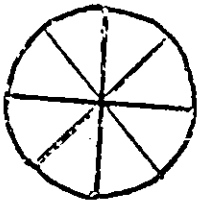


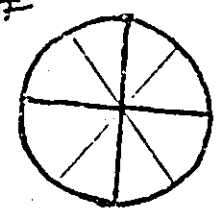


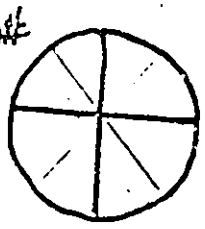


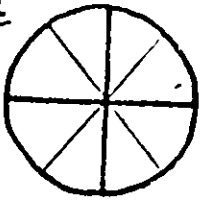


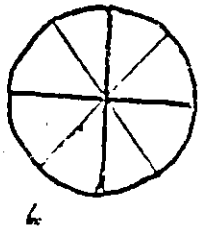


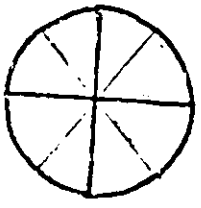


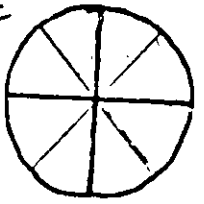


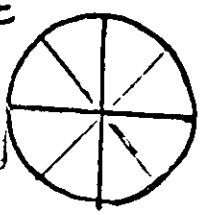












APPENDIX H

DIRECTION OF OCULAR RESPONSE

[C = CLOSED EYES BEFORE RESPOND

APPENDIX I

Subject #_____ RESPONSE TIME RECORD

Q# A Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# B Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# C Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# D Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# E Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# F Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 1 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 2 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Subject #_____ RESPONSE TIME RECORD

Q# 1 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 4 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 5 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 6 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 7 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 8 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 9 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 10 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Subject #_____ RESPONSE TIME RECORD

Q# 11 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 12 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 13 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 14 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 15 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 16 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 17 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 18 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Subject #_____ RESPONSE TIME RECORD

Q# 19 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 20 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 21 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 22 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 23 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 24 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 25 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 26 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Subject #_____ RESPONSE TIME RECORD

Q# 27 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 28 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 29 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 30 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 31 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 32 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 33 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 34 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Subject #_____ RESPONSE TIME RECORD

Q# 35 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 36 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 37 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 38 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 39 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 40 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 41 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 42 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Subject #_____ RESPONSE TIME RECORD

Q# 43 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 44 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 45 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 46 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 47 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

Q# 48 Time (seconds) to onset of verbal response_____
" " " offset " " " _____

No verbal response_____

Time (seconds) to onset of ocular response (first look-away)_____
Maintained eye contact (did not look away until after verbal response) _____

APPENDIX J

Script

Hi, you must be _____. I'm Tom Schleich. Thank you for volunteering for this project. I assure you there's nothing to be apprehensive about and in fact I think you'll have some fun! Have you ever seen yourself on TV? Well you're going to in just a few moments. There's another girl in another part of the building that's an undergraduate, she'll be interviewing you over closed circuit TV. This is only a pilot study in which we are attempting, with your help, to develop an interview procedure, and select appropriate questions dealing with Canadian attitudes towards sex and other topics. Your cooperation in this initial phase is invaluable to us!

Are you at all familiar with the Kinsey report (Subject responds). Well, one of the problems of doing research in this sensitive area which deals with people's sexual attitudes and other intimate topics is that people sometimes get embarrassed in the face to face interview. One possibility for making the situation more comfortable and less threatening is to have the interviewer and interviewee in separate rooms, and communicate via closed-circuit TV. This is the approach we are using in the present study.

Let's go over here now. I'd like you to take this chair and sit anywhere between this monitor (monitor A) and the back. Pause. Just so long as you are in front of this camera. (subject sits). The person you'll be getting to know during the next 20 minutes or so is Diane Ramey. As I said she's in another part of the building and has a camera just like yours.

Diane's picture will appear on this monitor soon. (Conditions I and II) and your own image will appear on this one (Experimenter points).

The first thing we would like you to do is to learn how to control your image so that you may "put your best foot forward", or come across to Diane in any way you like. During your talk with her there will be several breaks or pauses during which you will get a chance to adjust your image, to try a new approach if you want to, for you see movement or image adjustment during a set of questions may throw your image out of focus or off the screen.

These buttons (experimenter points) are hooked up to lights on a panel behind that curtain. Each button represents one distance on the lens. "1 minimum is a small distant shot of you, 2 is slightly larger, 3 larger still and 4 maximum, is a large close-up picture. We'll use these to simulate the automatic apparatus which we'll be using when we start our real study later this summer. We want you to be as much at ease as possible, to make sure you are comfortable and relaxed about checking and changing your image, let's practice a bit. Push the focus button whenever your image isn't clear enough. Let's start at 1 minimum, press that button (1 minimum) and I'll show you how you'll look. OK great, now press 2 (Experimenter changes zoom). Fine! How about 3. (Subject presses button, Experimenter responds). That's good, now give 4 maximum a try. OK let's do it again. (Subject pushes each button in turn, Experimenter responds by changing lens position). The experimenter then presents each position randomly and asks the subject to identify it. OK now push the button with which you'd like to start! Now we are

ready to open the visual channel between you and Diane. In a moment her image will appear on this monitor (and simultaneously your's will appear on her's). To begin, Diane will ask you a few warm-up questions (there will be eight other groups with six questions in each). We'd like you to give a candid, off the top of your head response. No response need be given if the question in some way makes you ill at ease. This goes for any of the questions. Do you understand so far? (Experimenter answers any questions). The interviewer will then ask the other questions in Group 1. At the end of every second group, you will rate yourself and your interviewer on these scales (Experimenter shows sample of Semantic Differential), and adjust your image if you wish.

(The Experimenter enters after each group, instructs the subject on how to use Semantic Differentials, the Subject fills in scales, the Experimenter than asks the subject to press one of the buttons on the panel if she wishes to change her image).

(Beginning last 4 blocks). The subject chooses image then, "Oh, I forgot that we're starting the second half of the questions. You get to see your interviewer's starting image and can adjust yours to the most comfortable position before the onset of each block of questions. (The subject resets and the second half of the groups begins).

(After last block) the Experimenter re-enters, introduces the interviewer to the subject and they begin the debriefing session after the subject has filled out the longer semantic differentials.

APPENDIX K

Eight possible treatments, 12 Subjects will be assigned to each. Interviewer's Image-distance schedules. C = close, F = far.

Schedule 1: (c) CCCC FFFF (There is also a warm up cell of the same type).

Schedule 2: (f) FFFF CCCC

Question Schedules. N = Nonembarrassing, E = embarrassing

Schedule 1 NNNN EEEE (The warm up cell beings with neutral

Schedule 2 EEEE EEEE and ends with slightly embarrassing

Schedule 3 EENN EENN questions).

Schedule 4 NNEE NNEE

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