

An Attempt at Experimental Validation
of the
Authoritarianism Scale

by

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For the Department

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Introduction

Now what is plain and obvious at first are rather confused aggregates, the elements and principles of which become known to us later by analysis. (Aristotle, Physics).

The most extensive application of theory to the "confused aggregate" of observations in social science has been combination application of Freudian theory of personality structure and socio-political questions in The Authoritarian Personality (Adorno et. al., 1950). The masses of data gathered over the years of this study provide impressive evidence for the existence of a certain personality type. The theory provides an intellectually satisfying explanation of how this personality is constructed.

There is a vast literature following, discussing, analyzing, and further testing findings from the original material. However, there is little empirical evidence that this personality type does what it is said to do. Indeed, the literature has become so great, and the published instruments to measure some similar variable have so multiplied, that it is not surprising that there are contradictions and inadequately validated conclusions. Some of the intriguing problems which led to this present study are discussed below.

The authors of The Authoritarian Personality decided which factors separated the authoritarian from the non-authoritarian in content-analyzed interviews and projective test protocols. (For discussion of the criticism of this aspect

of the research see Christie and Jahoda, 1954, and Brown, 1964). Questions for the F scale were selected to illustrate or locate the following factors:

- a. Conventionalism: Rigid adherence to conventional, middle-class values.
- b. Authoritarian Submission: Submissive, uncritical attitude toward idealized moral authorities of the ingroup.
- c. Authoritarian Aggression: A tendency to be on the lookout for, and to condemn, reject, and punish the people who violate conventional values.
- d. Anti-Intracception: An opposition to the subjective, the imaginative, the tender-minded.
- e. Superstition and Stereotypy: The belief in mystical determinants of the individual's fate, the disposition to think in rigid categories.
- f. Power and "Toughness": A preoccupation with the dominance-submission, strong-weak, leader-follower dimension; identification with power figures; overemphasis upon the conventionalized attributes of the ego; exaggerated assertion of strength and toughness.
- g. Destructiveness and Cynicism: a generalized hostility, vilification of the human.
- h. Projectivity: The disposition to believe that wild and dangerous things go on in the world; the projection outwards of unconscious emotional impulses.
- i. Sex: Exaggerated concern with sexual "goings-on." (The Authoritarian Personality, 249-250)

After Communism was accepted as a threat as great as fascism, many researchers saw "authoritarianism" as a general trait--a turn of mind that might be found in persons of various ideologies.

Christie (1958, 143) comments:

The F scale was designed as a covert measure at the personality level of incipient fascistic tendencies, although it is more commonly interpreted as a measure of authoritarianism.

Rokeach has been one of the principal writers changing the emphasis from "potentiality for fascism" to the more general "dogmatism" or "closed-mindedness." Larson (26)

summarizes:

Essentially, the 'closed' person is one who rigidly maintains a system of beliefs, who sees a wide discrepancy between his belief system and those whose belief systems are different from his, and who evaluates messages in terms of the 'goodness of fit' with his belief systems.

However, in the transition from identifying potential-for-fascism to authoritarianism to dogmatism, operational aspects of meaning have become confused.

The dogmatic, for example, is said to "rigidly maintain a system of belief." Goetz (1965), however, considers that dogmatics passively submit to authority, and should be persuasible. She did find some tendency for those scoring high on Rokeach's scale (1960) to manifest more-instability than low scorers. However, returning to the original term, an "authoritarian" should have a special relationship to "authority." Brown's definition (1965, 543) makes sense in this context of attitudes.

Perhaps the authoritarian is a person who is best characterized by the kind of information that will induce him to change his attitudes. The authoritarian will reverse his evaluations on the simple say-so of an authority figure. If Stalin signs a pact with Berlin then Nazism becomes acceptable for the authoritarian Communist; if Khrushchev devaluates Stalin the authoritarian Communist does the same. The authoritarian liberal would change his views on Communism if Franklin Roosevelt had told him to do so . . .

The non-authoritarian will also change his attitudes but the requisite information is different . . .

The proposed definition is dynamic rather than static. One could not diagnose authoritarianism from an inventory of beliefs but only from knowledge of the circumstances that will change belief.

Brown does not believe that the scales necessarily do or could identify the "dynamic authoritarian." But the actual effect of "dogmatism" or "authoritarianism" on attitude change has been little studied.

Vacchiano, Schiffman, and Crowell summarize their results' in a recent study as follows:

The effects on attitude of an intensive training program for 55 graduate students untrained in education were measured with the Minnesota Teacher Attitude Inventory (MTAI). Females were found to change significantly in their attitudes . . . while males showed no change in attitude. Initial scores on the MTAI were inversely and significantly related to authoritarianism and dogmatism (as measured by the California F Scale and the Rokeach Dogmatism Scale). Attitude shifts as a function of training were significantly related to authoritarianism but not to dogmatism.

However, using a group of sophomore females in education, Ofchus and Gnagey found no relationship between authoritarianism and shift in professional attitude toward teaching.

These studies, then, do not indicate that measures of dogmatism or authoritarianism are good predictors of attitude-change behavior. Indeed, Vacchiano *et. al.* point up the very ambiguity of the scales (particularly the dogmatism scale), in their closing paragraph (362):

It is possible that there was no relation between dogmatism and attitude shifts because of counter-acting variables. A negative relationship between dogmatism and attitude change would be expected if incorporation of new ideas were the main influence. Conversely, a positive relationship would be expected if the appeal of authority were the main influence. Since it can be assumed both effects were involved in this training situation, the net result would be a nonsignificant relationship between dogmatism and MTAI changes.

The experimental design following is a strategy to provide further information on what, if anything, the authoritarianism scale indicates in regard to attitude change.

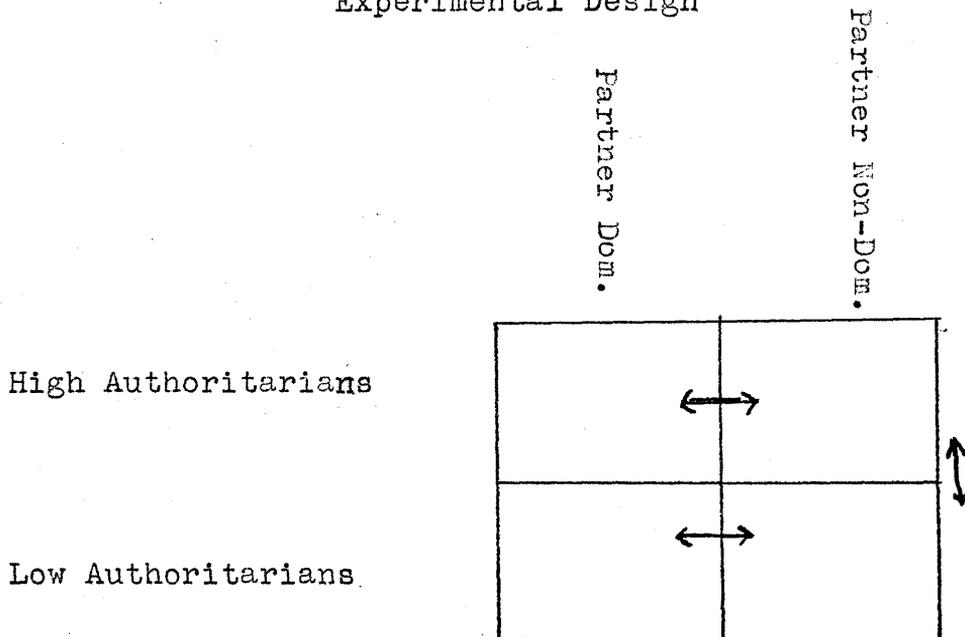
Experimental Design

The first step in this study is the administration of an authoritarianism scale (in this case the Christie "Balanced F Scale") to an entire population. Out of this population, those with quartile₁ and quartile₄ scores are selected as experimental groups (to provide contrast of results).

Each of these groups is then broken into two matched sub-groups. Those in one sub-group are matched with someone they have named as "dominant" to them, while the other members of the sub-group are placed with "non-dominant" partners. Each pair discusses two topics on which they disagree.

If a high score indicates a "rigid hold on belief systems," then the "high authoritarians" as a whole should have significantly less change of opinion. If, however, a high score indicates a change of opinion for authority and authority only, then the high authoritarians should have a significantly higher change of opinion with dominant partners. This should not be true of the subjects who scored low on authoritarianism. The paradigm is drawn on the following page.

Experimental Design



Comparison of upper and lower half should indicate if higher scorers are dogmatic (change opinion less).

Comparison of situation with dominant and non-dominant partner (black arrows) and contrast of these comparisons for highs and lows should indicate if high scorers are authoritarian.

Instrumentation

I. Authoritarianism scale

Two criteria were set for this instrument:

1. Avoidance of agreement response set ("yea-saying")
2. Construct validity.

Agreement response set is a tendency to agree to statements regardless of content. Cronbach (1946) notes that it is most prominent when an item is vague or in an unfamiliar area. Christie et. al. (1958, 143) comment:

Such considerations are pertinent to many of the items in the F scale which are characterized by nonspecificity of referent and do not make sense when analyzed logically.

Some writers have felt that such a tendency to acquiesce might be part of the authoritarian syndrome, but further work indicates "'pure' authoritarianism is independent of the agreeing response set." (Couch and Keniston, 1960, 161)

Persons having such a general tendency to agree would seem to be very likely to change their opinions under conditions of this study and thus their concentration in any group would contaminate results. The Rokeach dogmatism scale, form "E", and the California "E" and "F" scales, on all of which agreement is scored as "authoritarian" or "dogmatic" on all questions, were eliminated on this criterion.

Two other scales sometimes used for measurement of this variable of authoritarianism dismiss the problem of construct validity. Webster and Sanford (1955, 81) write:

The strictly empirical nature of the new instrument should be mentioned. No attempt was made to include in the 677 items of the test battery ones that would express any of the different facets of the authoritarianism. On the contrary, our concern was with a wide range of personality variables which, under one hypotheses or another would change under the impact of a liberal education, and we supposed that the area of authoritarianism would be more less covered by the f scale itself.

Their final form consists of 149 items, mostly originating from personality tests, that have "about 3/4 of their true variance in common with F (76). They claim the instrument "is less ideological, more personality-centered than the F scale" (82).

One might consider here the general problem of whether any such paper and pencil test, necessarily limited to finding the content of attitudes, can really evaluate the manner in which an attitude is held. "Validation" of this scale consisted solely in finding that certain items covaried, but it is supported by neither psychological theory nor experimental verification.

Consider the following items:

1. I feel sure that there is only one true religion.
2. I pray several times every week.
3. I believe in the second coming of Christ.
4. In religious matters, I believe I would have to be called an agnostic.

Agreement with the first three items, disagreement with the last are scored high in authoritarianism. Yet certainly this author can think of friends who would score "high" on these items who are much more tolerant of others, more flexible, more tolerant of ambiguity and less aggressive

and hostile than others who would score "low." There may well be others items whose content-boundness eludes us because of our own bias toward the generally liberal view that is scored as "low."

The same considerations that oppose the Webster-Sanford scale in general apply to the Haiman Scale for the Measurement of Open-mindedness (Haiman, 1964). The author describes and evaluates his scale as follows:

. . . a direct exploration of attitudes on carefully selected political, social, and ethical issues appears to be a better indication of closed and open-mindedness that is the indirect psychologically-oriented approach of the F scale and the Rokeach instrument (101-102).

It is difficult to understand in what sense statements like "Fundamentally, the world we live in is a pretty lonesome place," and "Most people don't realize how much of our lives are controlled by plots hatched in secret places" (this last an almost verbatim F scale item included in the present study) are really "direct explorations of attitudes."

However, if the scale is considered an indirect measure, some of the items fail to be "psychological reversals" (criterion set by Christie, Havel, and Seidenberg, 1958). For example, the statement "I have so much trouble finding out what is or is not true that I can't understand how some people can feel so certain that they know the truth," might appeal to the authoritarian's "rejection of self" as well as to the non-authoritarian's tolerance of ambiguity and uncertainty.

Again, "validation" of this scale consisted in finding that certain attitudes tend to "go together," but there is no consideration of how these attitudes are held. Nor did the author study whether such a group of attitudes relates to personality structure.

Like debaters or mystery-story detectives, we have eliminated all solutions but our own. The scale selected for use in this study is the Christie, Havel, and Seidenberg (1958) revision of the F scale. Careful consideration was given to the construction of item reversals, and proposed scales were administered to find which items most clearly differentiated the "highs" and "lows" and most consistently tapped the same factor. Since this scale is based on the F scale and on the theory of the Authoritarian Personality, studies supporting the F scale would also tend to validate this instrument. The instrument is given in Appendix A of this paper.

There are six possible choices for each item, ranging from -3 to +3 with 0 omitted. For scoring see table following.

Scoring of Straight and Reversed
F-Scale Items

Response	Score	
	Straight F	Reversed F
Agree very much	7	1
On the whole	6	2
A Little	5	3
No answer	4	4
Disagree a little	3	5
On the whole	2	6
Very Much	1	7

"Straight" items on this form are Numbers 2, 3, 7, 8, 10, 11, 13, and 16. Other items are "reversed."

(Chart slightly altered from Christie *et. al.* 1958, 151)

II. Dominance form 1

The instrument used to match dominant or non-dominant partners to experimental subjects appears at first to be similar to a sociogram (it is, in this report referred to as a semi-sociogram). However, while a true sociogram is concerned with depicting the structure of a group, this instrument is intended only to select one-to-one relationships.

Items were based on factors from a study by Carl Larson (1965) that apparently indicated a "dominance pattern" (see Dominance form 2) and from consideration of the kinds of behavior implied by a "dominance" relationship. Item #5 was based on a definition of "status"--that status in one person limits the partner's possible reactions to him.*

All members of the original group filled out this form at leisure. After a subject was placed by her score on the authoritarianism scale, she was matched with one of those in a "dominant" relationship to her (named in questions 1, 3, 5, 6) or a "non-dominant" (named in questions 2, 4, 7). Preferably, a girl was matched with the girl she named most often (though not if she was named in both sets of questions). Many problems arose, however, and the final pairing was partly a matter of the experimenter's judgement of relationships.

*The author is indebted to Dr. Maynard Shelly, Ass't. Prof. Psychology, University of Kansas, for the above definition.

III. Attitude scale

In general, this form (Appendix B) is not unusual. Topics are based on those used by Larson (1965), and additional items, like his, are selected for "public saliency" and "complexity" (39).

The scale itself was used because of the author's previous experience with a study run on a similar population. It was obvious from this study, for example, that there is no room for convergence of opinion when partners are already completely in agreement. It was also clear that, although a subject might agree or disagree with a point of view abstractly, unless the matter had some importance to her personally, the conversation resulting would be short and desultory. In addition, it seemed possible that if one partner had an intense interest in and strong feelings about a subject while the other did not, a usual dominance-submission relationship might be reversed.*

From this scale, subjects were assigned topics on which they disagreed (marked on opposite sides of the neutral point) or at least one had an expressed opinion while her partner was neutral. Subjects were matched for interest, and it was attempted to assign topics in which they both expressed some interest.

*Suggested by Dr. Maynard Shelley, Ass't. Prof. Psychology, University of Kansas.

IV. Dominance scale 2 (Likert-type)

Many of the same considerations entered into construction of this scale as in the construction of Dominance form 1. The form of the scale is taken from Larson (1965), and the first selection of items was taken from his second factor (63). Items with positive loadings (in order of decreasing loadings) were:

1. I teach him.
2. I try to change him.
3. I protect him.
4. I control him.
5. I am critical of him.
6. I inhibit him.

Larson labels this factor "control of other."

For purposes of the present study, submission or non-submission may be considered to exist in the mind of the persuadee. In other words, we are concerned with whether A sees herself as submitting or B as manipulating, not how the process appears to B. Agreement with items is scored 0 to 6, and the total score is assigned to the subject who filled out the form.

Other items were selected partly as a matter of judgement on the kind of relationship we were interested in, partly from those that had proved reliable and apparently differentiating (were not accepted by all or no subjects) in previous work.

V. Semantic differential

The semantic differential was developed by Osgood and his co-workers, and is thoroughly discussed in The Measurement of Meaning (1957). The particular pairs of adjectives used for this study were chosen to represent the three apparent dimensions--evaluation, activity, and potency--and to be apparently applicable to the topics to be used. (This form is Appendix E).

Semantic differentials are usually compared by use of the "D" or "D²" score. Each space between the adjectives is assigned a number (in this case, 1 to 6). Then the number on the second differential is subtracted from that on the first, and the remainder is squared. The total "D²" score, used in this report, is the sum of these squared differences.

As this study is arranged, it is possible to compare a subject's differential before the conversation with that after the conversation, giving a measure of Change of Opinion. One can also compare the subject's differential with her partner's, both before and after the conversation, thus giving a measure of Difference of Opinion, and of its increase or decrease.

Subjects were given the following concepts as topics for the semantic differential and the conversations:

1. Labor unions (now)
2. Complete medical care for all citizens at public expense

3. Robert Kennedy
4. The Civil Rights Movement
5. Capital punishment
6. Nikita Khrushchev
7. States and cities should have more power relative to the federal government
8. Foreign aid
9. Freely available contraceptives

Each pair discussed two topics, selected by answers to the Attitude Scale.

Subjects

The study as designed required use of a group sufficiently small and cohesive that members be able to fill out the semi-sociogram. Subjects were selected from the author's sorority at the University of Kansas. This is a living group as well as a social organization. Fifty-two members took the original tests. Two of these left the organization before the experimental conversations were done. The author served as a partner for one subject .

(LD4)

Out of these 51 possible subjects, the experimental subjects were chosen as those scoring above the first or below the fourth quartile on the authoritarianism test. Subjects were matched, with one-half group paired with an "authority," the other half with a "non-authority."

Members had university classification of sophomore, junior, or senior. All had at least one month's residence in the group before the first set of forms (The "Balanced F Scale," the Attitude Scale, and Dominance Form 1) were filled out. All had lived together at least five months by the time the conversational studies were run.

Procedure

The experimental procedure was carried out in two stages. After a regular meeting of the entire group, members were each given the Christie revision of the F scale, the Attitude Questionnaire, and Dominance form 1. They were asked to fill out the first two forms at once, and to return the third the following day. Those not present at the meeting were eventually tracked down.

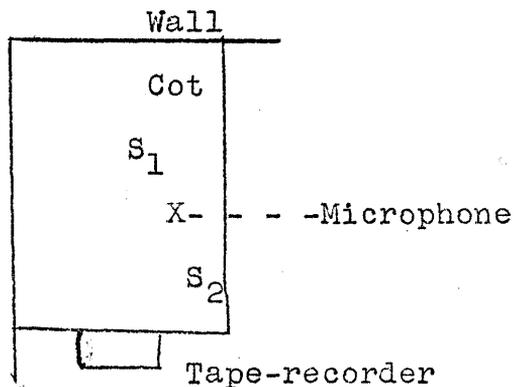
After the experimental subjects were selected on the basis of their Authoritarianism scores, they were matched with a partner from Dominance form 1 and assigned two topics from the Attitude Questionnaire. (For a more specific explanation of matching see instrumentation section of this paper.)

The second part of the experiment was the conversation itself. Partners were seated side-by-side on a cot in the experimenter's room and asked first to fill out Dominance Form 2. When these forms were completed, they were asked to fill out the semantic differential for their first topic. (Instructions for both forms are in Appendices D and E). When this form was completed and collected, subjects were given the following instructions:

You are now to try to communicate to your partner what _____ means to you, and to try to get the same information from her. You will have about six minutes--if you really run out before then, we can stop.

If a conversation did seem to have stopped, or one partner asked if they might stop, both were asked if they had a clear idea of their partner's opinion. On an affirmative answer (there were no negatives), they were given the post-conversation semantic differentials to fill out. If the conversation did not stop, they were given the differentials after six minutes of conversation at an apparent pause.

All conversations were taped. Arrangements of subjects and equipment appears below:



EXPERIMENTAL SITUATION

The experimental conversational procedure was repeated for the second topic.

Section II: RESULTS

t-test for Independent Samples

Comparison quartile₁ and quartile₄ scores on "authoritarianism" test.

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\frac{\sum x_1^2 + \sum x_2^2}{n(n-1)}}$$

$$df = n_1 + n_2 - 2 = 22$$

Significant at .05 level of confidence if $|t| \geq 1.72$

$$t = .65$$

Not significant

Null hypothesis retained: There is no significant difference between population means.

Test for Inclusion in Population

$$\frac{\sum y^2 - (\sum y)^2}{n-1} \quad (95 \text{ omitted})$$

$$\frac{\sum y^2 - (\sum y)^2}{n} \quad (95 \text{ included})$$

Significant at .05 level of confidence if $< .6829$

.481 $< .6829$

Score of 95 cannot be considered part of population.

Test for difference of mean opinion change

Comparison of high and low authoritarianism groups

$$t = \frac{\bar{y}_1 - \bar{y}_2}{s_p^2 \left(\frac{1}{n_1} + \frac{1}{n_2} \right)}$$

Null hypothesis: There is no difference in the means of the two groups.

Significant at .05 level of confidence if $t > 2.074$
 $t = .31 < 2.074$

Null hypothesis accepted. There is no significant difference.

Change of opinion scores

Subjects high in "authoritarianism"

<u>a</u>			<u>b</u>			<u>a-b</u>
"Dominant" partner			"Non-dominant" partner			
HD1	3	+ 4 = 7	HDN1	5	+ 22 = 27	-20
HD2	4	+ 7 = 11	HDN2	14	+ 2 = 16	-5
HD3	66	+29 = 95	HDN3	4	+ 10 = 14	xx
HD4	9	+ 5 = 14	HDN4	17	+ 32 = 49	-35
HD5	1	+ 0 = 1	HDN5	16	+ 19 = 35	-34
HD6	26	+13 = 39	HDN6	1	+ 3 = 4	35
						SUM -59

Subjects low in "authoritarianism"

<u>a</u>			<u>b</u>			<u>a-b</u>
"Dominant" partner			"Non-dominant" partner			
LD1	2	+ 9 = 11	LND1	32	+ 13 = 45	-34
LD2	1	+ 3 = 4	LND2	4	+ 5 = 9	-5
LD3	6	+ 18 = 24	LND3	14	+ 3 = 17	-7
LD4	4	+ 4 = 8	LND4	12	+ 10 = 22	-14
LD5	28	+ 3 = 31	LND5	20	+ 6 = 26	5
LD6	3	+ 23 = 26	LND6	2	+ 4 = 6	20
						SUM -21

Higher Coo score indicates greater change-of-opinion.

Originally, it had been planned to use a t-test to determine if the change-of-opinion was significantly greater in the authority situation than in the non-authority situation, and to find if this increase was greater for the authoritarians than the non-authoritarians.

As is clear from the preceding chart, subjects matched with "dominant" partners had less change-of-opinion than those with supposedly "non-dominant" partners. This finding led to the following possible hypothesis:

1. The semi-sociogram does not identify any kind of authority relationship. Pairings are essentially random.
2. The semi-sociogram identifies an authority relationship that has nothing to do with the socio-economic-political topics discussed in the experimental conversations.
3. Change-of-opinion may be low with authority figures because subject will not admit disagreement exists. Schramm describes the process:
 (After a message is selected) it will then be either accepted or rejected from the cognitive part of the receiver. (To defend ego-related beliefs) he will reject a message. He will, unwittingly, misinterpret a message. He will distort it. Some of this process is rational and some is below the level of conscious thought. (Schramm, 1963, 11)
4. Some of the "non-authority figures" may actually be negative authorities. Their identification with a point of view may cause the subject to intensify

his original opinion, moving away from the point of view advocated. Thus change-of-opinion would be larger because of changing "either way." (This hypothesis might be developed from the congruity model of Osgood, et. al., 1955). This hypothesis is plausible because topics were chosen that subjects did not completely accept or reject.

5. Opinion change may be somehow effected by non-random factors in the communicators.
 - i. Saliency
 - ii. Dogmatism

While subjects listed on "non-dominant" sociogram questions were presumably the less favorably evaluated by the person filling out the form, they were at least in her mind. Such saliency may indicate that the two groups (the "dominants" and the "non-dominants") may have been more similar than in different relationships to subjects.

Because of the problems of matching, only subjects LD5 and HND5 and HND3 and LD3 were mutual choices. Therefore, all other partners were chosen from those in the middle range of scores. Larson found that dogmatism (identified by Rokeach form E), though considered an aspect of a person's processing

of information, may affect his presentation.

The dogmatic person's partner seems to have been more accurate than others under the conditions of his study.

It seemed possible to partially check some of these hypothesis, with the data available.

For example, if scores on Dominance form 2 bore no relationship to Dominance form 1, we might tend to accept hypothesis 1--that either no continuing dominance-submission relationship existed among these women, or, that if it did, dominance form 1 did not identify it. To test this, an analysis of Dominance Form 2 was done.

There is no way from the data taken to test hypothesis 2.

There is also no information available to test hypothesis 3. Had subjects estimated their partner's answers as well as stating their own on a Semantic Differential, a Perceived-Difference-of-Opinion Score could have been easily derived.

To adequately test hypothesis 4 would also require perceived-difference-of-opinion scores. However, some indication may be obtained by taking actual difference of opinion scores and assuming reasonable accuracy on the part of subjects. (See table, difference-of-opinion scores).

Some idea of presentation of information might be obtained from analysis of conversation. However, it is difficult to see how this could be classified or contrasted since

all partners do share in saliency and almost all are from the "middle group" in terms of authoritarianism. Hypothesis 5, therefore, cannot be tested here.

Difference of opinion scoresSubjects low in "authoritarianism"

"Dominant" partner				"Non-dominant" partner			
Subject	Pre-talk	Post-talk	Change	Subject	Pre-talk	Post-talk	Change
	Doo	Doo			doo	doo	
LD1	49	50	= -1	LND1	65	71	= -6
	24	33	= -9		40	46	= -6
LD2	45	53	= -8	LND2	18	13	= 5
	125	113	= 12		35	69	= -34
LD3	17	21	= -4	LND3	149	66	= 83
	18	12	= 6		58	59	= -1
LD4	74	37	= 37	LND4	15	6	= 9
	20	33	= -13		16	13	= 3
LD5	40	52	= -12	LND5	71	43	= 28
	32	19	= 13		16	19	= -3
LD6	75	17	= 58	LND6	62	63	= -1
	15	28	= <u>-13</u>		36	49	= <u>-13</u>
	Σ		= 66		Σ		= 64
	Mean		= 11		Mean		= 10.7

Higher score indicates greater difference of opinion between partners. Negative number in third column indicates greater disagreement after conversation than before. Positive number in third column indicates convergence of opinions. Scores are D² scores from semantic differentials.

Note on subject numbers:
Combination of

L = Low in authoritarianism or H = High in authoritarianism
D = Partner dominant ND = Partner Non-dominant
Numbers 1-6 = assigned number within a group.

Difference of opinion scores

Subjects high in "authoritarianism"

"Dominant" partner				"Non-dominant" partner			
Subject	Pre-talk do	Post-talk do	Change	Subject	Pre-talk do	Post-talk do	Change
HD1	6 - 30	16 - 16	= -10 = 14	HND1	14 - 43	37 - 49	= -13 = -6
HD2	28 - 24	6 - 38	= 22 = -14	HND2	27 - 68	37 - 74	= -10 = -6
HD3		*		HND3	17 - 18	21 - 12	= -4 = 6
HD4	27 - 49	32 - 53	= -5 = -4	HND4	10 - 59	9 - 63	= 1 = -4
HD5	132 - 12	115 - 8	= 17 = 4	HND5	40 - 32	52 - 19	= -12 = 13
HD6	66 - 49	59 - 18	= 7 = <u>31</u>	HND6	28 - 27	39 - 20	= -11 = <u>7</u>
	Mean		= 62 = 12		Mean		= -39 = -6.6

*Omitted because not part of population on previous test.

Higher score indicates greater difference of opinion between partners. Negative number in third column indicates greater disagreement after conversation than before. Positive number in third column indicates convergence of opinions. Scores are D^2 scores from semantic differentials.

Analysis of Questionnaire on "Dominance"

<u>Question #1</u>		<u>Question #2</u>		<u>Question #3</u>		<u>Question #4</u>	
<u>D-</u>	<u>ND</u>	<u>D</u>	<u>ND</u>	<u>D</u>	<u>ND</u>	<u>D</u>	<u>ND</u>
6	5	5	4	6	5	2	3
5	4	5	3	6	5	2	3
5	4	4	3	6	4	1	2
5	4	3	3	6	4	1	1
5	4	3	3	6	4	1	1
4	3	3	3	6	4	1	1
4	3	3	2	6	4	0	1
4	3	3	2	5	4	0	1
4	3	2	1	5	4	0	1
4	1	2	1	5	3	0	0
4	1	1	0	4	3	0	0
3	0	1	0	3	2	0	0
Σ 53	31	34	25	64	46	8	14
Mean 4.4	2.6	2.5	2.1	5.3	3.8	.67	1.2

<u>Question #5</u>		<u>Question #6</u>		<u>Question #7</u>		<u>Question #8</u>	
<u>D</u>	<u>ND</u>	<u>D</u>	<u>ND</u>	<u>D</u>	<u>ND</u>	<u>D</u>	<u>ND</u>
3	4	4	3	6	5	4	6
3	3	3	2	6	3	4	3
3	3	3	2	4	3	4	3
3	3	2	1	4	3	4	3
3	3	2	0	4	3	4	2
3	3	2	0	4	3	4	2
2	3	2	0	4	3	4	2
2	2	1	0	4	3	3	1
2	2	1	0	3	3	3	1
2	0	1	0	3	2	3	1
2	0	0	0	3	2	2	0
1	0	0	0	2	2	2	0
1	0	0	0	2	2	2	0
Σ 28	24	19	8	45	36	37	22
Mean 2.3	2.0	1.5	.67	3.8	3.0	3.1	1.8

Description of inter-action with dominant (D) and non-dominant (ND) partners. Scores are ranked order. Higher number indicates greater perceived occurrence of an apparently dominating action.

Analysis of Questionnaire on "Dominance"

	<u>Question #9</u>		<u>Question #10</u>	
	D	ND	D	ND
	4	3	1	2
	3	2	1	2
	2	2	1	1
	2	2	0	1
	2	1	0	1
	1	1	0	1
	1	0	0	1
	1	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	0	0	0	0
	18	11	3	9
Mean	1.5	.92	.25	.75

Description of inter-action with dominant (D) and non-dominant (ND) partners. Scores are in ranked order. Higher number indicates greater perceived occurrence of an apparently dominating action.

Section III: CONCLUSIONS

1. The first test run was the t-test for Independent Samples (p.22). This test indicated that the difference in score between the top and bottom groups on the Authoritarianism test is not significant. These groups cannot be considered statistically different. As Blommers and Lindquist (349) comment, "It is clear that sample differences must indeed be large before our small-sample test judges them significant, i. e., judges them indicative of real differences between population means."
2. Change-of-opinion scores are listed on page 25. These scores range from 1 to 49, with one score of 95. A test was run for inclusion in population (p. 23.) It could be stated at the .05 level of confidence that this subject could not be considered a member of the population under consideration. Her scores are not included in later data.
3. The third test was a t-test comparing opinion change of the high authoritarian group (with HD3, the subject in number 2 above omitted) with opinion change in the Low group. This test is listed on page 24. While the lows did have less change-of-opinion than the highs, this difference was non-significant. However, one should keep in mind the findings and comment from #1 above.
4. On pages 26-29, is discussion of possible reasons for the surprising finding that over-all change-of-opinion for those with dominant partners was less than for those whose partners were supposed to be non-dominant. Five possible hypothesis

were offered, of which only two could be in any way tested from the data available. These were:

i. The semi-sociogram does not identify any kind of authority relationship.

and

iv. Some of the "non-authority figures" may actually be negative authorities.

The analysis of Dominance form 2, page 32 and 33 indicates rejection of hypothesis i. Most of the questions (except #5, She is critical of me) differentiate the two groups. Therefore, the kinds of behaviors that were felt to imply a dominance relationship are perceived as occurring more often in the "dominance relationships" in this study than in the "non-dominance" relationships.

There remains the possibility of hypothesis ii--that the dominance relationship does not extend to the topics under discussion. This would be congruent with findings of studies of influence and the mass media. Lazarsfeld and Menzel write:

Indeed, there was very little overlap of leadership: a leader in one sphere was not especially likely to be influential in another, unrelated, sphere. (1963, 98)

Before stating a hypothesis that cannot be further investigated with the present data, however, we should consider hypothesis iv. As noted above, any conclusive study of this hypothesis would involve use of a perceived difference of opinion score to eliminate confusion with inaccuracy and effects of the partner's move toward or away from subject.

Difference of opinion scores for all pairs are listed on pages 30 and 31. It is very interesting to note that total and mean convergence of opinion are very similar for those low in authoritarianism both with dominant and non-dominant partners and for those low in authoritarianism with dominant partners. There is a net divergence of opinion for high authoritarians paired with non-dominant partners. This does seem indicate a different relationship to authority on the part of the "authoritarians".

Evaluation and Further Questions

This study had a primary purpose--to attempt to provide empirical information about what an authoritarianism scale indicates about the way a person holds or changes attitudes. There was a secondary purpose--to attempt to develop a measure of dominance-submission that could be used for further studies in the area of influence.

It is possible that subjects high in authoritarianism as measured by these tests change opinions less than those with low scores. A definite conclusion could be reached only from studies with a greater spread of scores or a far larger n than this. However, the tendency is not overwhelmingly strong if it is present.

It is also possible that other scales are more valid descriptions of personality than this one. It would be particularly valuable to have Rokeach's Dogmatism Scale treated as Christie, Havel, and Seidenberg did the F scale, creating valid reversals that could balance out agreement response set. This scale would definitely predict less change of opinion for those with high scores. Yet those who scored high because of agreement response set would seem likely to agree with their partner, and thus have a large change-of-opinion.

The first suggestion about the effect of authority on the authoritarian was definitely not supported. (See discussion on authority below). But there is an indication of a difference in relationships. The authoritarian may

differ primarily in his attitude not to those he finds acceptable, but those he finds unacceptable. Rokeach uses the terms "dis-belief systems" as opposed to "beliefs."

As mentioned before, future studies should consider perceived difference of opinion along with or instead of actual difference of opinion. They should also include a wider selection of "authorities." It may be that authoritarians and non-authoritarians do differ sharply in their reaction to an announcement, say, by Dwight Eisenhower, though both might be his ardent fans.

DOMINANCE SCALE

Development of a form for quantifying dominance requires much more extensive consideration of the nature of dominance one desires to consider. There several areas of study which have considered which characteristics of one person would indicate that he would influence another. One of these is the studies of ethos in rhetoric (see Hovland, Janis, and Kelly). Another is the study of group dynamics or human relations. And a third is the area of mass media and opinion leadership (see Lazarsfeld and Menzel.)

Subjects may have been less than honest in filling out both dominance forms due to their personal acquaintance with the experimenter. It may be the better part of valor not to tell X that Y frightens you when you will be living with both for some time to come.

Despite any extenuating circumstances, however, the validity of both forms is cast in doubt by the fact that there was less change-of-opinion with "dominant" figures as selected by them than with "non-dominant" figures. Their claim to validity from this study comes only from the results of the difference-of-opinion scores.

GENERAL SUGGESTIONS

It is clear that further research should include a more diverse sample. In a number of studies on persuasion, the attitude-changing behavior of women has been different from that of men. Male college students should not prove too difficult to obtain as subjects. If possible, non-college subjects should also be used, especially because of the need of a wider spread of scores. Scores of college-student subjects are generally low--scores are higher for those of lower socio-economic status and less education.

Perhaps one real advantage of this study was the attempt to present subjects with roughly similar situations--not to assume, for example, that all subjects started with similar differences-of opinion. It may even be possible in a different experimental design to ask one subject if he knows how his partner feels already, thus eliminating cases in which the subject has already resolved any ambivalence.

Another important addition would be long-term studies of opinion change. Is there a sleeper effect in this kind of persuasion? Do subjects simply return to previous

opinions? Some interviews might also be valuable. One might try to find if subjects check their new opinions with others, and, if they do, what one can say about their relationship to these others.

Summary and Conclusions

A study was run testing the validity of the Authoritarianism Scale. No significant difference in change-of-opinion between those with high authoritarianism scores and those with low was found. It was found that both the highs and lows had greater change of opinion scores with "non-dominant" partners than with "dominant" ones, casting doubt on the validity of the instruments used to select the partners. However, it was found that difference of opinion increased between highs and "non-dominant" partners, while it decreased in other groups.

It was concluded that more studies should be done validating predictions from the construction of various authoritarianism scales. These instruments should be used with conservatism, recognizing that they are not validated.

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Appendix A

"Balanced F Scale"

developed by Christie, Havel, and Seidenberg, 1958.

The following is a study of attitudes on a number of social and personal questions. The best answer to each statement below is your personal opinion. Different and opposing points of view are represented; you may find yourself agreeing strongly with some of the statements, disagreeing just as strongly with others, and perhaps uncertain about others; whether you agree or disagree with any statement you can be sure that many people feel the same as you do.

Mark each statement in the left margin according to how much you agree or disagree with it. Please mark every one.

Write +1, +2, +3, or -1, -2 -3, depending on how you feel in each case.

+1: I agree a little.	-1: I disagree a little.
+2: I agree on the whole.	-2: I disagree on the whole.
+3: I agree very much.	-3: I disagree very much.

- () 1. Most honest people admit to themselves that they have sometimes hated their parents.
- () 2. Human nature being what it is, there will always be war and conflicts.
- () 3. Most people don't realize how much our lives are controlled by plots hatched in secret by politicians.
- () 4. The findings of science may show that many of our most cherished beliefs are wrong.
- () 5. People ought to pay more attention to new ideas, even if they seem to go against the American way of life.
- () 6. One of the most important things children learn is when to disobey authority.
- () 7. No weakness or difficulty can hold us back if we have enough will power.
- () 8. Most of our social problems would be solved if we could somehow get rid of the immoral crooked, and feebleminded people.
- () 9. In spite of what you read about the wild sex life of people in important places, the real story is about the same in any group of people.

- () 10. No sane, normal, decent person could ever think of hurting a close friend or relative.
- () 11. What the youth needs most is strict discipline, rugged determination, and the will to work and fight for family and country.
- () 12. It's highly unlikely that astrology will ever be able to explain anything.
- () 13. Nowadays more and more people are prying into matters that should remain private and personal.
- () 14. The artist and professor are probably more important to society than the businessman or manufacturer.
- () 15. If it weren't for the rebellious ideas of youth, there would be less progress in the world.
- () 16. Sex crimes, such as rape and attacks on children, deserve more than mere imprisonment; such criminals ought to be publicly whipped, or worse.

Appendix C

Semi-sociogram, first "dominance" form

Please fill out this form carefully and return to my room (11) or put in my mail box tomorrow. Consider each question by itself--don't worry about repeating or not repeating the names. Any member, active or pledge, may be listed under each question with the exception of Anne Lockhart. Do not discuss the questions before filling out forms. Remember, all material will be held confidential.

1. Name three girls whose opinions you would tend most to trust--~~in~~ in-rush or chapter meeting, for example.
2. Name three girls whose opinions would not influence yours with whom you tend to disagree in meetings or hash sessions.
3. Name three girls who you feel have real leadership and authority in the house, whether or not they have formal office.
4. Name three girls who you feel have little or no influence on house decisions.
5. Name three girls with whom you feel less free to do or say some things than you generally do.
6. Name three girls you are likely to go to for help or advice.
7. Name three girls you would not go to for help or advice.

Appendix D

Dominance form

The scale below each indicates the extent to which the preceding statement is characteristic or typical of you when with your partner, or her when with you.

1. I rely upon her judgement.
 Never: Almost
 Never: Only
 sionally: Occa-
 times: Some-
 quently: Fre-
 Always: Almost
 Always
2. I give in to her.
 Never: Almost
 Never: Only
 sionally: Occa-
 times: Some-
 quently: Fre-
 Always: Almost
 Always
3. I respect her.
 Never: Almost
 Never: Only
 sionally: Occa-
 times: Some-
 quently: Fre-
 Always: Almost
 Always
4. I am nervous when with her.
 Never: Almost
 Never: Only
 sionally: Occa-
 times: Some-
 quently: Fre-
 Always: Almost
 Always
5. She is critical of me.
 Never: Almost
 Never: Only
 sionally: Occa-
 times: Some-
 quently: Fre-
 Always: Almost
 Always
6. She disciplines me.
 Never: Almost
 Never: Only
 sionally: Occa-
 times: Some-
 quently: Fre-
 Always: Almost
 Always
7. She helps me.
 Never: Almost
 Never: Only
 sionally: Occa-
 times: Some-
 quently: Fre-
 Always: Almost
 Always
8. She teaches me.
 Never: Almost
 Never: Only
 sionally: Occa-
 times: Some-
 quently: Fre-
 Always: Almost
 Always
9. She controls me.
 Never: Almost
 Never: Only
 sionally: Occa-
 times: Some-
 quently: Fre-
 Always: Almost
 Always
10. She frightens me.
 Never: Almost
 Never: Only
 sionally: Occa-
 times: Some-
 quently: Fre-
 Always: Almost
 Always

Appendix E

Semantic differential and instructions

Instructions

Your topics are to be judged by you in relation to the pairs of adjectives listed below them. Mark items as follows:

If you feel that the concept preceding the scale is very closely related to one end of the scale, you should circle a number as follows:

Topic: Formal dances (example)

Happy X : ___ : ___ : ___ : ___ : ___ : ___ : Sad

or

Happy ___ : ___ : ___ : ___ : ___ : ___ : X : Sad

If you feel that the concept is quite closely related to one or the other end of the scale, you should place the mark as follows:

Topic: Formal dances (example)

Beautiful ___ : X : ___ : ___ : ___ : ___ : ___ : Ugly

or

Beautiful ___ : ___ : ___ : ___ : ___ : X : ___ : Ugly

If you feel that the concept seems only slightly related to one side or the other, then you should check as follows:

Topic: Formal dances (example)

Active ___ : ___ : X : ___ : ___ : ___ : ___ : Inactive

or

Active ___ : ___ : ___ : ___ : X : ___ : ___ : Inactive

If the concept seems only equally related to both sides of the scale, or unrelated to either side, check the middle space.

Check every scale, do not omit any. Do not put more than one check on a single scale.

