

# A Study of the Factor Structure of Attitudinal Measures of Major Social Psychological Constructs in an Irish Sample

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## I INTRODUCTION AND BACKGROUND

### I. 1 PURPOSE AND BACKGROUND OF THE STUDY

Within social psychology, the study of attitudes has been a central concern since the first quarter of this century. In fact, some early theorists (e.g. Thomas and Znaniecki, 1918 and Watson, 1925) regarded attitude as so central a concept that they equated social psychology with the study of attitudes (McGuire, 1969; Davis, 1973).

One consequence of the continuing and wide interest in, and study of, social attitudes has been a proliferation of attitude constructs as well as numerous scales designed to measure them. This presents the attitude researcher with much groundwork already laid; however, it also poses several problems. First of all, which constructs are more important to study than others? Secondly, which scales best measure these constructs? Thirdly, are the constructs unidimensional, as many, if not most, of the scales presume, and fourthly, are the scales developed in one culture transportable to another culture?

To answer the last question first, attitude measuring scales are not directly transportable from one culture to the next. Some attitudinal syndromes may be generalisable cross-culturally – at least among certain categories of cultures. However, even when this is the case, it does not necessarily follow that the same items are measuring the same attitudinal syndromes across the given cultures (and at this point we are ignoring the problem of linguistic translation – an added complication which we will not attempt to deal with here). Other attitudinal syndromes may be culture-specific, posing a problem

which transcends purely cross-cultural psychometric considerations. In either case, it becomes necessary to empirically test whether the constructs — and the items presuming to measure them — are relevant for the particular culture in which they are being used. Given the accelerated development of applied social research in Ireland, a clear need has been established for such a set of relevant social-psychological attitude measures. Given the identification of this need, it thus becomes necessary to face the other three questions posed above, namely, which constructs to study, which scales to use to measure these constructs, and are the constructs, in fact, unidimensional?

To assist in this task, the authors availed in large part of an exhaustive work produced by the University of Michigan's Institute for Social Research (Robinson and Shaver, 1973). This volume, entitled *Measures of Social Psychological Attitudes*, was first published in 1969 and updated in 1973. The 1973 version reviewed 126 attitude scales (each consisting of a number of items) which were subsumed under 10 different headings. To quote from the authors:

Despite our ambition to be as thorough as possible in our searching procedure, no claim is advanced that this volume contains every scale pertaining to our chapter headings. We feel confident, however, that we have brought attention to the vast majority of higher-quality instruments available (*ibid.*, p. 3). . . . It is our hope that by making available a wide range of attitude scales from the growing social science literature this monograph can contribute to a reduction of the vast number of construct names and measures to their most basic dimensions. It should then be quite feasible to develop standardized instruments to measure these dimensions as accurately and efficiently as possible (*ibid.*, p. 8).

Thus, in the task of identifying the important social-psychological attitudinal constructs, reliance was based in large part upon Robinson and Shaver's broad definitional categories; however, the final selection of constructs was made with a view toward the intended use of the scales within an Irish context. In evaluating individual scales, criteria presented by Robinson and Shaver, including (1) item construction criteria, (2) response set criteria and (3) psychometric criteria, were taken into account, in addition to the culture-specific meaning of the scales.

The third question which was posed above had to do with the question of unidimensionality of the *scales* designed to measure the various constructs as well as the unidimensionality of the *constructs* themselves. Frequently, if not typically, a total cumulative score is computed, summing responses to items constituting a scale, which is assumed to be tapping a single attitudinal dimension. However, researchers using multivariate techniques such as factor analysis have often discovered that constructs which have

been assumed to be unidimensional are in fact multidimensional and often new dimensions or factors have been uncovered during this process. As Struening and Richardson (1965) cogently state:

If the advancement of theory depends on connections among concepts inferred from relations among measured variables, then theoretical advance is severely limited by measurement models that oversimplify concepts, include redundant variance or conceal several dimensions under one summary score (p. 769).

Thus, in order to avoid the pitfalls of the assumptions of unidimensionality, the approach taken in the present study has been a multidimensional exploratory one, as will be more fully described later in the Method section.

One might still ask, why bother to develop a set of attitudinal measures at all? As shall be discussed in greater detail below in connection with each construct social psychological attitudes have widely and consistently been shown to be correlated with other psychological and demographic characteristics; when appropriately measured, they have also been shown to be correlated with relevant behaviours (Wicker, 1971; Davis, 1975). In addition, such attitudinal measures can shed light on the effect of social conditions on people. Abrams (1975) in justifying the need for "perceptual indicators", argues that such indicators "provide *direct* measures of individuals' evaluations of their own well-being. Objective indicators such as rooms per person, income per head, or television sets per 100 households can at best be only indirect indications of how people might feel about their conditions. (And indeed they may not provide even indirect indications of feelings of satisfaction; . . . p. 2)."

A further reason for using attitudinal measures, particularly those which measure such dimensions as life satisfaction and sense of alienation, is to obtain data which may make it possible to (1) gain a better understanding of the causes and conditions which lead to an individual's feelings of well-being; and (2) to identify those problems which merit special attention and social action, both with regard to particular aspects of life as well as for particular sub-groups of the population. While in many cases, the results of such research may have an immediate value, in other cases the payoff may not be as immediate or apparent, although in the long run it may be more important. As Campbell (1976) points out, referring to social indicator research in the context of previous social research in the US:

The monitoring of social and psychological indicators will produce the kind of information Biderman (1970) calls 'enlightenment', information that restructures the decision maker's cognitive and affective map of society. This is likely to be a slow process, but we have witnessed in the last 25 years convincing examples of changing perceptions of social

reality and consequent changes in social institutions and public behavior. Public policies toward our most basic social problems, poverty and racial segregation, have changed dramatically during that time, and no doubt exists in my mind that social science data have contributed significantly to these changes (p. 123).

It was, thus, the purpose of the present study to (1) select from previous social research items from the best scales available, which are presumed to be tapping major social-psychological attitudinal constructs; (2) to obtain responses of a stratified sample of subjects to these items and (3) to factor analyse these responses to reduce this larger pool of items to a smaller number of factorially pure variables, representative of attitudinal syndromes in Ireland. Certainly, it would be impossible to identify all such attitude syndromes; however, we hope to have identified at least many of the more basic ones.

## I. 2 DISCUSSION OF THE CONSTRUCTS STUDIED

Following, we shall briefly describe each of the constructs included for study. Wherever relevant, reference shall be made to some of the more important relationships which have emerged in previous research. Since an enormous amount of research has been done in relation to these variables, it is only possible, in the present context, to provide the reader with a flavour of this research.

### 1. *Life Satisfaction and Happiness*

Much research which has included measure of "life satisfaction" and/or "happiness" has relied on single item global assessments, such as: "Taking all things together, how would you say things are these days — would you say you're *very* happy, *pretty* happy or *not too* happy?" (Gurin *et al.*, 1960; Bradburn and Caplovitz, 1965). However, other research (e.g., Neugarten, Havighurst and Tobin, 1961) has attempted to develop scales of life satisfaction consisting of several items. Nonetheless, even simple global assessments have produced "predictable findings with uncommon regularity (Robinson, 1973a, p. 11)". For example, while significant sex differences have not been found, an interaction effect between sex and marital status has frequently been cited, whereby greater unhappiness has been found to exist among single men than among single women (e.g., Bradburn and Caplovitz, 1965). In addition, almost all studies indicate greater happiness among married people than among single. A further important variable typically found to be correlated with life satisfaction is socio-economic status. This relationship has been found to occur cross-culturally by Inkeles (1960) and Cantril (1965).

Life satisfaction has also been found to be related to numerous other

(e.g., Gurin *et al.*, 1969; Fine, 1975; Guttentag, 1972; MacDonald and Tseng, 1971; Levenson, 1975).

#### 6. *Trust in People, Misanthropy and Related Concepts*

Under this general category, Robinson (1973b) has included scales measuring concepts such as trust in people, faith in people, misanthropy, Machiavellianism, acceptance of others, attitudes toward human nature, etc. We have limited ourselves to the somewhat narrower domain of concepts which includes trust or faith in people v. misanthropy (Rosenberg, 1957), altruism, and attitudes about human nature (Wrightsmann, 1964). While these may seem like a fairly large number of concepts, they are in fact highly inter-related, if not tapping essentially the same syndrome. Some evidence of concurrent validity, based on occupational preference, has been presented for Rosenberg's scale. Those whose occupational choice was social work, personnel and teaching had higher scores; whereas those choosing sales, promotion, business and finance had lower scores.

#### 7. *Self-Esteem*

The construct of self-esteem has been widely used in diverse ways and dates at least back to James' (1890) classical work, *Principles of Psychology*. However, Crandall (1973) notes that "Despite the popularity of self-esteem, no standard theoretical or operational definition exists (p. 45)." He thus puts forth the following working definition of self-esteem as "liking and respect for oneself which has some realistic basis (p. 45)." In addition to a lack of agreement on definition, there is also a considerable lack of research evidence supporting construct validity, despite a proliferation of scales purporting to measure self-esteem. In spite of this, some relationships have, none the less, been found. For example, anxiety and self-esteem have been frequently found to be negatively correlated in the region of  $-.60$ . High self-esteem has also been found to be related to internality, in terms of locus of control (Fish and Karabenick, 1971). Rosenberg (1965), whose self-esteem scale as one of the most widely used, presents considerable data about the construct validity of his own 10-item scale, which is designed to measure the self-acceptance aspect of self-esteem. For example, he has found low self-esteem to be related to shyness and depression and high self-esteem to be related to assertiveness and greater extra-curricular activity (among adolescents).

A methodological difficulty cited by Crandall (1973) is that since high self-esteem is socially desirable, and since self-esteem is usually measured by self-report measures, "the high positive relationships between self-esteem and social desirability represent an embarrassment for both constructs which

invites further research" (*Ibid.*, pp. 55-56). In general, the evidence cited by Crandall concerning the validity of the various scales presented has been based on relationships *between* various measures of self-esteem and, thus, mainly represents concurrent validity. The absence of data concerning relationships between self-esteem and other additudinal, demographic or behavioural measures supports the need for further validation studies using behavioural and other criteria.

## II. METHOD

### II. 1 PRE-TEST I

#### 1. *Sample*

Four hundred and twelve subjects resident in the Dublin area were obtained by means of a randomised quota sampling procedure. Sex, age and occupational status were used as stratification variables, generating a 2 x 4 x 2 factorial design. The four age categories were 18-25, 26-40, 41-55, and 56 plus. The eight occupational categories of the Hall Jones (1950) Index were classified as high or low status on the basis of the non-manual versus manual dichotomy. Each interviewer was given a list of six addresses (three from a high status and three from a low status area), randomly selected from the Dublin Electoral Register, which were to be used as starting points. Interviewers were instructed to call to every seventh house, interviewing only one member of each household. Once having made 16 calls in a low status area, interviewers were instructed to then move into a high status area, continuing this procedure until the quota was filled.

#### 2. *Instrument*

The instrument consisted of a questionnaire containing 103 items presented in Likert format. Subjects were instructed to indicate with an "X" the extent of their agreement or disagreement with each statement on a 6-point scale, ranging from strongly disagree to strongly agree. Items were grouped into four sections in the questionnaire on the basis of broad content areas. To control for fatigue effects, the four sections were systematically ordered in two different ways. Each of the two resulting forms was given to half of the Ss. Within each of the four sections, items were presented in randomised order. In some instances the phrasing of an item was slightly modified for improved clarity or cultural relevance. In addition, several new items were created. To achieve this necessary uniformity required adaptation of items from a variety of other formats, including Guttman scales, forced choice items consisting of two alternatives (e.g., true-false), three-point Likert scales, etc. Scales

from which items were selected are referred to below, grouped by construct.

Items measuring life satisfaction were selected from Neugarten, Havighurst and Tobin (1961) and, in addition, some were newly created. Items measuring anomia were selected from Srole (1956) and Nahemow and Kogan (1971).

Items measuring authoritarianism, dogmatism and related constructs were selected from Adorno, *et al.* (1950), Christie, Havel and Seidenberg, (1958), Webster, Sanford and Freeman (1955), Stagner (1936), Edwards (1941) and Eysenck (1947). Under the general heading of authoritarianism fall many sub-constructs, one of which is out-group prejudice. In order to measure this syndrome in Ireland, it obviously would not have been reasonable to include, for example, items measuring anti-Negro attitudes or anti-Semitic attitudes, since Negroes and Jews do not constitute significant minority groups in this culture. Thus, on the basis of the belief that out-group prejudice is a generalisable phenomenon and that the out-group which becomes a target of prejudice is a function of the culture in question, a set of items measuring anti-Semitism (Levinson and Sanford, 1944) was adapted to the Irish context. It was hypothesised that itinerants might possibly constitute such an "out-group" in this society. Thus, in adapting the items, the word "Jew" or "Jewish" was replaced with the word "itinerant", with the more colloquial term "tinker" in parentheses the first time the word itinerant appeared.

Another construct which is often subsumed under authoritarianism is traditional sex-role orientation. Items concerning child-rearing techniques, husband and wife role relationships and general male-female relationships were selected from Levinson and Huffman's (1955) Traditional Family Ideology Scale. Two further constructs, which are often described as components of the authoritarian personality syndrome, are rigidity and intolerance of ambiguity. Items designed to measure rigidity were selected from Rehfish (1958), Wesley (1953) and Meresko, Rubin, Shontz and Morrow (1954). Items designed to measure intolerance of ambiguity were selected from Budner (1962) and Martin and Westie (1959).

Items measuring internal-external locus of control were selected from the seminal work by Rotter (1966). Items measuring self-esteem were selected from Rosenberg (1965), Coopersmith (1967), Berger (1952), Phillips (1951) and Bown (1961). Items measuring trust in people, misanthropy and related concepts were selected from Wrightsman (1964), Rosenberg (1957) and Banta (1961). Items designed to measure religiosity were selected from Glock and Stark (1965), Faulkner and De Jong (1965) and MacGréil (1974). (MacGréil's item measuring frequency of church attendance was the only item in the questionnaire not presented in Likert format.)

### 3. Procedure

#### (a) Data Collection

Respondents completed the questionnaire in their own homes in March 1975 under the supervision of trained interviewers from The Economic and Social Research Institute's Survey Unit. A briefing session was held prior to data collection in order to acquaint interviewers with the purpose of the study and instruct them on a standard procedure to be adopted in the field. Except in cases of illiteracy or physical handicap, the questionnaire was self-administered to avoid possible interviewer bias.

#### (b) Data Analysis

Responses of the 412 Ss to the 103 Likert items were intercorrelated. The resulting matrix was factor analysed by means of a Principal Components analysis and the Principal Axis factors which were extracted were rotated orthogonally to simple structure on the basis of the Varimax criterion (Kaiser, 1958).

### 4. Preliminary Results

On the basis of an inspection of several Varimax rotated solutions, a nine-factor solution was found to provide optimal psychological interpretability and clarity. However, while the majority of factors were quite clear, a few of the factors were less interpretable than would be ideally desirable. Table 1, presenting this nine factor solution, contains all items loading over .40 and a tentative name for each factor.

Table 1: *Factor analysis of 103 Likert items measuring major social-psychological constructs*

*Selected items from 9 Varimax rotated factors*

*(N = 412)*

*Pre-test I*

<i>Items</i>	<i>Varimax Rotated Loading</i>
<b>FACTOR I: RELIGIOSITY</b>	
5. Obedience and respect for authority are the most important virtues children should learn	-.46
34. I believe that the devil actually exists.	-.57
40. I don't believe in God.	.73
44. Prayer is something which is very important in my life.	-.77
49. How often do you attend mass or other worship services? (1 = daily; 7 = rarely or never).	.61



Table 1—*continued*

52. I know God really exists and I have no doubts about it.	-.79
58. I believe the miracles actually happened just as the Bible says they did;	-.72
62. I often pray to God to ask his help in coping with life's problems.	-.73
64. I feel that Jesus was a great man and very holy, but I don't feel him to be the Son of God any more than any of us are.	.45
79. It is right and proper that religious education in schools should be compulsory	-.50
84. Every person should have complete faith in some supernatural power whose decisions he obeys without questions.	-.42
96. One's religious commitment gives life a certain purpose which it could not otherwise have.	-.70
100. Religion offers more of a sense of security in the face of death than is otherwise possible.	-.62
Pct. Variance: 6.8	Cum. Pct. Variance: 6.8

**FACTOR II: TRUST IN PEOPLE**

4. Anyone who completely trusts anyone else is asking for trouble.	.43
73. These days you don't really know who you can count on.	.50
82. It is safest to assume that all people have a vicious streak and it will come out when they are given the chance.	.42
83. Generally speaking, people won't work hard unless they're forced to do so.	.40
91. You can trust most people.	-.51
92. Most people inwardly dislike putting themselves out to help other people.	.49
94. These days you can't be too careful in your dealings with people.	.43
97. People are usually out for their own good.	.65
99. Most people are more inclined to look out for themselves than to help others.	.68
101. When you come right down to it, it's human nature never to do anything unless it is to one's own advantage.	.53
102. If you don't watch yourself, people will take advantage of you.	.62
Pct. Variance: 4.4	Cum. Pct. Variance: 11.2

**FACTOR III: LIFE SATISFACTION AND SELF-ESTEEM**

31. I am just as happy or happier now than when I was younger.	.61
37. I have got more of the breaks in life than most of the people I know.	.42
39. In almost every way, I'm very glad to be the person I am.	.61
42. Most of the things I do now are boring or monotonous.	-.53
43. I'm popular with people my own age.	.42
48. Although nobody can be happy all the time, I feel that generally I am much happier than most people I know.	.54
56. I feel that I'm a person of worth, at least on an equal basis with others.	.52
59. I often wish I were very different than I am.	-.44
66. All things considered, I would say that I am very happy with my life these days.	.68
Pct. Variance: 3.8	Cum. Pct. Variance: 15.0

Table 1—continued

**FACTOR IV: SELF-DEPRECIATION WITH POWERLESSNESS**

57. Very often, I am slow to mix with people because I think they won't like me.	-.44
63. Most people are better liked than I am.	-.53
65. I certainly feel useless at times.	-.40
74. In spite of what some people say, the life of the average man is getting worse, not better.	-.48
78. The majority of people are not capable of determining what is or is not good for them.	-.41
95. There are only two kinds of people in the world: the weak and the strong.	-.51
98. It is useless to plan for tomorrow, all we can do is live for the present.	-.47
Pct. Variance: 4.0	Cum. Pct. Variance: 19.0

**FACTOR V: OUTGROUP PREJUDICE (ANTI-ITINERANT STEREOTYPE)**

2. There are a few exceptions, but in general itinerants (tinkers) are pretty much alike.	-.59
8. The itinerant problem is so long standing and deep that one often doubts that democratic methods can ever solve it.	-.49
13. The itinerants should make sincere efforts to rid themselves of their more conspicuous and irritating faults if they really want to avoid trouble.	-.53
19. Itinerants seem to have an aversion to plain hard work; they prefer to live off other people.	-.60
24. There is little hope of correcting the defects of the itinerants since these defects are simply in their blood.	-.54
29. The trouble with letting itinerants into a nice neighbourhood is that they gradually give it an itinerant atmosphere.	-.61
Pct. Variance: 4.6	Cum. Pct. Variance: 23.6

**FACTOR VI: TRADITIONAL SEX-ROLE ORIENTATION**

7. Some equality in marriage is a good thing, but by and large the husband ought to have the main say in family matters.	.50
9. Most married women are better off in the home than in a job or profession.	.60
14. Women who want to remove the word <i>obey</i> from the marriage service don't understand what it means to be a wife.	.42
18. Generally speaking, women think less clearly than men.	.48
21. Women can be too bright for their own good.	.46
26. It is a poor reflection on a husband's ability to be a good provider if his wife works.	.52
28. It goes against nature to place women in positions of authority over men.	.46
Pct. Variance: 3.6	Cum. Pct. Variance: 27.2

Table 1—continued

**FACTOR VII: NEED FOR ORDER AND PREDICTABILITY**

32. I always see to it that my work is carefully planned and organised.	-.51
36. I don't like things to be uncertain and unpredictable.	-.46
50. I always like to keep my things neat and tidy and in good order.	-.42
61. It bothers me when something unexpected interrupts my daily routine.	-.42
80. Becoming a success depends more on hard work than on luck.	-.47
Pct. Variance: 2.5	Cum. Pct. Variance: 29.7

**FACTOR VIII: OPTIMISM ABOUT THE FUTURE**

1. The future looks bright for today's children.	-.54
103. The lives of most people will get better in the next few years.	-.55
Pct. Variance: 2.4	Cum. Pct. Variance: 32.1

**FACTOR IX: INTOLERANCE OF AMBIGUITY**

69. Even though it may interfere with trade, we should sharply limit the importation of foreign-made goods, so as to protect jobs in this country.	.49
70. Every person should live by a few good and unchanging rules of conduct; that way he can never go wrong.	.41
71. As far as public affairs are concerned, most of us are the victims of forces we can neither understand nor control.	.46
85. A good job is one where what is to be done and how it is to be done are always clear.	.46
89. There is only one right way to do anything.	.47
Pct. Variance: 3.9	Cum. Pct. Variance: 36.0

*Factor I*, which controls more variance than any other factor, is clearly tapping *Religiosity*. In addition to the attitudinal items, frequency of church attendance loaded on this factor. The factor includes items measuring orthodox belief, ritual behaviour and the experiential dimension of religiosity.

*Factor II*, *Trust in People*, is clearly interpretable. Among the high loading items on this factor are "Most people are more inclined to look out for themselves than to help others" and "If you don't watch yourself people will take advantage of you", which both loaded in a negative direction, and "You can trust most people", which loaded in a positive direction.

*Factor III* was named *Life Satisfaction and Self-Esteem*. It was anticipated that separate life satisfaction and self-esteem factors would emerge, since each have been treated separately in the literature, although it will be recalled that they were found in some studies to be positively correlated. In line with this finding of positive correlation, a factor emerged in the present study in which both life satisfaction and self-esteem items loaded together.

*Factor IV*, tentatively named *Self-Deprecation with Powerlessness*, also contained some measures of self-esteem, e.g., "Most people are better liked than I am" and "I certainly feel useless at times". In addition, two items measuring anomia also loaded on this factor (i.e., "In spite of what some people say, the life of the average man is getting worse, not better" and "It is useless to plan for tomorrow, all we can do is live for the present"). The factor seems to be tapping a sense of powerlessness and hopelessness together with low self-esteem. Such a factor has not, to our knowledge, appeared before in the literature.

*Factor V*, *Outgroup Prejudice (Anti-Itinerant Stereotype)*, is clearly interpretable. All of the items which had to do with itinerants loaded on this factor. This is quite interesting in view of the fact that all of the items had been adaptations of measures of anti-Semitism. These results tend to confirm the hypothesis that out-group prejudice is a generalised phenomenon and that stereotypes which are thought to relate uniquely to a particular outgroup, in fact are often attributed to out-groups generally.

*Factor VI*, tentatively named *Traditional Sex-Role Orientation*, includes items concerning male-female role relationships, e.g., "Some equality in marriage is a good thing, but by and large the husband ought to have the main say in family matters" and "Most married women are better off in the home than in a job or profession". Together with such items concerning sex role behaviour are items which seem to offer an almost biological rationale for traditional sex-role differentiation (e.g., "Generally speaking, women think less clearly than men" and "It goes against nature to place women in positions of authority over men"). All of the items loading on this factor were derived from the Traditional Family Ideology Scale (Levinson and Huffman, 1955).

The fact that these items held up as a unidimensional construct cross-culturally is impressive; however, it is worth noting that an inspection of a smaller factor solution indicated that Factor V (Out-Group Prejudice) and Factor VI (Traditional Sex-Role Orientation) merged into one factor, suggesting that the two factors may have something more general in common. This common element may be a more generalised prejudice toward "minority" groups, which manifests itself *vis-à-vis* both itinerants and women.

*Factor VII*, entitled *Need for Order and Predictability*, includes items measuring the need for orderliness, carefulness, routine and predictability. They are measuring a specific personality syndrome which has been identified as part of the authoritarian personality.

*Factor VIII*, entitled *Optimism about the Future*, is clearly interpretable;

however, a two item factor is less than optimally desirable because of reasons of reliability, which is substantially increased with three or more items.

*Factor IX*, tentatively entitled *Intolerance of Ambiguity*, is characterised by such items as the title suggests, i.e., "There is only one right way to do anything" and "A good job is one where what is to be done and how it is to be done are always clear". However, the other items on the factor are less consistent with these two items and, hence, the factor is not as clearly interpretable as would be desired.

Thus, in summary, while the majority of the factors which emerged were clearly interpretable, others were less than ideal. Given that the purpose of this preliminary factor analysis was to generate measures to be used in future studies, it was desired that the factors obtained be as pure and interpretable as possible. For this reason, further pre-testing of the items was considered necessary. The next steps taken in this pursuit of a more optimal factor structure are described in the following section.

## II. 2|PRE-TEST:II

### 1. *Instrument*

On the basis of the factor analytic results described above, a modified questionnaire was developed. A number of high-loading items from all factors, except Factor VIII, were retained, together with nine other items which, although not loading at or above .40, were of interest. In all, 49 of the original 103 items were retained and one new item was added, bringing the number of items used in Pre-Test II to 50.

### 2. *Sample and Procedure*

This revised instrument was administered in August 1975 to a further sample of 257 Dublin adults who were also selected using randomised quota sampling procedures. The instrument was administered in the manner described in connection with Pre-Test I above.

## III MAIN RESULTS

### III. 1 FACTOR ANALYTIC RESULTS

A comparison of the results of Pre-Tests I and II indicated that the factors were remarkably similar. However, the desired clarity of factor structure was still not achieved in this analysis. It was thus decided to carry out an analysis over the 49 items which appeared in both pre-test instruments, using the

combined samples of 669 subjects. It was anticipated that a more stable factor solution would be obtained from the increased pool of respondents.

The results of this combined analysis are presented in Table 2. As was the case in Pre-Test I, a nine factor solution provided optimal interpretability. As may be seen from an inspection of Table 2, most of the factors obtained in Pre-Test I were also obtained in this combined analysis, based on fewer items and more respondents, which is indicative of the robustness of the majority of the factors.

Table 2: *Factor analysis of 49 Likert items measuring major social-psychological constructs*

*Selected items from 9 Varimax rotated factors*

*(N = 669\*)*

<i>Items</i>	<i>Varimax Rotated Loadings</i>
<b>FACTOR I: RELIGIOSITY</b>	
20. I know God really exists and I have no doubts about it.	.77
26. I believe the miracles actually happened just as the Bible says they did.	.74
29. Prayer is something which is very important in my life.	.77
34. One's religious commitment gives life a certain purpose which it could not otherwise have.	.72
Pct. Variance: 7.6	Cum. Pct. Variance: 7.6
<b>FACTOR II: TRUST IN PEOPLE</b>	
1. Most people are more inclined to look out for themselves than to help others.	.59
2. Generally speaking, people won't work hard unless they're forced to do so.	.45
11. If you don't watch yourself, people will take advantage of you.	.50
46. You can trust most people.	-.45
Pct. Variance: 3.7	Cum. Pct. Variance: 11.3
<b>FACTOR III: LIFE SATISFACTION</b>	
18. I am just as happy or happier now than when I was younger.	.69
22. Most of the things I do now are boring or monotonous.	-.52
24. I have got more of the breaks in life than most of the people I know.	.47
30. All things considered, I would say that I am very happy with my life these days.	.73
32. Although nobody can be happy all the time, I feel that generally I am much happier than most people I know.	.66
Pct. Variance: 4.6	Cum. Pct. Variance: 15.9

\* 669 = 412 Respondents Pre-Test I  
= 257 Respondents Pre-Test II

Table 2—continued

**FACTOR IV: TRADITIONAL SEX-ROLE ORIENTATION**

5. Some equality in marriage is a good thing, but by and large the husband ought to have the main say in family matters.	.54
9. Generally speaking, women think less clearly than men.	.51
14. We should discourage married women from working so as to give jobs to men who need them.	.49
33. It goes against nature to place women in positions of authority over men.	.58
39. It is a poor reflection on a husband's ability to be a good provider if his wife works.	.63
47. Most married women are better off in the home than in a job or profession.	.68
Pct. Variance: 5.8	Cum. Pct. Variance: 21.7

**FACTOR V: OUTGROUP PREJUDICE (ANTI-ITINERANT STEREOTYPE)**

3. The itinerants should make sincere efforts to rid themselves of their more conspicuous and irritating faults if they really want to avoid trouble.	.60
8. Itinerants seem to have an aversion to plain hard work; they prefer to live off other people.	.69
16. The trouble with letting itinerants into a nice neighbourhood is that they gradually give it an itinerant atmosphere.	.67
35. There is little hope of correcting the defects of the itinerants since these defects are simply in their blood.	.59
41. There are a few exceptions, but in general itinerants are pretty much alike.	.68
Pct. Variance: 6.9	Cum. Pct. Variance: 28.6

**FACTOR VI: NEED FOR ORDER AND PREDICTABILITY**

19. I always like to keep my things neat and tidy and in good order.	-.66
21. I don't like things to be uncertain and unpredictable.	-.43
25. It bothers me when something unexpected interrupts my daily routine	-.46
27. I always see to it that my work is carefully planned and organised.	-.74
31. I always finish tasks I start, even if they are not very important.	-.62
Pct. Variance: 5.2	Cum. Pct. Variance: 33.8

**FACTOR VII: ANOMIA**

7. There is only one right way to do anything.	-.43
12. The majority of people are not capable of determining what is or is not good for them.	-.47
13. It is useless to plan for tomorrow, all we can do is live for the present.	-.67
17. There are only two kinds of people in the world: the weak and the strong.	-.56
44. It is safest to assume that all people have a vicious streak and it will come out when they are given the chance.	-.48
49. In spite of what some people say, the life of the average man is getting worse, not better.	-.59
Pct. Variance: 5.4	Cum. Pct. Variance: 39.2

Table 2—continued

*FACTOR VIII: BELIEF IN HUMAN AGGRESSIVENESS*

6. Human nature doesn't make war inevitable, man may some day establish a peaceful world.	.68
37. Human nature being what it is, there will always be war and conflict.	-.60
Pct. Variance: 3.2	Cum. Pct. Variance: 42.4

*FACTOR IX: BELIEF IN LIBERAL CHILD-REARING PRACTICES*

4. In the long run, it is better for our country if young people are allowed a great deal of personal freedom and are not strictly disciplined.	.57
10. One of the most important things children should learn is when it is right to disobey authority.	.65
42. In making important family decisions, parents ought to seriously take the opinions of children into account.	.39
Pct. Variance: 3.1	Cum. Pct. Variance: 45.6

*Factors I, Religiosity, and II, Trust in People,* were obtained in the two analyses and appear to be highly stable. *Factor III, Life Satisfaction,* differs from a similar factor obtained in Pre-Test I (Life Satisfaction and Self-Esteem) in that it only contains items measuring Life Satisfaction. In order to obtain a "purer" measure of this construct, the items tapping self-esteem which had loaded on Factor III in the previous analysis were eliminated. *Factor IV, Traditional Sex-Role Orientation and Factor V, Outgroup Prejudice (Anti-Itinerant Stereotype)* are replications of Factors V and VI obtained in Pre-Test I. Similarly, *Factor VI, Need for Order and Predictability* replicates the factor of the same name in Table 1.

*Factor VII, entitled Anomia,* after Srole's original scale, is a partial replication of Factor IV (Self-Deprecation with Powerlessness) in the previous analysis. However, it no longer contains measures of self-esteem. As in the case of the factor "Life Satisfaction", the items measuring self-esteem were eliminated from this analysis in an attempt to achieve purer measures of the construct. Factor VII seems to be quite clearly measuring anomia or a sense of alienation from society. The factor suggests that subjects high on this factor may have a lack of faith in democratic processes, as manifested by their agreement with such items as "the majority of people are not capable of determining what is or is not good for them". This is coupled with a general pessimism ("In spite of what some people say, the life of the average man is getting worse"), yet a feeling of powerlessness to improve their lot ("It is useless to plan for tomorrow, all we can do is live for the present"). Finally, the factor includes items indicative of rigid thinking (e.g., "There is only one right way to do anything") as well as projected hostility ("It is



safest to assume that all people have a vicious streak and it will come out when they are given the chance".) As a totality, Factor VII looks like a potential indicator of discontent and social unrest.

*Factor VIII, Belief in Human Aggressiveness*, is a new factor, consisting of two items, which though included in Pre-Test I, did not attain very high loadings on any factor. Subjects high on this factor believe that "Human nature being what it is, there will always be war and conflict". Conversely, subjects low on the factor believe that "man may some day establish a peaceful world".

*Factor IX, Belief in Liberal Childrearing Practices*, is also a new factor, not having emerged previously in Pre-Test I. As the items on the factor indicate, subjects high on the factor tend to believe in more "permissive", i.e., child-centred child rearing practices, whereas those low on the factor favour a stricter, more traditional approach to child-rearing.

### III. 2 RELATIONSHIPS AMONG VARIABLES

Composite scores for all 669 subjects were computed on the basis of the nine-factor solution presented in Table 2. These composite scores were then intercorrelated with each other as well as with several demographic and biographical characteristics of the respondents. These relationships are presented in Table 3. Space does not permit a complete discussion of all of the significant relationships obtained. Therefore, only some of the more important findings will be mentioned briefly.

Corroborating results of previous research (e.g., Inkeles, 1960; Cantril, 1965; Fine, 1975), a significant relationship was obtained between Life Satisfaction and income. The negative relationship obtained by Srole (1956) between anomia and socio-economic status was clearly replicated in the present study. Anomia was significantly more likely to be expressed by subjects of low occupational status ( $r = .41$ ;  $p < .001$ ) and of lesser education ( $r = -.31$ ;  $p < .001$ ). Srole also noted a positive relationship ( $r = .43$ ) between anomia and prejudice against minorities. Our results concerning the relationship between Anomia and Outgroup Prejudice (Anti-Itinerant Stereotype) confirm this finding to the decimal point ( $r = .43$ ;  $p < .001$ ). The fact that the relationship is replicated at a comparable level provides evidence for the construct validity of the measures.

Other interesting results worthy of mention in Table 3 include a significant positive correlation between Religiosity and Traditional Sex-Role Orientation. This relationship was also obtained by Fine-Davis (1976), using very similar measures of these two constructs in an independent sample of Dublin adults.

Religiosity was also found to be positively correlated with Outgroup Pre-

Table 3: Intercorrelations between attitudinal constructs and demographic variables.

(N = 669)

	I	II	III	IV	V	VI	VII	VIII	IX	1	2	3	4
<i>Attitudinal Constructs</i>													
I. Religiosity		-.05	.17*	.27*	.34*	.35*	.23*	.14*	-.11	-.27*	.18*	-.12	.43*
II. Trust in People			.08	-.23*	-.32*	-.20*	-.36*	-.14*	-.06	.13	-.20*	.14*	-.02
III. Life Satisfaction				.04	.03	.16*	-.01	-.01	.09	-.01	-.05	.14*	-.01
IV. Traditional Sex-Role Orientation					.42*	.38*	.41*	.06	.03	-.35*	.25*	-.17*	.35*
V. Outgroup Prejudice (Anti-Itinerant Sterotype)						.37*	.43*	.21*	-.07	-.34*	.34*	-.23*	.31*
VI. Need for Order and Predictability							.34*	.06	.04	-.28*	.15*	-.09	.30*
VII. Anomia								.11	.09	-.42*	.41*	-.31*	.18*
VIII. Belief in Human Aggressiveness									-.09	-.05	.05	.00	.08
IX. Belief in Liberal Child-rearing Practices										.03	-.00	.05	-.18*
<i>Demographic Characteristics</i>													
1. Education (Low - High)											-.72*	.30*	-.26*
2. Occupational Status (High - Low)												-.45*	.07
3. Net Income of Head of Household (Low - High)													-.15*
4. Age													

(Decimal points omitted)

\*p ≤ .001

justice (Anti-Itinerant Stereotype) ( $r = .34; p < .001$ ), replicating findings of Glock and Stark (1965). It was also positively correlated with Need for Order and Predictability ( $r = .35; p < .001$ ) and with Anomia ( $r = .23; p < .001$ ). However, age seems to be playing a mediating role, since it correlates significantly with all of these variables.

#### IV CONCLUSIONS

The study has resulted in the development of a set of measures of major social-psychological and quasi-personality constructs in Ireland. Many of the factors which emerged from the study replicate measures of the same constructs obtained in previous, largely American, studies. However, as was indicated at the outset, it cannot be assumed that items tapping a particular construct in one culture will automatically tap the same attitudinal dimension in another culture. It was therefore necessary to go through this step of developing measures of the constructs among respondents in this culture. The fact that significant relationships emerged between factors which replicated findings obtained in previous research lends support to the construct validity of the factors obtained. However, this work represents merely a first step in the perfection of such measures. For example, the difficulty encountered in trying to measure self-esteem indicates one problem which deserves further attention. Nonetheless, while bearing in mind that subsequent work is necessary, it is hoped that this developmental work will constitute the beginning of a usable set of measures which may have relevance to a variety of projects in applied social research in Ireland.

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