

Locus of Control and Sex-Role Beliefs
In the Prediction of Assertiveness

By

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Abstract

Locus of control has been identified as a strong predictor of assertiveness for men, but not for women. It was hypothesized that sex-role beliefs might moderate the locus of control-assertiveness link among women. In this study the relationship of locus of control and sex-role beliefs with self-assertion among 48 male and 192 female university students was examined. Paulhus' Spheres of Control scale and the Rathus Assertiveness Scale were used to measure locus of control and assertiveness respectively. The SEAS Scale was developed specifically for this study to assess sex-role beliefs. As hypothesized, egalitarian women evidenced a significantly stronger correlation between internal locus of control in the realm of personal efficacy and assertiveness than did women with traditional sex-role beliefs. For both men and women internal locus of control beliefs in the interpersonal realm were a significant predictor of assertiveness. This contradicts a large body of earlier research in which no such relationship was found among female subjects. Other differences in assertiveness and locus of control levels as a function of gender and sex-role beliefs are discussed.

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INTRODUCTION

Individual perceptions of personal control are often strong predictors of assertiveness. People who see themselves as having a high degree of personal control - "internals" - report and display higher levels of assertiveness than do "externals" - those who attribute control to sources outside of themselves (Appelbaum, Tuma & Johnson, 1975; Cooley & Nowicki, 1984; Gore & Rotter, 1963; Hartwig, Dickson, & Anderson, 1980; Hersch & Schiebe, 1967; Lefcourt, 1976, 1981; Lefcourt & Wine, 1969; Paulhus, 1983; Phares, 1965, 1976; Replogle, O'Bannon, McCullough & Cashion, 1980; Rotter, 1966; Seeman & Evans, 1962).

However, within this considerable body of research there is a near absence of evidence for such a Locus of Control (LOC)-assertiveness link among the participating female subjects. One exception is the study by Replogle et al. (1980) which found higher rates of assertion among women who were rated as "internal" on the Rotter I-E scale. However, a study of its subscale factors revealed the LOC-assertiveness link to hold only within the sociopolitical domain and not the personal control domain. This finding

contradicted their hypothesis of a personal LOC - assertiveness link and fails to support the LOC - assertiveness relationship as it has come to be known. This is because the logical link bears on the relationship between self-assertion and personal control expectancies, not self-assertion and generalized social control expectancies.

Some researchers look to the differential socialization of males and females as the reason for these "non-findings" among women (Brown, 1983; Chandler & Dugovics, 1977, 1978; Cooley & Nowicki, 1984; Hollandsworth & Wall, 1977; Kimble, Marsh & Niska, 1984; Nix, Lohr & Mosesso, 1984; Phares, 1976; Ramanariah, Heerboth & Jinkerson, 1985; Rao & Murphy, 1982; Rodriguez & Berzins, 1980; Tudge, 1982). It is well known that male-socialization encourages the expression of assertiveness, whereas the behavioural expectancies associated with traditional femininity (e.g., nurturance, submissiveness and gentleness) are largely incongruent with self-assertion (e.g. Nix et al., 1984). It therefore seems possible that adherence to traditional sex-role expectancies by women may reduce, if not negate, the LOC-assertiveness link.

It was this possibility that led Sajna and Dilley (1987) to explore the moderating effect of feminist beliefs on the relationship between LOC and assertiveness in women. The sample consisted of 87 female undergraduate students enrolled at Lakehead University and 55 women between the ages of 18 and 35 from the general community who had not attended university. The measures used were the Rathus Assertiveness Schedule (RAS) (Rathus, 1973), a measure of assertiveness; the FEM Scale (Smith, Feree & Miller, 1975), a measure of attitudes toward feminism; and the Spheres of Control (SOC) scale (Paulhus, 1983), a measure of locus of control. Sajna and Dilley hypothesized that the correlation between the LOC and assertiveness would be stronger among women deemed "nontraditional" and weaker among the "traditional" women. This hypothesis was confirmed, but only for the non-student portion of their sample. Among the student-subjects, strong interpersonal and personal locus of control-assertiveness correlations were found regardless of scores on the FEM Scale.

These findings are interesting, and raise some questions regarding the LOC-assertiveness link in

women. First, if sex-role traditionalism among women negates the LOC-assertiveness link, as the non-student results suggest, then the null findings in past research may be at least partially explained by the influence of traditional sex-role adherence. In short, it would appear that being "nontraditional" promotes the logical expression of assertiveness among women who possess internal locus of control beliefs.

The student sample results preclude full endorsement of this attractive possibility. The strong overall correlation between personal and interpersonal LOC and assertiveness found in this group is in itself, however, worthy of interest. Evidence for such a link among women was virtually non-existent in past research with both student and non-student subjects. One possible reason for the 1987 student-subject results was the use of the Spheres of Control (SOC) scale (Paulhus, 1983). In this scale control expectancies are divided into three primary spheres - the personal, interpersonal, and sociopolitical realms. Past studies did not correlate assertiveness with interpersonal as well as personal control expectancies - the key areas in which it operates. For students, strong

correlations between interpersonal control, personal efficacy, and assertiveness were found. Perhaps removing the variance contributed by the sociopolitical sphere included in other "unidimensional" measures of LOC allowed for the strength of these correlations to be more accurately assessed.

It is also possible that, due to recent sociological changes in gender roles (e.g. Markson, 1984; Thornton, Alwin & Camburn, 1983), this result simply reflects a growing convergence between the sexes in this area of study. Recall that for males, internal LOC beliefs are consistently correlated with a host of assertiveness-related measures. Perhaps the same is becoming true for women, regardless of their sex-role beliefs.

There is also evidence that the FEM scale (Smith, Feree & Miller, 1975), the crucial feminism measure used by Sajna and Dilley (1987), may have fallen short of its predicted utility. Subjects reported having difficulty understanding and relating to certain items. Some also objected to the scale's radical feminist viewpoint; a stance whose popularity appears, in recent years, to be on the decline (e.g. Markson, 1984;

Faludi, 1991). The following items from the scale help illustrate the problems encountered by students: "The clinging vine wife is justified provided she clings sweetly enough to please her husband"; "Whether or not they realized it, most women are exploited by men", and "A woman to be truly womanly should gracefully accept chivalrous attentions from men". The first item simply made no sense to many subjects. The middle one tapped into rather strong anti-male sentiments with which many subjects felt uncomfortable. Likewise the third item embodied what many subjects felt to be militant feminism; the idea that in order to be considered part of the feminist movement, women should not accept special treatment from men. Some quite nontraditional respondents wrote that opening doors for another and similar behaviours were simple courtesy, not an insult or a slur on women's abilities. Such statements were made mostly by the student-subjects. Thus some FEM Scale items may have led to lower (more traditional) overall scores, which were not truly representative of the subjects sex-role beliefs.

King and King (1986), co-authors of the Sex-Role Egalitarianism scale (SRES) (Beere, King, Beere & King,

1984), offer evidence in support of the idea that the attitudinal dimension of sex-role egalitarianism is more complex than the commonly used traditional-feminist dimension. Where the traditional-feminist construct (upon which the FEM scale is based) deals almost exclusively with the inequities faced by women, the concept of sex-role egalitarianism (the basis for the SRES) encompasses tolerance of both men and women engaging in nontraditional sex-role behaviours. Thus in measuring feminism, Sajna and Dilley (1987) were tapping only one aspect, and perhaps the more antiquated and problematic aspect, of nontraditional sex-role beliefs. The failure to confirm the hypothesis that only women holding nontraditional sex-role beliefs would show the LOC-assertiveness link might have been due in part to the use of this scale. Perhaps the students' low scores on the FEM scale reflected an unwillingness to endorse the view that major inequities still exist. The low scores these women achieved may have reflected idealism or nonfeminism rather than the espousment of traditional sex-roles for women as such. The possibility remains that, as might be expected of males, the LOC-

assertiveness link in female university students operates independently of sex-role beliefs.

In trying to understand why the student and non-student results differed as they did, we must also look at the groups themselves. It is conceivable that non-students function within a different realm of experience than do students. Women in domestic or working roles, may offer opinions quite different from those of undergraduate university students when responding to a questionnaire such as the FEM scale. It may be easier for young women who are university students, than for non-students, to believe that sex-role egalitarianism has arrived and thus shy away from a strong feminist position. It is possible that women who are already juggling career and family have had experiences with sexism which bring to their awareness the inequities that persist.

The primary purpose of the present study was to explore the above-mentioned possibilities. These include the possibility that for female university students in the 1990s, LOC and assertiveness are related regardless of sex-role beliefs, or that the non-student findings of Sajna and Dilley (1987) were

inaccurate due to the use of the FEM Scale. The inclusion of a new measure of sex-role beliefs aided this endeavour. The SEAS Scale (an acronym for the author's name) was developed by the author to measure sex-role beliefs in this study. It espouses the concept of egalitarianism, thus avoiding the troublesome and vaguely defined feminist concept used in the FEM Scale. Its key advantages over the Sex-Role Egalitarianism Scale (SRES) (Beere, King, Beere & King, 1984), a well constructed and well researched existing measure of sex-role beliefs, are its simplicity and brevity. Details on the development of the SEAS Scale are discussed later in this paper.

The male sample was included for a variety of reasons. First, the development of the SEAS Scale required male representation. Furthermore, while there was little reason to expect sex-role beliefs to affect the LOC-assertiveness link in men (traditional and nontraditional views appear to advocate assertiveness in males), it was possible that some interesting, even unexpected, results could be derived from their inclusion. While attitudes toward women and their roles have been the focus of much research, only

recently have attitudes toward mens' roles been deemed worthy of study. We also wanted to compare male and female scores on assertiveness and LOC as well as the LOC-assertiveness relationship itself.

A secondary aim of this study was to develop and test the SEAS Scale. A series of efforts to validate the scale and assess its reliability were undertaken in Pilot Studies 1 and 2 and with data gathered from the subjects who participated in the testing of the main hypothesis. These findings are reported in the results sections for Pilot Studies 1, 2, and the SEAS Scale section of the Main Study. The 32 items developed through this process were used as the measure of sex-role beliefs in the subsequent analyses involving gender comparisons and testing the LOC-assertiveness correlations.

It was hypothesized that the predictive ability of LOC in regard to assertiveness would be stronger among males regardless of sex-role beliefs and among those women rated as highly nontraditional or egalitarian in sex-role beliefs. Conversely, the predictive ability of LOC was hypothesized to be lowest among women holding strong traditional views on the sexes.

What follows are details of the pilot studies used to develop the SEAS Scale for use in testing the main hypothesis of this paper. Additional analyses on the SEAS Scale were undertaken using the Main Study subjects and these results are reported later.

Pilot Study 1

The purpose of Pilot Study 1 was to begin validation and reliability checks with a 55-item version of SEAS Scale developed by Sajna (1987) as part of the requirements for a psychometrics class (see Appendix A). It was designed to be an alternative to existing measures of sex-role beliefs and feminism that were problematic, too lengthy, complex, and/or outdated. The FEM Scale, used by Sajna in a previous study (Sajna & Dilley, 1987) sought to measure attitudes toward feminist tenets and proved to contain confusing as well as outdated items. The SRES was well-constructed and measured the desired egalitarianism construct, but covered five domains of living and was thought to be somewhat too lengthy and complex for the purposes of this study. The Attitudes Toward Women Scale (Spence & Helmreich, 1972) and the

Sexist Attitudes Toward Women Scale (Benson & Vincent, 1980) measure only attitudes toward female and not male sex-roles. A simple, short, and unidimensional measure of egalitarianism was needed for the present study. Shortly after the SEAS was created, the Attitudes Toward Sex Roles scale (Larsen & Long, 1988) was published and in 1990, the authors of the SRES published work on abbreviated versions of their scale (King & King, 1990). Despite the impressive reliability and validity, the use of the egalitarian construct, and the desired brevity in these newer measures, the work already in progress with the SEAS Scale was continued.

An extensive literature search preceded the selection and creation of the initial 55 items for the SEAS Scale. Egalitarianism (high scores) was defined as the rejection of restrictive traditional sex-role expectancies and advocacy of "gender-neutral" rights for all. At the opposite pole, traditionalism (low scores) was defined as the acceptance of traditional segregated sex-roles and gender-dependent rights.

In the first pilot study initial tests of the scale's internal reliability, test-retest reliability,

and concurrent validity and were undertaken. Details are presented below. As a result of these analyses and subsequent literature reviews a second version of the SEAS Scale was developed.

Method

Subjects. The sample consisted of 12 male and 12 female undergraduate students registered in the authors' psychometrics class. The subjects ranged in age from 19 to 45 with a mean of 23 years.

Materials. The FEM Scale (Smith et al., 1975) consists of 27 items designed to tap attitudes toward feminism (see Appendix B). Studies by the authors confirmed the internal consistency and validity of the scale (Smith et al., 1975). The first, 55-item version of the SEAS Scale was correlated with the FEM Scale to assess concurrent validity.

Procedure. The subjects were provided with a consent form (see Appendix C). It was explained that their assistance was needed to validate and allow future use of one of the measures to which they were responding. Anonymity and confidentiality of the data were assured and written comments were welcomed.

Subjects were told that they could refuse participation or quit at any time. Whenever two or more scales were administered together, the order was counter-balanced to guard against the effects of fatigue. Subjects completed both the SEAS Scale and the FEM Scale. Three weeks later they completed the SEAS Scale once again.

Treatment of the data. Internal reliability of the original SEAS Scale was assessed by the Cronbach's Alpha coefficient and split-half correlations. Some past research suggests that older subjects, males, and those with lower educational levels score more traditional (lower), on measures of sex-role beliefs (e.g. Beere, King, Beere, & King, 1984; Kalin & Tilby, 1978; Singleton & Christiansen, 1978; Spence, Helmreich, 1972). T-test analyses were used to test the success of the scale at discriminating among age, gender, and educational-level groups. Scores from the FEM Scale were correlated with SEAS Scale scores to obtain an indication of the SEAS Scale's concurrent validity.

Results and Discussion

Data from this first validation study provided support for the internal consistency of the SEAS Scale.

A Cronbach's Alpha coefficient value of .92 was obtained. Split-half reliability using the Spearman-Brown coefficient, while somewhat lower (.80), also attested to the homogeneity of the scale. Test-retest data at three weeks, $r = .95$, revealed the scale to be highly stable over a short period of time. Correlations with the FEM Scale ($r = .81$) attested to the SEAS Scale's concurrent validity. Although the scale appeared to differentiate between gender and educational-level groups, these t -test results were not statistically significant. Nor was the correlation between age and SEAS Scores significant.

Although these initial analyses provided evidence for internal and test-retest reliability, as well as concurrent validity, the sample size proved too small to provide statistically significant group differentiation results. These results did, however, suggest trends in the expected direction. For example, women had higher average scores than did men. Some items were identified by subjects as confusing, and some appeared not to differentiate among high and low scorers.

Pilot Study 2

Due to information uncovered in the first set of analyses and subsequent literature reviews, and the small sample size employed in the first effort to validate the SEAS Scale, a second validation study was undertaken. The purpose of this study was to continue the validation of the SEAS Scale using a revised version and a larger sample.

The second version of the SEAS Scale included 15 additional items, 14 rewritten items, and the deletion of 24 items from the original scale (see Appendix D). Items which were identified by subjects as confusing and those which appeared not to differentiate between high and low scorers were either deleted, rewritten, or replaced. The Crowne-Marlowe Social Desirability Scale (CMSDS) (Marlowe & Crowne, 1964) and the Sex-Role Egalitarianism Scale (SRES) (Beere et al., 1984) were included in the data collection to assess the SEAS scale's susceptibility to the social desirability response set and further estimate its concurrent validity. Eight items from the SRES were incorporated into this version of the scale. The second version of the scale was subjected to tests of reliability and

validity.

Method

Subjects. The sample consisted of 11 male and 30 female undergraduate students enrolled at Lakehead University. Ages in this sample ranged from 18 to 54, with a mean of 22 years.

Materials. The SRES (Beere et al., 1984) was designed to measure sex-role beliefs in each of the following five domains of adult living: marital roles, parental roles, employee roles, social-interpersonal roles, and educational roles (see Appendix E). Sex-role egalitarianism was defined as "an attitude that causes one to respond to another individual independently of the other individual's sex" (Beere et al., 1984, p. 564).

Alternate forms were developed for the SRES, each of which tests sex-role beliefs in the five domains of adult living. Internal consistency values for each of the alternate forms were high and ranged in the upper .90's. Test-retest at four weeks yielded average r values of .85. The alternate forms correlate with each other at a respectable .93. The authors' hypothesis

that women would be more egalitarian was confirmed as was their prediction that psychology students would score higher than business students. Factor analysis revealed the SRES to be unidimensional and its scores were unrelated to scores on a measure of social desirability.

There is evidence that sex-role belief measures, even those with numerous subscales, in fact measure one unidimensional construct. Burhke (1988) studied four such scales and concluded that the use of subscales is not warranted. A difficulty arose later when it became known that, contrary to King et al.'s definition of the construct, high scorers on the SRES tended to endorse outcomes favouring primarily women thus echoing the traditional-feminist dimension. King and King (1986) then conducted a validity study which revealed that despite the apparent overlap of egalitarianism and the traditional-feminist dimension, egalitarianism, as measured by the SRES, does contribute its own unique variance to the measurement of sex-role beliefs.

The Crowne-Marlowe Desirability Scale (CMSDS) was developed by Marlowe and Crowne (1964) in an effort to provide a scale that would detect test-takers'

tendencies to succumb to the social-desirability response set (see Appendix F). It is widely used in the preparation of new measures where social-desirability may pose a problem to the accurate measurement of the construct.

Procedure. The subjects were provided with a consent form (Appendix C) and were told that their assistance was needed to validate one of the measures to which they were responding. Confidentiality and anonymity of the data were assured and written comments were welcomed. Subjects were told that they could refuse participation or quit at any time. Whenever two or more scales were administered together, the order was counter-balanced to guard against the effects of fatigue. These subjects completed the second version of the SEAS Scale and the SRES. Three weeks later they were asked to re-take the SEAS Scale. The CMSDS was included in this testing.

Treatment of the data. Internal reliability of the SEAS Scale was assessed by the Cronbach's Alpha coefficient and Spearman-Brown split-half correlations. Factor analyses were used in an attempt to explore the basic structure of the scale. Scores from the SRES

were correlated with SEAS Scale scores to obtain an indication of the SEAS Scale's concurrent validity. Evidence for the scale's freedom from desirability response set bias was supplied by correlations with the CMSDS. Retest data tested the short-term stability of SEAS Scale scores. Given that Pilot Study 1 suggested a relationship between SEAS Scale scores and gender, age, and educational group, these associations were investigated further here through the use of independent t-test and correlational analyses. In addition to these variables, religiosity was also tested as it has been shown that those who adhere strongly to religious tenets tend to be more traditional in their sex-role beliefs (Baker & Terpstra, 1986).

Results and Discussion

The second pilot study began with another check on the internal reliability of the scale. A Cronbach's Alpha coefficient of .93 and a split-half, Spearman-Brown coefficient of .88 confirmed the scale's internal reliability. A correlation of -.12 with the CMSDS revealed the scale to be free of social desirability

response set bias. Test-retest reliability at three weeks was found to be adequate ($r = .84$). A test of concurrent validity was undertaken and a statistically significant correlation with the SRES ($r = .71$, $p < .001$) was found. Attempts to confirm the findings of original validation study in regard to gender and educational levels once again resulted in only confirmatory trends. As expected, females and subjects with higher educational levels scored higher on the SEAS Scale than did males and those with lower educational levels. None of these t -tests were statistically significant. The only statistically significant result was a correlation between subject age and SEAS Scale score, $r = -.28$, $p < .04$, suggesting that younger subjects held more egalitarian views. An attempt was also made to differentiate on the basis of religiosity. The question, as worded on this version of the SEAS Scale, however, led to yet another non-significant t -test result. A study of the responses revealed that many people who do not adhere to established religious tenets still consider themselves to be "religious". This was made clear by the many people who responded affirmatively to the question: "Do

you consider yourself to be religious?" and then answered "none" or "my own" to the query regarding the sect to which they belong. This problem was addressed in the SEAS Scale analyses in the main study by assessing the number of religious services attended, as this appears to be a more accurate way of measuring the traditionalism associated with some religious sects (Thorton et al., 1983). The measure of religiosity, here and in the main study below, was included only for the purposes of validating the SEAS Scale.

Once again, the reliability of the SEAS Scale was confirmed and it was judged to be free of social desirability bias. t-tests comparing males and females, religious and nonreligious subjects, and educational groups provided only confirmatory trends. It is likely that the small sample size was responsible in part for these nonsignificant results. Factor analyses, although run, were determined to be of questionable utility due to the small sample size. Hence they are not reported here.

Once again, items identified as confusing, and those that appeared not to differentiate among high and low scorers were deleted, rewritten, or replaced. The

results derived from the Pilot Study 2 and an additional literature search led to a third version of the SEAS Scale consisting of 42 items. This version was included in the data collection for the main study in this paper. Further analyses of the SEAS scale were undertaken at that time.

Main Study

The purpose of this study was to examine the relationships between assertiveness, locus of control, and sex-role beliefs and to further investigate the psychometric properties of the SEAS Scale. Data from the 42-item SEAS Scale was analyzed and it was brought into the 32-item form used in the analyses of the LOC-assertiveness relationship. Additional analyses of the SEAS Scale were undertaken in order to confirm trends found in the earlier studies and take advantage of the larger sample size. Further explorations with the demographic variables of gender and religiosity were undertaken. Previous studies have shown that males in general and people who attend organized religious services regularly tend to have more traditional sex-role beliefs than do females and those who do not

attend such services (Terpstra & Baker, 1986; Beere et al. 1984; Broverman, Broverman, Clarkson, & Rosenkrantz, 1972 and Thorton et al., 1983). Also, a key component in the development of any attitude/belief scale is factor analysis. Due to small sample sizes in the previous two studies the results of these explorations were of questionable utility. A sample size of 242 subjects allowed for admissible factor analysis results to be reported.

Scores from the final version of the SEAS Scale, Rathus Assertiveness Schedule, and the Spheres of Control Scale were then analyzed to address the main hypothesis of this paper. The hypothesis was that men in general and women with egalitarian sex-role beliefs would demonstrate stronger LOC-assertiveness links than would women with traditional sex-role beliefs.

Method

Subjects

This sample consisted of 48 male and 193 female undergraduate students enrolled at Lakehead university. Ages ranged from 18 to 70 with a mean age of 24.68 years. A wide variety of majors, for example, math,

chemistry, history, sociology, education, physics, forestry, physical education, psychology, and English and numerous religious affiliations including Roman Catholic, Protestant, Methodist, Jewish, United, Presbyterian, and Moslem were represented.

The over-representation of females in this sample was not intended. It may reflect the gender ratio in the classes sampled. It is also possible that there was more reluctance on the part of males, and/or more eagerness on the part of females to participate in such research. Perhaps the women felt more personal investment in research involving changing sex-roles than did the men.

Materials

The Rathus Assertiveness Schedule (RAS), created by Rathus in 1973, was the first measure of assertiveness to be developed in a systematic fashion (see Appendix G). It has been shown to be free of social-desirability contamination (Cummins, Holombo & Holte, 1977). Test-retest coefficients at five weeks are in the high .70's and split-half values range from .77 to .86 (Futch & Lisman, 1982; Rathus, 1973). Such data for other scales, according to Beck and Heimberg's

(1983) critical appraisal of seven widely used assertiveness measures, is either less impressive or nonexistent.

As for validity, the RAS has been sensitive to treatment outcome and has correlated highly with many other assertion scales as well as with peer ratings and role-play measures (Beck & Heimberg, 1983; Bouchard, Lalonde & Gagnon, 1988; Hartwig et al., 1980). Pertinent multivariate, normative and factor-analytic data are available for the RAS. These provide average scores for males and females and information regarding gender differences on certain clusters of items (Hull & Hull, 1976; Nevid & Rathus, 1977). RAS items are easily understood by those with as little as grade 8 education and the instructions by those with grade 10 (Rathus, 1973). It has been posited that the RAS, more so than other measures, may confuse the concepts of assertion and aggression (Beck & Heimberg, 1983). But in light of its superior performance on tests of validity and reliability, this possibility did not alter the decision to employ the scale.

The Spheres of Control Scale (SOC) was the Locus of control measure selected for this study (see

Appendix H). It partitions the subject's life-space into three primary behavioural spheres (Paulhus, 1983). The corresponding subscales are as follows: Personal Efficacy (PE), contains items which measure beliefs about personal control in the non-social environment. Interpersonal Control (IP), contains items dealing with perceptions of control in interpersonal situations. Sociopolitical Control (SP), contains items dealing with the degree to which one can influence social change and beliefs about government responsiveness.

Paulhus holds that these are conceptually independent positions. This approach results in a "control profile" which, unlike a single measure, allows for considerable sensitivity in correlating scores with other variables. Lefcourt, in his 1982 overview of the locus of control construct, lists the SOC as giving researchers the ability to differentially predict criteria relevant to each subscale. For example, if one were studying the relationship of LOC and involvement in social movements, one could look directly to the sociopolitical subscale of the SOC for evidence of a relationship. These subscales were developed over a period of two years in a series of

five psychometric studies (Paulhus, 1983). Alpha reliabilities on cross-validation samples range from .75 to .80, surpassing those of Rotter's I-E scale by .05 to .15. Test-retest reliability was .90 at four weeks and .70 at seven months for all three subscales.

Concurrent validity of the SOC has been ensured by significant correlations with Rotter's I-E scale ($r = .75$) and through three additional experimental studies conducted by the author and his associates (Paulhus, 1983). The first study compared the SOC profiles of tennis players, football players, and nonathletes. As Paulhus had predicted, on the basis of their manifest skill and status in the campus community, the athletes had higher IP and PE scores but did not differ from nonathletes on SP beliefs. Football players had higher IP scores than did either of the other two groups. In the second study, SP scores were found to predict voting behaviour in a large sample of undergraduate students. In the third study, PE scores were found to predict the number of button presses (a measure of effort to succeed) in an experimental setting. The SOC seemed to be a good locus of control measure for the present study.

As discussed above, the SEAS Scale was initially developed (see Pilot Study 1) and subjected to psychometric testing (see Pilot Studies 1 and 2) which led to improved versions of the scale. The SEAS Scale was brought into its final version through additional analyses presented below (see Appendix I). This 32-item version was the measure of sex-role beliefs used in the analysis of the main hypotheses of this paper. High scores on the scale indicate egalitarian beliefs, while low scores indicate traditional sex-role beliefs.

Procedure

The author visited three undergraduate psychology classes in the same week to recruit subjects for the study. Over 300 students agreed to participate. Approximately one half of the respondents completed their questionnaires while in class. The other half completed them on their own time and turned them in to the author at the start of classes two days later. Many students who had taken questionnaires out of the class failed to return them. A total of 242 completed questionnaires were recovered.

During the initial visit subjects were asked to complete the RAS, SOC, and SEAS Scales and supply

demographic data. Assurances of anonymity, confidentiality, and freedom to discontinue participation were presented. A copy of this consent form may be found in Appendix J. As there was a chance that after responding to the SOC and SEAS scales the subjects might have an idea of the hypotheses involved and so adjust their RAS responses accordingly, the RAS was administered first. The remaining scales were administered in counter-balanced order.

While no deception was employed, the exact hypothesis was not revealed to subjects until after the data was collected and analyzed. This was to ensure that subjects would not attempt to artificially confirm or oppose the prediction.

Treatment of the data

For the SEAS Scale analyses, internal reliability was assessed by the Cronbach's Alpha coefficient and Spearman-Brown split-half correlations. Factor analyses were used to outline the basic structure of the scale. Independent t -test analyses comparing extreme groups were used to test the success of each item in discriminating traditional from nontraditional respondents. The mean responses of high scorers (those

in the top quartile of SEAS scores) were compared to the mean responses of low scorers (bottom quartile of SEAS scores) for each item. Similarly, religious versus non-religious, and male and female subgroups were used to determine the ability of each item and then the scale as a whole to discriminate among these demographic variables.

For the main hypothesis analyses, Pearson Product-Moment correlations were calculated among the main variables (assertiveness, locus of control and sex-role beliefs) to determine the degree of relatedness among them for females, males, and the sample as a whole.

The check for moderator effects using moderated regression was the first analysis undertaken to directly address the main hypothesis. In each moderated regression analysis RAS was the dependent variable and was regressed on one locus of control subscale, SEAS scores, and in a second step, the product of the two. Each of the SOC subscales were analyzed in this manner. Using this technique, the unique contribution of the product term was determined in order to discover if SEAS scores moderate the LOC-assertiveness relationship. From this analysis

regression equations were derived in order to assist in the depiction of the moderating effect.

Moderator effects were also examined by testing for differences between correlations for groups of subjects high and low on egalitarianism. For females, a median split and quartile groups based on SEAS Scale scores were used to determine the traditional and egalitarian subgroups. For males, a median split and lower, middle, and upper thirds of the SEAS Scale distribution were used to determine traditional, middle-ground, and egalitarian subgroups respectively. Quartiles were not used here due to the small number of subjects involved. Prior to analysis, RAS scores were transformed to eliminate the negative totals possible with the original scoring. To achieve this the Likert scale was converted to a range of 1 to 6 from a range of -3 to +3.

Supplementary MANOVA and F-test analyses comparing various subgroups on the key variables were also executed. These analyses were used to explore possible differences in assertiveness and LOC as a function of gender and sex-role beliefs. The sex-role beliefs of men and women were also compared. Descriptive

statistics for all key variables and the demographics for subject age are displayed in Tables 14 to 19.

Results

SEAS Scale Analyses

Internal reliability of the SEAS Scale was assessed by Cronbach's Alpha (Alpha = .90). A Principle Component factor analysis revealed 12 factors with an eigenvalue of greater than one. The first factor accounted for 21.9% of the variance. The remaining eleven factors accounted for variance ranging from 5.7% to 2.5%, for a total of 59.9%.

Independent t-tests between males and females, religious and nonreligious people, and upper and lower quartile scorers on the scale as a whole were run for each of the 42 items. On the basis of these analyses 10 items were cut from the final version of the scale. These items were those which performed noticeably less well than did the rest on more than one of the above-mentioned analyses. For example, item #1 did not discriminate well between high and low scorers; its deletion resulted in a raised overall internal Alpha level, and it loaded at only .16 on the main factor in

the factor analysis. In a similar manner the other 9 items were deleted to form the final 32-item version of the SEAS Scale (see Appendix I). Remaining items were good discriminators, improved the scale's internal consistency, and loaded at .35 or better in the factor analysis reported above. Factor loadings of remaining items ranged from .35 to .59 based on the analysis described above. Using overall scores from the remaining 32-item scale t -tests comparing females to males and religious and nonreligious individuals yielded significant results ($t = -12.01$, $p < .001$ for the gender comparison and $t = 5.9$, $p < .001$, one-tailed, for the religiosity comparison). As expected, females and people who do not attend monthly church services scored significantly higher on the SEAS Scale, further confirming its validity.

A second factor analysis with varimax rotation was performed using the revised scale. This time, the principle component analysis uncovered eight factors with an eigenvalue of greater than one. The primary factor accounted for 26.7% of the overall variance; the remaining seven factors accounted for 3.2% to 7.1% of the variance. Together, the eight factors accounted

for 58.2% of the total variance. A varimax rotation revealed a logical clustering of items based on similarity of theme. One cluster, for example, had a theme of comparing male and female parenting roles; another dealt with working roles and financial responsibility; and another involved items referring to traditional male roles. Internal consistency was maintained in the revised scale. A Cronbach's Alpha of .90 and Spearman-Brown and Guttman split-half reliabilities of .89 were found.

The 32-item SEAS Scale performed acceptably on tests of reliability, validity, and factor composition. It was used as the measure of sex-role beliefs for the remaining analyses presented below.

Main Hypothesis Analyses

Pearson intercorrelations among the variables (see Table 1) confirmed moderate relationships between interpersonal control (IP) and personal efficacy (PE), and IP and sociopolitical control (SP). Both IP and PE correlated moderately with assertiveness (RAS). IP and PE were not related to egalitarianism (SEAS). SP and RAS correlated weakly with SEAS. The correlations for females and males may be found in Tables 2 and 3.

A number of moderated regression analyses were run using RAS scores as the criterion and each of the SOC subscales, SEAS scores and the product of the two as predictors (see Table 4). Although the size of the effect was not large, a significant F for the R -Square Change of the product term was found in the analysis of personal efficacy data for females, $F(1,187) = 4.53$, $p < .05$, $Beta = .15$. Such an effect was not discovered for the total sample or for the males in the study. Interpersonal and sociopolitical control data yielded no such result.

The nature of the interaction between personal efficacy and egalitarianism in women was elucidated by deriving regression equations for assertiveness on personal efficacy for different levels of sex-role belief (see Cohen & Cohen, 1983, p. 315-325).

Specifically, the regression equation for the interaction term. In this case,

$$[Y = -1.37PE - 1.80 SEAS + .438(PE*SEAS) + 8.48]$$

was used to derive regression equations for assertiveness on personal efficacy for each of three levels of SEAS: 3, 4, and 5. Scores on the SEAS Scale could range from 1 (very traditional) to 5 (very

egalitarian), but as 95% of the subjects scored 3 or more the equations for SEAS Scale values of 1 and 2 were not derived. The findings are depicted in Figure 1. At the moderate level of egalitarianism (3) the regression line is almost flat ($Y = -.06PE + 3.08$); at a SEAS Scale value of 4 the relationship between personal efficacy and assertiveness becomes positive ($Y = .38PE + 1.28$); and at a SEAS Scale value of 5 the relationship between personal efficacy and assertiveness becomes even more positive ($Y = .82PE - .52$). The relationship between assertiveness and personal efficacy is thus stronger for women with more egalitarian beliefs.

In order to further verify the moderated regression results, the simple correlations between assertiveness and the LOC subscales for the traditional and egalitarian males and females were compared (see Tables 5 and 6). The only significant correlation between sociopolitical control and assertiveness was found among the traditional women when a median split on SEAS scores was used to determine this group (see Table 5). When quartile groups were used to identify traditional and egalitarian subgroups for women, none

of the SP - RAS correlations were significant, nor were they significantly different from each other.

The personal efficacy - RAS correlations supported the finding that, for women, SEAS scores had a moderating effect on the relationship of locus of control and assertiveness. Table 6 illustrates the increase in the PE - RAS correlation for females as egalitarianism increases. For traditional women (first quartile), the correlation between personal efficacy and assertiveness was very low. In direct comparison, for egalitarian women (fourth quartile) the correlation was considerably higher. The difference between these two correlations, according to Fisher's Z transformation, was statistically significant ($Z = -2.45$, $p < .01$). In contrast, for the upper (egalitarian) and lower (traditional) thirds of the male sample, the PE - RAS correlations were nearly identical and were not significantly different from each other. For the middle third the correlation dropped to .20. The differences between these correlations, however, were not statistically significant. This shows that the PE - RAS correlation did not change as a function of egalitarianism in males as shown in Table 6.

The relationships between SEAS and RAS were positive, and very weak for all female SEAS subgroups and for the traditional and egalitarian men. For the males who scored in the middle third of the SEAS scale distribution, however, the correlation is negative and considerably stronger (see Table 6). Tests for differences among these correlations revealed that the male middle third correlation between SEAS and RAS was significantly larger than the correlation for very traditional females (first quartile), $Z = 1.75$, $p < .05$, but not significantly larger than the others.

Interpersonal Control beliefs were moderately correlated with assertiveness for the entire sample, males and females in general and all traditional/egalitarian subgroups (see Tables 5 and 6). There appeared to be a trend toward a stronger relationship between IP - RAS relationship among men as egalitarianism increased, paralleling the PE - RAS increase in females. The moderated regression results, too, suggested that perhaps sex-role beliefs were moderating the IP - RAS relationship among men. The R^2 Change for this interaction was the largest found, although it was not a statistically significant result

(see Table 4). Note that for all of the male SEAS subgroups the IP - RAS correlations were statistically significant whereas for the PE - RAS relationship in females, only the correlations for the egalitarian women (third and fourth quartiles) were statistically significant. This indicates that while there was a similar trend for the male IP - RAS relationship, it was not of the same statistical strength.

Supplementary Analyses

MANOVA and F-test analyses provided further information of interest about the main variables. MANOVA results using Wilks Multivariate test are reported below. The univariate F - test results may be found in the corresponding tables. The questions addressed here included: What differences were there in assertiveness and locus of control as a function of gender and sex-role beliefs, and were there gender differences in sex-role beliefs? (see Tables 7 to 15).

The relationships of locus of control and assertiveness, locus of control and sex-role beliefs, and assertiveness and sex-role beliefs among males and females have been investigated in many other studies. (e.g. Baker & Terpstra, 1986; Bohgle & Murthy, 1988;

Chandler, Cook & Dugovics, 1978; Chandler & Dugovics, 1977; Hartwig, Dickson & Anderson, 1980). In these studies women in general were found to be more external in locus of control, less assertive, and more egalitarian than men. Egalitarian women were found to be more internal in locus of control and more assertive than traditional women. For the most part, similar results were found in the present study (see Tables 8 and 10). One exception was the finding that women were not significantly more external than men in the Personal Efficacy and Sociopolitical spheres of LOC (see Table 10). The division of males and females into egalitarian and traditional subgroups allowed for a more detailed view of differences as a function of gender and sex-role beliefs. For example, in the present study we compared the assertiveness and locus of control levels of traditional men to traditional women, egalitarian men to egalitarian women, and egalitarian women to men in general (see below). Other such comparisons were also executed in an effort to explore thoroughly the relationships among the key variables for the various subgroups.

The Manova indicated a difference between

egalitarian and traditional subjects on the locus of control variables and assertiveness, $F(4, 113) = 4.41$, $p < .01$. Follow-up univariate F -tests showed that egalitarian subjects scored significantly higher on assertiveness, personal efficacy and sociopolitical control than traditional subjects (see Table 7). Although their average interpersonal control scores were higher, this finding was not statistically significant (see Table 7). Manova results also showed a significant difference between egalitarian and traditional women on the locus of control and assertiveness variables, $F(4, 97) = 6.17$, $p < .001$. Univariate F -tests demonstrated that egalitarian women scored significantly higher on assertiveness and the three locus of control subscales than did their traditional counterparts (see Table 8). Multivariate comparisons of traditional and egalitarian men yielded no such significant differences, $F(4, 25) = 1.17$, $p > .05$. The means and univariate F -test results for these comparisons are presented in Table 9.

The multivariate test comparing overall scores from males and females revealed a sex difference on locus of control, assertiveness and egalitarianism

variables, $F(5, 233) = 6.16, p < .001$. Univariate F -tests revealed that males were significantly higher in assertiveness and interpersonal control expectancies, (see Table 10). In contrast, the women scored significantly higher on egalitarianism. There were no significant gender differences for personal efficacy or sociopolitical control beliefs.

The multivariate test showed no differences in assertiveness, personal efficacy and interpersonal control when the scores of egalitarian women and overall male scores were compared, $F(4, 93)$ of 1.99, $p > .05$. The means and univariate F -test results for these comparisons are presented in Table 11. In contrast to the overall gender comparison detailed above, egalitarian women were found to have significantly higher sociopolitical control scores than the men.

Although egalitarian women had lower mean assertiveness scores (3.51 vs 3.80) their scores did not differ significantly from those of egalitarian men on this or any of the variables, the multivariate $F(4, 60) = .52, p > .05$. Means and univariate F -test results for the egalitarian female and egalitarian male

comparisons may be found in Table 12. The multivariate test revealed a sex difference on locus of control and assertiveness when we compared traditional men and traditional women, $F(4, 62) = 2.74, p < .05$.

Univariate F -tests revealed that the men scored significantly higher in assertiveness, interpersonal control beliefs, and personal efficacy, but there were no differences in sociopolitical beliefs (see Table 13).

Discussion

It was hypothesized that a strong locus of control-assertiveness link would be found for men in general and for women who hold egalitarian sex-role beliefs. Conversely, the link between these two variables would be weakest among traditional women.

For the men in the study, personal efficacy was strongly correlated with assertiveness for both the egalitarian and traditional subgroups. For the women this relationship very much depended on whether sex-role beliefs were traditional or egalitarian. Thus the main hypothesis of this paper was confirmed.

Egalitarian women demonstrated the personal locus of

control-assertiveness link consistently found among men, while traditional women did not. This suggests that women with internal personal LOC beliefs who hold nontraditional views of the sexes, are more likely to be assertive than are women who adhere to traditional sex-role beliefs, even if they possess internal LOC beliefs.

In previous research a link between LOC and assertiveness was consistently found among men, but not among women (Brown, 1983; Chandler & Dugovics, 1977, 1978; Cooley & Nowicki, 1984; Hollandsworth & Wall, 1977; Kimble et al., 1984; Nix et al., 1984; Phares, 1976; Ramanariah et al., 1985; Rao & Murphy, 1982; Rodriguez et al., 1980; Tudge, 1982). In keeping with this earlier research, a strong relationship between IP and assertiveness and PE and assertiveness was found for the men in the present study. In contrast to this body of research, however, the IP and PE subscales correlated strongly with assertiveness for female subjects also.

There are several possible explanations for the present finding. Perhaps the move toward external locus of control in women observed in the 1970s and

early 1980s (Cooley & Nowicki, 1984; Rao & Murphy, 1984; Strickland & Haley, 1980) is abating. Smith and Dechter (1991) discovered that this move toward externality was nothing more than an artifact of coding errors in earlier releases of the data. It appears that in one major data collection for women, several items with reversed scoring were not detected and properly encoded by those entering the data. Smith and Dechter's (1991) re-coding and subsequent analyses of the original data revealed no such shift among the women studied. In the present study men scored significantly higher than women on the Interpersonal Control subscale but not on the Personal Efficacy or Sociopolitical subscales. Egalitarian women did not differ from men on the interpersonal and personal efficacy measures of LOC and were more internal in sociopolitical beliefs. These results suggest that men and women (particularly egalitarian women) are closer in LOC beliefs than had been posited in the past. This could be due to an actual change in LOC beliefs, or because similar findings in past research were misreported due to encoding errors.

The strong correlations between IP and

assertiveness for women reported here, were not paralleled in previous research using unidimensional LOC scales. With the exception of Sajna and Dilly (1987), who used the Spheres of Control scale to measure locus of control, LOC and assertiveness were not related for women in other studies. One could argue that the use of the Spheres of Control subscales in the 1987 and present study was, in part, responsible for finding such strong LOC - assertiveness links in the interpersonal sphere. The IP scale requires one to rate oneself on perceptions of control in interpersonal situations. Items such as: "When being interviewed I can usually steer the interviewer toward topics I want to talk about and away from topics I wish to avoid" have an inherent assertiveness component. Hence, a strong overall correlation between RAS scores and this subscale was not unexpected. The Personal Efficacy subscale, however, bears no such obvious semantic relationship to assertiveness. Here one is rating one's inner strength, determination, and ability to accomplish. Thus it was with this particular subscale that the moderating effect of sex-role beliefs on the relationship of locus of control and assertiveness in

women was discovered. As expected, sociopolitical control perceptions were largely unrelated to assertiveness. Inclusion of this subscale helped to confirm that the results derived from the IP and PE subscales were valid and not merely the result of chance or similarity of question format and scoring. The low, but significant correlation between sociopolitical control and RAS for the traditional women (using a median split) suggests that scores on the lower half of the SEAS are more closely associated with an SP-assertiveness link. It appeared that for traditional women, as sociopolitical beliefs grew stronger, so too did assertiveness levels. Although this trend remained visible, when quartiles were used to determine female traditional and egalitarian subgroups, no significant correlations between SP and RAS were found.

Beliefs about sex-roles and the expression of assertiveness in women appear to have changed considerably over the past twenty years. In the early 1970s the healthy adult female was ascribed, by mental health clinicians, several negatively evaluated characteristics such as submissiveness, dependency,

incompetence, and lack of logic. These traits were at that time incorporated into the self-concepts of a large segment of the female population according to a study by Broverman, Vogel, Broverman, Clarkson, and Rosenkrantz (1972). Delamater and McNamara (1986) reviewed several studies on gender and assertiveness and found that highly assertive women were evaluated as less intelligent and likable than medium-assertive females by both male and female raters in 1975. Five years later assertiveness in females was viewed more negatively by males than by females. Still, in the early 80s devaluation of assertiveness by females was noted for college age females on such dimensions as popularity, likeability, and desirability. Kern, Cavell and Beck (1985) found women with traditional sex-role beliefs tend to devalue female assertiveness whereas subjects with more liberal beliefs did not do so. Delamater and McNamara (1985) concluded that the results of the studies they reviewed support the idea that assertion is often viewed as inappropriate behaviour for females and this general bias serves to inhibit women from behaving assertively.

It is possible that over the past several years

acceptance of nontraditional sex-role behaviours, such as assertiveness in women, has increased. Perhaps women in general and particularly those with internal locus of control beliefs and egalitarian sex-role beliefs are now more likely to express themselves assertively. Assertiveness has been linked with a host of positive personality traits. Ramanariah, Heerboth and Jinkerson (1985) found assertive males and females to be more gregarious, adaptable, sensitive, and rational. They were also found to be more present-oriented, inner-directed, existentialistic, and spontaneous in their orientation, and to have higher self-regard, social sensitivity, and were better able to form intimate relationships with others. The nonassertive subjects were more subservient, defensive, self-projecting, and approval-seeking. Our examination of the variables suggests that adhering to traditional sex-role beliefs can impede the logical expression of assertiveness among women with internal personal locus of control beliefs. Adopting egalitarian sex-role beliefs may help to ease some of the social constraints traditionally placed on female assertiveness.

In the present study egalitarian women exhibited

a significantly stronger link between personal efficacy and assertiveness and significantly higher levels of internal locus of control in all three domains and greater assertiveness than did traditional women. Egalitarian and traditional men evidenced an equally strong correlation between personal efficacy and assertiveness and there were no significant differences between them in levels of assertiveness or locus of control in any of the three domains. When we compared overall scores, men were significantly more assertive, and had significantly higher interpersonal control beliefs than did the women. Furthermore, when we compared traditional men and traditional women, these differences were much stronger and a significant difference in levels of personal efficacy was also found. With egalitarian men and women, however, there were no significant differences in assertiveness, or beliefs in any of the locus of control spheres. Cooley and Nowicki (1984) concluded that although internality is a widespread societal value applied to both genders, recent efforts to foster assertiveness in women seem not to have affected the behaviour of current college age women. From the present results it appears that

although in general men remain ahead of women in levels of assertiveness, egalitarianism helps bridge the gap.

Egalitarian women also had significantly higher perceptions of sociopolitical control than did traditional women. These women perceive greater government responsiveness and greater control over societal change in general. It is possible that egalitarian women are more likely to be involved in successful interactions with businesses and governmental agencies. It may also be the case that these women are simply more optimistic in general. It is of interest to note that sociopolitical belief scores were also higher among the egalitarian than traditional men, although the difference was not significant. Further research may enlighten us as to if and how these beliefs are expressed behaviourally.

Also worthy of note is the relationship of interpersonal control and assertiveness among traditional and egalitarian men. When we used a median split to define these groups, the correlations were virtually identical. The moderated regression results, however, suggested that there might be a moderating effect of sex-role beliefs in the interpersonal

control-assertiveness link among men. We then looked at upper and lower thirds of the male SEAS Scale distribution. These groups held the highest and lowest correlations between assertiveness and interpersonal control respectively. However, the test for differences between these two correlations did not yield a significant result. It is possible that because of the comparatively small sample sizes this difference is due to sampling error or chance. It is also possible that with a larger sample this trend could become a statistically significant result. Further research might be directed toward determining whether or not interpersonal control expectancies function differentially for traditional and egalitarian men and women.

Another curious finding from the male data is the drop in the PE - RAS correlation for the middle third of the SEAS Scale distribution. This subgroup also had the strongest and only negative correlation between SEAS Scores and assertiveness. This suggests that strong traditional and strong egalitarian beliefs assist the PE - RAS relationship, while middle-ground beliefs do not. It also suggests that among this

middle group, those leaning toward traditional beliefs were more assertive than those leaning toward egalitarian beliefs. Again, because of the small numbers involved, we can only speculate as to the meaning of these findings. Perhaps these middle scores reflect a degree of indecision as to what sex-roles are acceptable to these men. These men had the most restricted range of scores on the SEAS Scale of any of the subgroups (3.5 to 3.8). On the RAS, PE, IP, and SP scales, however, they had the widest range of scores. Perhaps this contributed to the unique findings for this group. Further study with larger numbers of men is warranted.

Although it was the women in this study who appeared to display the strongest differentiation on LOC and assertiveness due to sex-role beliefs, the men were not unaffected. Indeed egalitarian men scored higher than their traditional counterparts in assertiveness (3.80 vs 3.44) and sociopolitical control (4.24 vs 3.87). Likewise, the strongest correlations between LOC measures and assertiveness were found among egalitarian men. None of these findings were, however, statistically significant, indicating only trends in

the above-mentioned directions. Mean scores for personal efficacy and interpersonal control were virtually identical for traditional and egalitarian men, unlike the significant differences found between traditional and egalitarian women. Given the limited number of men examined in the present study, we must be careful in interpreting their results. It appears that in keeping with Greenberg and Zeldow (1977) who found men with liberal sex-role views to exhibit higher levels of several favourable traits, including spontaneity and individualism, egalitarian men in the present study exhibited a trend toward higher levels of assertiveness and sociopolitical control when compared with traditional men. What is not as apparent for the males, is the moderating effect of sex-role beliefs on the locus of control - RAS relationship. There is the suggestion that sex-role beliefs might moderate the IP-RAS relationship for men, but this is not as clear as is the moderating effect of sex-role beliefs on the PE-RAS relationship among women.

For both women and men, then, possessing egalitarian sex-role beliefs is related to a number of positively viewed personality characteristics and

socially approved behaviours. Future research should employ larger and more representative samples of both men and women. The findings in the present study suggest that perhaps the sex-role beliefs of men have a greater impact on locus of control, assertiveness and the link between them than might have been expected. It is clear that for women, the suspected discrepancy between internal belief system (personal efficacy) and expressed behaviour (assertiveness) is moderated by sex-role beliefs. Women with egalitarian beliefs exhibit a strong link between locus of control and assertiveness, while women with traditional beliefs, in general, do not.

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APPENDIX A

SEAS Scale

(First Version)

Directions: Indicate your agreement or disagreement with each of the following statements by using the code given below.

- 1 - strongly agree
- 2 - agree
- 3 - no opinion
- 4 - disagree
- 5 - strongly disagree

- d
---- 1. Working women are poorer mothers than women who remain in the home.
- 2. It is better that a husband earn more money than his wife.
- c
---- 3. A woman alone in a bar is asking for trouble.
- d
---- 4. A man who can't support his wife and children is a failure.
- d
---- 5. Women who are independent and assertive are less attractive to men than are the "helpless" type.
- c
---- 6. If both spouses are working household chore should be split 50/50.
- d
---- 7. Men have the right to expect their wives to bear and raise children.
- c
---- 8. Women are more caring, nurturant and sensitive because they are born that way.
- d
---- 9. Society would be better off if women's roles had not changed over the past century.
- 10. The entry of women into traditionally male professions should be discouraged.
- c
---- 11. Women should place their marriages and families ahead of career concerns.
- 12. We should encourage "lady-like" behaviour in little girls and "rough & tumble" behaviour in little boys.

- 13. Men and women generally differ in their desire for
challenging work.
c
- 14. Men who cry or show emotion are weak.
d
- 15. A good education is more important for men than for
women.
- 16. Men make better employees because they are more stable.
- 17. Obedience is a wifely virtue.
- 18. Most divorced women get custody of the children because
men make poorer parents.
- 19. Women should change their names when they marry.
c
- 20. Women don't have to learn how to be parents, they have
an instinct for it.
c
- 21. Allowing little boys to play with dolls can lead to
problems later in their lives.
d
- 22. Women are less trustworthy than men.
d
- 23. Men's sexual needs are stronger and more important than
women's.
d
- 24. Men and women should receive the same wages for work of
equal value.
c
- 25. Engineering, science, and medicine are career areas
better suited to men.
- 26. Infidelity (cheating on a spouse) is more acceptable
in men.
d
- 27. A man who stays home to rear children or take care of a
house is less manly than one who works.
c
- 28. Girls should be allowed to play on boys sports teams.
- 29. It sounds worse when women swear than when men swear.
- 30. It is better that teachers of pre-schoolers and other
young children be female.
- 31. Using terms like "chairperson" in stead of "chairman"
or "his/her" instead of "his" just complicates things.

- d
---- 32. Men, more so than women, need to be tough in order to get ahead in the world.
- 33. Women should be allowed to become priests.
- d
---- 34. House work is women's work.
- c
---- 35. Male and female police officers should be given the same duties.
- d
---- 36. One should be wary of leaving young children in the care of a male baby-sitter.
- d
---- 37. If males and females were meant to be equal then that's how it would have been throughout history.
- d
---- 38. There aren't many female politicians because women are not capable of handling that kind of responsibility.
- d
---- 39. It would be good if women stopped working, then all of our unemployment problems would be solved.
- c
---- 40. Physical attractiveness is more important to career success for women than for men.
- d
---- 41. It is much better for everyone concerned if the man is the breadwinner and the woman takes care of the family.
- 42. Men should be willing to fight, even physically, for what they believe in.
- c
---- 43. Women should be considered as seriously as men for jobs as executives, politicians and Prime Minister or President.
- d
---- 44. It's perfectly alright for a woman to be very active in clubs, politics and other outside interests before her children are grown up.
- c
---- 45. Men should take the initiative in the area of romance.
- 46. Preschool children are likely to suffer if their mothers work outside of the home.
- 47. It is worse for a woman to get drunk than for a man.
- d
---- 48. Women who don't want at least one child are being selfish.
- d
---- 49. Parents should encourage as much independence in their daughters as in their sons.

- c**
 ---- 50. Major decisions in a family should be made by the father/husband.
- d**
 ---- 51. Unmarried women are more unhappy than are unmarried men.
- d**
 ---- 52. If women expect men to share household chores then they should be willing to share traditionally "male" tasks such as mowing the lawn, or washing and maintaining the car.
- d**
 ---- 53. Married women with husbands capable of supporting them should not be in the work force.
- d**
 ---- 54. For a woman it is marriage which will give her her sense of identity and a respected place in society.
- 55. Men need someone to confide in just as much as women do.

Sex: m f

Occupation: _____

Education Level: _____ Grade school Age: _____
 _____ Highschool
 _____ College
 _____ University

Note: **d** - items deleted from the scale.
c - items changed or altered but present in the second version of the scale.

APPENDIX B

FEM Scale

Directions: Indicate your agreement or disagreement with each of the following statements by using the code given below.

- 1 - strongly agree
- 2 - agree
- 3 - no opinion
- 4 - disagree
- 5 - strongly disagree

- ___ 1. Women have the right to compete with men in every sphere of activity.
- ___ 2. As head of the household the father should have final authority over his children.
- ___ 3. The unmarried mother is morally a greater failure than the unmarried father.
- ___ 4. A woman who refuses to give up her job to move with her husband would be to blame if the marriage broke up.
- ___ 5. A woman who refuses to bear children has failed in her duty to her husband.
- ___ 6. Women should not be permitted to hold political offices that involve great responsibility.
- ___ 7. A woman should be expected to change her name when she marries.
- ___ 8. Whether or not they realize it, most women are exploited by men.
- ___ 9. Women who join the Women's Movement are typically frustrated and unattractive people who feel they lose out by the current rules of society.
- ___ 10. A working woman who sends her six month old baby to a day-care center is a bad mother.
- ___ 11. A woman to be truly womanly should gracefully accept chivalrous attentions from men.
- ___ 12. It is absurd to regard obedience as a wifely virtue.
- ___ 13. The "clinging vine" wife is justified provided she clings sweetly enough to please her husband.

APPENDIX C
CONSENT FORM

This research is to be used for a Master of Arts degree at Lakehead University and is designed to make ready for use a measure of sex-role beliefs. It will be used in a later study to explore the relationship of locus of control and sex-role beliefs to assertiveness.

You will be asked to complete two questionnaires which will take no more than one hour to complete. It is your opinion in which we are interested so please respond honestly and quickly; dwelling on each item is not necessary. In a few weeks you will be asked to complete two additional surveys, again taking no more than an hour of your time.

You are under no obligation to participate and are free to deny consent if you so desire. You are also completely free to discontinue participation at any time.

Your test scores will be kept strictly confidential and results will be reported on a group basis only. This form, the only place on which you are identified, will be removed from the questionnaire booklet and stored separately prior to scoring. Those interested in the overall of the results of the final study should look for a posting in this regard on the board outside of the Psychology office.

Susan E. Sajna
Graduate Student

I have read this form and understand the procedure to be used and consent to participate in this research. I also understand that I am free to withdraw from this study at any time.

Signature

Date

APPENDIX D

SEAS SCALE
(second version)

Directions: Indicate your agreement or disagreement with each of the following statements by using the code given below.

Note: Some of the items are stated in the negative, so be sure you are using the code correctly. Simply respond to each statement as it is written.

- 1 - strongly agree
- 2 - agree
- 3 - neither agree nor disagree
- 4 - disagree
- 5 - strongly disagree

- n d**
 _____ 1. It is just as important for fathers to attend their children's school functions as it is for mothers to attend.
- n c**
 _____ 2. A woman can be just as capable as a man when it comes to fixing minor plumbing and electrical problems around the home.
- n**
 _____ 3. Women and men are equally capable of developing close and trusting friendships.
- _____ 4. Women should have just as much right as men to go to a bar alone.
- n**
 _____ 5. Working husbands and wives should equally sacrifice their careers for the sake of home duties.
- n c**
 _____ 6. It is wrong for a man to enter a traditionally female career.
- c**
 _____ 7. Both men and women should be able to ask another person to dance.
- n**
 _____ 8. Husbands and wives should be equally responsible for the care of their aging parents.
- c**
 _____ 9. Employment of women creates many problems for the employer.
- _____ 10. It is better that a man earn more money than his wife.
- c**
 _____ 11. Men should not cry or show emotion openly.
- d**
 _____ 12. Obedience is a wifely virtue.

- ___ 13. Boys should be allowed or even encouraged to play with dolls.
- ___ 14. We should encourage "lady-like" behaviour in little girls and "rough & tumble" behaviour in boys.
- c**
- ___ 15. A male nurse cannot be as effective as a female nurse.
- n**
- ___ 16. Women should generally take the passive role in courtship.
- n**
- ___ 17. Men and women generally differ in their desires for challenging work.
- ___ 18. Women should change their names when they marry.
- ___ 19. Most divorced women get custody of the children because men make poorer parents.
- ___ 20. Infidelity (cheating on a spouse) is more acceptable in men.
- ___ 21. Just like men, women have to learn how to be parents; being a mother is not instinctive.
- ___ 22. It is better that teachers of preschoolers and other young children be female.
- ___ 23. There are many good reasons why children's sports are sex-segregated.
- ___ 24. It sounds worse when women swear than when men swear.
- ___ 25. Men should take the initiative in courtship.
- ___ 26. Using terms like "chairperson" instead of "chairman", or "his/her" instead of "his" just complicates things.
- ___ 27. Men should be willing to fight, even physically, for what they believe in.
- c**
- ___ 28. Physical attractiveness should not be more important to career success for women than it is for men.
- ___ 29. Men need someone to confide in just as much as women do.
- ___ 30. In a family where both spouses are employed, household and child-rearing tasks should be shared equally.
- n c**
- ___ 31. Women should feel as free to "drop in" on a male friend as vice versa.

- n c**
 ___ 32. Fathers and mothers should have an equal obligation to spend some leisure time playing with their children.
- n**
 ___ 33. Fathers are not as able to take care of their sick children as mothers are.
- ___ 34. It is worse for a woman to get drunk than for a man.
- n**
 ___ 35. Women have a greater ability to form lasting friendships than do men.
- n d**
 ___ 36. A child will be better adjusted if the father and mother are jointly responsible for child-rearing duties.
- ___ 37. Women should be allowed to become priests.
- c**
 ___ 38. Given the chance, men could be just as caring, nurturant and sensitive as women.
- ___ 39. The entry of women into traditionally male jobs should be discouraged.
- d**
 ___ 40. Gender should not disqualify a person from any job which they are capable of doing.
- ___ 41. Men should make career and financial success the top priority in their lives.
- n**
 ___ 42. Women should have just as much right as a man to go to a bar alone.
- ___ 43. Preschool-age children are likely to suffer if their mothers work outside of the home.
- c**
 ___ 44. Men and women hired for a particular job (even such as law enforcement) should have the same duties.
- ___ 45. Men make better employees because they are more stable.

AGE: _____

SEX: m f

OCCUPATION: _____

APPENDIX E

Sex-Role Egalitarianism Scale (SRES/K)

In this booklet you will find a series of statements about men and women. Read each statement carefully and decide the extent to which you agree or disagree with each. We are not interested in what society says; we are interested in your personal opinions.

For each statement, circle, the letters(s) which seem(s) to best describe your opinion. Please do not omit any statements. Remember to circle only one of the five possible choices for each statement.

SA - Strongly agree
 A - Agree
 N - Neutral or undecided or no opinion
 D - Disagree
 SD - Strongly disagree

-
- | | | | | | |
|---|----|---|---|---|----|
| 1. If one wants to be sure that a child receives the proper immunizations at the proper ages, the responsibility should be given to the mother, not the father. | SA | A | N | D | SD |
| 2. On a date, the man should drive. | SA | A | N | D | SD |
| 3. A husband and wife should spend equal time raising the children. | SA | A | N | D | SD |
| 4. The intelligent man will go further in his career than the intelligent woman. | SA | A | N | D | SD |
| 5. More men should be encouraged to take courses in the arts and romance languages. | SA | A | N | D | SD |
| 6. A wife can be just as capable as a husband when it comes to fixing minor plumbing and electrical problems around the home. | SA | A | N | D | SD |
| 7. Female secretaries are more devoted to their jobs than male secretaries. | SA | A | N | D | SD |
| 8. It is appropriate for men rather than women to dominate a social gathering. | SA | A | N | D | SD |
| 9. Courses in math and physics should be taught equally often by men and women teachers. | SA | A | N | D | SD |
| 10. Women should have just as much right as men to go to a bar alone. | SA | A | N | D | SD |

SA - Strongly agree
 A - Agree
 N - Neutral or undecided or no opinion
 D - Disagree
 SD - Strongly disagree

- | | | | | | |
|---|----|---|---|---|----|
| 11. It is more important for a woman to like her job than it is for a man. | SA | A | N | D | SD |
| 12. Depending on the preferences of the couple, either the husband, the wife, or both can decide where the family will live. | SA | A | N | D | SD |
| 13. Female students have more interest in schoolwork than male students. | SA | A | N | D | SD |
| 14. Fathers should be more concerned than mothers with whom their teenager is dating. | SA | A | N | D | SD |
| 15. It should be the responsibility of both parents to correspond with their child when the child is away from home (e.g., at camp or college). | SA | A | N | D | SD |
| 16. Education reduces the feminine attractiveness of women. | SA | A | N | D | SD |
| 17. When a couple gets divorced, it is generally the fault of the husband rather than the wife. | SA | A | N | D | SD |
| 18. Men and women are equally qualified for law enforcement jobs. | SA | A | N | D | SD |
| 19. Parent-teacher conferences should be jointly attended by the father and the mother. | SA | A | N | D | SD |
| 20. Husbands and wives should be equally responsible for the care of their aging parents. | SA | A | N | D | SD |
| 21. Preparing children for bed should be the joint responsibility of the mother and father. | SA | A | N | D | SD |
| 22. Educational honorary societies in nursing should admit only women. | SA | A | N | D | SD |
| 23. Both women and men should be able to ask another person to dance. | SA | A | N | D | SD |
| 24. Facilities at industrial oriented vocational schools ought to be expanded to admit qualified female applicants. | SA | A | N | D | SD |
| 25. Women ought to have the same possibilities for leadership positions at work as do men. | SA | A | N | D | SD |
| 26. The husband should represent the family in community affairs. | SA | A | N | D | SD |

SA - Strongly agree
 A - Agree
 N - Neutral or undecided or no opinion
 D - Disagree
 SD - Strongly disagree

- | | | | | | |
|--|----|---|---|---|----|
| 27. Employment of women creates many problems for the employer. | SA | A | N | D | SD |
| 28. Keeping track of a child's out-of-school activities should be mostly the mother's responsibility. | SA | A | N | D | SD |
| 29. Women should be given special courtesies not given to men. | SA | A | N | D | SD |
| 30. The mother is more qualified than the father to decide on an appropriate summer camp for the children. | SA | A | N | D | SD |
| 31. A male nurse cannot be as effective as a female nurse. | SA | A | N | D | SD |
| 32. It is inappropriate for a woman to light a man's cigarette. | SA | A | N | D | SD |
| 33. Things work out best in a marriage if a husband leaves his hands off domestic tasks. | SA | A | N | D | SD |
| 34. Mothers rather than fathers should be primarily responsible for deciding what television programs a child may watch. | SA | A | N | D | SD |
| 35. The joint earnings of husband and wife should legally be under the control of the husband. | SA | A | N | D | SD |
| 36. Women should have just as much right as men to go to movies alone. | SA | A | N | D | SD |
| 37. There are many good reasons why a woman should not be President of the United States. | SA | A | N | D | SD |
| 38. Women should feel as free to "drop in" on a male friend as vice versa. | SA | A | N | D | SD |
| 39. Female workers should receive more sick days than male workers. | SA | A | N | D | SD |
| 40. Women are generally better conversationalists than men. | SA | A | N | D | SD |
| 41. Mothers are better able than fathers to purchase a child's school clothing. | SA | A | N | D | SD |
| 42. Vocational and professional schools should admit the best qualified students, independent of sex. | SA | A | N | D | SD |
| 43. Women are as willing as men to make a long-term job commitment. | SA | A | N | D | SD |

SA - Strongly agree
 A - Agree
 N - Neutral or undecided or no opinion
 D - Disagree
 SD - Strongly disagree

- | | | | | | |
|--|----|---|---|---|----|
| 44. Because they are destined to be the breadwinner, men are more likely than women to make good use of their education. | SA | A | N | D | SD |
| 45. Males should be given priority over females in courses which would qualify them for positions as school principals. | SA | A | N | D | SD |
| 46. Mothers and fathers should share the responsibility of taking children to the doctor or dentist. | SA | A | N | D | SD |
| 47. Women are generally more sensitive to the needs of others than men are. | SA | A | N | D | SD |
| 48. Women perform equally to men in the job interview situation. | SA | A | N | D | SD |
| 49. If birthday cards and gifts are to be sent out on time, then the wife must assume responsibility for them. | SA | A | N | D | SD |
| 50. Children would have fewer problems if fathers rather than mothers were responsible for child-rearing. | SA | A | N | D | SD |
| 51. There should be as many women as men in graduate school. | SA | A | N | D | SD |
| 52. Women tend to make friends more readily than men. | SA | A | N | D | SD |
| 53. In situations in which both the husband and wife are working, housework should be equally shared by them. | SA | A | N | D | SD |
| 54. Female students should have priority over male students in receiving financial aid. | SA | A | N | D | SD |
| 55. Women can handle pressures from their jobs as well as men can. | SA | A | N | D | SD |
| 56. Husbands are better able to manage the family's social calendar. | SA | A | N | D | SD |
| 57. Fathers are better able than mothers to provide their children with a proper sex education. | SA | A | N | D | SD |
| 58. Husbands are able to be more independent than their wives. | SA | A | N | D | SD |
| 59. Male graduate students are more aggressive than female graduate students. | SA | A | N | D | SD |

SA - Strongly agree
 A - Agree
 N - Neutral or undecided or no opinion
 D - Disagree
 SD - Strongly disagree

- | | | | | | |
|--|----|---|---|---|----|
| 60. Male managers are more valuable to an organization than female managers. | SA | A | N | D | SD |
| 61. A woman should have as much right to ask a man for a date as a man has to ask a woman for a date. | SA | A | N | D | SD |
| 62. It should be up to the father rather than the mother to grant permission to the teenage children to use the family car. | SA | A | N | D | SD |
| 63. Sons and daughters ought to be given equal opportunity for higher education. | SA | A | N | D | SD |
| 64. Social courtesies should not favor one sex over the other. | SA | A | N | D | SD |
| 65. A marriage is more likely to be successful if the wife's needs are considered after the husband's needs. | SA | A | N | D | SD |
| 66. It is much easier to discipline a female student in school than to discipline a male student. | SA | A | N | D | SD |
| 67. Fathers are better able than mothers to determine the amount of weekly allowance a child should be given. | SA | A | N | D | SD |
| 68. Women should have just as much right as men to be unescorted at night. | SA | A | N | D | SD |
| 69. Quality education benefits both men and women. | SA | A | N | D | SD |
| 70. Men are more able than women to get along with a variety of types of people. | SA | A | N | D | SD |
| 71. Women are equal to men in their reliability on the job. | SA | A | N | D | SD |
| 72. It should be a mother's responsibility rather than a father's to see that their children are transported to after-school activities. | SA | A | N | D | SD |
| 73. A person should generally be more polite to a woman than to a man. | SA | A | N | D | SD |
| 74. Most wives are able to handle the family finances as well as their husbands. | SA | A | N | D | SD |
| 75. Men are the same as women in their desire for a friend with whom to share their problems. | SA | A | N | D | SD |

SA - Strongly agree
 A - Agree
 N - Neutral or undecided or no opinion
 D - Disagree
 SD - Strongly disagree

- | | | | | | |
|---|----|---|---|---|----|
| 76. Fathers and mothers should have an equal obligation to spend some leisure time playing with their children. | SA | A | N | D | SD |
| 77. A husband has to be more willing and able than a wife to adapt in a marriage. | SA | A | N | D | SD |
| 78. A male doctor inspires more confidence than a female doctor. | SA | A | N | D | SD |
| 79. If a woman is as smart as her husband, the marriage will not work. | SA | A | N | D | SD |
| 80. Women and men are equally adept at learning mechanical skills. | SA | A | N | D | SD |
| 81. The day care setting is generally not a place in which men should work. | SA | A | N | D | SD |
| 82. In a social situation women should feel as free as men to express their honest opinion. | SA | A | N | D | SD |
| 83. Fathers are not as able to care for their sick children as mothers are. | SA | A | N | D | SD |
| 84. Men and women differ in the time required to adjust to a new work setting. | SA | A | N | D | SD |
| 85. Standing when being introduced to another person is appropriate only for men. | SA | A | N | D | SD |
| 86. A wife's career should be of equal importance to her husband's. | SA | A | N | D | SD |
| 87. Male teachers of younger children do not have the ability to display affection as well as female teachers. | SA | A | N | D | SD |
| 88. An applicant's sex should be an important consideration in job screening. | SA | A | N | D | SD |
| 89. A wife is just as qualified as a husband to decide what car to purchase. | SA | A | N | D | SD |
| 90. Men and women should be paid equally for equal work. | SA | A | N | D | SD |
| 91. More women ought to consider majoring in economics. | SA | A | N | D | SD |

SA - Strongly agree
 A - Agree
 N - Neutral or undecided or no opinion
 D - Disagree
 SD - Strongly disagree

- | | | | | | |
|---|----|---|---|---|----|
| 92. Fathers should be as responsible as mothers to see that a baby sitter is hired when the couple plans to go out for the evening. | SA | A | N | D | SD |
| 93. Wives are better able than husbands to send thank you notes when the couple receives gifts. | SA | A | N | D | SD |
| 94. Choice of college is not as important for women as for men. | SA | A | N | D | SD |
| 95. Only the wife is qualified to decide how much a family must spend on food and clothing. | SA | A | N | D | SD |

APPENDIX F

CROWNE-MARLOWE SDS

Listed below are a number of statements concerning attitudes and traits. Read each item and decide whether the statement is true (T) or false (F) as it pertains to you personally.

- 1. Before voting I thoroughly investigate the qualifications of all the candidates.
- 2. I never hesitate to go out of my way to help someone in trouble.
- 3. It is sometimes hard for me to go on with my work if I am not encouraged.
- 4. I have never intensely disliked anyone.
- 5. On occasion I have had doubts about my ability to succeed in life.
- 6. I sometimes feel resentful when I don't get my way.
- 7. I am always careful about my manner of dress.
- 8. My table manners at home are as good as when I eat out at a restaurant.
- 9. If I could get into a movie without paying and be sure I was not seen I would probably do it.
- 10. On occasions, I have given up doing something because I thought too little of my ability.
- 11. I like to gossip at times.
- 12. There have been times when I felt like rebelling against people in authority even though I knew they were right.
- 13. No matter who I'm talking to, I'm always a good listener.
- 14. I can remember "playing sick" to get out of something.
- 15. There have been occasions when I took advantage of someone.
- 16. I'm always willing to admit it when I've made a mistake.
- 17. I always try to practice what I preach.

- ___ 18. I don't find it particularly difficult to get along with loud mouthed, obnoxious people.
- ___ 19. I sometimes try to get even rather than forgive and forget.
- ___ 20. When I don't know something I don't at all mind admitting it.
- ___ 21. I am always courteous, even to people who are disagreeable.
- ___ 22. At times I have really insisted on having things my own way.
- ___ 23. There have been occasions when I felt like smashing things.
- ___ 24. I would never think of letting someone else be punished for my wrongdoings.
- ___ 25. I never resent being asked to return a favour.
- ___ 26. I have never been irked when people expressed ideas very different from my own.
- ___ 27. I never make a long trip without checking the safety of my car.
- ___ 28. There have been times when I was quite jealous of the good fortune of others.
- ___ 29. I have almost never felt the urge to tell someone off.
- ___ 30. I am sometimes irritated by people who ask favours of me.
- ___ 31. I have never felt that I was punished without cause.
- ___ 32. I sometimes think when people have a misfortune they only got what they deserved.
- ___ 33. I have never deliberately said something that hurt someone's feelings.

APPENDIX G

RATHUS ASSERTIVENESS SCHEDULE

Directions: Indicate how characteristic or descriptive each of the following statements is of you by using the code given below.

- +3 very characteristic of me, extremely descriptive
- +2 rather characteristic of me, quite descriptive
- +1 somewhat characteristic of me, slightly descriptive
- 1 somewhat uncharacteristic of me, slightly nondescriptive
- 2 rather uncharacteristic of me, quite nondescriptive
- 3 very uncharacteristic of me, extremely nondescriptive

- ___ 1. Most people seem to be more aggressive and assertive than I am.
- ___ 2. I have hesitated to make or accept dates because of "shyness."
- ___ 3. When the food served at a restaurant is not done to my satisfaction, I complain about it to the waiter/waitress.
- ___ 4. I am careful to avoid hurting other people's feelings, even when I feel that I have been injured.
- ___ 5. If a salesman has gone to considerable trouble to show me merchandise which is not quite suitable, I have a difficult time in saying "No."
- ___ 6. When I am asked to do something, I insist upon knowing why.
- ___ 7. There are times when I look for a good vigorous argument.
- ___ 8. I strive to get ahead as well as most people in my position.
- ___ 9. To be honest, people often take advantage of me.
- ___ 10. I enjoy starting conversations with new acquaintances and strangers.
- ___ 11. I often don't know what to say to attractive persons of the opposite sex.
- ___ 12. I will hesitate to make phone calls to business establishments and institutions.
- ___ 13. I would rather apply for a job or for admission to a college by writing letters than by going through with personal interviews.

(Remember: +3 very characteristic, +2 rather characteristic, +1 somewhat characteristic, -1 somewhat uncharacteristic, -2 rather uncharacteristic, -3 very uncharacteristic)

- ___14. I find it embarrassing to return merchandise.
- ___15. If a close and respected relative were annoying me, I would smother my feelings rather than express my annoyance.
- ___16. I have avoided asking questions for fear of sounding stupid.
- ___17. During an argument I am sometimes afraid that I will get so upset that I will shake all over.
- ___18. If a famed and respected lecturer makes a statement which I think is incorrect, I will have the audience hear my point of view as well.
- ___19. I avoid arguing over prices with clerks and salesmen.
- ___20. When I have done something important or worthwhile, I manage to let others know about it.
- ___21. I am open and frank about my feelings.
- ___22. If someone has been spreading false and bad stories about me, I see him/her as soon as possible to "have a talk" about it.
- ___23. I often have a hard time saying "No."
- ___24. I tend to bottle up my emotions rather than make a scene.
- ___25. I complain about poor service in a restaurant and elsewhere.
- ___26. When I am given a compliment, I sometimes just don't know what to say.
- ___27. If a couple near me in a theatre or at a lecture were conversing rather loudly, I would ask them to be quiet or to take their conversation elsewhere.
- ___28. Anyone attempting to push ahead of me in a line is in for a good battle.
- ___29. I am quick to express an opinion.
- ___30. There are times when I just can't say anything.

APPENDIX H
SPHERES OF CONTROL SCALE

Directions: Indicate your agreement or disagreement with each of the following statements by using the code given below.

1	2	3	4	5	6	7
_____	_____	_____	/_____	/_____	/_____	/_____
Disagree			Agree			

Part A

(Personal Efficacy subscale)

- ___ 1. When I get what I want it's usually because I worked hard for it.
- ___ 2. When I make plans I am almost certain to make them work.
- ___ 3. I prefer games involving some luck over games requiring pure skill.
- ___ 4. I can learn almost anything if I set my mind to it.
- ___ 5. My major accomplishments are entirely due to my hard work and ability.
- ___ 6. I usually don't set goals because I have a hard time following through on them.
- ___ 7. Competition discourages excellence.
- ___ 8. Often people get ahead just by being lucky.
- ___ 9. On any sort of competition or exam I like to know how well I do relative to everyone else.
- ___ 10. It's pointless to work on something that's too difficult for me.

APPENDIX I
SEAS SCALE
(Third Version)

Directions: Indicate your agreement or disagreement with each of the following statements by using the code given below.

Note: Some of the items are stated in the negative, so be sure you are using the code correctly. Simply respond to each statement as it is written.

- 1 - strongly agree
- 2 - agree
- 3 - neither agree nor disagree
- 4 - disagree
- 5 - strongly disagree

- n * 1. If a woman asks a man out on a date, she should cover all of the costs involved.
- 2. A woman can be just as capable as a man when it comes to fixing plumbing and electrical problems around the house.
- * 3. Women and men are equally capable of developing close and trusting relationships.
- 4. Women should have just as much right as a man to go to a bar alone.
- 5. Working husbands and wives should equally sacrifice their careers for the sake of home duties.
- 6. It is better that men not enter traditionally female careers.
- 7. Both men and women should be able to ask another person out on a date.
- * 8. Husbands and wives should be equally responsible for the care of their aging parents.
- 9. Employment of women creates problems for the employer.
- 10. It is better that a man earn more money than his wife.
- 11. It is better that men not cry or show emotion openly.
- 12. A man should have the final say in matters concerning his family.

- ___ 13. Boys should be allowed or even encouraged to play with dolls.
- ___ 14. We should encourage "lady-like" behaviour in little girls and "rough and tumble" behaviour in boys.
- ___ 15. Male nurses are not as effective as female nurses.
- ___ 16. Women should generally take the passive role in courtship.
- ___ 17. Men and women generally differ in their desires for challenging work.
- ___ 18. Women should change their names when they marry.
- ___ * 19. Most divorced women get custody of the children because men make poorer parents.
- ___ * 20. Infidelity is more acceptable in men.
- ___ * 21. Just like men, women have to learn how to be parents; being a mother is not instinctive.
- ___ 22. It is better that teachers of preschoolers and other young children be female.
- ___ 23. There are many good reasons why childrens sports are sex-segregated.
- ___ 24. It sounds worse when women swear than when men swear.
- ___ 25. Men should take the initiative in courtship.
- ___ 26. Using terms like "chairperson" instead of "chairman", or "his/her" instead of "his" just complicates things.
- ___ 27. Men should be willing to fight, even physically, for what they believe in.
- ___ * 28. Physical attractiveness should not be more important for women than for men.
- ___ 29. Men need someone to confide in just as much as women do.
- ___ 30. In a family where both spouses are employed, household and child-rearing tasks should be shared equally.
- ___ 31. Women should feel as free to "drop in" on a male friend as a female friend.

- ___ 32. Fathers and mothers should have an equal obligation to spend some leisure time with their children.
- ___ 33. Fathers are not as able as mothers in taking care of their sick children.
- ___ 34. It is worse for a woman to get drunk than for a man to get drunk.
- ___ 35. Women have a greater ability than do men in forming lasting relationships.
- ___ 36. Preschool-age children are likely to suffer if their mothers work outside of the home.
- ___ * 37. Women should be allowed to become priests.
- ___ * 38. Men can be just as caring, nurturant, and sensitive as women.
- ___ 39. The entry of women into traditionally male jobs should be discouraged.
- ___ 40. Men make better employees because they are more stable.
- ___ * 41. Men and women hired for a particular job (even such as law enforcement or the armed forces) should have the same job duties.
- ___ 42. Men should make career and financial success the top priority in their lives.

AGE: _____ SEX: M F

OCCUPATION: _____

EDUCATION (HIGHEST LEVEL ATTAINED TO DATE):

	GRADE/LEVEL/YEAR	(e.g. grade 8, 10, 12, or 3rd year university)
GRADESCHOOL	_____	
HIGHSCHOOL	_____	
COLLEGE	_____	
UNIVERSITY	_____	MAJOR _____

Do you consider yourself to be religious?: yes no

What faith?: _____

How often do you attend church services per month?: _____

Do you plan to undertake graduate studies?: yes no undecided

If you have any comments please feel free to use the back of this sheet.

THANK YOU FOR YOUR ASSISTANCE

Note: * - Items withdrawn after t-tests and factor-analyses.
Remaining 32 items comprise the version of the scale used to test the main hypotheses and to perform the supplementary analyses.

n - The one item added to the scale prior to testing.

APPENDIX J
CONSENT FORM

This research is to be used for a Master of Arts degree at Lakehead University. Its purpose is to explore various aspects of assertiveness in University students.

You will be asked to complete three questionnaires which will take no more than one hour to complete. It is your opinion in which we are interested so please respond honestly and quickly; dwelling on each item is not necessary.

You are under no obligation to participate and are free to deny consent if you so desire. You are also completely free to discontinue participation at any time.

Your test scores will be kept strictly confidential and results will be reported on a group basis only. Those interested in the overall results should watch for a posting in this regard. It will appear on the board outside of the Psychology office in the fall of 1992.

Susan E. Sajna
Graduate Student

I have read this form and understand the procedure to be used and consent to participate in this research. I also understand that I am free to withdraw from this study at any time.

Signature (Or initials + last
 5 digits of student
 I.D. number) Date

Table 1

Pearson Intercorrelations among Interpersonal Control, Personal Efficacy (PE), Sociopolitical Control (SP), SEAS Scale Scores (SEAS), and Rathus Assertiveness Scores (RAS)

Source	IP	PE	SP	SEAS	RAS
IP	-	.35***	.23***	.13	.64**
PE			.14	.12	.36**
SP				.21***	.14
SEAS					.17*

Note. $N = 240$.

* $p < .05$, one-tailed. ** $p < .01$, one-tailed.

*** $p < .001$, one-tailed.

Table 2

Pearson Intercorrelations among Interpersonal Control, Personal Efficacy (PE), Sociopolitical Control (SP), SEAS Scale Scores (SEAS), and Rathus Assertiveness Scores (RAS) for Females

Source	IP	PE	SP	SEAS	RAS
IP	-	.32***	.26***	.23***	.65***
PE			.13	.18**	.33***
SP				.23***	.16*
SEAS					.24***

Note. $n = 191$.

* $p < .05$, one tailed. ** $p < .01$, one-tailed.

*** $p < .001$, one-tailed.

Table 3

Pearson Intercorrelations among Interpersonal Control, Personal Efficacy (PE), Sociopolitical Control (SP), SEAS Scale Scores (SEAS), and Rathus Assertiveness Scores (RAS) for Males

Source	IP	PE	SP	SEAS	RAS
IP	-	.43*	.20	-.03	.59**
PE			.20	.05	.42*
SP				.12	.15
SEAS					.19

Note. $n = 48$.

* $p < .01$, one-tailed. ** $p < .001$, one-tailed.

Table 4

Moderated Regression Results on RAS^a for the SEAS^b by LOC^c Interactions

Total Sample ^g				
Source	<u>R² Change</u>	<u>F</u>	<u>Beta</u>	<u>t</u>
SEAS x PE ^d	.01	2.42	.14	1.56
SEAS x IP ^e	.00	.67	.04	.82
SEAS x SP ^f	.00	.28	-.03	-.53
Females ^h				
Source	<u>R² Change</u>	<u>F</u>	<u>Beta</u>	<u>t</u>
SEAS x PE	.02	4.53*	.15	2.13*
SEAS x IP	.00	.29	.03	.54
SEAS x SP	.01	1.55	-.09	-1.25
Males ⁱ				
Source	<u>R² Change</u>	<u>F</u>	<u>Beta</u>	<u>t</u>
SEAS x PE	.02	1.06	.16	1.03
SEAS x IP	.04	3.12	.23	1.77
SEAS x SP	.01	.66	.13	.81

Note. ^gN = 242. ^hn = 191. ⁱn = 48.

^aRAS = Rathus Assertiveness Schedule

^bSEAS = Egalitarianism.

^cLOC = Locus of Control divided into three realms:
PE, IP, and SP.

^dPE = Personal Efficacy.

^eIP = Interpersonal Control.

^fSP = Sociopolitical Control.

*p<.05.

Table 5

Pearson Correlations of SEAS Scores^a and Locus of Control
Subscales with RAS Scores^b

Group	Interpersonal Control	Personal Efficacy	Sociopolitical Control	SEAS Scores
Total Sample (<u>N</u> = 240)	.64***	.36***	.14	.17**
Total Females (<u>n</u> = 191)	.64***	.33***	.16	.24***
Total Males (<u>n</u> = 49)	.59***	.42**	.19	.19
Egalitarian Females (<u>n</u> = 96)	.68***	.43***	.07	.21
Traditional Females (<u>n</u> = 95)	.58***	.10	.25**	.13
Egalitarian Males (<u>n</u> = 25)	.65***	.43*	.27	.27
Traditional Males (<u>n</u> = 24)	.51**	.42*	-.07	.33

Note. Egalitarian and Traditional subgroups determined by median split on SEAS Scale scores for men and women.

^aSEAS Scores = Egalitarianism.

^bRAS Scores = Rathus Assertiveness Schedule scores.

* $p < .05$, one-tailed. ** $p < .01$, one-tailed.

*** $p < .001$, one-tailed.

Table 6

Pearson Correlations of SEAS Scale Scores^a and Locus of Control Subscales^b with RAS Scores^c for Female and Male Traditional and Egalitarian Subgroups

Group	Interpersonal Control	Personal Efficacy	Sociopolitical Control	SEAS Scores

Females				
First Quartile ^d (<u>n</u> = 52)	.58***	.05	.25	.02
Second Quartile ^e (<u>n</u> = 43)	.52***	.14	.22	.05
Third Quartile ^f (<u>n</u> = 46)	.68***	.31*	.10	.16
Fourth Quartile ^g (<u>n</u> = 50)	.66***	.49***	-.07	.02

Males				
Lower Third ^h (<u>n</u> = 15)	.45*	.60**	-.06	.13
Middle Third ⁱ (<u>n</u> = 18)	.62**	.20	.00	-.47*
Upper Third ^j (<u>n</u> = 15)	.70**	.61**	.34	.16

Note. RAS (assertiveness) is the criterion variable.

^aSEAS Scale Scores - Egalitarianism.

^bLocus of Control Subscales - Personal Efficacy, Interpersonal Control, Sociopolitical Control.

^cRAS Scores - Rathus Assertiveness Schedule Scores.

^dFirst Quartile Females (High Traditional)
- SEAS Scores < 3.72.

^eSecond Quartile Females (Low Traditional)
- SEAS Scores 3.72 to 3.89.

^fThird Quartile Females (Low Egalitarian)
- SEAS Scores 3.90 to 4.19.

^gFourth Quartile Females (High Egalitarian)
- SEAS Scores 4.19+.

^hLower Third Males (Traditional) - SEAS Scores < 3.47.

ⁱMiddle Third Males (Intermediate) - SEAS Scores 3.47 to 3.89.

^jUpper Third Males (Egalitarian) - SEAS Scores 3.90+.

* $p < .05$, one-tailed. ** $p < .01$, one-tailed. *** $p < .001$, one-tailed.

Table 7

Univariate F-Test Results for Egalitarian and Traditional Subjects

Source	Means		F
	Egalitarian ^a	Traditional ^b	
Rathus Assertiveness Schedule Scores	3.56	3.17	5.98*
Personal efficacy	5.20	4.94	4.50*
Interpersonal Control	4.89	4.59	3.13
Sociopolitical Control	4.39	3.84	11.58**

Note. df = (1, 116) for all comparisons.

^aEgalitarian (n = 60) - fourth quartile of SEAS Scale distribution for the total sample.

^bTraditional (n = 58) - first quartile of the SEAS Scale distribution for the total sample.

*p<.05. **p<.001.

Table 8

Univariate F-Test Results for Egalitarian and Traditional Women

Source	Means		F
	Egalitarian ^a Women	Traditional ^b Women	
Rathus Assertiveness Schedule Scores	3.51	2.88	12.85***
Personal Efficacy	5.19	4.88	6.49*
Interpersonal Control	4.90	4.38	9.14**
Sociopolitical Control	4.45	3.87	11.93***

Note. df = (1, 100) for all comparisons.

^aEgalitarian (n = 50) - fourth quartile of the SEAS Scale distribution for women.

^bTraditional (n = 52) - first quartile of the SEAS Scale distribution for women.

*p<.05. **p<.01. ***p<.001.

Table 9

Univariate F-Test Results for Egalitarian and Traditional Men

Source	Means		F
	Egalitarian ^a Men	Traditional ^b Men	
Rathus Assertiveness Schedule Scores	3.80	3.44	1.78
Personal Efficacy	5.23	5.19	.02
Interpersonal Control	4.94	4.97	.01
Sociopolitical Control	4.24	3.87	1.19

Note. df = (1, 28) for all comparisons.

^aEgalitarian (n = 15) - upper third of the SEAS Scale distribution for men.

^bTraditional (n = 15) - lower third of the SEAS Scale distribution for men.

Table 10

Univariate F-Test Results for Overall Male and Female Scores

Source	Means		<u>F</u>
	Females ^a	Males ^b	
SEAS Scale Scores	3.90	3.66	11.23***
Rathus Assertiveness Scale Scores	3.17	3.62	11.61***
Personal Efficacy	5.01	5.19	.11
Interpersonal Control	4.67	4.96	4.32*
Sociopolitical Control	4.10	3.93	1.43

Note. df = (1, 239) for Seas Scale Scores and (1, 238) for all other comparisons.

^an = 192. ^bn = 48.

*p < .05. ***p < .001.

Table 11

Univariate F-Test Results for Egalitarian Female and Overall Male Scores

Source	Means		F
	Egalitarian Females ^a	Overall Males ^b	
Rathus Assertiveness Schedule Scores	3.51	3.63	.46
Personal Efficacy	5.19	5.17	.04
Interpersonal Control	4.91	4.96	.07
Sociopolitical Control	4.45	3.93	7.58*

Note. df = (1, 96) for all comparisons.

^an = 50 - fourth quartile of the SEAS Scale scores for women.

^bn = 48 - total male sample.

*p < .01.

Table 12

Univariate F-Test Results for Egalitarian Women and
Egalitarian Men

Source	Means		F
	Egalitarian Females ^a	Egalitarian Males ^b	
Rathus Assertiveness Schedule Scores	3.51	3.80	1.14
Personal Efficacy	5.20	5.23	.02
Interpersonal Control	4.91	4.95	.02
Sociopolitical Control	4.45	4.24	.55

Note. df = (1, 63) for all comparisons.

^an = 50 - fourth quartile of the SEAS Scale distribution for women.

^bn = 15 - upper third of the SEAS Scale distribution for men.

p > .05 for all comparisons.

Table 13

Univariate F-Test Results for Traditional Men and Traditional Women

Source	Means		F
	Traditional Females ^a	Traditional Males ^b	
Rathus Assertiveness Schedule Scores	2.89	3.44	6.54**
Personal Efficacy	4.88	5.19	3.80*
Interpersonal Control	4.38	4.97	7.69**
Sociopolitical Control	3.87	3.87	.00

Note. df = (1, 65) for all comparisons.

^an = 52 - first quartile of the SEAS Scale distribution for females.

^bn = 15 - first third of the SEAS Scale distribution for men.

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

Table 14

Descriptive Statistics on Egalitarianism as Assessed
by using the SEAS Scale

Group	<u>n</u>	Mean Score	Standard Deviation	Minimum Score	Maximum Score
Overall Sample	240	3.86	.48	1.9	4.75
Males	48	3.66	.57	1.9	4.72
Traditional Males	15	3.05	.38	1.9	3.41
Egalitarian Males	15	4.31	.29	3.91	4.72
Females	192	3.92	.44	2.28	4.75
Traditional Females	52	3.39	.34	2.28	3.69
Egalitarian Females	50	4.44	.17	4.22	4.75

Note. Egalitarian and Traditional subgroups were determined by upper and lower quartile SEAS Scores for the females, and upper and lower thirds for the males.

Table 15

Descriptive Statistics for Assertiveness as Measured by
the Rathus Assertiveness Schedule

Group	<u>n</u>	Mean Score	Standard Deviation	Minimum Score	Maximum Score
Overall Sample	240	3.26	.86	1.23	5.41
Males	48	3.62	.71	2.33	5.20
Traditional Males	15	3.44	.63	2.33	4.53
Egalitarian Males	15	3.80	.85	2.67	5.23
Females	192	3.17	.86	1.23	5.77
Traditional Females	52	2.88	.76	1.23	4.63
Egalitarian Females	50	3.51	.97	1.23	5.77

Note. Egalitarian and Traditional subgroups were determined by upper and lower quartile SEAS Scores for the females, and upper and lower thirds for the males.

Table 16

Descriptive Statistics for Personal Efficacy as Measured
by the Spheres of Control Subscale

Group	<u>n</u>	Mean Score	Standard Deviation	Minimum Score	Maximum Score
Overall Sample	240	5.04	.65	2.9	6.6
Males	48	5.17	.65	3.2	6.3
Traditional Males	15	5.19	.66	3.2	5.9
Egalitarian Males	15	5.23	.57	4.4	6.2
Females	192	5.01	.65	2.9	6.6
Traditional Females	52	4.88	.51	3.7	5.7
Egalitarian Females	50	5.19	.72	3.8	6.6

Note. Egalitarian and Traditional subgroups were determined by upper and lower quartile SEAS Scores for the females, and upper and lower thirds for the males.

Table 17

Descriptive Statistics for Interpersonal Control as Measured by the Spheres of Control Subscale

Group	<u>n</u>	Mean Score	Standard Deviation	Minimum Score	Maximum Score
Overall Sample	240	4.73	.88	1.2	6.8
Males	48	4.96	.89	3.3	6.8
Traditional Males	15	4.97	.76	3.8	6.2
Egalitarian Males	15	4.95	.90	3.7	6.8
Females	192	4.67	.86	1.2	6.6
Traditional Females	52	4.38	.72	2.5	5.8
Egalitarian Females	50	4.91	1.02	2.6	6.6

Note. Egalitarian and Traditional subgroups were determined by upper and lower quartile SEAS Scores for the females, and upper and lower thirds for the males.

Table 18

Descriptive Statistics for Sociopolitical Control as Measured by the Spheres of Control Subscale

Group	<u>n</u>	Mean Score	Standard Deviation	Minimum Score	Maximum Score
Overall Sample	242	4.06	.88	1.6	6.7
Males	48	3.93	.93	1.6	5.9
Traditional Males	15	3.87	.76	2.7	5.2
Egalitarian Males	15	4.24	1.06	1.6	5.9
Females	192	4.10	.87	1.6	6.7
Traditional Females	52	3.87	.74	1.6	5.4
Egalitarian Females	50	4.45	.95	2.5	6.7

Note. Egalitarian and Traditional subgroups were determined by upper and lower quartile SEAS Scores for the females, and upper and lower thirds for the males.

Table 19

Descriptive Statistics on Subject Age in Years

Group	<u>n</u>	Mean Score	Standard Deviation	Minimum Score	Maximum Score
Overall Sample	242	24.66	7.77	18	70
Males	48	26.15	8.36	18	45
Traditional Males	15	24.13	8.24	19	45
Egalitarian Males	15	28.20	8.26	19	44
Females	192	24.32	7.60	18	70
Traditional Females	52	23.31	8.57	18	70
Egalitarian Females	50	25.16	7.73	18	54

Note. Egalitarian and Traditional subgroups were determined by upper and lower quartile SEAS Scores for the females, and upper and lower thirds for the males.

Figure 1
Regression lines for RAS on PE for different levels of SEAS

