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SELF-REPORT ASSESSMENT OF PERSONALITY TRAITS

DATA FROM THE KSP INVENTORY ON A REPRESENTATIVE SAMPLE OF NORMAL MALE AND FEMALE SUBJECTS WITHIN A DEVELOPMENTAL PROJECT

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ABSTRACT

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ment of personality traits. Data from the KSP inventory on a represen-
tative sample of normal male and female subjects within a developmental
project.* Report from the research program 'Individual Development and
Adjustment' (IDA), Department of Psychology, University of Stockholm,
1986, No. 64. - The KSP inventory was applied to two groups of normal
male and female subjects, one group of high-school students and one
representative sample of young adults, within the developmental project
'Individual Development and Adjustment', IDA. The purpose of this re-
port is to present descriptive statistics of the two groups and some
results from multivariate analyses of the data from the representative
adult group in order to study response patterns in the KSP inventory.
A dimensional description and an individual-related classification of
personality syndroms are presented, separately for male and female sub-
jects. The possible implications of the personality profiles in terms
of disposition for different types of psychopathology are discussed.

CONTENT

THE DEVELOPMENT OF THE KSP INVENTORY*

Introduction

The Karolinska Scales of Personality - the KSP inventory - should
be regarded primarily as instruments for operationalizing theoretical
constructs which appear promising for psychobiological research.

Different versions of these scales have been constructed and
tested during a period of 20 years of collaborative research at the
Department of Psychiatry and Psychology of the Karolinska Institute,
and at the Department of Psychology of the University of Stockholm,
under the direction of Daisy Schalling. The research has been performed
in collaboration with specialists from many fields - psychiatry, en-
docrinology, pharmacology, biochemistry, and internal and social medi-
cine. Among close collaborators are two psychologists, Gunnar Edman and
Birgitta Tobisson, and two psychiatrists, the late professor Börje Cron-
holm and professor Marie Åsberg. Professor Hans Bergman has provided
data on large random samples on which norms for T-score transformation
are calculated.

The intentional delay in providing a manual for this inventory is
due to the ambition to keep it flexible and allowing changes in interpre-
tation, possibly also in the item pool, on the basis of accumulated expe-
rience. A manual is now in preparation (Schalling & Edman, 1986). The
scales are mainly research instruments.

General background - the inventory method

Self-report personality inventories are standardized yardsticks for
quantifying individual differences in habitual overt behavior, preferen-
ces, cognitive style and situational reactivity. Inventories have been
criticized on many grounds - e g fakability of response, influence of
response styles, lack of insight about one's own motives and emotions,
differing dimensionality obtained with different instruments. Nunally
(1978) finds that most of the critique has been overstated. For instance,

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* This part of the report was prepared by professor D. Schalling, to
appear in a manual to be published.

the concerns about inventory scores being determined by response styles
have proved to be largely false alarms. Nunally (1978, p. 561) concludes
that personality inventories represent "the best general approach cur-
rently available to measuring personality characteristics".

However, the inventory technique has many difficulties. There are
semantic problems both in constructing items to communicate meaning to
the subjects, as well as in communicating results in terms of scale names.
Further, the best technique for selecting items for scales is a matter
of debate. One of the most common inventories, MMPI (Minnesota Multi-
phasic Personality Inventory) was developed with the purpose of diagnos-
ing psychiatric patients, and items were selected and combined to scales
on the basis of their power to differentiate between diagnostic groups
and controls - the so called 'empirical' approach. Many inventory scales
have been constructed on the basis of item factor analysis, e g Cattell
16 Personality Factors (16PF) Inventory and the California Personality
Inventory (CPI). However, Nunally (1978) warns against the use of factor
analysis at the item level, stating that "overuse of factor analysis with
conglomerate collections of inventory items has lead to a statistical
mess" (p. 556). The Cattell scales have a poor record in efforts to re-
plicate the item loadings in the different scales (Horwarth & Browne,
1971). According to Nunally it would be more efficient to "hypothesize
and construct whole tests relating to personality", possibly checking
by intercorrelating small groupings of items. The Eysenck Personality
Inventory (EPI) was based on theoretical constructs derived from psychi-
atric classification, using factor analysis for control, not for 'dis-
covery' of factors.

Theories and aims in the development of the KSP inventory

The incitament for the development of the KSP inventory has been the
need for quantifying some theoretically important constructs, used as
means of exploring and understanding the complicated relationships be-
tween individual differences in behavior, and affectivity, and function-
ing in the underlying biological substrates. More specifically, the
aim was to measure personality correlates as well as biological corre-
lates of some psychiatric disorders, in order to define vulnerability
factors which might help to identify individuals at risk and under-
stand interaction patterns between disposition and situation in the gene-
sis of mental disorder.

In research projects carried out by Schalling and collaborators, psychophysiological, neurochemical and neuropsychological techniques have been applied in studies on healthy subjects and on certain groups of psychiatric patients - psychopathic, schizophrenic, and suicidal patients as well as patients suffering from depression and anxiety states. The KSP scales have been developed to cover specific areas of importance for these research projects. It is not intended to cover "the whole personality", in contrast to many other personality inventories (Cattell, Eber, & Tatsuoka, 1970; McCrae & Costa, 1985a).

The KSP items have been formulated (or selected from available scales) on the basis of assumptions regarding the main vulnerability dimensions underlying the disorders under study.

Extraversion components and the KSP Impulsiveness, Monotony avoidance, and Detachment scales

In the initial psychopathy research (for reviews, see Schalling, 1970, 1978), two published inventories were used: the Eysenck Personality Inventory (EPI, Eysenck & Eysenck, 1975) and the Marke Nyman Temperament (MNT) Inventory (Nyman & Marke, 1962), based on the Sjöbring personality model (Sjöbring, 1973). The Eysenck EPI extraversion dimension is a second order factor comprising two components, impulsivity and sociability. Subscales were constructed to measure separately these components. These scales proved to be dissociated in their relations to some external criteria (e g Schalling & Holmberg, 1970). Interestingly, the Sociability subscale was consistently negatively correlated with the MNT Stability scale, whereas the Impulsivity subscale was inversely related to the MNT Solidity scale in several studies. Solidity and Stability also differed in their relations with neuropsychological and biological variables. Low Solidity was consistently associated with ratings of psychopathy, and with high scores in a psychopathy scale, the Gough Delinquency scale (later shortened and modified, with inversed scoring, forming the *Socialization*, So, scale in the KSP).

Cluster and content analyses of items in the Solidity scale suggested two main traits, one referring to impulsive behavior, preference for speed rather than accuracy, and carefreeness, the other to thrill-seeking and need for change. The latter had similarities with the Sensation Seeking

scale (Zuckerman, 1979). It was thus decided to construct two separate scales, one for impulsivity, the *Impulsiveness* (I) scale and one for thrill-seeking, the *Monotony avoidance* (M) scale (see Schalling & Edman, 1986). These scales have since undergone four different versions, based on careful psychometric analyses, comprising item-scale correlations, cluster-analyses, response proportion controls, homogeneity analyses, and group differentiation on scale and item levels. For a description of the last version, see Schalling and Edman (1986).

The MNT Stability scale, inversely related to sociability, proved to be *positively* correlated with estimates of psychopathy, and criminality in our studies, although the association was weaker than that for Solidity. In a later phase, the Stability scale was subjected to psychometric analyses, items were modified and a new scale was constructed on the basis of this work, called the *Detachment* (De) scale, assumed to be related to a separate syndrome within psychopathy, the schizoid or withdrawn type (see Schalling, 1978). This scale has not yet been sufficiently validated against various diagnostic and biological criteria.

A two-factor model for anxiety and the development of the KSP anxiety scales

The next phase in the development of the KSP scales is associated with a research project concerned with constructs of anxiety and their measurement. Trait anxiety, or anxiety-proneness, is assumed to be a vulnerability factor for anxiety states and depression. In preliminary studies on psychiatric patients and normal subjects, the Manifest Anxiety scale and some other published anxiety scales were applied. However, rating studies on psychiatric patients (e g Buss, 1962) seemed to indicate that it is fruitful to differentiate between different types of anxiety. A study by Schalling, Cronholm, Asberg and Espmark (1973) supported this assumption using a modified version of the Buss anxiety rating scale. However, it was also found that type of anxiety was related to personality, somatic anxiety symptoms and diffuse distress being more common in low Solidity patients. An analysis of these anxiety constructs and their possibly different biological basis was presented as a two factor theory of anxiety (Schalling, Cronholm, & Asberg, 1975). Trait anxiety scales were constructed along these lines. Items concerned with autonomic symptoms (e.g. palpitations), concentration difficulties,

and vague distress and panic attacks were brought together into a scale of *Somatic anxiety* (SA). Items concerned with worrying, anticipation anxiety, insecurity and social anxiety formed another scale, called *Psychic Anxiety* (PA). In the first versions of this scale, some muscular tension items were included, but after psychometric analyses these were removed and were placed in a separate scale, the *Muscular Tension* (MT) scale, together with other similar items concerned with trembling, feeling stiff, gnashing jaws, and tenseness in the muscles.

Further studies of these scales in the different versions, the present being the fourth, on normal subjects and patient groups have suggested that contrary to the assumptions by Buss, the Somatic Anxiety and Muscular Tension scales were more highly correlated than either of them with Psychic Anxiety. The Somatic Anxiety and Psychic Anxiety scales showed a different pattern of relationships with other personality scales, as well as with psychopathy-related scales (Schalling & Edman, 1986). The latter were characterized by higher correlations with Somatic Anxiety, as suggested by the two factor anxiety theory (Schalling, 1978). As expected, all anxiety scales were related to Neuroticism in the Eysenck inventory, and inversely related to an MNT scale, Validity. Low scores in Validity are assumed to characterize psychasthenic neurotic patients. On the basis of psychometric analyses of the Validity items, as well as other psychasthenia scales (MMPI), items were formulated and combined into a new KSP scale, the *Psychasthenia* (Pt) scale with inversed scoring as compared to Validity. In a factor analysis of scales (Schalling, Edman, & Asberg, 1983) it had a rather high loading in a factor identified as a cognitive-social anxiety factor, as well as in an instability - neuroticism factor.

Aggressivity and social desirability

Aggression is a construct of great importance in psychiatric research, both empirically and theoretically. Freud and many other biologically oriented theorists give aggression a role in the genesis of psychiatric disorders, e g depression, suicide, and psychopathic violence. In research on relations between hypertension and personality, suppressed anger has played an important role all since the earliest psychosomatic theories. There is a current renewal of interest in aggression in relation to research on monoamines. Dysfunction in the serotonin system has

been associated with repeated acts of violence, as well as with Rorschach Hostility scores (Rydin, Schalling, & Asberg, 1982).

Since some of our studies were concerned with disorders possibly related to aggression (psychopathy, bruxism, hypertension) it was decided to include aggressivity scales in the KSP although the possibility of obtaining valid data by self-report in this field appeared questionable. The most commonly used aggression scales are those published by Buss (1961). A selection was made among items in those of the Buss scales which were judged applicable to a Swedish patient population. Five items were selected from each of three scales in the Buss Aggression factor (*Indirect Aggression*, IA, *Verbal Aggression*, VA, and *Irritability*, Irr) and two scales included in the Hostility factor (*Suspicion*, S , and *Guilt*, G), all having loadings above .40. These items were tested on various groups and modified.

Another scale which has less direct connection with aggression is the *Inhibition of aggression* (Inh) scale, which is assumed to assess tendencies to suppress anger and to be unable to assert oneself. The construct has been influenced by the concept of 'eridophobia' (Jacobsen, 1965), a syndrome of personality characteristics which includes anti-aggressive traits and sensitivity to expression of aggression and violence. This syndrome was found by Jacobsen to be markedly increased in anxiety states. Some of the items for the Inhibition of aggression scale were selected from assertiveness training scales (e g Wolpe & Lazarus, 1966) and modified. New items were constructed in accordance with the eridophobia construct. It is of interest that this scale had high loadings in the Cognitive-social anxiety factor (together with the Psychic anxiety scale and the Psychasthenia scale) in the factor analysis of scales described above (Schalling et al, 1983). It had no loadings in the factor in which the aggression scales have loadings.

Since the debate regarding the possible influence of response styles on inventory scores, it has become common to include in inventories a control scale in which responses may be assumed to be determined largely by a desire to respond in a socially approved, desirable way. Crowne and Marlow (1964) published a 33-item social desirability scale. The items were chosen on the basis of ratings of their social desirability.

They mainly concern an exemplary behavior with others, e g never lying, always being helpful, a good listener, pretending willingness to admit mistakes etc. Fifteen items similar to the ones in this scale were initially constructed and tried in a series of studies. On the basis of item analyses, ten items were selected for the *Social Desirability* (SD) scale for the last version of KSP. The only scales in the KSP which have consistently been significantly correlated with the Social Desirability scale are the aggression scales.

Some psychometric properties of the KSP scales

As described above, the different scales included in the KSP have been constructed at different times and for somewhat different purposes. The basic scales, Impulsiveness, Monotony avoidance and Socialization, and Somatic Anxiety, Muscular Tension and Psychic Anxiety have been thoroghly analysed with regard to item properties, reliability and validity. Data regarding the remaining scales are still being analysed. The response format in KSP is a four point scale, from 'Does not apply at all' (1) to 'Applies completely' (4). The multi-response format for scale construction appears to have clear advantages (Velicer & Stevenson, 1978). Each scale consists of 10 items, with the exception of Socialization (20 items), and the five scales from factor Aggression and factor Hostility with each five items. Items included in each scale in the KSP questionnaire are presented in Appendix A. The present norms for the KSP inventory are based on data collected by H. Bergman on an age-stratified (range 20 - 65 yrs) random sample of 228 men and 240 women from a suburb near Stockholm. The drop-out rate was low (10 - 15%). On the basis of these data, T-score transformations have been computed.

As described above, the items were mainly selected on the basis of theoretical considerations, i e their consistency with the central construct or syndrome that the scale was intended to estimate. Earlier versions of the scales comprised more items, from which after repeated psychometric analyses those were chosen that appeared to have desirable characteristics, e g proper correlations with its own scale and not too high with others. A most important point was that the main content clusters should be properly represented also in the shortened scale.

Validity of the KSP scales

The KSP inventory has been used in a large number of studies both on healthy subjects and on patients with various psychiatric and psychosomatic disorders. Furthermore, the scales have been correlated with relevant neuropsychological and biological variables, associated with activity in various systems, e g hormones, neurotransmitters or cardiovascular reactivity assumed to be involved in vulnerability for psychiatric or psychosomatic disorders. Reviews of these studies have been given by Schalling (1977, 1978, 1985; Schalling & Edman, 1986; Schalling & Asberg, 1985; Schalling et al., 1975, 1983).

Summing up some of the main findings, there are interesting correlations between testosterone in plasma and Monotony avoidance. Impulsiveness, Monotony avoidance and deficient Socialization are negatively related to platelet MAO activity, and to serotonin metabolite concentrations in the cerebro-spinal fluid in patient groups.

The anxiety scales have in several studies differentiated between anxiety patients and psychosomatic patients, and controls, also on the item level. Hypertensive young men have higher scores than normotensive in anxiety scales and the Inhibition of aggression scale. Patients having made violent suicide attempts have shown high scores in Somatic Anxiety, Impulsiveness, and Monotony avoidance, and low scores in Socialization. The same is true for delinquents and for psychopathic subjects.

Several large scale studies involving the KSP inventory have been made by researchers in the Department of Psychiatry in Umeå (Perris, von Knorring, and others). They have shown that the KSP scales discriminate between depressed patients and controls, with a high degree of specificity and sensitivity (von Knorring, Perris, Eisemann, & Perris, 1984). Interestingly, most scales have shown stability in scores obtained during depression and after recovery, which supports assumptions of their trait character as vulnerability markers. Finally, alcoholic patients and also young men with alcohol overconsumption have shown a characteristic profile with high scores in Impulsiveness, Monotony avoidance, and Somatic Anxiety.

APPLICATIONS OF THE KSP INVENTORY ON SUBJECT GROUPS IN A DEVELOPMENTAL
PROJECT

The KSP inventory has been applied on two groups of normal male
and female subjects within the developmental project 'Individual
Development and Adjustment' IDA (Magnusson, Dunér, & Zetterblom, 1975).
The purpose of this report is to present descriptive statistics of the
two groups and some results from multivariate analyses of the data from
the representative adult group.

Subjects

Within the longitudinal research program 'Individual Development
and Adjustment' IDA (Magnusson, Dunér & Zetterblom, 1975) a sample of
252 children were studied intensively with both psychological and biolo-
gical methods. This sample can be considered as representative of all
children in the total group. The specific investigation group employed
in the following analyses is defined as those male and female subjects
for whom data from adult self-report personality scales are available.
This group consisted of 82 male and 87 female subjects (that is 67% of
the original sample). The mean age for male subjects was 26.7 yrs
(range 26.1 to 28.0 yrs) and for female subjects 26.6 yrs (range 26.0
to 27.3 yrs). For information about the selection routin and the exa-
mination procedure, see Backenroth, Magnusson, and Dunér (1983). A
study of the drop-out at adult age has not indicated any drop-out bias
(Bergman & Magnusson, 1983).

Another group, consisting of all pupils attending third year at
high-school in a central Swedish town in 1974, had filled in some of the
KSP scales; the psychopathy-related scales Impulsiveness, Monotony avoi-
dance, and Socialization, the anxiety-related scales Somatic Anxiety,
Muscular Tension, and Psychic Anxiety, and finally the Social Desirabi-
lity scale. The results are shortly presented here. This population
consisted of 418 pupils and 409 of those participated (for a detailed
description, see Stattin, 1975).

Results

The high-school group

In the high-school group all pupils had not filled in all items in
all scales. In order to save information, data on the group presented
in this report were based on an accepted maximum omission of 1/3 of item
responses in each scale and corrected for that (with the mean of answered
items and multiplied by number of items in the actual scale). All indivi-
duals having a more extensive loss of information were deleted from the
analyses. This procedure caused a subject drop-out of three pupils (they
had not answered 2/3 of the items of one or more scales) and the final
investigation group consisted of 406 subjects (241 males and 165 females).
Means, T-scores, and standard deviations for the seven completed scales
and one composite scale of the KSP, presented separately for male and
female subjects, and results of two-tailed t-tests of sex differences
in those scales, are presented in Table 1. For an explanation of the T-
scores, see page 7 . Intercorrelations among the scales are given in
Table 2.

Table 1. Means (M), T-scores, and standard deviations (SD) for KSP scales
          for a group of young male (n=241) and female (n=165) subjects,
          and results of two-tailed t-tests of sex differences in those
          variables.

Personality scale	Males			Females			t
	M	(T)	SD	M	(T)	SD	
Impulsiveness	23.08	(50)	3.39	23.37	(49)	3.82	-.805
Monotony avoidance	25.14	(50)	3.80	25.02	(53)	3.59	.320
Socialization	62.73	(45)	5.20	63.29	(47)	4.53	-1.122
Somatic Anxiety	16.32	(52)	4.22	18.56	(51)	5.00	-4.869***
Muscular Tension	14.44	(50)	3.80	15.59	(48)	4.52	-2.745**
Psychic Anxiety	20.46	(53)	4.63	22.23	(50)	5.64	-3.459***
Social Desirability	25.61	(44)	3.71	25.47	(45)	3.27	.391
MCA	51.26		10.84	56.41		13.77	-4.207***

** $p < .01$ Composite scale MCA = MultiComponent Anxiety
*** $p < .001$

Table 2. Intercorrelations among personality scales from the Karolinska
Scales of Personality (KSP) for a group of young male (n=241,
top-right coefficients) and female (n=165, bottom-left coeffi-
cients) subjects.

Personality scale	1	2	3	4	5	6	7	MCA
1 Impulsiveness		.50	-.37	.30	.22	.22	-.05	.28
2 Monotony avoidance	.38		-.18	.17	.05	.15	-.03	.14
3 Socialization	-.36	-.23		-.57	-.59	-.40	-.01	-.60
4 Somatic Anxiety	.02	.03	-.58		.73	.64	-.20	.92
5 Muscular Tension	.01	-.01	-.49	.77		.46	-.02	.83
6 Psychic Anxiety	-.22	-.09	-.39	.73	.67		-.18	.83
7 Social Desirability	.07	.15	.15	-.15	-.04	-.11		-.16
MCA	-.08	-.03	-.54	.92	.89	.90	-.11	

r >.16, p <.10
r >.20, p <.05
r >.25, p <.01

Data for the high-school group reported earlier are based on those
subjects who had responded to all items in a scale. Means and standard
deviations for the items and for each scale, as well as results of factor
analyses and frequencies of response points at the item level, presented
separately for male and female subjects, are to be found in an earlier
report by Stattin (1975).

The adult group

Data for the adult group were based on complete inventory informa-
tion, as there were no omissions of item responses among the subjects.
Means, T-scores, and standard deviations in the KSP scales, separately
for male and female subjects, as well as results of two-tailed t-tests
of sex differences in those scales, are presented in Table 3. Intercor-
relations among the KSP scales are shown in Table 4.

Frequencies and relative percentage of response alternatives (1 - 4)
as well as means and standard deviations for each item were calculated,
separately for male and female subjects, and two-tailed t-tests of sex
differences in those variables performed. Results of these calculations

are presented in Appendix B, available on request at the Department
of Psychology, University of Stockholm.

Table 3. Means (M), T-scores (T), and standard deviations (SD) for KSP
          scales for a group of male (n=82) and female (n=87) subjects,
          and results of two-tailed t-tests of sex differences in those
          variables.

| Personality | Males | | | Females | | | | |
scale	M	T	SD	M	T	SD	t	p
Impulsiveness	23.9	(53)	4.6	24.0	(50)	4.1	-0.25	.80
Monotony avoidance	24.8	(49)	4.3	23.5	(51)	4.7	1.84	.07
Socialization	64.9	(48)	8.4	66.2	(50)	8.8	-0.97	.33
Somatic Anxiety	16.3	(52)	3.7	16.9	(49)	4.4	-1.09	.28
Muscular Tension	14.9	(51)	4.0	15.7	(48)	4.6	-1.14	.26
Psychic Anxiety	19.4	(51)	4.2	20.7	(47)	4.9	-1.76	.08
Psychasthenia	20.6	(52)	3.6	21.4	(50)	4.1	-1.43	.16
Inhibition of aggression	21.6	(48)	4.0	22.6	(48)	4.2	-1.54	.13
Detachment	22.2	(50)	4.1	18.9	(50)	3.6	5.54	.000
Indirect Aggression	10.9	(49)	2.3	12.7	(50)	2.6	-4.87	.000
Verbal Aggression	13.0	(51)	2.5	13.1	(50)	2.2	-0.15	.88
Irritability	11.1	(51)	2.3	11.3	(49)	1.9	-0.65	.52
Suspicion	9.8	(50)	2.0	8.8	(49)	2.1	3.15	.002
Guilt	10.9	(49)	2.0	11.6	(48)	1.9	-2.46	.02
Social Desirability	26.8	(47)	3.0	27.0	(49)	3.4	-0.49	.62
MCA	50.6		10.3	53.3		12.0	-1.55	.12
AGGR	35.0		5.6	37.1		5.2	-2.51	.01
HOST	20.7		3.2	20.4		3.2	0.49	.62

Composite scales: MCA = MultiComponent Anxiety,
                  AGGR = sum of Indirect Aggression, Verbal Aggression and Irritability
                  HOST = sum of Suspicion and Guilt

     The size of the group was too small for factor analysis to be per-
formed on this sample at the item level, considering the large number of
items (135) in the total KSP.

Results presented in the following refer to the adult group.

Table 4. Intercorrelations among personality scales from the Karolinska Scales of Personality (KSP) for a group of male (n=82, top-right coefficients) and female (n=87, bottom-left coefficients) subjects.

Personality scale	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	MCA	AGGR	HOST
1 I		.46	-.50	.34	.17	.10	.18	-.02	.10	.20	.27	.44	.35	.18	-.20	.23	.38	.33
2 M	.59		-.36	.25	.04	-.08	-.10	-.20	-.16	.11	.16	.25	.16	.08	-.14	.07	.22	.15
3 So	-.32	-.30		-.58	-.41	-.42	-.32	-.15	-.23	-.43	-.15	-.54	-.48	-.29	.48	-.54	-.47	-.48
4 SA	.16	.10	-.54		.75	.67	.62	.30	.27	.30	.09	.48	.46	.36	-.36	.92	.36	.51
5 MT	.07	.10	-.56	.74		.47	.49	.08	.28	.08	.05	.27	.30	.24	-.21	.85	.17	.34
6 PA	-.09	-.12	-.30	.62	.51		.67	.63	.30	.34	.09	.48	.48	.43	-.32	.84	.37	.57
7 Pt	.02	.01	-.40	.57	.49	.65		.35	.25	.33	.03	.45	.40	.31	-.34	.69	.33	.45
8 Inh	-.01	-.11	-.29	.47	.43	.72	.45		.16	.23	-.05	.25	.29	.21	-.17	.39	.17	.31
9 De	-.22	-.26	-.16	.19	.20	.36	.09	.36		.06	-.03	.26	.44	.08	-.28	.33	.12	.33
10 IA	.21	.10	-.32	.35	.30	.14	.30	.01	.16		.43	.56	.29	-.10	-.42	.28	.83	.11
11 VA	.29	.29	-.14	.04	.05	-.22	.01	-.30	-.03	.49		.34	.16	-.03	-.21	.09	.76	.08
12 Irr	.01	.01	-.39	.46	.42	.38	.37	.35	.40	.43	.18		.50	.09	-.44	.47	.79	.37
13 S	-.12	.06	-.44	.42	.46	.35	.31	.37	.42	.25	.10	.31		.27	-.40	.48	.40	.79
14 G	.14	.10	-.20	.32	.30	.35	.35	.38	.04	.10	.05	.22	.33		.01	.39	-.02	.80
15 SD	-.09	-.06	.33	-.20	-.21	-.09	-.24	.01	-.22	-.51	-.44	-.42	-.32	-.21		-.34	-.45	-.25
MCA	.05	.02	-.54	.90	.86	.83	.66	.63	.29	.30	-.06	.49	.48	.37	-.19		.35	.55
AGGR	.23	.17	-.37	.36	.32	.12	.29	-.01	.22	.87	.74	.66	.28	.16	-.60	.31		.23
HOST	.01	.10	-.40	.45	.47	.43	.40	.46	.29	.22	.10	.33	.83	.80	-.33	.52	.27	

Scales: I = Impulsiveness, M = Monotony avoidance, So = Socialization, SA = Somatic Anxiety, MT = Muscular Tension, PA = Psychic Anxiety, Pt = Psychasthenia, Inh = Inhibition of aggression, De = Detachment, IA = Indirect Aggression, VA = Verbal Aggression, Irr = Irritability, S = Suspicion, G = Guilt, and SD = Social Desirability.

Composit scales: MCA = MultiComponent Anxiety, AGGR = sum of IA, VA and Irr, and HOST = sum of S and G.

r >.18, p <.10   r >.28, p <.01
r >.22, p <.05   r >.51, p <.001

Reliability

The internal-consistency reliability (Cronbach-Alpha) for scales from the KSP inventory are presented in Table 5. For the psychopathy- and the anxiety-related scales the reliability coefficients were relatively high and acceptable, whereas for the aggressivity-related scales they were rather low. However, since each of these scales included only five items, each item being chosen in order to cover a specific aspect of the construct central for the scale, they could be expected to yield low internal consistency.

Table 5. Internal-consistency-reliability (Cronbach-Alpha) in scales
from the KSP inventory for male (n=82) and female (n=87)
subjects.

KSP scale	Males (n=82)	Females (n=87)
Impulsiveness	.82	.74
Monotony avoidance	.76	.83
Socialization	.88	.89
Somatic Anxiety	.75	.80
Muscular Tension	.81	.82
Psychic Anxiety	.80	.83
Psychasthenia	.71	.73
Inhibition of aggression	.69	.69
Detachment	.78	.73
Indirect Aggression	.42	.50
Verbal Aggression	.64	.53
Irritability	.65	.38
Suspicion	.47	.53
Guilt	.36	.24
Social Desirability	.55	.63

A dimensional description of personality

Factor analyses according to method PA2, varimax, orthogonal rotation,
in SPSS (Nie, Hull, Jenkins, Steinbrenner, & Bent, 1975, p. 485) were car-
ried out at the scale level for male and female subjects. In this type of
analysis, the main diagonal elements of the correlation matrix are automa-
tically replaced with communality estimates, and an iteration procedure is
employed for improving the estimates of communality. The number of factors
to be chosen was equal to the number of eigen value exceeding 1.0. The
analyses resulted in four components for the male subjects and in three
components for females, explaining 65.9% and 60.5% respectively of the
total variance. These components could be considered as a kind of higher
order factors, which is important to keep in mind when interpreting the
meaning of the factors obtained. The loadings of the scales in the factors
are shown in Table 6 for male and in Table 7 for female subjects.

Table 6. Factor loadings in a factor analysis with iteration (varimax, orthogonal rotation) of scores in the Karolinska Scales of Personality (KSP) for a group of *male subjects* (n=82).

Scale	Factors				Communality
	I	II	III	IV	
Impulsiveness	.05	.11	.24	.66	.51
Monotony avoidance	-.17	-.01	.12	.69	.52
Socialization	-.27	-.33	-.37	-.54	.61
Somatic Anxiety	.41	.70	.18	.34	.80
Muscular Tension	.10	.94	.01	.10	.90
Psychic Anxiety	.83	.40	.20	.01	.88
Psychasthenia	.53	.47	.23	.01	.56
Inhibition of aggression	.68	.02	.12	-.14	.49
Detachment	.26	.28	.14	-.01	.17
Indirect Aggression	.17	.06	.80	.05	.67
Verbal Aggression	-.06	-.01	.46	.17	.24
Irritability	.32	.22	.63	.32	.65
Suspicion	.43	.26	.31	.30	.44
Guilt	.46	.18	-.26	.31	.40
Social Desirability	-.20	-.23	-.50	-.15	.36
Percentage of total variance	35.0	13.7	9.9	7.3	

Male subjects. The four factors for male subjects will be interpreted and compared to the factors obtained with the KSP and other scales in an earlier study (Schalling et al., 1983).

Factor M1: The first factor is defined by Psychic Anxiety, Inhibition of aggression, Psychasthenia and the hostility scales Suspicion and Guilt. It may be identified with Factor II in Schalling et al. (1983) and is denoted *Cognitive-social anxiety*, an anxiety factor referring to self report of worry, antecipatory anxiousness, sensitivity, low self-confidence, hostility, and difficulties in expressing anger.

Factor M2: The second factor is defined by the two psychopathy-related anxiety scales, Somatic Anxiety and Muscular Tension, and by Psychasthenia. It is similar to Factor I in Schalling et al. (1983), although the factor in that study also had high negative loadings for Socialization. Factor M2 in the present data is denoted *Nervous tension and distress* and appears to be mainly a somatic anxiety factor.

Factor M3: The third factor is defined by the three aggression scales, Indirect aggression, Verbal aggression, and Irritability, and by a negative loading for Social Desirability. It is also close to Factor III in Schalling et al. (1983) and is denoted *Aggressive non-conformity*.

Factor M4: The fourth factor is defined by positive loadings for Impulsiveness and Monotony avoidance, by a negative loading for Socialization, and may be regarded as a factor of *Impulsive sensation seeking psychopathy*.

Table 7. Factor loadings in a factor analysis with iteration (varimax orthogonal rotation) of scores in the Karolinska Scales of Personality (KSP) for a group of *female subjects* (n=87).

| Scale | Factors | | | Communality |
	I	II	III	
Impulsiveness	.08	.13	.74	.57
Monotony avoidance	.05	.12	.72	.54
Socialization	-.56	-.32	-.28	.49
Somatic Anxiety	.79	.19	.12	.67
Muscular Tension	.72	.21	.08	.57
Psychic Anxiety	.83	-.08	-.23	.75
Psychasthenia	.67	.14	.01	.46
Inhibition of aggression	.75	-.18	-.19	.63
Detachment	.31	.24	-.45	.36
Indirect Aggression	.21	.69	.09	.52
Verbal Aggression	-.16	.68	.29	.57
Irritability	.48	.46	-.15	.47
Suspicion	.50	.31	-.14	.37
Guilt	.44	.08	.08	.20
Social Desirability	-.16	-.70	.03	.52
Percentage of total variance	32.9	16.5	11.1	

Female subjects. The corresponding components in the factor analysis
for female subjects cannot be directly compared to the Schalling et al.
(1983) study, since there were no female subjects.

Factor F1: The first factor is defined by high positive loadings for all
three anxiety scales, Psychasthenia, Suspicion, and Inhibi-
tion of aggression, and by a negative loading for Socialization.
It could be described as a broad factor of maladjustment and
is denoted *Negative emotionality* (cf Watson & Clark, 1984;
Eysenck & Eysenck, 1975).

Factor F2: The second factor is similar to Factor M2 and is defined by
the three aggression scales, Indirect Aggression, Verbal Agg-
ression, and Irritability, and by negative loadings for So-
cial Desirability. It is denoted accordingly *Aggressive
non-conformity*.

Factor F3: The third factor is defined by high positive loadings for Im-
pulsiveness and Monotony avoidance, and by a negative loading for
Detachment. It appears to cover three aspects of extraversion
- impulsivity, sensation seeking, and sociability - and is de-
noted *Extraversion*.

Comments

The factor pattern for female subjects is well in accordance with
Eysencks' three factor model (Eysenck & Eysenck, 1975). The Extraver-
sion and Negative emotionality factors are associated with the Eysenck
Extraversion and Neuroticism factors. The factor Aggressive non-confor-
mity could be related to the Eysenck Psychoticism factor (1976) and in-
versely to the 'Agreeableness' factor identified by Norman (1963) and
McCrae and Costa (1985b).

The factor structure is different for male and female subjects.
It is interesting that the two extraversion factors, M4 and F3 differ,
M4 having negative loadings for Socialization, and F3 for Detachment
(the opposite pole of Sociability). Thus, extravert behavior may be
more associated with "acting out" in males, and with sociability in fe-
males. It is noteworthy that maladjustment in males in general is more
associated with high extraversion and psychopathy, whereas in females

it is more associated with low extraversion, with 'dysthymic' disorder of
anxiety, and depression. It is further interesting that Somatic Anxiety
and Psychic Anxiety are differentiated in males, but in females these
scales have loadings in the same factor, together with other 'dysthymic'
vulnerability scales, forming a broad diffuse Negative emotionality factor.

An individual-related classification of personality

An important aspect of the theoretical framework for the longitu-
dinal project is that the person, rather than a variable or a set of
variables, is the main conceptual unit of analysis in personality and
developmental research. One important implication of this is that in-
dividuals are best described in terms of their pattern or configuration
of relevant variable values and that individual differences are most
effectively studied in such terms (Magnusson, 1981, 1985, in press;
Magnusson & Dunér, 1981). In line with this view, the subjects in the
present study were classified on the basis of their pattern of scale
scores in the KSP, using a clusteranalytic approach.

A wide range of method options are possible in cluster analysis and
a method developed by Bergman and Magnusson was implemented (RESCLUS,
see Bergman, 1985; Bergman & Magnusson, 1984). The CLUSTAN package was
used in the analyses to obtain maximal flexibility (Wishart, 1982).
The analyses, separately performed for male and female subjects, started
with a hierarchic cluster analysis of scale scores in the 15 scales of the
KSP. A problem which may occur in cluster analysis is that a few indi-
viduals, who are 'misfitting', can change the total classification. In
the RESCLUS, this problem was dealt with by means of a residue set into
which individuals were placed who gave large increases of error sums of
squares, regardless of which cluster they were placed in. The solution
giving ten clusters was used as an initial classification in the reloca-
tion cluster analysis. Each individual was placed in a cluster leading
to the smallest increase of the total error sum of squares. After fu-
sion of the two most similar clusters the relocation was repeated down to
two clusters. The number of clusters to be chosen as a final solution
was decided by the following criteria: (a) the size of the total error
sum of squares, (b) the size of the residue, (c) a subjective judgement
whether all 'important' and interpretable clusters were represented in
the solution with fewer clusters (for a detailed description of the

method, see Bergman & Magnusson, 1984). The lower limit for the size
of the clusters was set at four individuals, which resulted in six
clusters for male subjects and nine clusters for female subjects. The
size of the residue and the percentage explained error sum of
squares for the relocation solutions are presented in Table 8.

Table 8.   Size of residue and percent explained error sum of squares
           for different numbers of clusters in the relocation cluster
           analyses for frequent types of personality profiles for a
           group of male (n=82) and female (n=87) subjects.

| Number of clusters | *Males* | | *Females* | |
	Size of residue	% explained error sum of squares	Size of residue	% explained error sum of squares
9			10	55.0
8			10	54.4
7			11	53.8
6	12	58.0	12	55.3
5	13	57.4	12	53.5
4	14	57.1	13	52.3
3	14	54.6	13	49.8
2	17	56.5	20	54.2

Using the criteria described and the rule of accepting clusters,
together explaining at least 50% of the error sum of squares, the solu-
tions with four clusters for male subjects and four clusters for female
subjects were chosen. These final cluster mean profiles are presented
in Figures 1 to 4 (male subjects) and in Figures 5 to 8 (female subjects).
T-scores and average coefficients (a measure of the similarity within the
group) for these clusters are presented in Tables 9 and 10 for male and
female subjects, respectively.
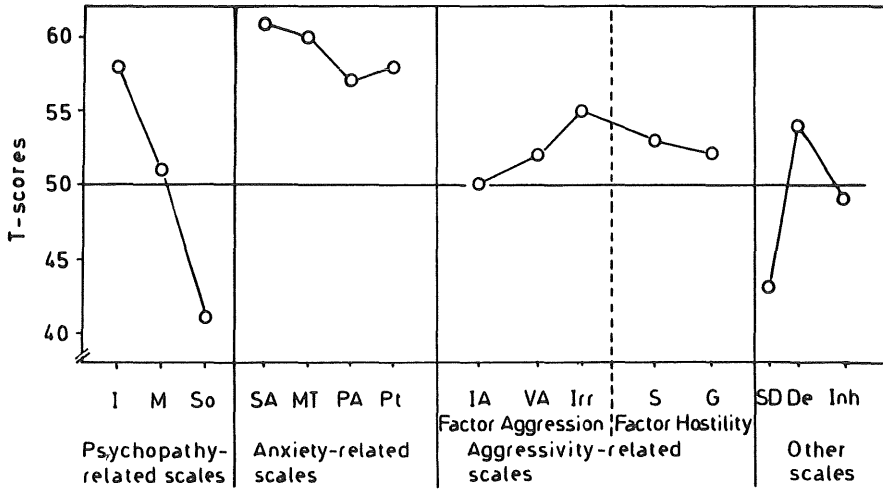
Figure 1. T-scores for a group of males, cluster M1 (n=30), in psycho-
            pathy-, anxiety-, aggressivity-related, and other scales
            from the Karolinska Scales of Personality (KSP).

Figure 2. T-scores for a group of males, cluster M2 (n=24) in psycho-
            pathy-, anxiety-, aggressivity-related, and other scales
            from the Karolinska Scales of Personality (KSP).

Figure 3.   T-scores for a group of males, cluster M3 (n=10), in psycho-
            pathy-, anxiety-, aggressivity-related, and other scales
            from the Karolinska Scales of Personality (KSP).

Figure 4.   T-scores for a group of males, cluster M4 (n=4), in psycho-
            pathy-, anxiety-, aggressivity-related, and other scales
            from the Karolinska Scales of Personality (KSP).

Male subjects

Cluster M1 (n=30): This cluster is characterized by high scores in So-
matic Anxiety (T=61) and in Muscular Tension (T=60),
as well as low scores in Socialization (T=41).
Rather high scores are also obtained in Impulsiveness
(T=58) and Psychasthenia (T=58). Thus, subjects in
this group tend to have high scores in scales with
loadings in the 'Psychopathic instability' factor
(Schalling et al., 1983), possibly associated with
'secondary psychopathy' (Hare & Cox, 1978).

Cluster M2 (n=24): This group has average scores in most of the scales
and contains apparently well adjusted, 'normal' men.

Cluster M3 (n=10): This cluster is characterized by low scores in Im-
pulsiveness (T=38), Detachment (T=36), Psychic Anxiety
(T=39), and Inhibition of aggression (T=40), and high scores
in Socialization (T=58) and Social Desirability. There are two
possibilities: either these subjects are stable and well
adjusted men, sociable and assertive, or they are
denying weakness and their self report is coloured by
conformity to social norms. However, high social
desirability scores may also reflect an exemplary
behavior (cf. McCrae & Costa, 1985a).

Cluster M4 (n=4): This cluster is characterized by very low scores in
Impulsiveness (T=34) and low scores in Monotony
avoidance (T=39), high scores in Detachment (T=62)
and in Inhibition of aggression (T=60). This pattern
might indicate that the subjects in this group are in
some respects similar to schizophrenic patients
(Schalling, unpublished).

Table 9. T-scores for groups of males, clusters M1 - M4, in psycho-
pathy-, anxiety-, aggressivity-related, and other scales
(Ps, An, Ag, and Oth) from the Karolinska Scales of Persona-
lity (KSP) and average coefficients for each cluster.

| KSP-scale	M1 (n=30)	M2 (n=24)	M3 (n=10)	M4 (n=4)
		T-scores		
Ps Impulsiveness (I)	58	52	38	34
Ps Monotony avoidance (M)	51	49	45	39
Ps Socialization (So)	41	53	58	49
An Somatic Anxiety (SA)	61	47	42	48
An Muscular Tension (MT)	60	47	42	44
An Psychic Anxiety (PA)	57	47	39	58
An Psychasthenia (Pt)	58	49	41	55
Ag Indirect Aggression (IA)	50	47	46	51
Ag Verbal Aggression (VA)	52	51	49	46
Ag Irritability (Irr)	55	46	40	52
Ag Suspicion (S)	53	49	40	54
Ag Guilt (G)	52	49	42	53
Oth Social Desirability (SD)	43	52	54	40
Oth Detachment (De)	54	49	36	62
Oth Inhibition of aggr. (Inh)	49	47	40	60
Average coeffient	0.4931	0.4935	0.5850	0.6698
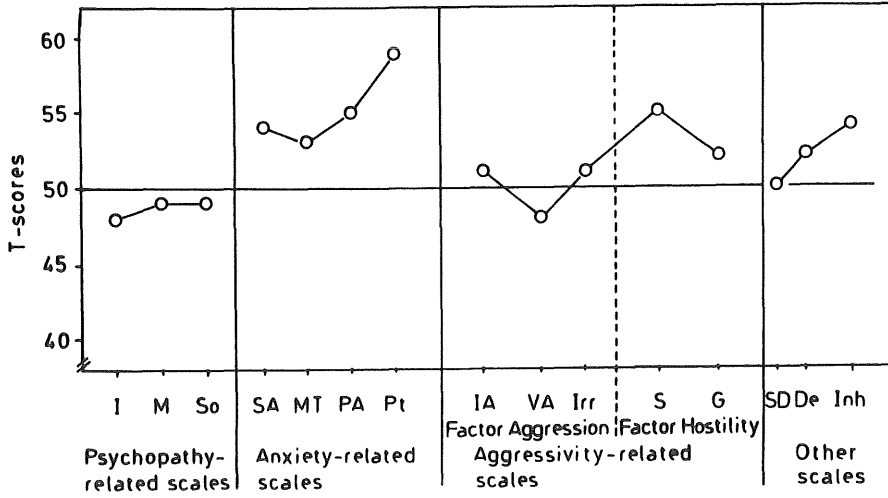
Figure 5. T-scores for a group of females, cluster F1 (n=24), in psycho-
pathy-, anxiety-, aggressivity-related, and other scales from
the Karolinska Scales of Personality (KSP).
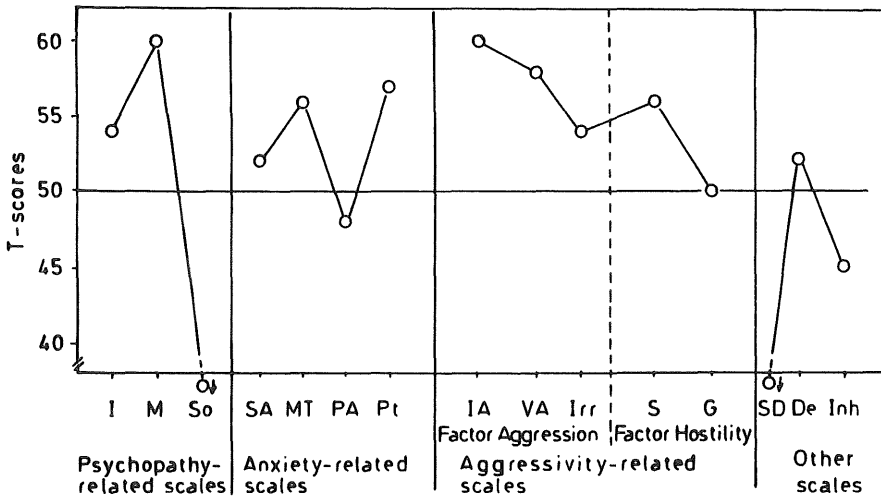
Figure 6. T-scores for a group of females, cluster F2 (n=6), in psycho-
pathy-, anxiety-, aggressivity-related, and other scales from
the Karolinska Scales of Personality (KSP).
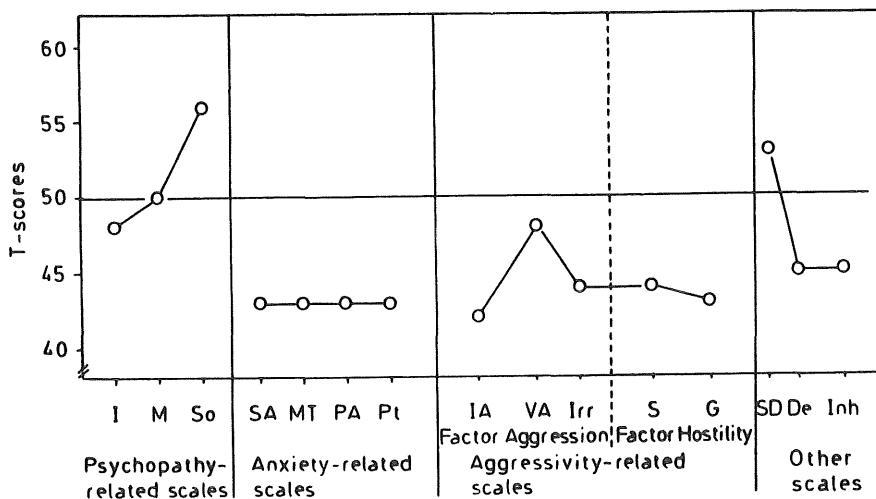
Figure 7. T-scores for a group of females, cluster F3 (n=26), in psycho-
pathy-, anxiety-, aggressivity-related, and other scales from
the Karolinska Scales of Personality (KSP).
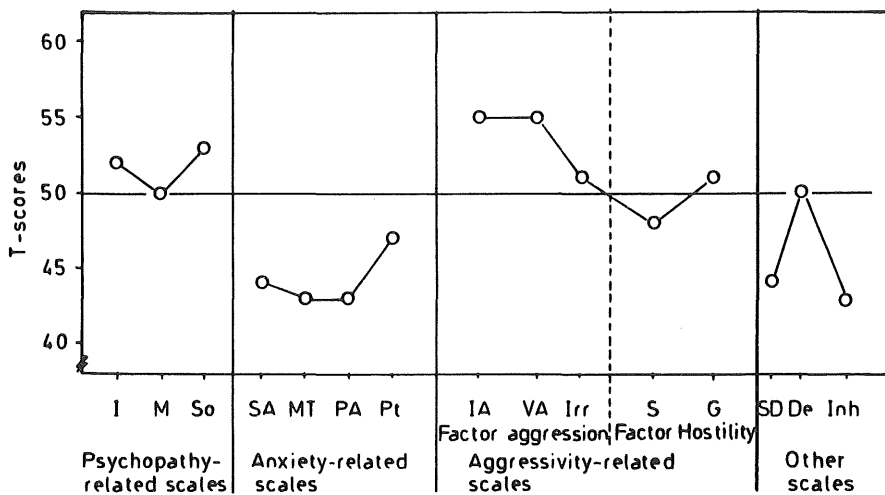
Figure 8. T-scores for a group of females, cluster F4 (n=18), in psycho-
pathy-, anxiety-, aggressivity-related, and other scales from
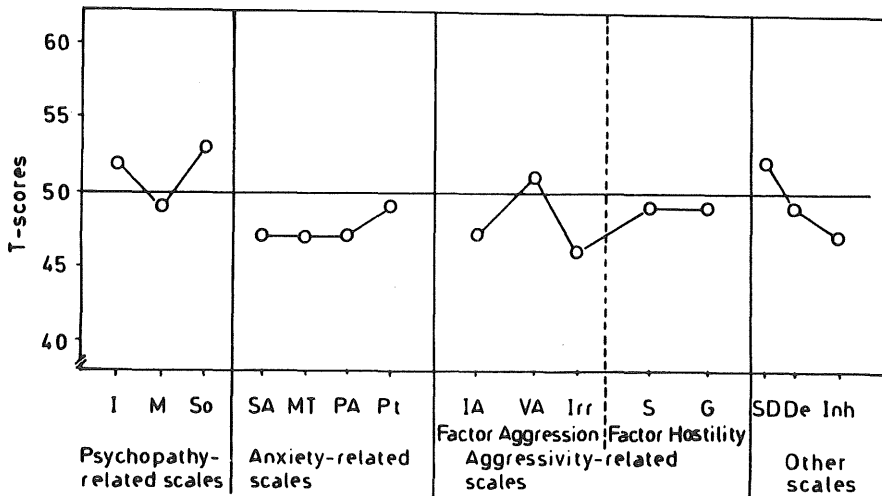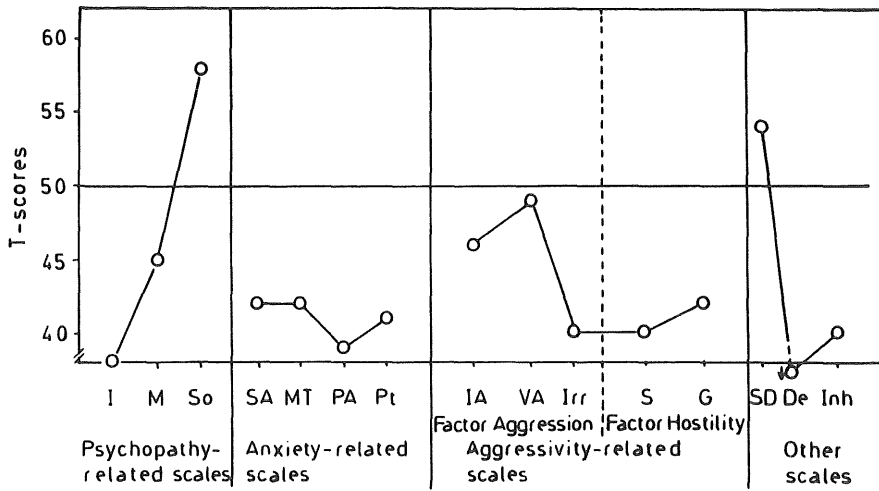the Karolinska Scales of Personality (KSP).
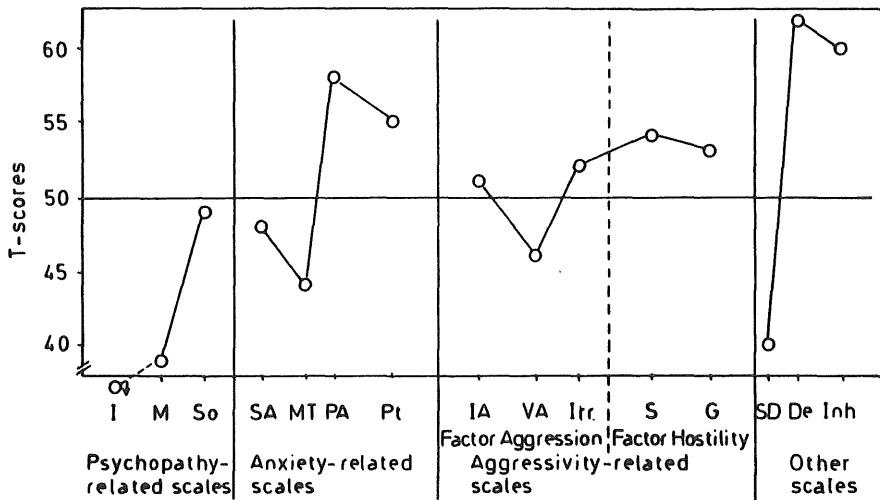
Female subjects

Cluster F1 (n=24): This cluster is characterized by average scores in all scales except high scores in Psychasthenia (T=59), which may indicate a slight vulnerability to depression and low self esteem, and a somewhat increased risk for somatic disease (Metcalfe, Johanson, & Coppen, 1975).

Cluster F2 (n=6): This cluster is characterized by very low scores in Socialization (T=33), high scores in Monotony avoidance (T=60), and in two aggression scales, Indirect Aggression (T=60) and Verbal Aggression (T=58), and rather low scores in Social Desirability. This pattern has some similarity with personality profiles found in 'primary' psychopathy (Schalling, 1978), although most data are based on males subjects.

Cluster F3 (n=26): This cluster is characterized by near average scores in most scales, but low scores in the anxiety scales (n=43) and high scores in Socialization (T=56). They also have high scores in Social Desirability. Thus, it may be suspected that these subjects tend to deny weakness. However, they may also be well adjusted and mentally healthy individuals (cf cluster M3 above).

Cluster F4 (n=18): This cluster is characterized by a profile of average scores, but with somewhat low scores in anxiety scales (T=43,44) and in Inhibition of aggression (T=43). In the abscence of increased scores in Social Desirability, this cluster may be assumed to include women, who are well adjusted and healthy, and in general successful.

Table 10. T-scores for groups of females, clusters F1 - F4, in psycho-
pathy-, anxiety-, aggressivity-related, and other scales
(Ps, An, Ag, and Oth) from the Karolinska Scales of Persona-
lity (KSP) and average coefficients for each cluster.

KSP-scale	F1 (n=24)	F2 (n=6)	F3 (n=26)	F4 (n=18)
	T-scores			
Ps Impulsiveness (I)	48	54	48	52
Ps Monotony avoidance (M)	49	60	50	50
Ps Socialization (So)	49	33	56	53
An Somatic Anxiety (SA)	54	52	43	44
An Muscular Tension (MT)	53	56	43	43
An Psychic Anxiety (PA)	55	48	43	43
An Psychasthenia (Pt)	59	57	43	47
Ag Indirect Aggression (IA)	51	60	42	55
Ag Verbal Aggression (VA)	48	58	48	55
Ag Irritability (Irr)	51	54	44	51
Ag Suspicion (S)	55	56	44	48
Ag Guilt (G)	52	50	43	51
Oth Social Desirability (SD)	50	33	53	44
Oth Detachment (De)	52	52	45	50
Oth Inhibition of aggr. (Inh)	54	45	45	43
Average coefficient	0.5602	0.6054	0.5639	0.5429

Comments

The personality profile of each subject in the *residue* was outlined and examined. The characteristical features of these profiles were extreme values, found to belong either to a cluster profile of the other sex or to have a theoretically incongruent pattern of results within groups of related scales. This is also shown in the large standard deviations in most of the scales for this group. The residue, thus, seems to consist of 'outliers', difficult to classify into a solution of few clusters of frequent personality patterns.

Data within this developmental project will make it possible to further explore the meanings of the personality patterns/syndroms describ-ed above. It is too early to judge whether these personality clusters reflect stable personality patterns in a normal population, having some implications for the *type* of psychopathology that may emerge if there is a combination of disposition (personality pattern) and certain types of situational stressors or life events.

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Items included in Karolinska Scales of Personality (KSP)

Impulsiveness items:

(8) I have a tendency to act on the spur of the moment without really thinking ahead.

(20)- When I have to make a decision, I "sleep on it" before I decide. (F)

(30) I usually get so excited over new ideas and suggestions that I forget to check if there are any disadvantages.

(48) I often throw myself too hastily into things.

(62)- I am a very particular person. (F)

(68) I think it is quite right to describe me as a person who takes things as they come.

(81) I usually "talk before I think".

(101) When I'm about to make a decision I usually make it quickly.

(113) I take life easy.

(127) I consider myself an impulsive person.

Monotony Avoidance items:

(2) I am always keen on trying out things that are all new.

(22)- I like leading a quiet and organized life. (F)

(28) I prefer people who come up with exciting and unexpected activities.

(44) I have an unusually great need for change.

(54) I try to get to places where things really happen.

(73) I almost always have a desire for more action.

(84)- In a way I like to do routine jobs.(F)

(102) I like doing things just for the thrill of it.

(109) To be on the move, travelling, change and excitement - that's the kind of life I like.

(130) When listening to the radio, I want it really loud, so that I can feel "turned on".

Note: False (F) item indicates inversed scoring.

Socialization items (from the Gough CPI scale):

(5)- I have had more than my share of things to worry about. (F)

(10)- Sometimes I used to feel that I would like to leave home. (F)

(18)- My parents have often disapproved of my friends. (F)

(24)- Life usually hands me a pretty raw deal. (F)

(32) My home life was always happy.

(37)- I have often gone against my parent's wishes. (F)

(45)- People often talk about me behind my back. (F)

(50) My home life was always very pleasant.

(58) The members of my family were always very close to each other.

(64)- My home as a child was less peaceful and quiet than those of most people. (F)

(72)- In school I was sometimes sent up to the principal for cutting up. (F)

(77)- I sometimes wanted to run away from home. (F)

(85)- Even when I have gotten into trouble I was usually trying to do the right thing. (F)

(90)- With things going as they are, it's pretty hard to keep up hope of amounting to something. (F)

(98)- As a youngster in school I used to give the teacher lots of trouble. (F)

(104)- My parents never really understood me. (F)

(112)- I seem to do things that I regret more often than other people do. (F)

(117)- When I was going to school I played hooky quite often. (F)

(125) My parents have generally let me make my own decisions.

(131)- I often feel as though I have done something wrong or wicked. (F)

Somatic Anxiety items:

(34) My heart sometimes beats hard or irregularly for no real reason.

(56) Sometimes I suddenly start sweating without any particular reason.

(86) Sometimes when upset, I suddenly feel as if my legs were too weak
to carry me.

(116) Sometimes my cheeks burn even if it isn't particularly hot.

(94) Quite often, especially when I am tired, I get the feeling that either
I or the world around me is changing - a feeling of unreality.

(124) I sometimes have a feeling that I don't get enough air to breathe.

(1) I often feel uncomfortable and ill at ease for no real reason.

(21) I often feel restless, as if I wanted something without knowing what.

(76) I sometimes feel panicky.

(49) I have great difficulty bringing my thoughts together while talking to
someone.

Muscular Tension items:

(4) I often have aches in my shoulders and in the back of my neck.

(14) I often find myself gnashing my jaws together for no real cause.

(33) My body often feels stiff and tense.

(108) My muscles are so tense that I get tired.

(70) Often I find myself holding the newspaper I'm reading too hard.

(42) When trying to fall asleep I often notice that my muscles are
really tense.

(57) An unexpected noise makes me jump and startle.

(88) I have difficulty sitting in a relaxed position even in a comfortable
chair.

(128) In the late afternoon I often get a headache which feels as if there
were an ironband across my forehead.

(100) My hands usually tremble.

Psychic Anxiety items:

(97) I often worry about things that other people look upon as trifles.

(110) I worry far in advance when I am going to get started on something.

(121) After buying something I often worry about having made the wrong choice.

(74) It takes me an unusually long time to get over unpleasant events.

(82) I usually don't feel at ease when I meet people I don't know too well.

(17) I don't have much self-confidence.

(46) I am quite self-conscious in most social situations.

(61) I seldom dare to express myself in a discussion because I have the feeling that people think my views are not worth anything.

(9) Even though I know I'm right, I often have great difficulty getting my point across.

(36) I'm the kind of person who is excessively sensitive and easily hurt.

Psychasthenia items:

(13) I get tired and hurried to easily.

(26)- I don't mind being interrupted when I am working with something. (F)

(40) I think I must economize my energy.

(53) In order to get something done I have to spend more energy than most others.

(66)- It is easy for me to regain lost sleep. (F)

(80)- I can usually concentrate on what I am doing even if the environment is distracting. (F)

(93) I easily feel pressure when I am urged to speed up.

(106) I like to have plenty of time available when I am doing something.

(120)- I feel calm and secure even when I am facing new tasks. (F)

(134) I think I get fatigued more easily than most people I know.

Detachment items:

(12)- It is easy for me to get close to people. (F)

(25)- I want to confide in someone, when I am worried and unhappy. (F)

(38) I avoid people, who are interested in my personal life.

(52) I feel uncomfortable when people take me into their confidence.

(65)- I am deeply moved by other people's misfortunes. (F)

(78) I feel best when I keep people at a certain distance.

(92) I prefer to avoid involving myself in other people's personal problems.

(105) People generally think that I hide my feelings so that they have difficulties in understanding me.

(118) I consider myself reserved and a little cold rather than kind and warm.

(133)- People often come to me with their troubles. (F)

Inhibition of Aggression items:

(7) I find it hard to object if I am neglected at a restaurant.

(19)- When someone is pushing himself forward in the queue I usually tell him off. (F)

(27) I find it difficult going back to a store to ask if I can exchange an item I have bought.

(35)- I think that argument can clear the air sometimes. (F)

(51) I feel embarrassed having to complain when I get too little change back.

(59) When someone is teasing me, I never find a good answer until later.

(67) I have difficulties turning someone down when asked for a favor, even though I don't feel like doing it.

(79) I sometimes wish that I could speak up when I dislike something.

(83) I feel very ill at ease when witnessing a fight in the street.

(135) If someone is scolding me, I become sad rather than angry.

Social Desirability items:

(6) No matter whom I'm talking to, I'm always polite and courteous.

(16) I have never deliberately said something that has hurt someone's feelings.

(29) No matter whom I'm talking to, I'm always a good listener.

(41) I never hesitate to go out of my way to help someone in trouble.

(60) I have never been bothered when someone has asked me for a favor, not even at times when it has been inconvenient.

(69) I'm always willing to admit it when I make a mistake.

(89) I'm always courteous, even to people who are disagreeable.

(96) When I don't know something, I don't at all mind admitting it.

(114) There have been times when I was quite jealous of the good fortune of others. (F)

(122) It has happened that I have lied to get out of something. (F)

Items from the Buss Aggression inventory included in the KSP:

Indirect Aggression (Factor Aggression):

(23)   When I am mad, I sometimes slam doors.

(31)   I can get mad enough to throw things.

(43)- Since the age of ten, I have never had a temper tantrum. (F)

(87)   I sometimes spread gossip about people I don't like.

(132)   When I am angry, I sometimes sulk.

Verbal Aggression (Factor Aggression)

(15)- Even when my anger is aroused, I don't use "strong language". (F)

(95)   I can't help getting into arguments when people disagree with me.

(123)   If somebody annoys me, I am apt to tell him what I think of him.

(126)   When I get mad, I say nasty things.

(129)   When people yell at me, I yell back.

Irritability (Factor Aggression)

(3)   Sometimes people bother me just by being around.

(39)   I am irritated a great deal more than people are aware of.

(99)   I can't help being a little rude to people I don't like.

(111)- I am always patient with others. (F)

(115)- I don't let a lot of unimportant things irritate me. (F)

Suspicion (Factor Hostility)

(55)   I sometimes have the feeling that others are laughing at me.

(71)   I commonly wonder what hidden reason another person may have for doing
        something nice for me.

(103)   There are a number of people who seem to be jealous of me.

(107)- I seldom feel that people are trying to anger or insult me. (F)

(119)   I tend to be on my guard with people who are somewhat more friendly
        than I expected to.

Guilt (Factor Hostility)

(11)- I seldom do things that make me feel remorseful afterwards. (F)

(47)   People who shirk on the job must feel very guilty.

(63)   I sometimes have bad thoughts which make me feel ashamed of myself.

(75)   It depresses me that I did not do more for my parents.

(91)   The few times I have cheated, I have suffered unbearable feelings
        of remorse.

APPENDIX B

SELF-REPORT ASSESSMENT OF PERSONALITY TRAITS

Data from the KSP inventory on a representative
sample of normal male and female subjects within
a developmental project

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of Stockholm.

Content

Means and standard deviations for items in the KSP scales for a group
of male and female subjects, and the results of two-tailed t-tests
of sex differences in those variables.

Frequencies and relative percentage of response alternatives for items
in the KSP scales in a group of male subjects.

Frequencies and relative percentage of response alternatives for items
in the KSP scales in a group of female subjects.

Table 1. Means (M) and standard deviations (SD) for items in the KSP
scale Impulsiveness (I) for a group of male (n=82) and female
(n=87) subjects, and results of two-tailed t-tests of sex dif-
ferences in those variables.

Item	Males (n=82)		Females (n=87)		t (167)
	M	SD	M	SD	
008	2.16	0.73	2.38	0.84	-1.813
*020	2.73	0.82	2.67	0.79	.484
030	2.21	0.78	2.26	0.69	.442
048	2.35	0.73	2.35	0.66	0
*062	2.28	0.73	2.16	0.79	1.024
068	2.42	0.77	2.33	0.83	.730
081	1.96	0.76	2.01	0.74	-.433
101	2.63	0.76	2.77	0.68	-1.263
113	2.73	0.67	2.47	0.64	2.580 [2]
127	2.38	0.75	2.62	0.77	-2.051 [1]

[1] p < .05, [2] p < .01

Table 2. Means (M) and standard deviations (SD) for items in the KSP
scale Monotony avoidance (M) for a group of male (n=82) and
female (n=87) subjects, and results of two-tailed t-tests
of sex differences in those variables

Item	Males (n=82)		Females (n=87)		t (167)
	M	SD	M	SD	
002	2.87	0.72	2.87	0.59	0
*022	1.96	0.73	1.84	0.65	1.130
028	2.63	0.66	2.56	0.71	.663
044	2.48	0.84	2.28	0.85	1.537
054	2.55	0.69	2.22	0.67	3.154 [2]
073	2.44	0.79	2.17	0.82	2.178 [1]
*084	2.67	0.70	2.74	0.81	-.599
102	2.56	0.79	2.44	0.74	1.020
109	2.50	0.89	2.45	0.82	.380
130	2.10	0.86	1.91	0.77	1.514

[1] p < .05, [2] p < .01

Note: * indicates false item with inversed scoring.

Table 3. Means (M) and standard deviations (SD) for items in the KSP
scale Socialization (So) for a group of male (n=82) and female
(n=87) subjects, and results of two-tailed t-tests of sex dif-
ferences in those variables.

Item	Males (n=82)		Females (n=87)		t (167)
	M	SD	M	SD	
*005	3.42	0.75	3.52	0.63	-.941
*010	3.38	0.80	3.14	0.94	1.782
*018	3.35	0.71	3.40	0.86	-.411
*024	3.40	0.77	3.39	0.65	.091
032	3.12	0.84	3.30	0.76	-1.462
*037	3.09	0.67	2.87	0.80	1.932
*045	3.23	0.62	3.44	0.62	-2.201 [1]
050	2.96	0.76	2.99	0.77	-.255
058	3.02	0.82	3.06	0.91	-.300
*064	3.50	0.71	3.55	0.66	-.474
*072	3.22	1.03	3.77	0.64	-4.195 [3]
*077	3.48	0.74	3.39	0.91	.703
*085	3.23	0.79	3.54	0.63	-2.828 [2]
*090	3.28	0.65	3.37	0.68	-.878
*098	3.21	0.99	3.54	0.74	-2.464 [1]
*104	3.44	0.59	3.40	0.78	.374
*112	3.35	0.66	3.36	0.66	.098
*117	3.24	0.92	3.36	0.96	-.829
125	2.57	0.70	2.39	0.80	1.553
*131	3.39	0.52	3.40	0.74	-.101

[1] $p < .05$, [2] $p < .01$, [3] $p < .001$

Table 4. Means (M) and standard deviations (SD) for items in the KSP scale Somatic Anxiety (SA) for a group of male (n=82) and female (n=87) subjects, and results of two-tailed t-tests of sex differences in those variables.

Item	Males (n=82)		Females (n=87)		t (167)
	M	SD	M	SD	
001	1.54	0.67	1.72	0.73	-1.667
021	2.07	0.84	2.09	0.82	-.157
034	1.45	0.67	1.43	0.71	.188
049	2.01	0.68	1.78	0.62	2.300 [1]
056	1.35	0.55	1.51	0.66	-1.707
076	1.42	0.59	1.72	0.82	-2.716 [2]
086	1.50	0.63	1.52	0.66	-.201
094	1.61	0.66	1.55	0.76	.547
116	1.93	0.80	2.12	0.88	-1.466
124	1.38	0.58	1.51	0.68	-1.333

[1] $p < .05$, [2] $p < .01$

Table 5. Means (M) and standard deviations (SD) for items in the KSP scale Muscular Tension (MT) for a group of male (n=82) and female (n=87) subjects, and results of two-tailed t-tests of sex differences in those variables.

Item	Males (n=82)		Females (n=87)		t (167)
	M	SD	M	SD	
004	1.49	0.81	1.78	0.98	-2.090 [1]
014	1.62	0.78	1.64	0.82	-.162
033	1.59	0.63	1.52	0.65	.710
042	1.39	0.56	1.63	0.70	-2.452 [1]
057	1.78	0.72	1.99	0.88	-1.692
070	1.33	0.50	1.23	0.42	1.410
088	1.50	0.59	1.32	0.56	2.035 [1]
100	1.52	0.72	1.37	0.61	1.464
108	1.42	0.57	1.59	0.72	-1.695
128	1.28	0.53	1.60	0.87	-2.867 [2]

[1] $p < .05$, [2] $p < .01$

Table 6. Means (M) and standard deviations (SD) for items in KSP scale Psychic Anxiety (PA) for a group of male (n=82) and female (n=87) subjects, and results of two-tailed t-tests of sex differences in those variables.

Item	Males (n=82)		Females (n=87)		t (167)
	M	SD	M	SD	
009	1.67	0.67	1.82	0.77	-1.348
017	1.88	0.76	2.17	0.82	-2.381 [1]
036	1.85	0.74	2.16	0.89	-2.454 [1]
046	2.40	0.70	2.16	0.76	2.312 [1]
061	1.81	0.66	1.92	0.87	-.922
074	2.09	0.69	2.29	0.85	-1.673
082	2.16	0.68	2.49	0.70	-3.106 [2]
097	1.84	0.71	2.16	0.79	-2.764 [2]
110	1.88	0.76	1.79	0.65	.829
121	1.84	0.68	1.69	0.67	1.444

[1] $p < .05$, [2] $p < .01$

Table 7. Means (M) and standard deviations (SD) for items in the KSP scale Psychasthenia (Pt) for a group of male (n=82) and female (n=87) subjects, and results of two-tailed t-tests of sex differences in those variables.

Item	Males (n=82)		Females (n=87)		t (167)
	M	SD	M	SD	
013	2.05	0.83	2.25	0.89	-1.508
*026	2.17	0.68	2.20	0.71	.280
040	1.99	0.69	1.82	0.71	1.577
053	1.71	0.62	1.52	0.66	1.926
*066	2.00	0.72	2.29	0.94	-2.242 [1]
*080	2.09	0.61	2.18	0.71	-.881
093	2.32	0.75	2.49	0.78	-1.443
106	2.40	0.66	2.55	0.70	-1.431
*120	2.27	0.69	2.47	0.66	-1.926
134	1.61	0.62	1.68	0.74	-.664

[1] $p < .05$

Table 8. Means (M) and standard deviations (SD) for items in the KSP scale Indirect Aggression (IA) for a group of male (n=82) and female (n=87) subjects, and results of two-tailed t-tests of sex differences in those variables.

Item	Males (n=82)		Females (n=87)		t (167)
	M	SD	M	SD	
023	1.78	0.86	2.54	1.05	-5.130 [3]
031	1.50	0.72	1.90	0.95	-3.071 [2]
*043	3.31	0.84	3.64	0.82	-2.584 [2]
087	1.99	0.79	2.06	0.72	-.603
132	2.33	0.88	2.58	0.86	-1.868

[2] p < .01,   [3] p < .001

Table 9. Means (M) and standard deviation (SD) for items in the KSP scale Verbal Aggression (VA) for a group of male (n=82) and female (n=87) subjects, and results of two-tailed t-tests of sex differences in those variables.

Item	Males (n=82)		Females (n=87)		t (167)
	M	SD	M	SD	
*015	3.11	0.89	3.05	0.96	.425
095	1.90	0.70	1.77	0.71	1.198
123	2.76	0.73	2.74	0.64	.190
126	2.63	0.78	2.78	0.72	-1.300
129	2.65	0.73	2.77	0.74	-1.061

Table 10. Means (M) and standard deviations (SD) for items in the KSP scale Irritability (Irr) for a group of male (n=82) and female (n=87) subjects, and results of two-tailed t-tests of sex differences in those variables.

Item	Males (n=82)		Females (n=87)		t (167)
	M	SD	M	SD	
003	2.02	0.72	2.32	0.84	-2.486 [1]
039	2.27	0.75	2.55	0.85	-2.265 [1]
099	2.28	0.76	2.15	0.69	1.165
*111	2.27	0.61	2.10	0.57	1.873
*115	2.23	0.74	2.16	0.65	.654

[1] p < .05

Table 11. Means (M) and standard deviations (SD) for items in the KSP scale Suspicion (S) for a group of male (n=82) and female (n=87) subjects, and results of two-tailed t-tests of sex differences in those variables.

Item	Males (n=82)		Females (n=87)		t (167)
	M	SD	M	SD	
055	1.62	0.66	1.45	0.61	1.740
071	1.94	0.71	1.70	0.72	2.180 [1]
103	2.07	0.77	1.85	0.60	2.078 [1]
*107	1.98	0.74	1.93	0.87	.401
119	2.15	0.69	1.84	0.65	3.007 [2]

[1] $p < .05$,   [2] $p < .01$

Table 12. Means (M) and standard deviations (SD) for items in the KSP scale Guilt (G) for a group of male (n=82) and female (n=87) subjects, and results of two-tailed t-tests of sex differences in those variables.

Item	Males (n=82)		Females (n=87)		t (167)
	M	SD	M	SD	
*011	2.23	0.74	2.45	0.76	-1.904
047	2.43	0.67	2.40	0.72	.280
063	1.83	0.72	2.13	0.78	-2.593 [2]
075	2.09	0.88	1.86	0.78	1.800
091	2.33	0.82	2.81	0.75	-3.974 [3]

[2] $p < .01$,   [3] $p < .001$

Table 13. Means (M) and standard deviations (SD) for items in the KSP scale Detachment (De) for a group of male (n=82) and female (n=87) subjects, and results of two-tailed t-tests of sex differences in those variables.

Item	Males (n=82)		Females (n=87)		t (167)
	M	SD	M	SD	
*012	2.20	0.71	2.09	0.60	1.090
*025	2.33	0.83	1.55	0.64	6.864 [3]
038	2.12	0.73	1.95	0.65	1.600
052	1.74	0.63	1.51	0.68	2.277 [1]
*065	2.56	0.67	2.26	0.67	2.909 [2]
078	2.18	0.76	1.78	0.69	3.586 [3]
092	2.40	0.75	1.95	0.61	4.290 [3]
105	2.06	0.74	1.84	0.75	1.918
118	2.07	0.66	1.82	0.74	2.313 [1]
*133	2.55	0.63	2.17	0.65	3.855 [3]

[1] $p < .05$,   [2] $p < .01$,   [3] $p < .001$

Table 14. Means (M) and standard deviations (SD) for items in the KSP scale Inhibition of aggression (Inh) for a group of male (n=32) and female (n=87) subjects, and results of two-tailed t-tests of sex differences in those variables.

Item	Males (n=82)		Females (n=87)		t (167)
	M	SD	M	SD	
007	2.13	0.75	2.31	0.88	-1.427
*019	1.93	0.75	2.01	0.79	.674
027	1.84	0.79	1.58	0.73	2.224 [1]
*035	2.34	0.86	1.85	0.76	3.930 [3]
051	1.57	0.79	1.49	0.68	.707
059	2.01	0.68	2.45	0.85	-3.702 [3]
067	2.57	0.72	2.58	0.77	-.087
079	2.39	0.83	2.61	0.89	-1.659
083	2.71	0.84	3.12	0.83	-3.191 [2]
135	2.10	0.73	2.58	0.92	-3.743 [3]

[1] $p < .05$,   [2] $p < .01$, [3] $p < .001$

Table 15. Means (M) and standard deviations (SD) for items in the KSP scale Social Desirability (SD) for a group of male (n=82) and female (n=87) subjects, and results of two-tailed t-tests of sex differences in those variables.

Item	Males (n=82)		Females (n=87)		t (167)
	M	SD	M	SD	
006	2.55	0.71	2.32	0.74	2.059 [1]
016	2.38	0.87	2.59	0.88	-1.559
029	2.44	0.69	2.46	0.68	-.190
041	3.17	0.49	3.13	0.55	.498
060	2.90	0.62	3.01	0.52	-1.252
069	3.10	0.54	2.99	0.62	1.227
089	2.13	0.70	2.09	0.82	.340
096	3.04	0.69	3.06	0.67	-.191
*114	2.59	0.72	2.56	0.77	.261
*122	2.46	0.77	2.79	0.73	-2.860 [2]

[1] $p < .05$,   [2] $p < .01$

Table 16. Frequencies and relative percentage of response alternatives
(1-4) for items in the KSP scale Impulsiveness (I) in a group
of male (n=82) subjects.

Item	Response alternative							
	1		2		3		4	
008	13	15.9%	46	56.1%	20	24.4%	3	3.7%
*020	15	18.3%	34	41.5%	29	35.4%	4	4.9%
030	14	17.1%	41	50.0%	23	28.0%	4	4.9%
048	7	8.5%	44	53.7%	26	31.7%	5	6.1%
*062	5	6.1%	21	25.6%	48	58.5%	8	9.8%
068	9	11.0%	35	42.7%	33	40.2%	5	6.1%
081	22	26.8%	44	53.7%	13	15.9%	3	3.7%
101	4	4.9%	32	39.0%	36	43.9%	10	12.2%
113	2	2.4%	26	31.7%	46	56.1%	8	9.8%
127	8	9.8%	40	48.8%	29	35.4%	5	6.1%

Table 17. Frequencies and relative percentage of response alternatives
(1-4) for items in the KSP scale Monotony avoidance (M) in a
group of male (n=82) subjects.

Item	Response alternative							
	1		2		3		4	
002	2	2.4%	21	25.6%	45	54.9%	14	17.1%
*022	2	2.4%	14	17.1%	45	54.9%	21	25.6%
028			38	46.3%	36	43.9%	8	9.8%
044	9	11.0%	34	41.5%	30	36.6%	9	11.0%
054	3	3.7%	37	45.1%	36	43.9%	6	7.3%
073	9	11.0%	34	41.5%	33	40.2%	6	7.3%
*084	10	12.2%	36	43.9%	35	42.7%	1	1.2%
102	7	8.5%	30	36.6%	37	45.1%	8	9.8%
109	12	14.6%	27	32.9%	33	40.2%	10	12.2%
130	20	24.4%	40	48.8%	16	19.5%	6	7.3%

Note: Response alternatives are (1) Does not apply at all, (2) Does not
apply very well, (3) Applies pretty much, and (4) Applies completely.

Table 18. Frequencies and relative percentage of response alternatives (1-4) for items in the KSP scale Socialization (So) in a group of male (n=82) subjects.

Item			Response alternative					
		1	2		3		4	
*005	45	54.9%	28	34.1%	7	8.5%	2	2.4%
*010	44	53.7%	28	34.1%	7	8.5%	3	3.7%
*018	39	47.6%	34	41.5%	8	9.8%	1	1.2%
*024	45	54.9%	27	32.9%	8	9.8%	2	2.4%
032	5	6.1%	9	11.0%	39	47.6%	29	35.4%
*037	21	25.6%	48	58.5%	12	14.6%	1	1.2%
*045	26	31.7%	50	61.0%	5	6.1%	1	1.2%
050	4	4.9%	13	15.9%	47	57.3%	18	22.0%
058	5	6.1%	11	13.4%	43	52.4%	23	28.0%
*064	49	59.8%	27	32.9%	4	4.9%	2	2.4%
*072	46	56.1%	16	19.5%	12	14.6%	8	9.8%
*077	50	61.0%	22	26.8%	9	11.0%	1	1.2%
*085	34	41.5%	36	43.9%	9	11.0%	3	3.7%
*090	32	39.0%	41	50.0%	9	11.0%		
*098	43	52.4%	20	24.4%	12	14.6%	7	8.5%
*104	40	48.8%	38	46.3%	4	4.9%		
*112	36	43.9%	40	48.8%	5	6.1%	1	1.2%
*117	41	50.0%	26	31.7%	9	11.0%	6	7.3%
125	5	6.1%	30	36.6%	42	51.2%	5	6.1%
*131	33	40.2%	48	58.5%	1	1.2%		

Table 19. Frequencies and relative percentage of response alternatives
           (1-4) for items in the KSP scale Somatic Anxiety (SA) in a
           group of male (n=82) subjects.

Item	1		2		3		4	
001	44	53.7%	34	41.5%	2	2.4%	2	2.4%
021	22	26.8%	36	43.9%	20	24.4%	4	4.9%
034	53	64.6%	21	25.6%	3	9.8%		
049	16	19.5%	51	62.2%	13	15.9%	2	2.4%
056	56	68.3%	23	28.0%	3	3.7%		
076	51	62.2%	29	35.4%	1	1.2%	1	1.2%
086	47	57.3%	29	35.4%	6	7.3%		
094	38	46.3%	40	48.8%	2	2.4%	2	2.4%
116	28	34.1%	33	40.2%	20	24.4%	1	1.2%
124	55	67.1%	23	28.0%	4	4.9%		

Table 20. Frequencies and relative percentage of response alternatives
           (1-4) for items in the KSP scale Muscular Tension (MT) in a
           group of male (n=82) subjects.

Item	1		2		3		4	
004	54	65.9%	20	24.4%	4	?.9%	4	4.9%
014	44	53.7%	27	32.9%	9	11.0%	2	2.4%
033	40	48.8%	36	43.9%	6	7.3%		
042	53	64.6%	26	31.7%	3	3.7%		
057	32	39.0%	36	43.9%	14	17.1%		
070	56	68.3%	25	30.5%	1	1.2%		
088	45	54.9%	33	40.2%	4	4.9%		
100	49	59.8%	24	29.3%	8	9.8%	1	1.2%
108	51	62.2%	28	34.1%	3	3.7%		
128	62	75.6%	17	20.7%	3	3.7%		

Table 21. Frequencies and relative percentage of response alternatives (1-4) for items in the KSP scale Psychic Anxiety (PA) in a group of male (n=82) subjects.

Item		Response alternative							
		1		2		3		4	
009	36	43.9%	37	45.1%	9	11.0%		
017	28	34.1%	37	45.1%	16	19.5%	1	1.2%
036	28	34.1%	39	47.6%	14	17.1%	1	1.1%
046	7	8.5%	38	46.3%	34	41.5%	3	3.7%
061	27	32.9%	44	53.7%	11	13.4%		
074	13	15.9%	52	63.4%	14	17.1%	3	3.7%
082	11	13.4%	49	59.8%	20	24.4%	2	2.4%
097	27	32.9%	42	51.2%	12	14.6%	1	1.2%
110	28	34.1%	37	45.1%	16	19.5%	1	1.2%
121	26	31.7%	43	52.4%	13	15.9%		

Table 22. Frequencies and relative percentage of response alternatives (1-4) for items in the KSP scale Psychasthenia (Pt) in a group of male (n=82) subjects.

Item		Response alternative							
		1		2		3		4	
013	20	24.4%	44	53.7%	12	14.6%	6	7.3%
*026	4	4.9%	15	18.3%	54	65.9%	9	11.0%
040	19	23.2%	46	56.1%	16	19.5%	1	1.2%
053	30	36.6%	47	57.3%	4	4.9%	1	1.2%
*066	2	2.4%	15	18.3%	46	56.1%	19	23.2%
*080			19	23.2%	51	62.2%	12	14.6%
093	11	13.4%	37	45.1%	31	37.8%	3	3.7%
106	7	8.5%	36	43.9%	38	46.3%	1	1.2%
*120	2	2.4%	27	32.9	44	53.7%	9	11.0%
134	37	45.1%	41	50.0	3	3.7%	1	1.2%

Table 23. Frequencies and relative percentage of response alternatives
(1-4) for items in the KSP scale Indirect Aggression (IA)
in a group of male (n=82) subjects.

Item	Response alternative							
	1		2		3		4	
023	37	45.1%	30	36.6%	11	13.4%	4	4.9%
031	50	61.0%	25	30.5%	5	6.1%	2	2.4%
*043	42	51.2%	26	31.7%	11	13.4%	3	3.7%
087	24	29.3%	37	45.1%	19	23.2%	2	2.4%
132	15	18.3%	32	39.0%	28	34.1%	7	8.5%

Table 24. Frequencies and relative percentage of response alternatives
(1-4) for items in the KSP scale Verbal Aggression (VA) in a
group of male (n=82) subjects.

Item	Response alternative							
	1		2		3		4	
*015	33	42.0%	29	35.4%	16	19.5%	4	4.9%
095	23	28.0%	45	54.9%	13	15.9%	1	1.2%
123	4	4.9%	22	26.8%	46	56.1%	10	12.2%
126	4	4.9%	33	40.2%	34	41.5%	11	13.4%
129	5	6.1%	26	31.7%	44	53.7%	7	8.5%

Table 25. Frequencies and relative percentage of response alternatives
(1-4) for items in the KSP scale Irritability (Irr) in a group
of male (n=82) subjects.

Item	Response alternative							
	1		2		3		4	
003	17	20.7%	49	59.8%	13	15.9%	3	3.7%
039	11	13.4%	42	51.2%	25	30.5%	4	4.9%
099	11	13.4%	41	50.0%	26	31.7%	4	4.9%
*111	3	3.7%	20	24.4%	55	67.1%	4	4.9%
*115	5	6.1%	19	23.2%	48	58.5%	10	12.2%

Table 26. Frequencies and relative percentage of response alternatives (1-4) for items in the KSP scale Suspicion (S) in a group of male (n=82) subjects.

Item	1		2		3		4	
055	38	46.3%	38	46.3%	5	6.1%	1	1.2%
071	21	25.6%	47	57.3%	12	14.6%	2	2.4%
103	18	22.0%	43	52.4%	18	22.0%	3	3.7%
*107	4	4.9%	9	11.0%	50	61.0%	19	23.2%
119	12	14.6%	48	58.5%	20	24.4%	2	2.4%

Table 27. Frequencies and relative percentage of response alternatives (1-4) for items in the KSP scale Guilt (G) in a group of male (n=82) subjects.

Item	1		2		3		4	
*011	4	4.9%	22	26.8%	45	54.9%	11	13.4%
047	4	4.9%	43	52.4%	31	37.8%	4	4.9%
063	28	34.1%	41	50.0%	12	14.6%	1	1.2%
075	22	26.8%	37	45.1%	17	20.7%	6	7.3%
091	13	15.9%	34	41.5%	30	36.6%	5	6.1%

Table 28. Frequencies and relative percentage of response alternatives (1-4) for items in the KSP scale Detachment (De) in a group of male (n=82) subjects.

Item	Response alternative							
	1		2		3		4	
*012	3	3.7%	21	25.6%	47	57.3%	11	13.4%
*025	6	7.3%	28	34.1%	35	42.7%	13	15.9%
038	13	15.9%	50	61.0%	15	18.3%	4	4.9%
052	29	35.4%	45	54.9%	8	9.8%		
*065	7	8.5%	33	40.2%	41	50.0%	1	1.2%
078	14	17.1%	42	51.2%	23	28.0%	3	3.7%
092	8	9.8%	38	46.3%	31	37.8%	5	6.1%
105	16	19.5%	49	59.8%	13	15.9%	4	4.9%
118	15	18.3%	46	56.1%	21	25.6%		
*133	2	2.4%	45	54.9%	31	37.8%	4	4.9%

Table 29. Frequencies and relative percentage of response alternatives (1-4) for items in the KSP scale Inhibition of aggression (Inh) in a group of male (n=82) subjects.

Item	Response alternative							
	1		2		3		4	
007	17	20.7%	38	46.3%	26	31.7%	1	1.2%
*019	2	2.4%	14	17.1%	42	51.2%	24	29.3%
027	31	37.8%	35	42.7%	14	17.1%	2	2.4%
*035	9	11.0%	22	26.8%	39	47.6%	12	14.6%
051	49	59.8%	20	24.4%	12	14.6%	1	1.2%
059	17	20.7%	48	58.5%	16	19.5%	1	1.2%
067	5	6.1%	31	37.8%	40	48.8%	6	7.3%
079	13	15.9%	29	35.4%	35	42.7%	5	6.1%
083	6	7.3%	26	31.7%	36	43.9%	14	17.1%
135	16	19.5%	44	53.7%	20	24.4%	2	2.4%

Table 30. Frequencies and relative percentage of response alternatives (1-4) for items in the KSP scale Social Desirability (SD) in a group of male (n=82) subjects.

Item	1		2		3		4	
006	5	6.1%	32	39.0%	40	48.8%	5	6.1%
016	13	15.9%	33	40.2%	28	34.1%	8	9.8%
029	6	7.3%	37	45.1%	36	43.9%	3	3.7%
041			4	4.9%	60	73.2%	18	22.0%
060	1	1.2%	17	20.7%	53	64.6%	11	13.4%
069			8	9.8%	58	70.7%	16	19.5%
089	13	15.9%	47	57.3%	20	24.4%	2	2.4%
096	3	3.7%	9	11.0%	52	63.4%	18	22.0%
*114	7	8.5%	38	46.3%	33	40.2%	4	4.9%
*122	7	8.5%	31	37.8%	37	45.1%	7	8.5%

Table 31. Frequencies and relative percentage of response alternatives
(1-4) for items in the KSP scale Impulsiveness (I) in a group
of female (n=87) subjects.

Item	Response alternative 1		Response alternative 2		Response alternative 3		Response alternative 4	
008	11	12.6%	41	47.1%	26	29.9%	9	10.3%
*020	12	13.8%	39	44.8%	31	35.6%	5	5.7%
030	8	9.2%	52	59.8%	23	26.4%	4	4.6%
048	5	5.7%	51	58.6%	27	31.0%	4	4.6%
*062	4	4.6%	23	26.4%	43	49.4%	17	19.5%
068	13	14.9%	39	44.8%	28	32.2%	7	8.0%
081	19	21.8%	52	59.8%	12	13.8%	4	4.6%
101	1	1.1%	29	33.3%	46	52.9%	11	12.6%
113	5	5.7%	38	43.7%	42	48.3%	2	2.3%
127	5	5.7%	33	37.9%	39	44.8%	10	11.5%

Table 32. Frequencies and relative percentage of response alternatives
(1-4) for items in the KSP scale Monotony avoidance (M) in a
group of female (n=87) subjects.

Item	Response alternative 1		Response alternative 2		Response alternative 3		Response alternative 4	
002			21	24.1%	56	64.4%	10	11.5%
*022	1	1.1%	9	10.3%	52	59.8%	25	28.7%
028	3	3.4%	40	46.0%	36	41.4%	8	9.2%
044	15	17.2%	40	46.0%	25	28.7%	7	8.0%
054	11	12.6%	47	54.0%	28	32.2%	1	1.1%
073	18	20.7%	41	47.1%	23	26.4%	5	5.7%
*084	16	18.4%	36	41.4%	31	35.6%	4	4.6%
102	8	9.2%	38	43.7%	36	41.4%	5	5.7%
109	11	12.6%	33	37.9%	36	41.4%	7	8.0%
130	27	31.0%	44	50.6%	13	14.9%	3	3.4%

Table 33. Frequencies and relative percentage of response alternatives
(1-4) for items in the KSP scale Socialization (So) in a
group of female (n=87) subjects.

Item	Response alternative							
	1		2		3		4	
*005	51	58.6%	30	34.5%	6	6.9%		
*010	39	44.8%	27	31.0%	15	17.2%	6	6.9%
*018	53	60.9%	19	21.8%	12	13.8%	3	3.4%
*024	41	47.1%	40	46.0%	5	5.7%	1	1.1%
032	2	2.3%	10	11.5%	35	40.2%	40	46.0%
*037	19	21.8%	42	48.3%	22	25.3%	4	4.6%
*045	44	50.6%	37	42.5%	6	6.9%		
050	4	4.6%	14	16.1%	48	55.2%	21	24.1%
058	7	8.0%	12	13.8%	37	42.5%	31	35.6%
*064	55	63.2%	26	29.9%	5	5.7%	1	1.1%
*072	75	86.2%	6	6.9%	4	4.6%	2	2.3%
*077	55	63.2%	15	17.2%	13	14.9%	4	4.6%
*085	53	60.9%	28	32.2%	6	6.9%		
*090	41	47.1%	38	43.7%	7	8.0%	1	1.1%
*098	59	67.8%	17	19.5%	10	11.5%	1	1.1%
*104	48	55.2%	29	33.3%	7	8.0%	3	3.4%
*112	39	44.8%	41	47.1%	6	6.9%	1	1.1%
*117	53	60.9%	20	23.0%	6	6.9%	8	9.2%
125	12	13.8%	34	39.1%	36	41.4%	5	5.7%
*131	47	54.0%	29	33.3%	10	11.5%	1	1.1%

Table 34. Frequencies and relative percentage of response alternatives (1-4) for items in the KSP scale Somatic Anxiety (SA) in a group of female (n=87) subjects.

Item	1		2		3		4	
001	37	42.5%	38	43.7%	11	12.6%	1	1.1%
021	21	24.1%	41	47.1%	21	24.1%	4	4.6%
034	59	67.8%	21	24.1%	5	5.7%	2	2.3%
049	28	32.2%	50	57.5%	9	10.3%		
056	50	57.5%	31	35.6%	5	5.7%	1	1.1%
076	42	48.3%	29	33.3%	14	16.1%	2	2.3%
086	49	56.3%	32	36.8%	5	5.7%	1	1.1%
094	51	58.6%	26	29.9%	8	9.2%	2	2.3%
116	25	28.7%	31	35.6%	27	31.0%	4	4.6%
124	52	59.8%	26	29.9%	9	10.3%		

Table 35. Frequencies and relative percentage of response alternatives (1-4) for items in the KSP scale Muscular Tension (MT) in a group of female (n=87) subjects.

Item	1		2		3		4	
004	47	54.0%	18	20.7%	16	18.4%	6	6.9%
014	47	54.0%	27	31.0%	10	11.5%	3	3.4%
033	48	55.2%	34	39.1%	4	4.6%	1	1.1%
042	42	48.3%	36	41.4%	8	9.2%	1	1.1%
057	30	34.5%	32	36.8%	21	24.1%	4	4.6%
070	67	77.0%	20	23.0%				
088	63	72.4%	20	23.0%	4	4.6%		
100	61	70.1%	20	23.0%	6	6.9%		
108	47	54.0%	30	34.5%	9	10.3%	1	1.1%
128	52	59.8%	23	26.4%	7	8.0%	5	5.7%

Table 36. Frequencies and relative percentage of response alternatives (1-4) for items in the KSP scale Psychic Anxiety (PA) in a group of female (n=87) subjects.

Item	Response alternative 1		2		3		4	
009	35	40.2%	33	37.9%	19	21.8%		
017	18	20.7%	41	47.1%	23	26.4%	5	5.7%
036	22	25.3%	35	40.2%	24	27.6%	6	6.9%
046	17	19.5%	41	47.1%	27	31.0%	2	2.3%
061	31	35.6%	37	42.5%	14	16.1%	5	5.7%
074	15	17.2%	39	44.8%	26	29.9%	7	8.0%
082	7	8.0%	33	37.9%	44	50.6%	3	3.4%
097	17	19.5%	43	49.4%	23	26.4%	4	4.6%
110	29	33.3%	47	54.0%	11	12.6%		
121	37	42.5%	40	46.0%	10	11.5%		

Table 37. Frequencies and relative percentage of response alternatives (1-4) for items in the KSP scale Psychasthenia (Pt) in a group of female (n=87) subjects.

Item	Respons alternative 1		2		3		4	
013	18	20.7%	37	42.5%	24	27.6%	8	9.2%
*026	3	3.4%	23	26.4%	49	56.3%	12	13.8%
040	31	35.6%	41	47.1%	15	17.2%		
053	49	56.3%	32	36.8%	5	5.7%	1	1.1%
*066	11	12.6%	21	24.1%	37	42.5%	18	20.7%
*080	3	3.4%	22	25.3%	50	57.5%	12	13.8%
093	7	8.0%	38	43.7%	34	39.1%	8	9.2%
106	4	4.6%	37	42.5%	40	46.0%	6	6.9%
*120	4	4.6%	37	42.5%	42	48.3%	4	4.6%
134	41	47.1%	34	39.1%	11	12.6%	1	1.1%

Table 38.   Frequencies and relative percentage of response alternatives
            (1-4) for items in the KSP scale Indirect Aggression (IA) in
            a group of female (n=87) subjects.

Item	Response alternative							
	1		2		3		4	
023	20	23.0%	17	19.5%	33	37.9%	17	19.5%
031	38	43.7%	26	29.9%	17	19.5%	6	6.9%
*043	70	80.5%	8	9.2%	4	4.6%	5	5.7%
087	19	21.8%	45	51.7%	22	25.3%	1	1.1%
132	11	12.6%	25	28.7%	41	47.1%	10	11.5%

Table 39.   Frequencies and relative percentage of response alternatives
            (1-4) for items in the KSP scale Verbal Aggression (VA) in a
            group of female (n=87) subjects.

Item	Response alternative							
	1		2		3		4	
*015	34	39.1%	31	35.6%	14	16.1%	8	9.2%
095	33	37.9%	42	48.3%	11	12.6%	1	1.1%
123	2	2.3%	26	29.9%	52	59.8%	7	8.0%
126	4	4.6%	22	25.3%	50	57.5%	11	12.6%
129	3	3.4%	27	31.0%	44	50.6%	13	14.9%

Table 40.   Frequencies and relative percentage of response alternatives
            (1-4) for items in the KSP scale Irritability (Irr) in a
            group of female (n=87) subjects.

Item	Response alternative							
	1		2		3		4	
003	13	14.9%	41	47.1%	25	28.7%	8	9.2%
039	10	11.5%	29	33.3%	38	43.7%	10	11.5%
099	13	14.9%	50	57.5%	22	25.3%	2	2.3%
*111	1	1.1%	16	18.4%	61	70.1%	9	10.3%
*115	1	1.1%	23	26.4%	52	59.8%	11	12.6%

Table 41. Frequencies and relative percentage of response alternatives (1-4) for items in the KSP scale Suspicion (S) in a group of female (n=87) subjects.

Item	Response alternative 1		2		3		4	
055	53	60.9%	29	33.3%	5	5.7%		
071	38	43.7%	38	43.7%	10	11.5%	1	1.1%
103	23	26.4%	54	62.1%	10	11.5%		
*107	7	8.0%	9	10.3%	42	48.3%	29	33.3%
119	25	28.7%	52	59.8%	9	10.3%	1	1.1%

Table 42. Frequencies and relative percentage of response alternatives (1-4) for items in the KSP scale Guilt (G) in a group of female (n=87) subjects.

Item	Response alternative 1		2		3		4	
*011	7	8.0%	32	36.8%	41	47.1%	7	8.0%
047	9	10.3%	37	42.5%	38	43.7%	3	3.4%
063	19	21.8%	40	46.0%	26	29.9%	2	2.3%
075	31	35.6%	39	44.8%	15	17.2%	2	2.3%
091	7	8.0%	13	14.9%	57	65.5%	10	11.5%

Table 43. Frequencies and relative percentage of response alternatives
           (1-4) for items in the KSP scale Detachment (De) in a group
           of female (n=87) subjects.

Item	Response alternative 1		2		3		4	
*012	3	3.4%	11	12.6%	64	73.6%	9	10.3%
*025	1	1.1%	4	4.6%	37	42.5%	45	51.7%
038	19	21.8%	54	62.1%	13	14.9%	1	1.1%
052	50	57.5%	32	36.8%	3	3.4%	2	2.3%
*065	1	1.1%	31	35.6%	45	51.7%	10	11.5%
078	31	35.6%	45	51.7%	10	11.5%	1	1.1%
092	18	20.7%	55	63.2%	14	16.1%		
105	31	35.6%	40	46.0%	15	17.2%	1	1.1%
118	30	34.5%	46	52.9%	8	9.2%	3	3.4%
*133	1	1.1%	24	27.6%	51	58.6%	11	12.6%

Table 44. Frequencies and relative percentage of response alternatives
           (1-4) for items in the KSP scale Inhibition of aggression
           (Inh) in a group of female (n=87) subjects.

Item	Response alternative 1		2		3		4	
007	17	19.5%	33	37.9%	30	34.5%	7	8.0%
*019	3	3.4%	18	20.7%	43	49.4%	23	26.4%
027	49	56.3%	26	29.9%	12	13.8%		
*035	2	2.3%	13	14.9%	42	48.3%	30	34.5%
051	52	59.8%	28	32.2%	6	6.9%	1	1.1%
059	11	12.6%	35	40.2%	32	36.8%	9	10.3%
067	8	9.2%	28	32.2%	44	50.6%	7	8.0%
079	12	13.8%	22	25.3%	41	47.1%	12	13.8%
083	2	2.3%	19	21.8%	33	37.9%	33	37.9%
135	10	11.5%	33	37.9%	28	32.2%	16	18.4%

Table 45. Frequencies and relative percentage of response alternatives
(1-4) for items in the KSP scale Social Desirability (SD) in
a group of female (n=87) subjects.

Item	Response alternative							
	1		2		3		4	
006	11	12.6%	40	46.0%	33	37.9%	3	3.4%
016	10	11.5%	29	33.3%	35	40.2%	13	14.9%
029	7	8.0%	35	40.2%	43	49.4%	2	2.3%
041	1	1.1%	5	5.7%	63	72.4%	18	20.7%
060			11	12.6%	64	73.6%	12	13.8%
069	1	1.1%	14	16.1%	57	65.5%	15	17.2%
089	23	26.4%	35	40.2%	27	31.0%	2	2.3%
096	2	2.3%	11	12.6%	54	62.1%	20	23.0%
*114	9	10.3%	37	42.5%	35	40.2%	6	6.9%
*122	13	14.9%	46	52.9%	25	28.7%	3	3.4%