# FACTOR ANALYSIS OF THE SHORT VERSION OF THE YOUNG SCHEMA QUESTIONNAIRE

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Thesis presented in partial fulfilment of the requirements for the degree of Master of Sciences (Clinical Psychology) at the University of Stellenbosch



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# **DECLARATION**

I, the undersigned, declare that the work contained in this thesis is my own original work and has not previously, in its entirety or in part, been submitted at any university for a degree.

V.J.-Connan

#### **ABSTRACT**

In response to increased focus on schemas within cognitive therapy and specifically in the treatment of personality disorders, Young developed an instrument to measure early maladaptive schemas, the Young Schema Questionnaire (YSQ). The statistical properties of this measure have been investigated, and due to its length, a shortened version was developed (the YSQ-S). In the present study the factor structure of the YSQ-S was investigated in a group of South African undergraduate psychology students (N = 300). In contrast with the findings of the studies done on the YSQ, 14 of Young's 15 schemas were identified as factors in the YSQ-S, corresponding largely with the theoretically underlying structure. A higher order factor analysis solution was also found to resemble the structure proposed by Young.

#### **OPSOMMING**

Die groter fokus op skemas binne die kognitiewe terapie, veral met betrekking tot die behandeling van persoonlikheidsversteurings, het daartoe gelei dat Young 'n meetmiddel, naamlik die Young Schema Questionnaire (YSQ), ontwikkel het om vroeë wanaangepaste skemas ("early maladaptive schemas") te meet. Die statistiese eienskappe van hierdie meetmiddel is reeds nagevors, en as gevolg van die lengte van hierdie meetmiddel, is 'n verkorte weergawe daarvan ontwikkel (YSQ-S). In die huidige studie is die faktoriale struktuur van die YSQ-S by 'n groep Suid Afrikaanse voorgraadse sielkunde studente (N = 300) ondersoek. In teenstelling met die bevindings van vroeëre studies op die YSQ, is 14 van die 15 van Young se skemas as faktore by die YSQ-S geïdentifiseer, wat grootliks ooreengestem het met die teoreties gekonseptualiseerde onderligende struktuur. Die oplossing van 'n hoër-ordefaktorontleding het ook ooreengestem met die struktuur wat deur Young voorgestel is.

### STATEMENT OF DEPARTMENT

This work is the result of a research project, which is of the same extent as that required for master's theses.

It is a rule of the Department of Psychology that the report of the research may take the form of an article, which is ready for submission for publication to a scientific journal.

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#### 1

#### INTRODUCTION

With the expansion of cognitive therapy to include the treatment of personality disorders (Beck, Freeman, & Associates, 1991; Freeman & Leaf, 1989; Young, 1994), and the subsequent increase in focus on the schema concept, it has become necessary to further investigate the assessment of schemas. Initiative in this area has been taken by Dr Jeffrey Young (1994) with his Schema Questionnaire, and preliminary research has been done to validate the measure (Lee, Taylor, & Dunn, 1999; Schmidt, Joiner, Young, & Telch, 1995).

Since the early 1960's, when Beck (1995) recognised "a thinking disorder at the core of certain psychiatric syndromes" (p. vii), there has been an exponential growth in cognitive therapy, which attempts to rectify patients biased thoughts and interpretations. Cognitive therapy has been successfully applied in treating many psychological problems such as depression (Beck, 1964; Beck, Rush, Shaw, & Emery, 1979), anxiety (Beck, Emery, & Greenberg, 1985, Bennet & Stirling, 1998; Scholing, Emmelkamp, & Van Oppen, 1996) and eating disorders (Fairburn, 1997; Garner, Vitousek, & Pike, 1998).

Within cognitive therapy, the concept of the schema has been widely used and explored (Beck et al., 1979; Beck et al., 1991; Segal, 1988), although the definitions sometimes vary. Beck et al. (1979) described schemas as cognitive structures that enable individuals to interpret their surroundings. They proposed that an individual "categorises and evaluates his experiences through a matrix of schemas" (p.13). After considering many different definitions, Segal (1988) proposed a definition of schema along the same lines as Beck: "Organised elements of past reactions and experience that form a relatively cohesive and

persistent body of knowledge capable of guiding subsequent perception and appraisals" (p. 147).

In the past decade there has been a shift in focus in cognitive therapy towards personality disorders (Beck et al., 1991; Freeman & Leaf, 1989; Young, 1994). The cognitive theory on personality disorders proposes that at the centre of these disorders lie negative schemas or life rules that are used to interpret one's surroundings, and in so doing influence one's behaviour. In contrast to schemas in other disorders, these schemas are more constantly active and more resistant to change. As Beck et al. (1991) state "the more idiosyncratic, dysfunctional schemas displace the more reality-oriented, adaptive schemas in functions such as information processing, recall, and prediction" (p.23).

Young (1994) places even more emphasis on schemas in his proposed treatment method of personality disorders (as well as other treatment resistant problems), and labels it "A schema focused approach" in the title of his book. His focus is specifically on the Early Maladaptive Schema (EMS), which he defines as "extremely stable and enduring themes that develop during childhood and are elaborated upon throughout an individual's lifetime. These schemas serve as templates for the processing of later experience" (p. 9). An early maladaptive schema is thus a schema that is negative, almost always activated, and difficult to change.

Young (1994, 1998) proposes that through a combination of temperamental factors and one's parenting and surroundings, early maladaptive schemas are developed during childhood. In childhood these early maladaptive schemas are initially a way for the child to cope in his/her environment, but in adulthood these schema's often lead to dysfunctional reactions to

situations that lead to the activation of the applicable schema. Once they are formed, the early maladaptive schemas maintain themselves by ignoring information that may contradict them, and enhancing information that supports them. Sixteen different early maladaptive schemas are measured by the Young Schema Questionnaire (Young, 1994):

- 1. *Emotional Deprivation*: A belief that one's primary emotional needs will never be met by others.
- 2. Abandonment: Expectations that one's close emotional attachments will terminate.
- 3. Mistrust/Abuse: Expectations of being abused or mistreated by others.
- 4. *Social Isolation/Alienation*: A belief that one is isolated from the world, different from others, a sense of not belonging.
- 5. Defectiveness / Shame: A belief that one is internally flawed and inadequate.
- 6. Social Undesirability: A belief that one is outwardly unattractive to others.
- 7. Failure to Achieve: A belief that one is incapable of performing well relative to others and is therefore destined to fail.
- 8. *Dependence/Incompetence:* A belief that one is not capable of handling day-to-day responsibilities competently and independently.
- 9. *Vulnerability:* An exaggerated belief that some external or internal disaster may occur at any time, e.g. becoming financially destitute or having a heart attack.
- 10. *Enmeshment:* Excessive connection with others, especially parents, due to the belief that at least one of the enmeshed individuals cannot survive without the constant support of the other.
- 11. Subjugation: A belief that one must submit to the control of others in order to avoid negative consequences such as anger or rejection.

- 12. *Self Sacrifice*: A belief that one must excessively sacrifice one's own needs in order to help others, often motivated by guilt.
- 13. Emotional Inhibition: A belief that one must inhibit emotions and impulses.
- 14. Unrelenting Standards: A belief that one must meet unrealistically high standards.
- 15. Entitlement: A belief that one should be able to act without regard for others.
- 16. Insufficient Self-control: Inability to tolerate any frustration in reaching one's goal.

Although there has been an increasing emphasis on the use of the schema concept in the treatment of psychological disorders, there has been little research aimed at identifying and assessing schemas (Young, 1994). In response to the need for an assessment instrument, Young (1994) developed the Young Schema Questionnaire (YSQ) to assess these schemas in clients. Two forms of this questionnaire are available (Young, 1999). The original questionnaire consists of 205 items, which can be time consuming to administer. Two large-scale studies have been done to determine the psychometric properties of the longer scale (Lee et al., 1999; Schmidt et al., 1995). Young then developed a shorter version of the questionnaire (YSQ-S), which consists of 75 items. Young (1999) reported that this questionnaire is more pure factorially, and consists of the items shown to have the highest validity for each schema in the two previous studies. In the present study the shortened questionnaire (YSQ-S) will be used.

The first study on the YSQ, done by Schmidt et al. (1995) entailed administering the questionnaire to 1129 graduate students and 187 outpatients to a clinic. Principal Component Factor Analysis (PCA) of data from the student sample with orthogonal VARIMAX rotation presented 12 of the 16 factors identified by Young, with another factor "Fear of Losing Control" included and the factor "Social Undesirability" which did not emerge at all. Four

other factors hypothesised by Young which did not emerge, were merged into conceptually similar factors. With the patient sample, 15 of the 16 factors were identified, with only the factor "Social Undesirability" absent.

According to Lee et al. (1999) the clinical sample used in the above study was too small, and administered the questionnaire to 433 clinical patients (278 from private practice and 78 from an acute psychiatric unit). A large portion of these had an Axis II diagnosis, while the rest had an Axis I diagnosis only. Using the same statistical methodology mentioned above, 16 factors emerged in this study, and like the Schmidt et al. (1995) study, the factor "Social Undesirability" did not emerge. The factor "Emotional Inhibition" emerged as two separate factors, namely "Emotional Constriction" and "Fear of Loss of Control" (the last of which was also present in Schmidt et al.'s student sample).

Only one study has been done using the short version of the YSQ. Waller, Meyer, and Ohanian (unpublished) administered both the long and the short versions of the YSQ to a sample consisting of 60 women with a diagnosis of bulimia, and 60 women with no known clinical history. They found that both forms had similar levels of internal consistency, parallel forms reliability and discriminant validity, and that their levels of clinical utility were broadly comparable.

On reviewing these three studies, two inadequacies become apparent: firstly, that the factor structure of the short version of the YSQ should be investigated, and secondly, that improved statistical methodology should be used in doing so.

In response to Gorsuch's 1997 paper on exploratory factor analysis, the statistical methods used in the present study were different to those used previously on the Young Schema Questionnaire (Lee et al., 1999; Schmidt et al., 1995).

Firstly, common factor analysis was given preference above principle component analysis (PCA). Gorsuch (1997) states that PCA is based on the assumption that the variables identified are reproduced perfectly by the factors (i.e. the variables are perfectly reliable). Common factor analysis makes use of an error term to prevent this problem. Past reasons for using PCA instead of common factor analysis have become outdated with the advent of more computational power. If the use of PCA is appropriate (i.e. the variables are reproduced perfectly by the factors), common factor analysis will lead to the same results (the error term will be zero), but this is not necessarily true for the reverse. It can thus be concluded that the use of common factor analysis will give the most appropriate results, irrespective of other elements.

As opposed to the orthogonal VARIMAX rotation used by both Schmidt et al. (1995) and Lee et al. (1999), an oblique PROMAX rotation was used to render the factorised data more interpretable. Gorsuch (1997) motivates the use of oblique rotation very strongly. He states that VARIMAX restricts factors to being uncorrelated. It was demonstrated by the extraction of higher order factors in previous studies (Lee et al., 1999; Schmidt et al., 1995) that the factors were in actual fact correlated. The results obtained using VARIMAX were thus biased. An oblique rotation on the other hand, gives non-restricted solutions, that is, if the factors are uncorrelated, it will give an uncorrelated result and if they are correlated it will give a correlated result. It will thus give the most appropriate answer for either situation.

The criterion for the number of factors to be extracted was Velicer's (1976) Minimum Average Partial (MAP) test, where the number of factors used is that number with the lowest MAP value. This criterion was recommended by Gorsuch (1997) as well as Nunally and Bernstein (1994), and has been shown to be more accurate than the commonly used eigenvalues-greater-than-one and scree-test criteria (Zwick & Velicer, 1986). A further recommendation made by Gorsuch (1997) was that only those factors with three variables and with a loading ≥ 0.3 (salient variables) should be considered.

The aim of the present study was thus to investigate the factor structure of the YSQ-S, using updated statistical methodology. It was proposed that the factor structure of the shortened questionnaire would be very similar to that of the long version, as the items used in the YSQ-S were derived from the long version by selecting those items with the highest loadings on the respective factors. It was also hoped that through the use of improved statistical methods, the factors derived would reflect the theoretical early maladaptive schemas proposed by Young (1994) more closely.

#### **METHOD**

# **Participants**

The participants were 300 undergraduate students at the University of Stellenbosch (240 females, 60 males). All subjects were enrolled in a first or second year psychology course and were an average age of 19 years.

# **Psychometric Instrument**

In the present study the structure of the short version of the Young Schema Questionnaire (YSQ-S), consisting of 75 items, was investigated. The original version of the YSQ consists of 205 items (Young, 1994). Most studies in the past have made use of this longer version, as the validity and reliability of this questionnaire was first investigated (Schmidt et al., 1995). Due to its shorter administration time, the short version of the YSQ is more practical to use. Recent studies have also been done to show that the psychometric properties of the shorter version are equivalent to that of the longer version (Waller, Meyer, & Ohanian, unpublished; Young, 1999). Young (1999) also reported that this questionnaire is "more pure factorially" ("Young Schema Questionnaires: Long and Short Forms" section, para. 2), and consists of the items shown to have the highest validity for each schema in two past studies (Lee et al., 1999; Schmidt et al., 1995). He also proposed that in future, the shortened version should be used more widely.

The YSQ-S is 75 items long, and consists of a subset of five items from each of the original 15 subscales. Only 15 of the 16 schemas (described earlier) were extracted using factor analysis (Schmidt et al., 1995), and the factor Social Undesirability, was excluded from the YSQ-S. Each item (see items in Table 2) was scored on a 6-point scale ranging from one (completely untrue of me) to 6 (describes me perfectly). The overall score for the scale was calculated from the mean of the five items in that scale. In other words, an average score for each of the 15 subscales/schema was obtained. In all cases, a higher score indicated a more maladaptive, unhealthy core belief.

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## **Procedure**

The participants completed two self-report measures at home (this would have taken approximately 30 minutes). The two measures were the YSQ-S, which is considered in the present study, and the Young Parenting Inventory (YPI), which forms a part of a more extensive study and will not be reported on here. Participation was voluntary and each student was given their results to the YSQ-S and means to interpret it.

#### RESULTS

The 75 items of the YSQ-S were factor analysed using common factor analysis, which was described earlier. Using Velicers MAP test, the number of factors suggested for extraction was 16. Two of these factors did not however have three salient loadings, and were dropped, leaving 14 factors which explained 58% of the variance of the correlation matrix. After common factor analysis, oblique (PROMAX) rotation was used to enhance the interpretability of the factors. The rotated factor pattern matrix can be seen in Table 1.

Insert Table 1 about here

Sixty-six of the 75 items (88%) had their highest loading on the factor corresponding to the theory and the scoring key prepared by Young (1999). Six items (8%) had a salient loading on more than one factor. Only two items (3%) had no salient loading.

Fourteen of the 15 theoretically conceptualised early maladaptive schemas expected to be measured by the YSQ-S were uncovered. Ten of these factors had their highest loadings on

the 5 items identified by Young (1999) in his marking template. These factors and their corresponding schemas were: 2 (Self-sacrifice), 3 (Defectiveness), 4 (Insufficient Self-control, 5 (Unrelenting Standards), 6 (Emotional Inhibition), 7 (Abandonment), 9 (Mistrust), 10 (Emotional Deprivation), 12 (Isolation/alienation). The factors with their items and loadings are presented in Table 2.

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Insert Table 2 about here

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Factors 1, 8, 11, 13 and 14 deviated with varying degrees from the scoring key and will each be discussed in more detail.

Factor 1 was loaded by three extra items, namely items 31, 33 and 34, which theoretically belong to the Dependence/Incompetence schema. The latter was the only early maladaptive schema that did not emerge as a unique factor and its items were split among other factors. The other 5 items strongly loaded on Factor 1 (26-30) theoretically belonged to the Failure to Achieve schema. If one views all the items loading on Factor 1 (see Table 2), the most descriptive label appears to be Incompetence.

Factor 8 closely corresponded with the Enmeshment schema, but differed in two respects.

Item 41, which theoretically belonged to this schema did not load on Factor 8, and in actual fact had no salient loading on any factor. This item seems to be problematic and may need to be revised. Item 46, which theoretically belonged to the Subjugation schema, unexpectedly loaded on Factor 8. Consideration of the items loading on Factor 8 suggest that the name Enmeshment is still the most appropriate.

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Factor 11 had only one extra item (35), which was a part of the previously disintegrated Dependence/Incompetence schema. This item fits in with the schema most closely

corresponding with Factor 11, namely Vulnerability.

Factor 13 consisted of four items from the Subjugation schema (47-50), and two items from the previously disintegrated Dependence/Incompetence schema (32 and 34). As shown in the preceding paragraph, item 46 loaded on another factor (i.e. Factor 8). Combined, the items loading most strongly on Factor 13 suggest that the factor can retain the label Subjugation.

Lastly, Factor 14 deviated slightly from the Entitlement schema. Item 66, which theoretically belonged to this schema had no salient loading and may need to be revised. Item 68 had two salient loadings (one on Factor 14 and the other on Factor 5). Upon review, Factor 14 also retains the label of its corresponding theoretical schema, namely Entitlement.

Next, factor scores were computed for each of the 14 factors using unit weighting of the salient items. These factor scores were correlated with the sub-scale scores (scored according to the scoring key) of the YSQ-S. These correlations are reported in Table 3.

Insert Table 3 about here

Inspection of Table 3 shows strong correspondence between the empirically derived factor scores and theoretically derived scale scores for 14 of the 15 factors. One of the theoretical

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schemas, namely Dependence/Incompetence, correlated highly with both Factor 1 and Factor 13. This schema was not identified as an individual factor, and its items were divided between Factors 1 and 13.

In conclusion, 14 of the 15 theoretical schemas used in the YSQ-S were identified using factor analysis. The only schema that did not emerge as a unique factor was

Dependence/Incompetence. The items of this factor were split among other factors, especially in Factor 1, which was then renamed from Failure to Achieve, to Incompetence, which was deemed to be most descriptive of the items. Two items were loaded on Factor 13, which retained its label of Subjugation.

# **Higher Order Factors**

Intercorrelation of the primary factors yielded the matrix presented in Table 4. Visual inspection of Table 4 shows overlaps between a number of the factors. The purpose of higher order factorization is to clarify these overlaps.

Insert Table 4 about here

A higher order factor analysis was then undertaken on the 14 extracted factors. Velicer's MAP test suggested that 1 factor be extracted, but due to the difficulty of interpretability, it was decided to use factors with eigenvalues > 1 (Kaiser, 1961). This procedure suggested 4 secondary factors, which explained 48% of the variance in the correlation matrix. As before,

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common factor analysis with oblique Promax rotation was used. The results of this analysis can be seen in Table 5.

Insert Table 5 about here

Three of the scales had salient (>.3) loadings on 2 factors. As the loadings were relatively close, each of these scales were included in both secondary factors that they loaded on. A diagram of the division of first order factors into higher order factors can be seen in Figure 1.

Insert Figure 1 about here

The first higher order factor was labeled *Impaired Autonomy* and had the highest loadings on Incompetence, Insufficient self-control, Abandonment, Enmeshment, Vulnerability, Subjugation, and Isolation. The second higher order factor was labeled *Disconnection* and was loaded highly on Defectiveness, Emotional Inhibition, Mistrust, Emotional Deprivation and Isolation. The third higher order factor was called *Impaired Limits* and had salient loadings on Insufficient Self-control and Entitlement. Lastly, the fourth higher order factor was labeled *Over Control* and loaded on Entitlement, Self Sacrifice and Unrelenting Standards.

#### DISCUSSION

Fourteen of the 15 early maladaptive schemas identified by Young (1999) in the YSQ-S emerged as independent factors in the present study. As mentioned earlier, Social Undesirability was not included in the YSQ-S. The only early maladaptive schema that did not emerge as a separate independent factor was Dependence/Incompetence. This schema's items were found to be split between Failure to Achieve and Subjugation, that is, Dependence/Incompetence merged with Failure to Achieve and Subjugation. Subjugation retained its label and Failure to Achieve was renamed Incompetence. This contrasted with the findings of Schmidt et al. (1995) in their student sample and Lee et al. (1999) who discovered that the subscale Emotional Inhibition was split into two different factors: Emotional Constriction and Fear of loss of Control.

There are four possible reasons for these differences. Firstly the differences could be due to the use of the short version of the YSQ instead of the original longer version. It was however found with a group of women diagnosed with bulimia (Waller et al., unpublished) that the short and long version had similar psychometric properties (internal consistency, parallel forms reliability, and discriminant validity).

The second possible reason for the differences could be a variation produced by differences in culture. Schmidt et al. (1995) used American students while Lee et al. (1999) used Australian students, which are both "westernised" cultures. The current study made use of South African students.

The use of a student sample as opposed to a clinical sample could also have had some influence. As postulated by Lee et al. (1999), the use of a student population, which is unlikely to contain many individuals with serious psychopathology, may be problematic. Firstly, certain factors may not be identified in student populations due to the poor definition of "dimensions of variation" (p. 443). Furthermore, the presence of schemas in non-clinical samples are thought not to be as strong as those in clinical samples. A student sample also consists of a group with little variation in age. It must however be noted that the results obtained in the present study also differed from the student sample of Schmidt et al. (1995).

The most likely reason for the different results is the use of different statistical methodology discussed earlier to analyse the data. This brings the results of the previous studies into question.

# **Higher Order Factors**

In the higher order factor analysis, four factors were extracted. Lee et al. (1999) also extracted four higher order factors whereas Schmidt et al. (1995) extracted only three higher order factors from his student sample.

The first higher order factor, which was termed *Impaired Autonomy* (with high loadings on Incompetence, Abandonment, Vulnerability, Subjugation, Isolation, and Insufficient Self Control) seems to describe an individual who believes that he/she needs others to function and is so afraid of them leaving that they will do anything they want. Such an individual would appear to perceive themselves as a failure who can't do anything independently. This factor was given the same label as the second order factor of Lee et al. (1999) and appears

very similar in content (as can be seen in Table 6). The only difference being the inclusion in the present study of Abandonment, Isolation and Insufficient Self-control, which could represent fears of the individual that attribute to many of the other factors. For example, their fear of abandonment and isolation could attribute to their subjugation. This factor also corresponds to a lesser degree to the Schmidt et al. (1995) factor Overconnection. This factor was the same as that Lee et al. (1999) described above, except for the factor Subjugation which was not included. The term *Impaired Autonomy* also appears a better term as it also includes a sense of Failure and Incompetence.

Insert Table 6 about here

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The second higher order factor was labelled *Disconnection*, and loaded on Defectiveness, Emotional Inhibition, Mistrust, Emotional deprivation, and Isolation. A high score on this factor appears to indicate an individual whose emotional and possibly physical needs have not been met and who believes there is something wrong with them, withdraws from others and mistrusts them. This factor contains the same subscales as Lee et al. (1999), but does not include Abandonment. In the Schmidt et al. (1995) study, Abandonment and Fear of Losing Control were included, but Isolation was not. This higher order factor corresponds to Young's (1994) Disconnection domain. The present study includes Emotional Inhibition, which Young's model does not.

The third higher-order factor was labeled *Impaired Limits*. This loaded strongly on two scales, Insufficient Self-control and Entitlement (which were both loaded on other factors).

This was the same grouping made by Young (1994) and was also labeled the same. This grouping often indicates a person who seldom takes others into consideration, and has problems handling emotional experiences. There tends to be a problem with internal limit setting and an inability to consider long-term goals. In the study done by Lee et al. (1999) three scales loaded highly on the *Impaired Limits* factor. These scales were Insufficient Self-control (which also loaded on the factor *Impaired Autonomy*), Entitlement, as well as the scale Fear of Loss of Control which was a new scale derived in their study. Schmidt et al. (1995) did not identify *Impaired Limits* as one of their higher order factors.

Lastly, the fourth higher order factor was labelled *Over Control*. A high loading on this factor appears to indicate an individual with very specific ideas about what and how things should be done, and is willing to do anything to maintain it. The same label as one proposed by Lee et al. (1999) was used, and the higher order factor *Over Control* loaded on both the scales Self Sacrifice and Unrelenting Standards (primary factors) in their and the present study. The scale Entitlement (which was loaded on *Impaired Limits* and *Over Control*) was an extra scale in the present study. Schmidt (1995) identified a factor that loaded on the same scales as those of Lee et al. (1999), but labelled it Exaggerated Standards. Young's (1994) corresponding domain in his revised version was titled Overvigilance/Inhibition and combined "Unrelenting Standards" with three new scales that were not found in any studies of the YSO.

In conclusion, the current study showed that the factor structure of the short version of the YSQ corresponded well with the theoretical early maladaptive schema structure proposed by Young (1994). This holds promise for the use of the short version of the YSQ in place of the long version. The differences between this study and the other studies done on the YSQ

should be further explored using a clinical sample in South Africa, and possibly a comparative study using both the long and short versions of the YSQ.

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Table 1

Promax Rotated Factor Pattern Matrix of the YSQ-S Items

						Ex	tracte	d Fac	ctors						
Item	1	2	3	4	5	6	7	8	9	10	11	12	13	14	
y1	07	02	07	06	05	-05	02	-03	00	<u>73</u>	00	-19	05	02	
y2	13	02	06	01	-04	04	12	13	02	<u>79</u>	-07	-20	-10	-06	
у3	18	04	07	-02	-02	00	29	01	01	<u>63</u>	-05	04	-15	-03	
y4	01	-04	17	-07	-02	-04	-03	02	00	<u>76</u>	01	-01	12	05	
y5	-08	03	-13	-01	-08	-09	-01	09	09	<u>66</u>	06	11	05	05	
y6	00	03	-06	00	04	-06	<u>86</u>	-02	03	13	01	-05	00	-09	
y7	-03	-01	-02	06	01	-02	<u>83</u>	-02	-08	08	13	01	01	-08	
y8	-03	00	01	-03	-02	05	<u>80</u>	-02	-12	13	12	02	06	00	
у9	-14	00	00	03	-02	01	<u>72</u>	-02	-03	-09	11	07	08	06	
y10*	-03	-04	-02	-05	04	-02	<u>55</u>	08	<u>31</u>	-08	-14	15	02	05	
y11	04	28	-01	-03	-14	-10	12	-02	<u>39</u>	-02	-10	09	23	14	
y12	12	01	02	-11	-04	03	-01	01	<u>57</u>	07	09	19	-11	08	
y13	08	-04	-04	-06	02	-08	09	-10	<u>61</u>	00	09	10	14	06	
y14	02	01	-01	12	-01	08	-01	-06	<u>83</u>	-03	04	00	01	-01	
y15	-05	01	04	14	07	02	-07	-07	<u>78</u>	12	11	-05	-04	-17	
y16	00	06	<u>70</u>	-01	-03	00	-06	-03	-01	06	02	11	13	04	
y17	-06	06	<u>30</u>	07	14	-06	-20	10	12	25	16	05	-18	12	
y18	-10	-05	<u>82</u>	-07	-01	01	-05	-03	-05	14	02	11	05	02	
y19	-15	-08	<u>78</u>	00	-06	11	02	02	08	04	-06	11	02	00	
y20	05	03	<u>75</u>	-02	-02	06	02	-07	-01	03	-02	02	10	02	
y21	08	-06	19	07	17	-12	09	-05	-03	-17	02	<u>73</u>	04	-03	

y22	00	-02	11	03	12	-14	-01	-01	11	-07	-10	<u>85</u>	10	-07
y23	12	-10	-04	-01	04	01	04	09	05	-05	01	<u>73</u>	-04	-18
y24	20	-07	05	02	04	14	-03	08	-07	02	13	<u>62</u>	-10	-10
y25	07	-02	08	-01	-02	19	06	03	-05	05	07	<u>44</u>	06	-01
y26	<u>77</u>	11	03	05	-03	-03	-03	07	-03	05	02	22	-15	-07
y27	<u>77</u>	05	01	06	-13	03	-12	11	-05	-02	08	13	-13	03
y28	<u>94</u>	02	-03	00	-10	-02	-08	-04	05	01	-01	02	-03	05
y29	<u>100</u>	02	-05	02	-03	00	-04	-02	07	04	-11	02	-11	03
y30	<u>94</u>	00	-15	-08	03	04	06	-01	00	14	-15	-03	-04	01
y31	<u>43</u>	03	09	13	-02	00	16	-11	-03	01	02	-08	15	06
y32	01	08	-04	06	-03	05	06	08	00	-02	-03	-13	35	12
y33*	<u>46</u>	-15	05	-01	07	01	-01	-04	-05	-07	-05	-16	<u>30</u>	-04
y34*	<u>38</u>	-14	-02	-14	10	-05	-01	-20	06	00	03	08	<u>41</u>	02
y35	26	-01	-01	-10	-01	03	10	-11	-06	02	<u>31</u>	10	24	-03
y36	-09	01	-03	-02	05	14	10	11	-08	11	<u>70</u>	04	-05	-12
y37	-05	09	-09	-02	-01	11	-06	00	15	07	<u>86</u>	-01	-17	03
y38	-02	01	11	-05	-10	-13	15	-11	06	-13	<u>77</u>	-23	-16	13
y39	07	-03	09	-07	-06	-02	10	-01	-03	-08	<u>65</u>	12	-15	12
y40	-15	02	-05	06	-08	-03	10	03	-08	-06	<u>73</u>	09	-07	03
y41	07	-07	10	01	21	-20	-09	29	-05	-06	17	-11	28	-07
y42	08	02	19	10	09	-08	00	<u>55</u>	05	-16	06	-23	-05	-08
y43	11	-04	06	-09	12	02	10	<u>44</u>	18	-16	01	-25	02	-08
y44	-08	04	-10	-02	-06	-02	03	<u>83</u>	-10	18	01	10	09	-03
y45	01	-03	-08	-08	-12	02	-10	<u>76</u>	-13	10	-12	22	17	12
y46	05	01	-05	00	-10	03	-07	<u>43</u>	02	00	23	11	09	06

y47	-03	07	03	04	-11	02	26	13	-07	-09	-06	17	<u>43</u>	19
y48	-22	16	12	14	-07	03	02	06	-04	-02	-22	-03	<u>75</u>	02
y49	-01	-05	-09	10	-11	16	-10	20	08	-10	01	10	<u>49</u>	-02
y50	-11	-02	04	-04	02	-04	13	16	07	07	-18	08	<u>60</u>	-02
y51	05	<u>59</u>	11	-01	08	01	03	07	-18	00	-03	-05	07	06
y52	03	<u>76</u>	-07	-07	00	04	05	-05	02	07	00	-11	07	03
y53	10	<u>74</u>	-01	00	05	06	-03	03	05	-04	05	-04	03	00
y54	-05	<u>74</u>	-03	22	13	-05	-01	-01	02	03	06	02	-01	-17
y55	05	<u>61</u>	-01	-15	14	05	-04	03	02	-02	07	-16	13	-01
y56	-04	05	-06	04	10	<u>66</u>	05	-09	-07	-03	19	-10	17	-12
y57*	-04	09	-04	02	-04	<u>55</u>	-14	-06	10	-02	06	-02	<u>30</u>	01
y58*	-02	-04	05	-05	06	<u>54</u>	-09	-04	-01	16	04	-07	<u>-37</u>	-07
y59	07	03	08	-03	-02	<u>90</u>	01	03	02	-11	-03	-07	-22	11
y60	00	-04	15	03	05	<u>65</u>	08	-01	11	-03	-13	05	-01	02
y61	-16	-08	06	-09	<u>69</u>	12	08	-01	05	00	-05	-06	07	00
y62	-12	06	-03	-10	<u>85</u>	-02	-03	-06	05	03	-04	09	-03	-03
y63	04	20	-03	-05	<u>69</u>	05	01	-08	-10	-17	-07	14	-12	11
y64	01	18	-09	03	<u>60</u>	-10	03	03	-06	04	06	17	04	04
y65	08	07	-04	-04	<u>62</u>	04	-03	05	06	-05	-07	27	-06	-01
y66	08	-25	-11	17	29	15	18	18	-01	03	00	-17	-12	20
y67	04	00	01	-06	00	03	-02	03	-02	-08	08	-24	02	<u>77</u>
y68*	-05	-10	-08	25	<u>33</u>	03	03	-04	-02	17	-06	00	-10	<u>33</u>
y69	07	-02	13	07	-01	01	01	-02	-08	10	-01	-08	-02	<u>67</u>
y70	-09	-12	-10	01	19	-07	-26	-02	09	07	15	02	15	<u>57</u>
y71	-07	03	-03	<u>81</u>	-15	02	02	03	13	-06	-11	00	-02	02

y72	11	-02	08	<u>51</u>	-08	-03	06	-01	04	-06	05	-02	13	-02
y73	-04	-04	-01	<u>69</u>	07	-06	-01	-05	-04	14	-01	05	26	-13
y74	06	03	-17	<u>62</u>	-07	06	03	00	05	-01	10	01	01	05
y75	09	05	06	<u>66</u>	-05	-02	-05	-01	00	-09	-03	09	03	06

Note. Decimal point is omitted. All factor pattern coefficients are rounded to two decimal places. All factor pattern coefficients  $\geq 30$  are underlined. Items with more than one factor pattern coefficient  $\geq 30$  are marked with an asterisk.

Table 2

Extracted Factors, Items and Loadings

Factor 1 Incompetence	
26. Almost nothing I do at work (or school) is as good as other people can do.	.77
27. I'm incompetent when it comes to achievement.	.77
28. Most other people are more capable than I am in areas of work and achievement.	.94
29. I'm not as talented as most people are at their work.	1.00
30. I'm not as intelligent as most people when it comes to work (or school).	.94
31. I do not feel capable of getting by on my own in everyday life.	.43
33. I lack common sense.	.46
34. My judgment cannot be relied upon in everyday situations.	.38
Factor 2 Self-sacrifice	
51. I'm the one who usually ends up taking care of the people I'm close to.	.59
52. I am a good person because I think of others more than of myself.	.76
53. I'm so busy doing for the people that I care about, that I have little time for myself.	.74
54. I've always been the one who listens to everyone else's problems.	.74
55. Other people see me as doing too much for others and not enough for myself.	.62
Factor 3 Defectiveness	
16. I don't fit in.	.70
17. I'm fundamentally different from other people.	.30
18. I don't belong; I'm a loner.	.82
19. I feel alienated from other people.	.78
20. I always feel on the outside of groups.	.75
Factor 4 Insufficient self-control	
71. I can't seem to discipline myself to complete routine or boring tasks.	.81
72. If I can't reach a goal, I become easily frustrated and give up.	.51
73. I have a very difficult time sacrificing immediate gratification to achieve a long-range goal.	.69

74. I can't force myself to do things I don't enjoy, even when I know it's for my own good.	.62
75. I have rarely been able to stick to my resolutions.	.66
Factor 5 Unrelenting Standards	
61. I must be the best at most of what I do; I can't accept second best.	.69
62. I try to do my best; I can't settle for "good enough."	.85
63. I must meet all my responsibilities.	.69
64. I feel there is constant pressure for me to achieve and get things done.	.60
65. I can't let myself off the hook easily or make excuses for my mistakes.	.62
Factor 6 Emotional Inhibition	
56. I am too self-conscious to show positive feelings to others (e.g., affection, showing I care).	.66
57. I find it embarrassing to express my feelings to others.	.55
58. I find it hard to be warm and spontaneous.	.54
59. I control myself so much that people think I am unemotional.	.90
60. People see me as uptight emotionally.	.65
Factor 7 Abandonment	
6. I find myself clinging to people I'm close to, because I'm afraid they'll leave me.	.86
7. I need other people so much that I worry about losing them.	.83
8. I worry that people I feel close to will leave me or abandon me.	.80
9. When I feel someone I care for pulling away from me, I get desperate.	.72
10. Sometimes I am so worried about people leaving me that I drive them away.	.55
Factor 8 Enmeshment	
42. My parent(s) and I tend to be overinvolved in each other's lives and problems.	.55
43. It is very difficult for my parent(s) and me to keep intimate details from each other, without feeling betrayed or	.44
guilty.	
44. I often feel as if my parent(s) are living through me-I don't have a life of my own.	.83
I must be the best at most of what I do; I can't accept second best.  I try to do my best; I can't settle for "good enough."  I must meet all my responsibilities.  6.  I feel there is constant pressure for me to achieve and get things done.  I can't let myself off the hook easily or make excuses for my mistakes.  6.  I can't let myself off the hook easily or make excuses for my mistakes.  6.  I must noe self-conscious to show positive feelings to others (e.g., affection, showing I care).  6.  I find it membarrassing to express my feelings to others.  5.  I find it hard to be warm and spontaneous.  6.  I control myself so much that people think I am unemotional.  9.  People see me as uptight emotionally.  6.  Control myself clinging to people I'm close to, because I'm afraid they'll leave me.  8.  8.  8.  8.  8.  8.  8.  8.  8.	
46. I think that if I do what I want. I'm only asking for trouble	.43

Factor 9 Mistrust	
10. Sometimes I am so worried about people leaving me that I drive them away.	.31
11. I feel that people will take advantage of me.	.39
12. feel that I cannot let my guard down in the presence of other people, or else they will intentionally hurt me.	.57
13. It is only a matter of time before someone betrays me.	.61
14. I am quite suspicious of other people's motives.	.83
15. I'm usually on the lookout for people's ulterior motives.	.78
Factor 10 Emotional Deprivation	
1. Most of the time, I haven't had someone to nurture me, share him/herself with me, or care deeply about	.73
everything that happens to me.	
2. In general, people have not been there to give me warmth, holding, and affection.	.79
3. For much of my life, I haven't felt that I am special to someone.	.63
4. For the most part, I have not had someone who really listens to me, understands me, or is tuned into my true	.76
needs and feelings.	
5. I have rarely had a strong person to give me sound advice or direction when I'm not sure what to do.	.66
3. I have failery had a strong person to give me sound advice of direction when I in not sure what to do.	
Factor 11 Vulnerability	
	.31
Factor 11 Vulnerability	.31 .70
Factor 11 Vulnerability  35. I don't feel confident about my ability to solve everyday problems that come up.	
Factor 11 Vulnerability  35. I don't feel confident about my ability to solve everyday problems that come up.  36. I can't seem to escape the feeling that something bad is about to happen.	.70
Factor 11 Vulnerability  35. I don't feel confident about my ability to solve everyday problems that come up.  36. I can't seem to escape the feeling that something bad is about to happen.  37. I feel that a disaster (natural, criminal, financial, or medical) could strike at any moment.	.70 .86
Factor 11 Vulnerability  35. I don't feel confident about my ability to solve everyday problems that come up.  36. I can't seem to escape the feeling that something bad is about to happen.  37. I feel that a disaster (natural, criminal, financial, or medical) could strike at any moment.  38. I worry about being attacked.	.70 .86 .77
Factor 11 Vulnerability  35. I don't feel confident about my ability to solve everyday problems that come up.  36. I can't seem to escape the feeling that something bad is about to happen.  37. I feel that a disaster (natural, criminal, financial, or medical) could strike at any moment.  38. I worry about being attacked.  39. I worry that I'll lose all my money and become destitute.	.70 .86 .77 .65
Factor 11 Vulnerability  35. I don't feel confident about my ability to solve everyday problems that come up.  36. I can't seem to escape the feeling that something bad is about to happen.  37. I feel that a disaster (natural, criminal, financial, or medical) could strike at any moment.  38. I worry about being attacked.  39. I worry that I'll lose all my money and become destitute.  40. I worry that I'm developing a serious illness, even though nothing serious has been diagnosed by a physician.	.70 .86 .77 .65
Factor 11 Vulnerability  35. I don't feel confident about my ability to solve everyday problems that come up.  36. I can't seem to escape the feeling that something bad is about to happen.  37. I feel that a disaster (natural, criminal, financial, or medical) could strike at any moment.  38. I worry about being attacked.  39. I worry that I'll lose all my money and become destitute.  40. I worry that I'm developing a serious illness, even though nothing serious has been diagnosed by a physician.	.70 .86 .77 .65
Factor 11 Vulnerability  35. I don't feel confident about my ability to solve everyday problems that come up.  36. I can't seem to escape the feeling that something bad is about to happen.  37. I feel that a disaster (natural, criminal, financial, or medical) could strike at any moment.  38. I worry about being attacked.  39. I worry that I'll lose all my money and become destitute.  40. I worry that I'm developing a serious illness, even though nothing serious has been diagnosed by a physician.  Factor 12 Social Isolation/Alienation  21. No man/woman I desire could love me one he/she saw my defects.	.70 .86 .77 .65 .73
Factor 11 Vulnerability  35. I don't feel confident about my ability to solve everyday problems that come up.  36. I can't seem to escape the feeling that something bad is about to happen.  37. I feel that a disaster (natural, criminal, financial, or medical) could strike at any moment.  38. I worry about being attacked.  39. I worry that I'll lose all my money and become destitute.  40. I worry that I'm developing a serious illness, even though nothing serious has been diagnosed by a physician.  Factor 12 Social Isolation/Alienation  21. No man/woman I desire could love me one he/she saw my defects.  22. No one I desire would want to stay close to me if he/she knew the real me.	.70 .86 .77 .65 .73

Factor 13 Subjgation	
32. I think of myself as a dependent person, when it comes to everyday functioning.	.35
33. I lack common sense.	.30
34. My judgment cannot be relied upon in everyday situations.	.41
47. I feel that I have no choice but to give in to other people's wishes, or else they will retaliate or reject me in	.43
some way.	
48. In relationships, I let the other person have the upper hand.	.75
49. I've always let others make choices for me, so I really don't know what I want for myself.	.49
50. I have a lot of trouble demanding that my rights be respected and that my feelings be taken into account.	.60
Factor 14 Entitlement	
67. I'm special and shouldn't have to accept many of the restrictions placed on other people.	.77
68. I hate to be constrained or kept from doing what I want.	.33
69. I feel that I shouldn't have to follow the normal rules and conventions other people do.	.67
70. I feel that what I have to offer is of greater value than the contributions of others.	.57

No salient loadings

<sup>\*41.</sup> have not been able to separate myself from my parent(s), the way other people my age seem to.

<sup>\*66.</sup> I have a lot of trouble accepting "no" for an answer when I want something from other people.

Table 3

Intercorrelation Matrix of the Factor Scores and Scale Scores

						1	SQ-S	Factor	rs .					
	10	7	9	3	12	1	11	8	13	2	6	5	14	4
Scales	ED	AB	MA	SI	DS	FA	VH	EM	SB	SS	EI	US	ET	IS
ED	<u>.99</u>	.37	.43	.49	.45	.39	.32	.14	.33	.14	.34	.09	.33	.30
AB	.38	1.00	.50	.34	.54	.43	.55	.36	.52	.20	.31	.25	.29	.36
MA	.43	.51	<u>.98</u>	.43	.54	.38	.52	.25	.47	.26	.40	.19	.32	.33
SI	.50	.34	.45	1.00	.49	.29	.41	.28	.36	.10	.37	.23	.32	.20
DS	.44	.54	.56	.50	1.00	.57	.55	.34	.52	.15	.42	.21	.20	.26
FA	.40	.40	.40	.25	.58	<u>.97</u>	.46	.35	.48	.17	.25	.03	.18	.40
DI	.31	.48	.41	.33	.50	<u>.71</u>	.55	.38	<u>.73</u>	.18	.38	.14	.26	.38
VH	.28	.50	.49	.37	.48	.40	<u>.97</u>	.39	.41	.16	.31	.19	.32	.34
EM	.08	.32	.21	.25	.27	.31	.35	<u>.97</u>	.42	.17	.14	.23	.23	.18
SB	.30	.50	.47	.38	.50	.47	.46	.57	<u>.91</u>	.25	.45	.18	.24	.39
SS	.14	.21	.25	.10	.15	.16	.17	.18	.25	1.00	.20	.35	.04	.06
EI	.30	.29	.38	.36	.36	.24	.33	.18	.45	.19	<u>.98</u>	.26	.23	.25
US	.08	.27	.23	.23	.21	.06	.21	.22	.20	.34	.27	<u>.99</u>	.41	.02
ET	.34	.31	.33	.30	.19	.21	.31	.25	.25	.04	.24	.40	1.00	.39
IS	.30	.36	.32	.19	.26	.42	.35	.22	.38	.06	.28	.01	.38	1.00

Note. ED = Emotional Deprivation; AB = Abandonment; MA = Mistrust/Abuse; SI = Social Isolation/Alienation; DS = Defectiveness; FA = Failure to Achieve; DI = Dependence / Incompetence; VH = Vulnerability; EM = Enmeshment; SB = Subjugation; SS = Self

Sacrifice; EI = Emotional Inhibition; US = Unrelenting Standards; ET = Entitlement; IS = Insufficient Self-control.

Table 4

# Intercorrelation Matrix of the Promax Rotated Factors

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1 Incompetence	100													
2 Self Sacrifice	16	100												
3 Defectiveness	28	10	100											
4 Insufficient self-control	43	06	19	100										
5 Unrelenting Standards	04	35	23	00	100									
6 Emotional inhibition	28	21	37	28	26	100								
7 Abandonment	43	21	34	37	26	31	100							
8 Enmeshment	37	18	28	22	22	19	36	100						
9 Mistrust	41	26	45	32	22	42	51	28	100					
10 Emotional Deprivation	39	14	49	31	07	33	38	14	43	100				
11 Vulnerability	49	17	41	36	20	36	55	42	52	31	100			
12 Social Isolation	57	15	49	26	20	42	54	34	56	44	55	100		
13 Subjugation	53	25	37	38	19	48	52	48	49	32	48	53	100	
14 Entitlement	21	04	30	38	41	24	29	25	32	34	31	19	26	100
Alpha	90	84	87	83	83	84	89	77	86	86	83	88	74	76

Note. Decimal point is omitted. All coefficients are rounded to two decimal places.

Table 5

Promax Rotated Factor Pattern Matrix of the Primary Factors

	_	Higher Or	der Factors	
Primary Factors	1	2	3	4
Incompetence	<u>75</u>	-24	-03	11
Self Sacrifice	18	<u>39</u>	-11	-02
Defectiveness	-05	08	05	<u>66</u>
Insufficient self-control	<u>47</u>	-20	<u>40</u>	-06
Unrelenting Standards	-16	<u>76</u>	23	-02
Emotional inhibition	17	16	02	<u>35</u>
Abandonment	<u>52</u>	08	06	16
Enmeshment	<u>58</u>	17	05	-18
Mistrust	-03	-13	16	<u>67</u>
Emotional Deprivation	29	08	01	<u>45</u>
Vulnerability	<u>56</u>	03	04	17
Social Isolation	<u>46</u>	-06	-22	<u>54</u>
Subjugation	<u>72</u>	06	-04	05
Entitlement	-08	<u>30</u>	<u>69</u>	04

Note. Coefficients are beta weights to reproduce variables from factors. Decimal point is omitted. All factor pattern coefficients are rounded to two decimal places. All factor pattern coefficients  $\geq 30$  are underlined.

Table 6

<u>Comparison of Young's Hypothesized Classification System With the Results of Schmidt et al. and Lee et al.</u>

Factors/Schemas Young (1994)		Schmidt et al. (1995)	Lee et al. (1999)	
Higher-Order	Impaired Autonomy	Overconnection	Impaired Autonomy	
Primary	Dependence, en-	Dependence, en-	Dependence, en-	
	meshment, vulnerability,	meshment, vulnera-	meshment, vulnera-	
	failure, subjugation	bility, failure	bility, failure, subju-	
			gation	
Higher-Order	Disconnection and	Disconnection	Disconnection	
	Rejection			
Primary	Abandoment, mistrust,	Abandoment, mis-	Abandoment, mis-	
	deprivation, de-	trust, deprivation, de-	trust, deprivation, de-	
	fectiveness, social	fectiveness, emo-tional	fectiveness, social	
	isolation	constriction, fear of	isolation, emotional	
		loss of control	constriction	
Higher-Order	Impaired Limits		Impaired Limits	
Primary Entitlement, insufficient			Entitlement, fear of	
	self control		loss of control	
Higher-Order	Overvigalence/Inhibition	Exaggerated	Over Control	
		Standards		
Primary	Unrelenting standards	Unrelenting stan-	Unrelenting stan-	
		dards, self-sacrifice	dards, self-sacrifice	

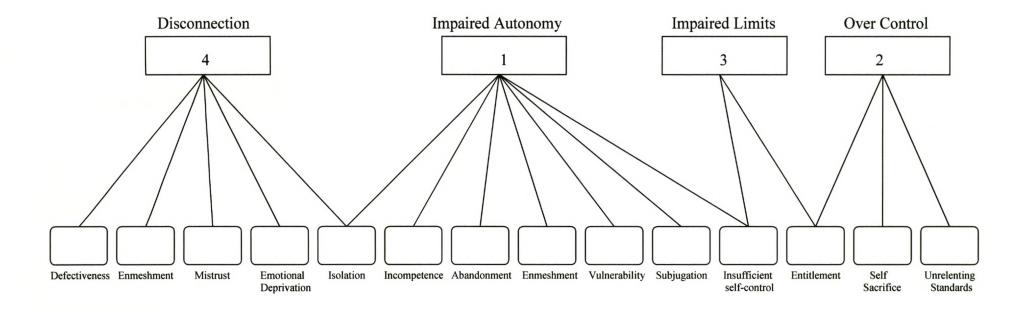


Figure 1. Division of first order factors into higher order factors