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Maladaptive Schema Scale (MSS)

User's Manual and Psychometric Development (v1.4.1)

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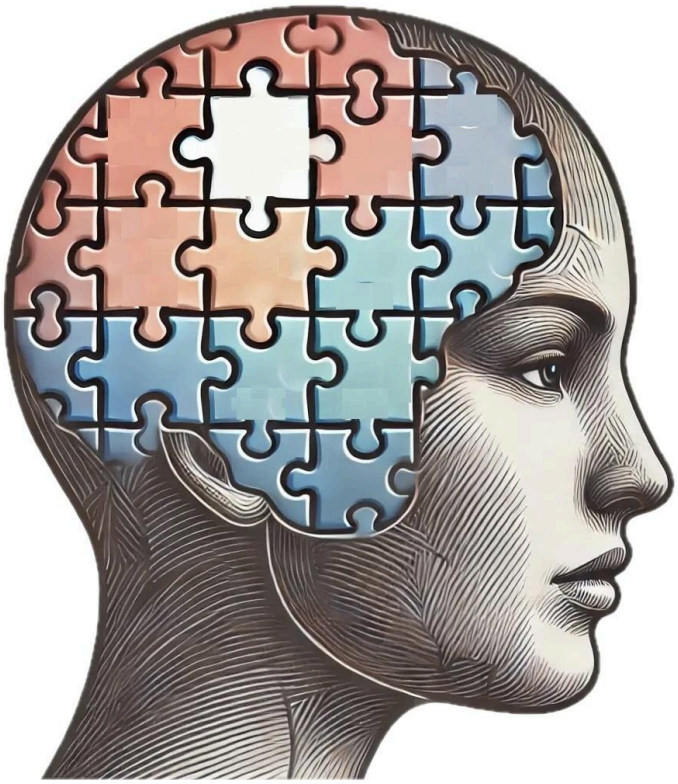

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Version history

Version 1.4.1 (25 November 2026). The “strong” thresholds for five schemas were updated after Table 2 was recalculated on a larger clinical sample (3,526 clients). The items, scoring and the “moderate” threshold (2.5) are unchanged, so scores remain comparable across versions.

- Vulnerability to Dangerous World: from 2.75 to 3.0
- Enmeshment / Diffuse Boundaries: from 3.0 to 2.75
- Emotional Inhibition: from 2.75 to 3.0
- Pessimism / Negativity: from 3.25 to 3.0
- Unrelenting Standards: from 3.25 to 3.5

Table 2 now shows the “strong” thresholds used on NovoPsych. In version 1.4, Table 2 showed the 90th percentiles of the development sample, which for seven schemas differed from the thresholds applied on NovoPsych.

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1. Introduction

A *schema* can be broadly defined as a dimensional construct; an organising principle for making sense of an individual's experiences. While a particular subset of schemas - typically, early, maladaptive schemas - tend to be the focus of psychological interventions, schemas may also be positive or adaptive in nature and can be formed early or later in life.

The identification of schemas is valuable for case conceptualisation and treatment within various therapeutic modalities and is core to schema therapy in particular. Schema therapy is an integrative treatment model founded by Jeffery Young and colleagues encompassing cognitive-behavioural, attachment, Gestalt, object relations and psychoanalytic elements, developed in response to the limitations of classical therapeutic approaches encountered in treating individuals with complex difficulties such as personality disorders (Young et al., 2003). In schema theory, a particular subset of schemas - maladaptive schemas formed as a result of early life aversive experiences - are thought to underpin the chronic nature of some psychological disorders.

While schema therapy continues to be a popular treatment modality, research efforts are underway to address gaps in the evidence base for the theoretical foundations of the schema therapy model (Sempértegui et al., 2013). Indeed, a recent consensus study by Pilkington et al. (2023) identified priority areas for future research in the field, including *schema therapy constructs and measures*. The intention of developing the Maladaptive Schema Scale (MSS) is to present an integrated, unified and comprehensive schema taxonomy and provide an open-source assessment tool that future research can continue to build on systematically.

For the purposes of the MSS and its application to psychological therapy, a *schema* is considered to be an organising principle for a) guiding an individual's understanding of the world and interpretation of events, b) predicting outcomes and informing decisions and c) shaping emotional and behavioural responses. They are multidimensional, consisting of cognitions but also emotions, body sensations and memories (Young et al., 2003).

Overview of the Maladaptive Schema Scale (MSS)

The Maladaptive Schema Scale (MSS) is a comprehensive assessment measuring schemas that are maladaptive and of clinical importance to the development and maintenance of psychopathology. These schemas play a crucial role in people's understanding of the world, interpretation of experiences, predicting outcomes and informing decisions and emotional responses.

The MSS is designed to assess problematic schemas in clinical populations and inform case conceptualisations for adults experiencing a range of mental health problems, particularly those with complex issues such as personality pathology, interpersonal difficulties, post traumatic stress disorder (PTSD) or a history of abuse. Though the MSS is a transdiagnostic tool, maladaptive schemas have been shown to have important associations with many mental

health diagnoses, including PTSD, borderline personality disorder, dissociative disorders, depression and anxiety (Bär et al., 2023).

The MSS builds on traditional early maladaptive schemas described by Jeffery Young (Young, 1990), and integrates additional schemas based on attachment theory, trauma research and empirical psychometric evidence. The MSS is therefore a more comprehensive and contemporary schema questionnaire when compared with the Young Schema Questionnaire (YSQ) with 27 schema scales yet shorter in length (108 items). It is also open source, meaning it can be copied and used clinically or in research without further permission, overcoming a limiting factor of the YSQ and later derivatives.

The MSS measures 27 maladaptive schemas and groups these schemas into six clusters, representing childhood unmet needs. The empirical basis for core early needs is summarised in Dweck's unified theory of motivation, personality and development (2017). Based on this and schema therapy theory (Young, 2003), the development of maladaptive schemas occurs due to an interaction between an individual's temperament and childhood core emotional needs not being met, or another significant disruption in development. Thus, if a respondent has schemas nested within one of the "unmet needs" clusters, it suggests a common etiological basis grounded in early childhood experiences.

As schemas pertain not only to the self, the MSS provides additional clinical detail through a second model categorising schemas according to their focus, the World, Inadequate Self, Inflated Self, Other People and Relationships. These models are beneficial for case conceptualisation and treatment planning as they help clinicians to identify patterns in responding that reflect common themes, supporting efficient target and intervention selection. They can also function to simplify conceptualisation in complex cases and promote self-awareness for clients.

In clinical settings, the MSS is used to identify which schemas are contributing to a person's emotional or interpersonal difficulties. Understanding one's schemas is instrumental in schema therapy, where the therapeutic focus involves helping clients to:

- Recognise their schemas, schema triggers, patterns of responding and the impact on their functioning.
- Understand the developmental origins of these schemas in their childhood experiences and how they are perpetuated in the present.
- Modify their maladaptive schemas via cognitive techniques, behavioural pattern breaking, experiential strategies and the therapeutic relationship.
- Develop healthier alternatives to the maladaptive coping styles and patterns associated with their schemas, thereby getting their needs met in more adaptive ways.

The 27 schemas are described in the Schema Descriptions guide (see Appendix A), with further detail including possible origins, maintaining factors and examples. The guide is designed to be used both by the clinician and as an educational handout suitable for sharing with the client.

2. Scoring and Interpretation

The MSS Version 1.4 (MSS-v1.4) presents scores in four different ways to provide layers of helpful clinical detail:

1. Maladaptive schema average scores
2. Maladaptive schemas with strong agreement
3. Childhood unmet needs clusters
4. Schema focus categories

A sample MSS-v1.4 report including all 108 MSS items can be downloaded from NovoPsych or viewed in Appendix B.

Maladaptive Schema Average Scores

Scores for the 27 schemas are presented as an average score, where the number represents the level of agreement with the schema, as defined by the Likert scale:

Strongly Disagree = 0
Disagree = 1
Neutral = 2
Agree = 3
Strongly Agree = 4

Higher scores are indicative of stronger agreement with maladaptive schemas and are hypothesised to be associated with psychopathology and a greater level of impairment in relational, emotional or personal functioning.

A schema is considered to be “moderate” when an average score is 2.5 or more, while the schema is considered to be “strong” and of clinical significance when the average score is at or above the 90th percentile of a clinical sample, with a minimum of 2.75 so that “strong” always sits above “moderate”. For most schemas, a score at or above this threshold places the respondent in the top 10% compared with other clients receiving mental health care; where the minimum of 2.75 applies, fewer than 10% of clients reach it. The “strong” threshold varies across schemas from an average score of 2.75 (e.g., Dependence) to 3.5 (e.g., Abandonment / Anxious Attachment). A higher threshold for “strong” indicates that there is a higher prevalence of a “moderate” schema among mental health clients.

A “strong” schema therefore represents broad agreement with the schemas that are of theoretical importance to schema therapy in addition to a score that deviates from typical patterns of responding.

Maladaptive Schemas With Strong Agreement

In addition, scores are presented as the percentage of responses where the client “Agreed” or “Strongly Agreed” with the items in the subscale, producing a “Percent in Agreement” metric.

Childhood Unmet Needs Schema Clusters

Average schema scores are additionally presented according to each of the six early childhood needs. High scores on a needs cluster strongly suggest that the cause of the schema is rooted in early childhood experiences. Scores of 2 or above are considered clinically meaningful and are suggestive of a childhood need being chronically disrupted.

Safety & Attachment

- Abandonment / Anxious Attachment (Items 1-4)
- Excessive Self-Reliance / Avoidant Attachment (Items 5-8)
- Emotional Deprivation (Items 9-12)
- Mistrust of Others (Items 13-16)
- Others are Dangerous / Malevolent (Items 17-20)
- Social Isolation / Outsider (Items 21-24)
- Defectiveness / Shame (Items 25-28)
- Vulnerability to Dangerous World (Items 29-32)

Autonomy & Competence

- Dependence (Items 33-36)
- Failure / Achievement Inferiority (Items 37-40)
- Low Self-Efficacy / Weakness (Items 41-44)
- Fatalistic / External Locus of Control (Items 45-48)
- Enmeshment / Diffuse Boundaries (items 49-52)

Freedom to Express Needs, Opinions & Emotions

- Subjugation / Submission to Others (Items 53-56)
- Self-Sacrifice (Items 57-60)
- Approval-Seeking / Excessive Need to be Liked (Items 61-64)
- Emotional Inhibition (Items 65-68)

Spontaneity & Play

- Pessimism / Negativity (Items 69-72)
- Unrelenting Standards (Items 73-76)
- Punitiveness / Unforgiving of Self (Items 77-80)
- Punitiveness / Unforgiving of Others (Items 81-84)

Realistic & Consistent Limits

- Entitlement / Specialness (Items 85-88)
- Full Control (Items 89-92)
- Over-Reliance on Emotions (Items 93-96)

Coherence & Fairness

- Unfairness (Items 97-100)
- Meaningless World (Items 101-104)
- Lack of Coherent Identity (Items 105-108)

Schema Focus Categories

In this model, schemas are organised into five distinct categories that reflect primary relational patterns of responding: World, Inadequate Self, Inflated Self, Other People & Relationships. Scores of 2 or above are considered clinically meaningful. These categories help clinicians discern the focus of schemas and identify patterns of internalising and externalising.

World

- Vulnerability to Dangerous World
- Meaningless World
- Pessimism / Negativity
- Unfairness

Inadequate Self

- Defectiveness / Shame
- Low Self-Efficacy / Weakness
- Fatalistic / External Locus of Control
- Emotional Inhibition
- Unrelenting Standards
- Punitiveness / Unforgiving of Self
- Lack of Coherent Identity
- Failure / Achievement Inferiority

Inflated Self

- Entitlement / Specialness
- Full Control
- Over-Reliance on Emotions

Other People

- Others are Dangerous / Malevolent
- Mistrust of Others
- Punitiveness / Unforgiving of Others

Relationships

- Social Isolation / Outsider
- Abandonment / Anxious Attachment
- Excessive Self-Reliance / Avoidant Attachment
- Dependence
- Enmeshment / Diffuse Boundaries

- Subjugation / Submission to Others
- Self-Sacrifice
- Approval-Seeking / Excessive Need to be Liked
- Emotional Deprivation

3. Development of the MSS

Scale Development Process

The MSS has undergone several iterations (MSS-v1 to MSS-v1.4) since its initial inception in 2024. Further empirical validation is currently underway and expected to contribute to future refinement of the MSS, with clinical and normative validation guiding iterative changes to the scale, thus ensuring that the MSS is grounded in a current evidence base. The most recent version and supporting documentation are available on NovoPsych.

The development of the MSS Version 1 involved an extensive literature search to identify schemas, core beliefs or world views associated with psychopathology. Research using natural language processing techniques and artificial intelligence were used to systematically identify similar constructs (Mussel, 2023).

To identify existing measures of maladaptive schemas, literature on the theoretical underpinnings of schema therapy was reviewed, and newly identified constructs such as unfairness, lack of coherent identity, and lack of meaningful world (Arntz et al., 2021) were included in the shortlist of schemas. The results of recent analyses of the Young Schema Questionnaire (YSQ; Yalcin et al., 2020, 2022, 2023) were reviewed and proposed revisions to its structure, such as the separation of the Punitiveness (into Self and Other) and Emotional Inhibition (into Emotional Constriction and Fear of Losing Control) schemas, were included in the shortlist of schemas.

In addition to a comprehensive literature review, empirical investigations of existing measures of maladaptive schemas were conducted. For example, the investigators analysed 800 responses to the YSQ using factor analysis, Rasch analysis and structural equation modelling. This informed the structure of the MSS. For example, factor analysis identified a strong factor resembling anxious attachment, accounting for five times more variability than the next strongest YSQ domain**.** Factor loadings, schema-use frequencies and Rasch model fit indices suggested to the exclusion of the insufficient self-control schema. Item-level analysis informed the exclusion or retention of concepts embedded in the items.

Thirty existing psychometric instruments were reviewed, with the following scales being among those to be of key importance to MSS scale development: Young Schema Questionnaire (Young, 1990), Word Assumption Scale (Janoff-Bulman, 1989), Attachment Style Questionnaire - Short Form (Chui & Leung, 2016), and General Self-Efficacy Scale (Schwarzer & Jerusalem, 1995). The MSS represents a synthesis and enhancement of the concepts found in these scales, schemas identified by Mussel (2023), Arntz et al. (2021) and in Dweck's (2017) unified theory of personality and development.

A shortlist of 38 domains was further condensed into 27 by three PhD-trained psychologists and two psychometricians using their clinical experience and empirical evidence. As an example of this process, the YSQ-R construct of Fear of Losing Control was not included at this time due to

item misfit concerns described by Yalcin et al. (2023) and their suggestion that further research towards developing stronger items for capturing this construct is warranted.

Revisions of the MSS from MSS-v1 to MSS-v1.4 involved empirically driven refinements based on Rasch analysis and items that were a poor fit were deleted (see Appendix C) or modified. The Version 1.4 revision of the MSS was published in October 2024. Version 1.4.1 (25 November 2026) updated the “strong” thresholds for five schemas using a larger clinical sample; the items, scoring and the “moderate” threshold are unchanged (see Table 2 and the version history at the front of this manual). Further empirical validation is currently underway, with peer-reviewed papers expected in press at the end of 2024. This research will contribute to future refinement of the MSS, with clinical and normative validation expected to contribute to iterative changes to the scale.

Defining Clinical Thresholds

One of the limitations of the YSQ is the relative lack of research establishing an empirical basis for the interpretation of scores. For example, there is currently no evidence-based consensus for determining clinical thresholds that would guide a clinician in determining whether a respondent’s score on a schema is clinically meaningful. As such, clinicians apply various methods of interpreting scores, which provides flexibility in interpreting different patterns of responding, but also gives rise to inconsistencies in interpretation. For example, average scores of 4 or higher on the YSQ-Long Form (YSQ-L3) are thought to indicate that a schema is clinically meaningful (Young et al., 2003). However, clinicians might also consider a “percentage of responses in strong agreement” metric in deciding if a given schema warrants further exploration. Existing approaches to interpreting the YSQ tend not to account for the inherent variance in levels of item difficulty, such that thresholds for determining if a schema is of clinical significance are currently treated as uniform across schemas.

The suggested interpretation of the YSQ-R is based on the percentage of high scores metric, whereby a schema is considered to be elevated when the percentage of strong responses (i.e., 5 or 6) constitute more than 50% of the total of the schema (Yalcin et al., n.d.).

A rigorous methodological approach is being applied to develop an evidence-based framework for categorising and interpreting MSS scores. It is anticipated that clinical cutoffs defined in the current manual will be revised iteratively to reflect the evidence base.

In determining interpretation guidelines for MSS-v1.4, recognising that item difficulties vary, we aimed to set thresholds that are clinically meaningful by adopting a schema-specific percentile approach to categorise schemas as "strong." While percentiles do not directly account for item difficulty, they indirectly reflect it by ranking individuals relative to the score distribution which is shaped by item difficulty.

Specifically, average scores at or above the 90th percentile compared with a sample of people seeking mental health care for any given schema are considered "strong" and therefore clinically significant. The "strong" threshold has a minimum of 2.75, one step above the

"moderate" threshold of 2.5, so that "strong" always indicates more agreement than "moderate". This method allows clinicians to identify individuals with high schema endorsements relative to the sample distribution within each schema.

Further level of detail is provided with the identification of “moderate” strength schemas, thus providing clinicians with a means of identifying and exploring schemas that may be problematic to a lesser degree. The latter is of particular clinical importance, given that schemas are thought to be held at the unconscious level (Oei & Baranoff, 2007). While percentiles were considered for defining this lower threshold, it was found to be an inappropriate method. The intention of identifying a second, meaningful threshold was not achieved when defined by percentiles because, for some schemas, an appropriately differentiated percentile below the “strong” threshold was found to correspond to an average response of “neutral” or less. Instead, a uniform cutoff score of 2.5 was determined to be more appropriate. This ensures that a client provides an average response stronger than “neutral” demonstrating agreement with the schema, achieving the intention of flagging for the clinician a schema that may be present but at a lower level.

Related Scales

The Young Schema Questionnaire (YSQ; Young, 1990) was of key importance to the development of the MSS. The YSQ is a widely used psychological self-assessment tool designed to identify Early Maladaptive Schemas (EMS) in individuals. The original version, developed by Jeffrey Young, was a 205-item scale measuring 16 EMS. The YSQ has since undergone several revisions to improve its reliability and validity and a number of current versions are available for use, as summarised below.

YSQ-Long Form

The latest YSQ-Long Form, version 3 (YSQ-L3), contains 232 items assessing the 18 EMS identified in the most recent conceptualisation proposed by Young et al. (2003). The YSQ-L3 has been shown to have good predictive validity (Yalcin et al., 2023) though a key drawback is its length and thus time-consuming administration.

YSQ-Short Form

The third version of the YSQ-Short Form (YSQ-S3) was developed by Young and colleagues in 2005 (cited in Bach et al., 2017) based on the latest version of the YSQ-Long Form. As a 90-item measure, one of the strengths of the YSQ-S3 is its practical advantage for faster assessments.

Although the YSQ is one of the most popular tools used to assess schemas in clinical and research settings, factor analyses of both the YSQ Long- and Short-forms have returned mixed findings and tended to show poor fit with Young’s five-domain schema model (Pilkington et al., 2023). A review of psychometric evaluations of the YSQ reported that no consistent factor structures have been demonstrated for the YSQ-Long Form and described similar findings for the YSQ-Short Form; it was recommended that they be used with caution alongside further work on their psychometric properties (Oei & Baranoff, 2007).

YSQ-Revised (YSQ-R)

A most recent revision of the YSQ, the YSQ-R, was produced by Yalcin and colleagues following a series of evaluative studies (Yalcin, et al., 2020, 2022, 2023).

The YSQ-R is a 116-item self-assessment measuring 20 schemas. It includes the above modifications to existing schemas, specifically the differentiation of the Punitiveness schema into self and other-directed and the Emotional Inhibition schema into 'Emotional Constriction' and 'Fear of Losing Control'.

In Yalcin and colleagues (2020, 2022, 2023) analysis, factor analysis of the YSQ-L3 (2020) was indicative of 20, rather than 18 EMS. The Emotional Inhibition schema was separated into two schemas, as was the Punitiveness schema. Rasch Analysis, increasingly regarded as a gold-standard, robust method for assessing psychometric scales, was applied to further refine the fit of the YSQ-L3 items by identifying the most important (both clinically and statistically) items for each EMS (Yalcin et al., 2022). Results confirmed the separation of the Emotional Inhibition and Punitiveness schemas, consistent with the initial factor analysis. More recently, Yalcin et al. (2023) examined the predictive validity of the YSQ-R and short- and long-forms of the YSQ. The YSQ-R and long-form were found to have medium to large effect sizes in predicting symptom severity in a PTSD group, however, the short-form did not (2023).

These valuable analyses significantly progress the research agenda in terms of validating the underlying schema model and its central constructs, and driving empirically-informed assessment. However, the fact that the YSQ-R was a revision to the ageing and copyright restricted original YSQ meant that it inherited many of its psychometric and theoretical limitations as well as the restrictive copyright.

Additional Constructs and Developments

Following extensive literature review and analysis of existing scales, the following schemas were introduced in the MSS. The key differences between the MSS-v1.4 and YSQ are summarised in Table 1.

Excessive Self-Reliance / Avoidant Attachment

Bowlby's attachment theory was foundational to the development of Young's schema model (Young, 2003). For example, secure attachment is considered one of five core emotional needs which, if unmet, may result in the development of the Abandonment schema (Young, 2003). Young further documents that the attachment theory concept of an *internal working model* is similar to that of a *schema*; both are internal representations formed on the basis of early patterns of interaction and subsequently function to predict the future responses of others and inform an individual's responses.

In attachment theory and research, different patterns of attachment (described variously as *internal working models, orientations* or *styles*) have been identified, which are shaped by early experiences with caregivers. For example, individuals with a pattern of attachment anxiety have an excessive need for reassurance and approval, fear rejection, and a desire to merge closely with their partners, whereas those with attachment avoidance tend to fear dependence, avoid intimacy and distrust others (Karantzas et al., 2010). While once conceptualised as a categorical construct, recent research has been indicative of a more nuanced, dimensional model as more appropriate for understanding attachment patterns (e.g., Fraley et al., 2015; Karantzas et al., 2010). Such advances reflect the likelihood of greater variance in attachment-related schemas than is currently reflected by the YSQ.

Though attachment theory plays a central role in schema theory, there has not been a strong research focus on understanding the relationship between attachment styles and schemas (Flanagan et al., 2020). In terms of identifying the attachment pattern the Abandonment schema reflects, a recent meta-analysis found higher levels of association between this schema and anxious attachment, compared to avoidant attachment (Karantzas et al., 2023). As noted above, factor analysis conducted in the context of the present scale development identified a strong factor resembling anxious attachment which accounts for five times more variability than the next strongest YSQ domain.

To represent the various maladaptive internal models that may result from the absence of early secure attachment, it follows that a contemporary, comprehensive schema model would benefit from the inclusion of schemas reflecting both anxious and avoidant attachment patterns. It was proposed, therefore, that a factor reflecting attachment *avoidance* (the Excessive Self-Reliance / Avoidant Attachment schema) be included in the MSS.

Others are Dangerous / Malevolent

In contrast to the YSQ where the Mistrust / Abuse schema is conceptualised as a unitary construct, the MSS separates the construct into two schemas, based on research developments in the trauma field and Mussel's (2023) theoretical model of the structure of core beliefs, and integrates this with Young's YSQ schema framework and theory of schema development.

Mussel's (2023) systematic review and hierarchical cluster analysis produced a model of core beliefs in which the themes of being *untrusting* are clustered distinctly from those of inappropriate social behaviour such as *ruthlessness*. The MSS therefore describes two other-focussed schemas to reflect these distinct themes; the Mistrust of Others schema, which encompasses *untrusting* themes and the Others are Dangerous / Malevolent schema, which encompasses themes of *ruthlessness*.

Support for the distinction of these themes is informed by developments in understanding the different impacts the *type* of early life adverse interpersonal experience can have on the nature of an individual's expectations of others. Interpersonal trauma can differ in terms of frequency (chronic or single-incident), severity, onset (early or later life), nature (physical, verbal, emotional or sexual) and meaning. This is of clinical importance, as different types of trauma exposure have been associated with different profiles of post-traumatic stress disorder symptom frequencies and severity (Birkeland et al., 2022). The two MSS schemas are conceptualised as underpinned by distinct developmental pathways outlined below, thus representing a synthesis of contemporary research with Young's theory of schema development, specifically, the contribution of aversive early life experiences and unmet needs to the formation of maladaptive schemas.

Mistrust of Others

Individuals who have early life experiences of emotional abuse, commonly experienced as a betrayal of trust (Gobin & Freyd, 2014), often generalise mistrust to subsequent adult relationships (Baugh et al., 2019). They may learn to anticipate subtle forms of interpersonal abuse, consistent with the formation of the belief that others are untrustworthy, yet not necessarily expect antisocial, intentional harm from malicious others. For example, a child may perceive repeated lying by a caregiver to be a betrayal of trust that generalises to a suspiciousness of others, yet not necessarily expect deliberate or intentional abuse such that a generalisable model of others being dangerous is established. Mistrust is accompanied by the emotions of confusion, uncertainty, anxiety and suspiciousness.

Others are Dangerous / Malevolent

Individuals who have early life experiences of physical, sexual or verbal abuse, on the other hand, may develop a different understanding of the type of threat others represent. Others may be perceived as antisocial; as posing danger or risk of harm and intentionally so. There is an explicit, global expectation that others are cruel or hostile. For example, a child who is repeatedly bullied or victimised by a caregiver may learn to expect intentional mistreatment from others and the belief that humans have an inherent disposition to be harmful. This schema is characterised by the emotions of fear, anxiety and hostility.

In addition to Mussel's distinct *ruthlessness* core belief with themes including *selfishness* and *manipulativeness* (2003), the theoretical underpinnings of this schema include Beck and colleagues' (2004) review of the research on psychological models of personality disorders. For example, the schema, *The world (*i.e., others) *is dangerous and malevolent* is distinct and thought to play a central role in Borderline Personality Disorder (Arntz, 2004).

Low Self-Efficacy / Weakness

The Low Self-Efficacy / Weakness schema is a synthesis and enhancement of concepts identified by Mussel (2023) and Bandura (1993) and items adapted from the General Self-Efficacy Scale (Schwartzer & Jerusalem, 1995). Mussel (2023) systematically identified constructs in the literature similar to schemas associated with psychopathology using natural language processing techniques and artificial intelligence. The concepts of *non-competence and less-capable* were selected for inclusion in the MSS by experienced psychologists using their clinical experience, in part to account for the exclusion of the traditional schema of "Insufficient Self Control" (the exclusion is explained elsewhere). Relevant empirical evidence for Low Self-Efficacy was reviewed and the schema was then validated by the present research.

Self-efficacy shares conceptual similarities with the YSQ Insufficient Self-Control schema, but emphasises the learnt belief system underpinning the difficulties with self-control and frustration tolerance described in the latter. For example, an individual with the Low Self-Efficacy / Weakness schema fundamentally doubts their ability to influence events, exert control and succeed and this perception means that they are therefore unlikely, behaviourally, to exert effort or persistence to achieve goals.

Self-efficacy is a longstanding construct, described originally by Bandura, that has been researched as an indicator of core self-evaluation (Galvin et al., 2018) and considered as self-schemata in the literature (e.g., Marschall & Watson, 2022). Bandura (1993) described self-efficacy as an individual's belief in their ability to control their performance, functioning and the events that influence their life. Consistent with schema, self-efficacy is described as impacting an individual's functioning by influencing an individual's motivation, cognitions, emotion regulation and behaviour. Low levels of self-efficacy have been associated with various psychopathology, including anxiety and depressive symptoms (e.g., Maddux, 2016; Muris, 2002).

Fatalistic / External Locus of Control

The MSS Fatalistic / External Locus of Control schema represents a synthesis of concepts identified by Janoff-Bulman (1992), Mussel (2023) and Rotter (1966). Locus of control is a construct that has been researched, alongside others included in the MSS including *self-efficacy*, as an indicator of core self-evaluation (Galvin et al., 2018), but has not yet been captured by existing schema measures. However, it appears to function as an organising principle, is associated with various psychopathology (e.g., Sullivan et al., 2021), and may be *learnt* in early life through reinforcement and interaction, as would be expected of schema. For

example, Nowicki et al. (2018b) found an association between inadequate early maternal interactions and an increased risk of a child developing an external locus of control.

Locus of control reflects a belief about the extent to which individuals attribute the cause of events and outcomes to be related to their own behaviour and personal characteristics or due to external factors (Rotter, 1966; cited in Nowicki et al., 2018b). An individual with an external locus of control believes that outcomes and events are shaped by external factors and that one has little personal control (Rotter, 1996; cited in Sullivan et al., 2021).

An important concept often integrated into definitions of locus of control is the perceived controllability of outcomes (Nowicki et al., 2018a; Sullivan et al., 2021), which can function independently of an individual's attribution of the cause of events as internal or external (Ajzen, 2002). As a perceived lack of control has been associated with various psychopathology (e.g., see Riachi et al., 2024 for a summary), the schema integrates themes from the *insecure* facet of Mussel's structural model of core beliefs (2023) and the *Randomness* subscale of Janoff-Bulman's World Assumption Scale (1992; cited in van Bruggen et al., 2018) to reflect this fatalistic element.

Punitiveness / Unforgiving of Self and Other

The rationale for the division of Young's original Punitiveness schema into two distinct schemas in the MSS is based on recent examination of the psychometric properties of the YSQ (Yalcin et al., 2020, 2022, 2023) and previous research (Bach et al., 2018). Following Rasch analysis of the YSQ-L3 items, Yalcin et al. (2022) found Young's Punitiveness schema could be better conceptualised as two distinct constructs and proposed its division into Self- and Other-oriented. As argued by Yalcin et al., the division of this schema has clinical implications particularly in terms of the likely differential impact on interpersonal functioning, which depends on whether the punitiveness is internally (self) or externally (other) directed.

Full Control

The Full Control schema represents a synthesis of concepts identified by Dweck (2017), Langer (1975), Mussel (2023) and Young (2003), whereby people have an intense and inflexible belief that they have total control of the their future, even things beyond their control. This schema has been identified as problematic in philosophies such as Stoicism. Indeed, the well known Serenity Prayer encourages awareness of what can realistically be controlled and acceptance of what cannot be changed and has been used widely in therapeutic environments such as Alcoholics Anonymous.

Serenity Prayer: *"Grant me the serenity to accept the things I cannot change, the courage to change the things I can, and the wisdom to know the difference"*

The theoretical underpinnings of the Full Control schema relate closely to *the illusion of control* (Langer, 1975) which describes an overestimation of the influence one has over uncontrollable outcomes or a misattribution of desired outcomes to one's behaviour. Constructs in the literature similar to schemas associated with psychopathology were also synthesised, such as *confident,*

demanding, directing, entitled, flawless, grandiose, impelled, manipulating, perfect, responsible, self-determined and *self-reliant* (Mussel, 2023).

It was proposed that the Full Control schema may arise as a result of a frustrated *need for control*, one of the seven needs identified in Dweck's unified theory of motivation, personality and development (2017) which shares similarities with Young's need for *realistic limits and self-control* (2003). This is consistent with neurobiosocial theory of overcontrolled disorders, in which an individual's early environment plays a central role in shaping overcontrol, though this is typically self-directed in nature, in contrast to external events (Lynch et al., 2015).

Research has demonstrated associations between maladaptive levels of overcontrol and psychological disorders and poor health. For example, Zuckerman et al. (1996) found that low realistic control belief combined with high unrealistic control belief was predictive of poor future health. Excessive overcontrol has also been identified as a maintaining factor in many personality disorders (e.g., Dimaggio et al., 2018). At extreme levels, the Full Control schema may present as a paranormal or magical belief system. As such, the inclusion of this schema provides a novel mechanism for understanding types of psychopathology (psychosis, for example) not previously encompassed in schema therapy theory.

Lack of Coherent Identity *and* Meaningless World

The inclusion of these two schemas is grounded in their association with borderline personality disorder and dissociation, and discussed as important additional schemas by Arntz et al. (2021) international workgroup position paper. Additional schemas were identified on the basis of new insights and theory relating to early childhood needs as reflected in Dweck's unified theory of motivation, personality and development (2017). In Dweck's theory, *self coherence* is identified as a core need with two subcomponents: the need for an integrated identity and to experience the world as meaningful. As this need is absent from Young's model of needs, Arntz et al. proposed that this need be integrated into schema theory alongside the two related maladaptive schemas, Lack of a Coherent Identity and Lack of a Meaningful World. They argue that the inclusion of these schemas provides a more comprehensive model for understanding areas of psychopathology not previously encompassed by schema theory, such as dissociation and psychosis (Arntz et al.). In the MSS, the Lack of Coherent Identity and Meaningless World schemas represent an adaptation of those proposed by Arntz et al.

Unfairness

The Unfairness schema was also proposed for integration into schema theory by the Arntz et al. (2021) international workgroup as the representation of an associated unmet core need for fairness. In considering developments in research and theory (such as McAuliffe et al., 2017; Prilleltensky, 2013), the need for fairness was identified for inclusion in schema theory, as it appears to be present from childhood, and as unfairness has been associated with mental health difficulties such as negative emotional reactions.

Over-Reliance on Emotions

The Over-Reliance on Emotion construct was developed by synthesising conceptualisations related to emotional reasoning which is a foundational principle to the Cognitive Behaviour Therapy framework. Concepts from the Faith in Intuition scale and cognitive-experiential self theory (Epstein et al., 1996), Cognitive (emotional reasoning as a problematic thinking style) and Dialectical Behavior Therapy (DBT), and Haidt's (2001) social intuitionist approach to moral judgement were synthesised in the development of the Over-Reliance on Emotions schema. The authors of the book, Coddling of the American Mind: How Good Intentions and Bad Ideas Are Setting Up a Generation for Failure (Lukianoff & Haidt 2018), hypothesised that the belief that one should "always trust your feelings" was a key contributor to increased rates of mental illness among young people.

This schema is conceptualised as an extreme expression of affective intuition, a specific subtype of intuition whereby judgements are based on emotions (Pretz & Totz, 2007). Intuition is considered to be a broad organising principle for guiding information processing and differs fundamentally from a second, analytical thinking approach (Epstein et al., 1996). Research demonstrates an over-reliance on the former and emotional "gut feelings" in particular, can be maladaptive, leading to less accurate judgments and a greater belief in false information (Martel et al., 2020). For example, Garrett and Weeks (2017) found that having faith in intuitive feelings was associated with increased belief in conspiracy theories and misinformation.

Over-reliance on emotions is conceptually similar to *emotional mind* in Linehan's DBT (1993) and provides a schema framework for formulating the underlying psychopathology targeted by DBT interventions. This treatment modality encourages awareness of over-reliance on emotions for decision-making and judging, and engagement in therapeutic strategies to reach an optimal state of *wise mind*, where both analytical thinking and emotional reasoning are integrated and balanced.

While it is hypothesised that Over Reliance on Emotions can be pathologically high, it is likely that a moderate reliance on emotions is adaptive. Indeed, the Emotional Inhibition schema is almost the opposite of his schema, highlighting that very low levels of reliance on emotions may also be maladaptive. In addition, nuance in understanding this construct is warranted, given that more neurotic people who experience strong emotions may be more likely to endorse the disruptive nature of emotions compared to people who are less neurotic, and so therefore experience less disruptive emotions.

While the MSS and YSQ have many similarities, there are also some key differences. In order to orientate users to these differences we have constructed the YSQ and MSS in the Table 1 below. Key differences are **bolded.**

Table 1

Summary of differences between the Young Schema Questionnaire and Maladaptive Schema Scale

Young Schema Questionnaire (YSQ)			Maladaptive Schema Scale (MSS)		Key differences between YSQ and MSS
YSQ Schema Domain	**Unmet Needs**	**Schemas**	**Unmet Needs Cluster**	**Schemas**	
Disconnection and Rejection	Safe attachment, acceptance and care	-Emotional Deprivation -Abandonment -Mistrust -Social Isolation -Defectiveness	Safety & attachment	- Emotional Deprivation - Abandonment / **Anxious Attachment** - **Excessive Self-Reliance / Avoidant Attachment** - Mistrust **of Others** **- Others are Dangerous / Malevolent** - Social Isolation - Defectiveness **- Vulnerability to Dangerous World**	- MSS includes *Vulnerability to Dangerous World*, whereas YSQ includes *Vulnerability to Harm* in Domain 2 - MSS introduces *Excessive Self-Reliance / Avoidant Attachment* - MSS introduces *Others are Dangerous / Malevolent*
Impaired Autonomy and Performance	Autonomy, confidence and sense of identity	-Failure -Dependence -Vulnerability to Harm -Enmeshment	Autonomy & competence	- Failure **/ Achievement Inferiority** - Dependence - Enmeshment / **Diffuse Boundaries** - **Low Self-Efficacy / Weakness** - **Fatalistic / External Locus of Control**	-MSS introduces two new schemas, *Low Self-Efficacy / Weakness* and *Fatalistic / External Locus of Control* -MSS groups *Vulnerability to Dangerous World* under Safety and Attachment needs cluster (see above)
Other-Directedness	Free expression of needs and emotions	-Subjugation -Self Sacrifice -Approval-Seeking	Freedom to express needs, opinions & emotions	- Subjugation / **Submission to Others** - Self Sacrifice - Approval-Seeking / **Excessive Need to be Liked** **- Emotional Inhibition**	-MSS re-groups *Emotion Inhibition* under this cluster, whereas YSQ includes it in domain 4
Overvigilance and Inhibition	Spontaneity and play	-Emotional Inhibition -Unrelenting Standards -Pessimism -Punitiveness	Spontaneity & play	- Unrelenting Standards - Pessimism / Negativity - Punitiveness **/ Unforgiving of Self** - Punitiveness **/ Unforgiving of Other**	-MSS re-groups *Emotional Inhibition* (see above) -MSS separates *Punitiveness* schema into *Self-* and *Other-* directed
Impaired Limits	Realistic limits and self control	-Entitlement -Insufficient Self Control	Realistic & consistent limits	- Entitlement / **Specialness** - **Full Control** - **Over-Reliance on Emotions**	-MSS excludes YSQ *Insufficient Self Control* -MSS introduces two schemas, *Full Control* and *Over-Reliance on Emotions*
	Coherence and fairness		Coherence & Fairness	- **Unfairness** - **Meaningless World** - **Lack of Coherent Identity**	-"Sense of identity" unmet need separated from YSQ Domain 2 and formulated as a distinct unmet need -MSS introduces three new schemas, *Unfairness, Meaningless World* and *Lack of Coherent Identity*

Exclusion of Insufficient Self Control

A schema present in the YSQ that was not included in the MSS was Insufficient Self Control, due to a conflation with symptoms of attention deficit hyperactivity disorder (ADHD). In particular, the YSQ items for this schema are closely aligned with issues faced by people with ADHD. Empirical research has shown that this schema is higher among those with ADHD (Kiraz & Sertçelik 2021; Thiessen, 2019), and upon review, it was decided that excluding it was prudent given the potential for misattributing difficulties to schemas, rather than executive functioning challenges grounded in developmental differences. While schemas have a large amount of explanatory power for some aspects of psychopathology, it is always prudent to consider the limited scope of a theoretical framework, to prevent it from being over-applied in unhelpful ways. Indeed, the authors are aware of several adults who misattributed their difficulties to schemas before the correct neurocognitive framework identified them as having ADHD.

4. Validation of the MSS

Method

Five sets of data were collected from respondents consisting of (1) clients receiving therapy where the MSS was administered during the normal course of treatment, and where the clinician had consented to anonymous data being used for psychometric research, (2) practicing clinicians in Australia self-administering the MSS, and (3) those who found the MSS online and anonymously self-administered it. All responses were screened for authenticity by assessing time taken and response variability. Responses were also screened for insufficient effort responding using the IRV index which detects low response variability (Dunn et al., 2016).

For sample 1, YSQ-R data was collected from January to May 2024, with 810 responses reduced to 710 using the above filtering criteria. In sample 2, a group of 218 respondents completed the MSS from May to August 2024. A total of 25 were excluded, leaving 193 full sets with no missing data. The sample consisted of 54% female, 29% male and 16% did not disclose. Next, a third data collection included 274 respondents from August to September 2024. Data was cleaned using the same method as above, leaving 240 full sets with no missing data. This second sample was 16% male, 37% female and 47% did not disclose. For sample 4, data was collected from September to October 2024. After screening, the total number of respondents was 1018 from 1257. In final sample 5, 53 responses were reduced to 51, age and gender data was not collected for this sample.

Data Analysis

A Modern Test Theory approach was taken via Rasch analysis–a ‘gold standard’ analytic technique in various fields from education to health science for assessing and refining psychometric measures (Kreiner & Christensen, 2007). Rasch analysis is completed in an iterative manner where the fit of the observed data to the Rasch model is assessed by eight key indicators. These will be detailed from points (1) to (8) below.

(1) Overall model fit is indicated by a non-significant item-trait interaction chi-square. A non-significant value suggests that the scale is functioning appropriately across varying levels of the schema belief strength (Tennant & Conaghan, 2007; Gustafsson, 1980).

(2) Regarding item fit, residual values should fall within a range of -2.50 to +2.50 (Andrich, 2016). Values within this range indicate that each item contributes meaningfully to measuring the construct.

(3) Unidimensionality is a fundamental principle of measurement established by Thurstone (1928) and is an assumption of the Rasch model (Rasch, 1960, 1961). Each schema is expected to be unidimensional. To assess this, a Smith’s test (2002) is used which consists of a principal components analysis of residuals and is accompanied by equating

t-tests, with evidence for unidimensionality observed if the number of significant t-test results falls below a 5% cut-off. Evidence of strict unidimensionality is observed if the number of tests falls below the 1% cut-off (Christensen, et al., 2017; Tennant & Pallant, 2006).

(4) Category threshold ordering is assessed by using the item characteristic curves (ICCs). If respondents' scores are not progressively increasing alongside the response options, or a response category is never modal, this indicates a disordering of thresholds.

(5) Sample targeting assesses whether there is appropriate coverage of the abilities of the persons in the sample by the scale items. Ideal values should fall between +0.50 and -0.50 for an item mean of 0, although it is argued that within 1 logit is also indicative of good targeting (Finger et al., 2012; Medvedev & Krageloh, 2022).

(6) Local response dependence is a potential issue that can result in increased measurement error and the distortion of both dimensionality and reliability (Fisher, 1992). This is assessed by examining residual correlations for values above 0.20–items above this threshold are considered for removal or combination into subtests (Andrich et al., 2009). Subtests are analogous to item parcelling in confirmatory factor analysis (Medvedev & Krägeloh, 2022).

(7) Scale reliability is assessed by Cronbach's alpha (α), McDonald's omega (ω), and the Person Separation Index (PSI). PSI reflects the capacity of a scale to differentiate between varying levels of ability possessed by different individuals (Fisher, 1992; Medvedev & Krägeloh, 2022). Both omega and PSI are less common but highly useful indices and use the same generally accepted .70 cut-off threshold as alpha (Tennant & Conaghan, 2007). The order of importance given to each reliability value is as follows; 1. PSI, 2. Omega and 3. Alpha. In addition to these indices, inter-item correlations are presented to assess internal consistency while mitigating the arbitrary influence of the number of scale items.

(8) Measurement Invariance is a fundamental measurement property that states an instrument should not vary due to the object it is measuring (Thurstone, 1928). This can be established through Differential Item Function (DIF) testing which uses ANOVA and Bonferroni-adjusted pairwise comparison t-tests. If respondents from different person-level groups (such as age, sex, country, clinical condition) who possess the same latent trait level are observed to have significantly different response patterns to the same items, DIF is indicated (Lundgren-Nilsson et al., 2013). The current study assessed DIF by age, sex, clinical vs non-clinical grouping and time taken to complete.

Results

Descriptive statistics for each schema scale are reported in Table 2, including the proportion of the clinical sample that scored 2.5 or more and the “strong” threshold for each schema. These thresholds form the basis for the “moderate” and “strong” schema scores. For version 1.4.1, Table 2 was recalculated on a larger clinical sample: the first MSS-v1.4 administration of each of 3,526 clients on NovoPsych, from October 2024 to November 2025. The “strong” threshold is the 90th percentile, with a minimum of 2.75 so that it always sits above “moderate” (2.5).

Table 2: Distribution of Responses for each Schema Scale in the Clinical Sample (n = 3,526; version 1.4.1).

	Mean (SD)	Percent scoring avg 2.5 +	Strong threshold
Abandonment / Anxious Attachment	2.22(.94)	49%	3.5
Excessive Self-Reliance / Avoidant Attachment	2.47(.82)	57%	3.5
Emotional Deprivation	1.44(.84)	15%	2.75
Mistrust of Others	2.05(.85)	37%	3.25
Others are Dangerous / Malevolent	1.64(.82)	21%	2.75
Social Isolation / Outsider	1.81(.79)	24%	3
Defectiveness / Shame	1.76(.99)	28%	3
Vulnerability to Dangerous World	1.72(.91)	25%	3
Dependence	1.21(.86)	10%	2.75
Failure / Achievement Inferiority	2.12(.94)	43%	3.25
Low Self-Efficacy / Weakness	1.46(.80)	14%	2.75
Fatalistic / External Locus of Control	1.41(.74)	12%	2.75
Enmeshment / Diffuse Boundaries	1.74(.83)	22%	2.75
Subjugation / Submission to Others	1.39(.73)	10%	2.75
Self-Sacrifice	2.15(.78)	39%	3.25
Approval-Seeking / Excessive Need to be Liked	1.88(.92)	31%	3
Emotional Inhibition	1.84(.83)	27%	3
Pessimism / Negativity	2.02(.83)	34%	3
Unrelenting Standards	2.36(.81)	50%	3.5
Punitiveness / Unforgiving of Self	1.95(.76)	29%	3
Punitiveness / Unforgiving of Others	1.64(.64)	13%	2.75

	Mean (SD)	Percent scoring avg 2.5 +	Strong threshold
Entitlement / Specialness	0.97(.63)	2%	2.75
Full Control	1.57(.65)	11%	2.75
Over-Reliance on Emotions	1.68(.65)	14%	2.75
Unfairness	1.57(.79)	16%	2.75
Meaningless World	1.23(.94)	13%	2.75
Lack of Coherent Identity	2.10(1.02)	43%	3.5

Analyses of the 138 items revealed an overall fit to the Rasch model for 21 of the 26 schemas tested, indicated by non-significant item-trait interaction chi-square values (Table 3). Schemas that showed significant misfit included Others are Dangerous, Entitlement, Unfairness, Meaningless World and Lack of Coherent Identity.

Reliability values were generally acceptable, with 3 schemas below a .70 PSI. Schemas with below threshold reliabilities included Enmeshment, Entitlement and Full Control (Table 3). Item fit values showed two misfitting items—item 5 for Others are Dangerous and item 1 for Entitlement.

Table 3. Summary of Fit Statistics for the Initial and Final Schemas.

Analyses by Schema	Person Location		Goodness of Fit					DIF	Unidimensionality		
	Mean	SD	χ2 (df)	*p*	Alpha	Omega	PSI	YES/NO	%	[a]LB95 % CI	Achieved
Abandonment											
Initial	-0.14	1.21	36.46(30)	0.193	0.79	0.84	0.77	NO	2	1	YES
Final	-0.65	1.49	36.03(28)	0.142	0.79	0.85	0.76	NO	2	1	YES
Excessive Self-Reliance											
Initial	0.32	0.99	37.93(35)	0.337	0.72	0.76	0.71	NO	1	1	YES
Final	0.53	1.22	20.25(28)	0.855	0.73	0.77	0.70	NO	1	1	YES
Emotional Deprivation											
Initial	-0.87	1.58	56.25(54)	0.390	0.84	0.89	0.84	NO	4	1	YES
Final	-1.05	1.85	28.89(24)	0.224	0.80	0.84	0.80	NO	1	1	YES
Mistrust of Others											
Initial	-0.03	2.38	8.59(16)	0.929	0.87	0.88	0.86	NO	2	1	YES
Others are Dangerous											
Initial	-0.77	1.28	85.62(25)	<.01	0.75	0.82	0.75	NO	5	1	YES
Final	-0.93	1.93	23.92(20)	0.246	0.81	0.86	0.80	NO	5	1	YES
Social Isolation											
Initial	-0.14	1.19	36.69(30)	0.186	0.84	0.87	0.83	NO	4	1	YES
Final	-0.42	1.42	27.18(24)	0.296	0.75	0.80	0.75	NO	3	1	YES
Defectiveness											
Initial	-0.98	1.37	53.85(48)	0.260	0.82	0.86	0.81	NO	3	1	YES
Final	-0.48	1.67	37.19(32)	0.242	0.83	0.86	0.80	NO	2	1	YES
Vulnerability											
Initial	-0.69	1.76	23.93(15)	0.066	0.86	0.89	0.84	NO	4	1	YES
Final	-0.65	1.61	15.97(12)	0.192	0.80	0.85	0.78	NO	1	1	YES
Dependence											
Initial	-1.35	1.59	28.87(24)	0.225	0.87	0.92	0.81	NO	3	1	YES
Final	-1.43	1.68	37.44(28)	0.109	0.83	0.90	0.73	NO	1	1	YES
Failure											
Initial	0.01	1.63	29.20(20)	0.083	0.83	0.86	0.80	NO	5	1	YES
Low Self-Efficacy											
Initial	-0.96	1.69	28.85(25)	0.269	0.84	0.88	0.82	NO	2	1	YES
Final	-1.11	1.86	22.08(20)	0.336	0.81	0.85	0.80	NO	3	1	YES
Fatalistic											
Initial	-1.03	1.51	16.47(16)	0.420	0.75	0.78	0.73	NO	3	1	YES
Enmeshment											
Initial	-0.22	0.74	31.39(25)	0.176	0.57	0.67	0.57	NO	4	1	YES
Final*	-0.24	1.09	9.11(12)	0.694	0.68	0.70	0.68	NO	2	1	YES
Subjugation											

Initial	-1.62	1.41	18.47(25)	0.822	0.76	0.79	0.75	NO	4	1	YES
Final	-1.76	1.52	13.79(20)	0.840	0.74	0.84	0.71	NO	2	1	YES
Self-Sacrifice											
Initial	0.32	1.39	11.29(16)	0.791	0.76	0.80	0.74	NO	4	1	YES
Approval Seeking											
Initial	-0.44	1.57	32.75(30)	0.333	0.87	0.92	0.85	NO	7	3	YES
Final	-0.70	1.68	22.79(20)	0.299	0.82	0.84	0.80	NO	3	1	YES
Emotional Inhibition											
Initial	-0.38	1.31	18.65(25)	0.813	0.79	0.84	0.78	NO	3	1	YES
Final	-0.58	1.39	24.90(20)	0.205	0.76	0.84	0.74	NO	3	1	YES
Pessimism											
Initial	0.12	1.24	14.24(16)	0.580	0.74	0.77	0.72	NO	2	1	YES
Unrelenting Standards											
Initial	0.37	1.37	25.45(25)	0.437	0.78	0.82	0.79	NO	4	1	YES
Final	0.34	1.38	17.88(20)	0.595	0.73	0.78	0.74	NO	4	1	YES
Punitiveness - Self											
Initial	-0.31	1.67	11.03(16)	0.807	0.76	0.79	0.78	NO	2	1	YES
Punitiveness - Other											
Initial	-1.30	1.25	20.96(25)	0.695	0.69	0.78	0.71	NO	8	2	YES
Final	-1.54	1.54	24.95(20)	0.203	0.71	0.74	0.71	NO	4	1	YES
Entitlement											
Initial	-1.15	0.85	115.53(48)	<.01	0.59	0.77	0.62	NO	7	2	YES
Final*	-1.29	1.51	6.63(4)	0.157	0.80	0.84	0.72	NO	2	1	YES
Full Control											
Initial	-0.28	0.97	18.55(20)	0.551	0.56	0.22	0.59	NO	2	1	YES
Unfairness											
Initial	-0.75	1.28	76.56(45)	<.01	0.74	0.82	0.76	NO	4	2	YES
Final	-0.33	1.39	22.54(24)	0.547	0.68	0.87	0.75	NO	1	1	YES
Meaningless World											
Initial	-1.33	1.63	57.22(40)	0.03	0.84	0.91	0.79	NO	5	1	YES
Final	-1.5	1.92	35.40(28)	0.158	0.86	0.85	0.79	NO	2	1	YES
Lack of Coherent Identity											
Initial	0.12	1.24	206.58(80)	<.01	0.82	0.85	0.79	NO	7	1	YES
Final	0.09	1.71	22.54(28)	0.755	0.85	0.88	0.81	NO	2	1	YES
Over-Reliance on Emotions											
Initial*	-0.41	0.97	23.09(18)	0.187	0.68	0.81	0.72	NO	8	3	YES
Final*	-0.56	1.19	15.83(12)	0.199	0.65	0.87	0.68	NO	5	1	YES

*Secondary analysis

Local response dependency was observed in several instances, with residual correlations above .20 for Emotional Deprivation items 3 & 4, Dependence items 5 & 6, Entitlement items 4 & 3, 3 & 5, and 4 & 5, Unfairness items 2 & 3, and Meaningless World items 1 & 3.

DIF was assessed by values and inspection of plots, with no significant DIF observed across any items, supporting the measurement invariance of the MSS by gender. The majority of schemas showed evidence for strict unidimensionality, with exceptions being Approval-Seeking, Punitiveness - Others, Entitlement and Lack of Coherent Identity.

A process of item deletion was undertaken to make the MSS shorter, with the aim of four items per schema. A total of 22 items were removed from various schemas while no deletion was attempted for those schemas that began with four items such as Mistrust of Others, Failure, Fatalistic, Self-Sacrifice, Pessimism, and Punitiveness - Self.

After item deletion, overall model fit and reliability remained stable in those schemas that previously achieved fit, and was improved substantially in several cases of previous misfit such as Others are Dangerous, Unfairness, Meaningless World and Lack of Coherent Identity. Reliability was improved to an acceptable level for Punitiveness - Other. The Entitlement and Enmeshment schemas had no item deletion solution that resulted in a substantial improvement in overall fit or reliability. No local response dependency was observed, with previous residual correlations exceeding .20 no longer found for Emotional Deprivation, Dependence, Unfairness, and Meaningless World. Item misfit was not observed in any of the modified schemas, or those that began with four items. After item deletion, schemas which achieved strict unidimensionality retained this, and all schemas that previously did not, now showed evidence for strict unidimensionality–Approval Seeking, Punitiveness - Other and Lack of Coherent Identity.

At this stage, a new schema was introduced to the MSS–'Over-Reliance on Emotions', and a secondary analysis was conducted with a further dataset with the aim of assessing this schema. This secondary analysis also allowed an opportunity to rework those schemas with previously low reliability such as Entitlement and Enmeshment, with new items added for testing.

The results of the secondary analysis are marked with an asterisk in Table 3. The initial 6-item Over-Reliance on Emotions Schema showed an acceptable overall model fit ($\chi^2(18)=23.09$, $p=.187$) and reliability values of $a=0.68$, $\omega=0.81$, and PSI=.72. Evidence of unidimensionality was observed, but strict unidimensionality was not supported, with 8% of *t*-tests falling outside the -1.96 to 1.96 range. After the deletion of two items, bringing the new schema in line with the others in terms of item number, similar overall model fit and reliability values were observed and strict unidimensionality was confirmed.

In addition, Entitlement improved from a poor to acceptable overall model fit evidenced by a change from a non-significant to a significant item-trait interaction chi-square value–reliability also improved across all three indices (Table 3). Entitlement saw an improvement from its initial version with evidence of strict unidimensionality. Enmeshment retained its previous acceptable overall model fit, and reliability improved; $a=0.57/a=0.68$, $\omega=0.67/\omega=0.70$, and PSI=0.57/PSI=0.68 (Table 3).

A comparison between the psychometric properties of the MSS and YSQ-R from published literature (Yalcin et al., 2022) and our own internal analysis is presented in Table 4.

Schemas found in the YSQ-R (YSQ-aligned) and the MSS are shown in Table 4. In the MSS, 18 of 18 YSQ-aligned MSS schemas fit the Rasch model. In comparison to the YSQ-R, only 2 of 18 comparable schemas saw acceptable fit, defined as Overall Fit score of 0.05 or over. A successful model fit indicates that the scale items are aligned with the underlying latent trait (i.e., Mistrust) and functioning consistently across different levels of schema strength.

All MSS Schema reliabilities meet the .70 cut off with the exception of Enmeshment, which saw a PSI value of .68. In comparison, for the YSQ-R, Yalcin and colleagues (2021) reported a PSI reliability of .57 for their 7-item Enmeshment scale (Table 4). The MSS Enmeshment scale is shorter in length and closer to the .70 cut off for reliability compared to the YSQ-R version.

Of note is the shorter length of the MSS scales, yet possessing superior Rasch model fit and acceptable reliability. The Inter-Item Correlations (IIC) presented in Table 4 highlight the internal consistency of a scale while not being influenced by the number of items in the scale. This is important given more items in a scale can artificially increase other internal consistency metrics. The analysis revealed that the IIC was within the acceptable range (between 0.15 and 0.50) for 16 out of the 18 scales (Clark & Watson, 1995). In comparison, the YSQ only achieved an acceptable range for 11 schemas.

Table 4. Reliability and Overall fit Between comparable YSQ-R and MSS Schemas.

Schemas	Overall fit >.05	PSI >.70	Omega >.70	IIC >.15-.50
Abandonment / Anxious Attachment				
MSS (4 items)	.142	.76	0.85	.502
YSQ-R (8 items)	<.000	.84	0.90	.461
Yalcin et al. (2022)	-	.81	-	-
Emotional Deprivation				
MSS (4 items)	.870	.88	0.84	.508
YSQ-R (5 items)	<.000	.84	0.76	.598
Yalcin et al.	-	.77	-	-
Mistrust of Others				
MSS (4 items)	.929	.86	0.88	.637
YSQ-R (5 items)	<.000	.75	0.87	.493
Yalcin et al.	-	.74	-	-
Social Isolation / Outsider				
MSS (4 items)	.296	.75	.80	.404
YSQ-R (5 items)	<.000	.85	.91	.612
Yalcin et al.	-	.84	-	-
Defectiveness				
MSS (4 items)	.242	.80	.86	.404
YSQ-R (6 items)	<.000	.86	.95	.684
Yalcin et al.	-	.84	-	-
Failure / Achievement Inferiority				
MSS (4 items)	.083	.80	.86	.635
YSQ-R (6 items)	<.000	.88	.95	.685
Yalcin et al.	-	.85	-	-
Dependence				
MSS (4 items)	.109	.73	.90	.540
YSQ-R (8 items)	<.000	.85	.93	.561
Yalcin et al.	-	.84	-	-
Vulnerability				
MSS (4 items)	.192	.78	.85	.644
YSQ-R (6 items)	<.000	.78	.90	.483
Yalcin et al.	-	.75	-	-
Enmeshment / Diffuse Boundaries				
MSS (4 items)*	.110	.68	.70	.349
YSQ-R (7 items)	<.000	.67	.84	.432
Yalcin et al.	-	.57	-	-
Entitlement / Specialness				
MSS (4 items)*	.157	.72	.84	.505

YSQ-R (6 items)	<.000	.75	.83	.356
Yalcin et al.	-	.75	-	-
Subjugation				
MSS (4 items)	.148	.75	.84	.512
YSQ-R (5 items)	<.000	.76	.85	.440
Yalcin et al.	-	.77	-	
Self-Sacrifice				
MSS (4 items)	.791	.74	.80	.392
YSQ-R (6 items)	<.000	.83	.91	.504
Yalcin et al.	-	.81	-	
Approval-Seeking				
MSS (4 items)	.299	.80	.84	.465
YSQ-R (5 items)	<.000	.86	.91	.612
Yalcin et al.	-	.80	-	
Unrelenting Standards				
MSS (4 items)	.595	.74	.78	.476
YSQ-R (7 items)	<.000	.86	.93	.517
Yalcin et al.	-	.83	-	
Emotional Inhibition				
MSS (4 items)	.205	.74	.84	.449
YSQ-R (5 items)	<.104	.79	.91	.580
Yalcin et al.	-	.82	-	
Pessimism / Negativity				
MSS (4 items)	.580	.72	.77	.539
YSQ-R (6 items)	<.256	.84	.91	.517
Yalcin et al.	-	.83	-	
Punitiveness / Unforgiving of Self				
MSS (4 items)	.807	.78	.79	.431
YSQ-R (5 items)	<.000	.85	.93	.652
Yalcin et al.	-	.82	-	
Punitiveness / Unforgiving of Others				
MSS (4 items)	.203	.71	.74	.436
YSQ-R (4 items)	<.000	.76	.83	.497
Yalcin et al.	-	.75	-	

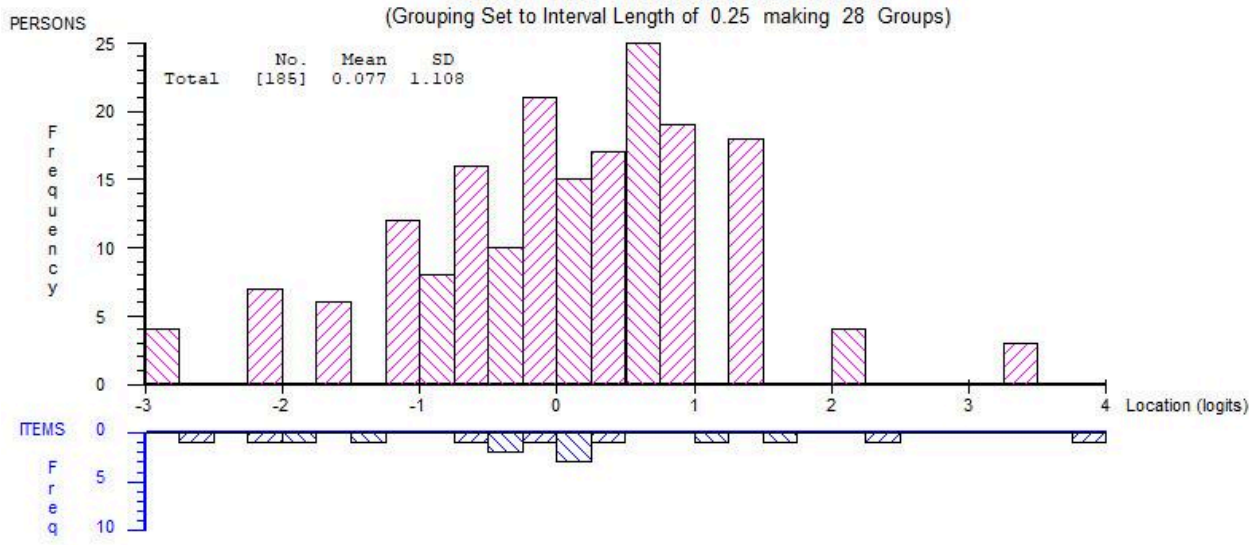
*Secondary Analysis, - Not reported

Category threshold assessment via ICCs revealed that for the response options 0, 1, 2, 3 and 4, the third category (option 2) was never modal for certain items in several schemas. This suggests that clients may not be able to reliably distinguish between more than four levels of schema endorsement. One solution is collapsing the 3rd response category, however, eight schemas do not have this issue and of the remaining 15, seven observe only one disordered item. Collapsing would also result in a loss of information in those below modal cases, and create inconsistencies between items within schemas and between schemas themselves. In comparison, the YSQ-R had 18 schemas showing disordered thresholds for response option 2 and/or 3. Data from both the MSS and YSQ-R suggest the change in response options from 6 to 5 was justified, with a potential case to be made for reducing the number of categories from 5 to 4 in future.

Table 5. Correlation Matrix of all the MSSv1.4 Schema Scales.

	ABD	ESR	EMODEP	MISTR	OTHDNG	SOCISOL	DEFECT	VULN	DEPEND	FAIL	LSE	FATAL	ENMESH	SUBJ	SELFS	APPRV	EMOINH	PESS	UNREL	PUNSEL	PUNOTH	ENTITL	FC	ORE	UNFAIR	MEANING	LACKID
Abandonment		0.39	0.58	0.55	0.35	0.50	0.57	0.49	0.36	0.38	0.36	0.38	0.39	0.34	0.31	0.22	0.42	0.48	0.26	0.36	0.20	0.15	-0.04	0.01	0.43	0.41	0.49
Excessive Self Reliance	0.39		0.42	0.47	0.24	0.29	0.35	0.16	-0.05	0.27	0.03	0.10	0.07	0.10	0.24	0.16	0.36	0.25	0.31	0.32	0.06	-0.02	0.18	-0.13	0.22	0.22	0.22
Emotional Deprivation	0.58	0.42		0.61	0.44	0.51	0.41	0.33	0.21	0.35	0.27	0.36	0.20	0.13	0.18	0.13	0.46	0.35	0.24	0.32	0.24	0.18	0.01	-0.04	0.45	0.39	0.42
Mistrust	0.55	0.47	0.61		0.66	0.44	0.48	0.48	0.20	0.36	0.25	0.39	0.26	0.14	0.15	0.11	0.47	0.42	0.27	0.41	0.29	0.17	0.04	-0.07	0.49	0.45	0.38
Others are Dangerous	0.35	0.24	0.44	0.66		0.41	0.38	0.49	0.18	0.33	0.26	0.40	0.15	0.10	0.06	0.08	0.32	0.35	0.17	0.21	0.33	0.25	-0.01	-0.01	0.50	0.38	0.24
Social Isolation	0.50	0.29	0.51	0.44	0.41		0.54	0.40	0.37	0.40	0.31	0.34	0.29	0.18	0.23	0.21	0.40	0.37	0.28	0.37	0.23	0.34	0.07	0.00	0.55	0.32	0.39
Defectiveness	0.57	0.35	0.41	0.48	0.38	0.54		0.56	0.50	0.60	0.52	0.45	0.38	0.46	0.39	0.38	0.57	0.64	0.32	0.53	0.17	0.08	-0.22	-0.14	0.48	0.62	0.57
Vulnerability	0.49	0.16	0.33	0.48	0.49	0.40	0.56		0.48	0.46	0.46	0.52	0.37	0.40	0.30	0.28	0.38	0.59	0.29	0.43	0.29	0.09	-0.15	-0.11	0.55	0.50	0.35
Dependence	0.36	-0.05	0.21	0.20	0.18	0.37	0.50	0.48		0.51	0.74	0.43	0.38	0.59	0.26	0.45	0.35	0.54	0.13	0.34	0.09	0.00	-0.28	-0.03	0.36	0.47	0.54
Failure	0.38	0.27	0.35	0.36	0.33	0.40	0.60	0.46	0.51		0.58	0.35	0.32	0.42	0.27	0.38	0.45	0.57	0.20	0.37	0.09	0.07	-0.17	-0.02	0.41	0.51	0.55
Low Self Efficacy	0.36	0.03	0.27	0.25	0.26	0.31	0.52	0.46	0.74	0.58		0.45	0.38	0.62	0.27	0.45	0.41	0.62	0.12	0.35	0.06	-0.01	-0.41	-0.05	0.37	0.55	0.49
Fatalism	0.38	0.10	0.36	0.39	0.40	0.34	0.45	0.52	0.43	0.35	0.45		0.27	0.38	0.26	0.30	0.37	0.50	0.13	0.33	0.18	0.08	-0.28	-0.01	0.56	0.52	0.38
Enmeshment	0.39	0.07	0.20	0.26	0.15	0.29	0.38	0.37	0.38	0.32	0.38	0.27		0.48	0.55	0.41	0.37	0.33	0.18	0.39	0.17	0.16	-0.05	0.07	0.31	0.31	0.46
Subjugation	0.34	0.10	0.13	0.14	0.10	0.18	0.46	0.40	0.59	0.42	0.62	0.38	0.48		0.42	0.52	0.35	0.45	0.14	0.44	0.06	-0.04	-0.21	-0.03	0.26	0.44	0.38
Self Sacrifice	0.31	0.24	0.18	0.15	0.06	0.23	0.39	0.30	0.26	0.27	0.27	0.26	0.55	0.42		0.50	0.33	0.42	0.38	0.45	0.01	-0.01	0.01	-0.02	0.33	0.28	0.29
Approval Seeking	0.22	0.16	0.13	0.11	0.08	0.21	0.38	0.28	0.45	0.38	0.45	0.30	0.41	0.52	0.50		0.37	0.37	0.31	0.40	0.08	0.00	-0.08	-0.07	0.30	0.33	0.39
Emotional Inhibition	0.42	0.36	0.46	0.47	0.32	0.40	0.57	0.38	0.35	0.45	0.41	0.37	0.37	0.35	0.33	0.37		0.47	0.29	0.47	0.26	0.12	-0.08	-0.31	0.38	0.54	0.53
Pessimism	0.48	0.25	0.35	0.42	0.35	0.37	0.64	0.59	0.54	0.57	0.62	0.50	0.33	0.45	0.42	0.37	0.47		0.31	0.47	0.11	-0.03	-0.23	-0.16	0.53	0.63	0.44
Unrelenting Standards	0.26	0.31	0.24	0.27	0.17	0.28	0.32	0.29	0.13	0.20	0.12	0.13	0.18	0.14	0.38	0.31	0.29	0.31		0.45	0.23	0.11	0.19	-0.15	0.28	0.19	0.15
Punitiveness Self	0.36	0.32	0.32	0.41	0.21	0.37	0.53	0.43	0.34	0.37	0.35	0.33	0.39	0.44	0.45	0.40	0.47	0.47	0.45		0.23	-0.01	0.03	-0.17	0.31	0.38	0.40
Punitiveness Others	0.20	0.06	0.24	0.29	0.33	0.23	0.17	0.29	0.09	0.09	0.06	0.18	0.17	0.06	0.01	0.08	0.26	0.11	0.23	0.23		0.47	0.18	-0.04	0.34	0.17	0.20
Entitlement	0.15	-0.02	0.18	0.17	0.25	0.34	0.08	0.09	0.00	0.07	-0.01	0.08	0.16	-0.04	-0.01	0.00	0.12	-0.03	0.11	-0.01	0.47		0.20	0.21	0.28	0.09	0.10
Full Control	-0.04	0.18	0.01	0.04	-0.01	0.07	-0.22	-0.15	-0.28	-0.17	-0.41	-0.28	-0.05	-0.21	0.01	-0.08	-0.08	-0.23	0.19	0.03	0.18	0.20		0.08	-0.03	-0.24	-0.08
Over Reliance Emotions	0.01	-0.13	-0.04	-0.07	-0.01	0.00	-0.14	-0.11	-0.03	-0.02	-0.05	-0.01	0.07	-0.03	-0.02	-0.07	-0.31	-0.16	-0.15	-0.17	-0.04	0.21	0.08		0.02	-0.06	0.02
Unfairness	0.43	0.22	0.45	0.49	0.50	0.55	0.48	0.55	0.36	0.41	0.37	0.56	0.31	0.26	0.33	0.30	0.38	0.53	0.28	0.31	0.34	0.28	-0.03	0.02		0.45	0.34
Meaningless World	0.41	0.22	0.39	0.45	0.38	0.32	0.62	0.50	0.47	0.51	0.55	0.52	0.31	0.44	0.28	0.33	0.54	0.63	0.19	0.38	0.17	0.09	-0.24	-0.06	0.45		0.54
Lack of Identity	0.49	0.22	0.42	0.38	0.24	0.39	0.57	0.35	0.54	0.55	0.49	0.38	0.46	0.38	0.29	0.39	0.53	0.44	0.15	0.40	0.20	0.10	-0.08	0.02	0.34	0.54	

Figure 1. Person-item Distribution for the final Abandonment schema.



Good sample targeting was generally observed with 13 Schemas within +/-.50, and 9 Schemas within 1 logit (Finger et al., 2012; Medvedev & Krageloh, 2022). Five Schemas were greater than 1 logit; Dependence, Subjugation, Punitiveness - Others, Entitlement and Meaningless World (Appendix D). Of these <1 logit schemas, the percentage of persons grouped outside of the item range did not exceed 20%, indicating the absence of strong floor effects (Murugappan et al., 2022). However, the Meaningless World Schema was close to this threshold, with 19% outside the item range on the lower end of the ability distribution–bordering on a strong floor effect. Further details can be seen in Appendix D, in general, the sample's abilities are well covered by the Schema items.

Between-schema correlation patterns were appropriate and are detailed in Table 4. Correlations were produced based on the data from the secondary analysis as it included the newly added Over Reliance on Emotions, and adjusted Entitlement and Enmeshment schemas. Notably high correlations include Low-Self Efficacy and Dependence (.74), which share a common core of inability, where individuals who feel weak and inept are also likely to believe they cannot manage on their own. Low-Self Efficacy also showed positive correlations to Subjugation (.62) and Pessimism (.62). These correlations are consistent with the strongest negative correlation observed, between Full Control and Low-Self Efficacy (-.41). A sense of helplessness could expectedly be inversely related to a sense of total control of one's environment and suggests that as the belief in control increases, feelings of helplessness and ineptitude may decrease. Weak negative correlations were observed between Full Control and several other schemas such as Failure, Fatalistic, Defectiveness, Dependence, Subjugation, Pessimism and Lack of Coherent Identity.

Lack of Coherent Identity had the highest standard deviation and was associated with greater variance in responding across schemas. For example, people in the lowest quartile for Lack of Coherent Identity were more consistent in their responses to other schemas, whereas those in the top quartile had more variation in their responses. Specifically, the mean variance of responses within other schemas between participants scoring high and low quartiles on Lack of Coherent Identity were compared using an independent sample t-test. Mean variances were obtained for high scorers (0.81) and low scorers (0.70), with the t-test results ($t(50.18) = 1.77$, $p = 0.04$) indicating that high scorers had significantly greater response variability across other Schemas.

Summary of Psychometric Properties

- The MSS is valid and reliable, demonstrating strong psychometric properties, with all 27 schemas observing fit to the Rasch model.
- A process of item reduction was successfully undertaken, achieving model fit, reliability, and strict unidimensionality for four items per schema.
- The MSS is shorter than alternatives such as the various forms of the YSQ and boasts a superior alignment with Rasch model expectations of a useful measurement instrument.
- Measurement invariance by gender has been established for the MSS, assuring clinicians that MSS items function equivalently between males and females.
- Appropriate inter-schema correlations support the construct validity of the MSS.
- No strong floor or ceiling effects were observed.

Discussion

The MSS represents a valid and reliable tool for clinicians to assess maladaptive schemas. Strong psychometric properties are demonstrated by the achievement of Rasch model fit across all schemas, supporting the utility of the MSS as a precise and useful measurement. The MSS is shorter in length while covering a greater number of schemas compared to existing measures such as the YSQ and YSQ-R.

Measurement invariance by gender was established, assuring clinicians that the MSS functions equivalently, reflecting the same construct regardless of gender. Appropriate inter-schema correlations support the construct validity of the MSS schemas.

The current work empirically validated a number of the new constructs for the first time, as detailed below.

Over-Reliance on Emotions

Over-Reliance on Emotions is theoretically quite distinct from many other schemas, whereby the origin is linked to a more modern phenomena of parental indulgence rather than the neglect and abuse emphasised in the past. As expected, Over-Reliance on Emotion was significantly negatively correlated to the existing schema of Emotional Inhibition, providing evidence of discriminant validity. Of note, Over-Reliance on Emotion did not have strong correlations with

other schemas. It is important to recognise that this construct can be pathologically high, but it is likely that a moderate reliance on emotions is adaptive. Nuance in interpreting this construct is warranted, given that more neurotic people who experience strong emotions may be more likely to endorse the disruptive nature of emotions compared to people who are less neurotic. Further analysis of clinical and non-clinical groups may enhance the understanding of these interactions.

Lack of Coherent Identity, Meaningless World and Unfairness

The development of the MSS operationalised and validated several constructs proposed by an international schema workgroup–Lack of Coherent Identity, Meaningless World and Unfairness (Arntz et al., 2021). The validation of the three additional schemas is of clinical importance, as their inclusion provides a more comprehensive model for understanding severe areas of psychopathology not previously encompassed by schema theory, such as dissociation, psychosis and some personality disorders (Arntz et al., 2021). Fit to the unidimensional Rasch model validates each of these new schema constructs and demonstrates their favourable properties in assessing distinct latent traits. Lack of Coherent Identity in particular was associated with greater response variability across all schemas, further supporting its validity. These findings contribute more broadly to establishing the evidence base for the theoretical foundations of the schema therapy model.

Excessive Self-Reliance / Avoidant Attachment

Excessive Self-Reliance was positively correlated with other schemas in the safety and attachment cluster of unmet needs, including Mistrust of Others and Emotional Deprivation, providing evidence of its convergent validity. The validation of the Excessive Self-Reliance construct has significant implications for clinical practice as both anxious and avoidant attachment patterns, which may emerge in the absence of early secure attachment, can now be identified and targeted. More broadly, its inclusion represents an integration of contemporary understandings of attachment, providing clinicians with a more comprehensive, updated schema model.

Others are Dangerous / Malevolent

The present research validates the separation of the YSQ Mistrust / Abuse schema into two distinct constructs, Mistrust of Others and Others are Dangerous. The ability to distinguish between different other-directed maladaptive themes (ie., a general mistrust compared to an expectation of antisocial behaviour) has clinical implications, both in terms of conceptualisation - different types of trauma exposure have been associated with different profiles of post-traumatic stress disorder symptom frequencies and severity (Birkeland et al., 2022) - and the likely impact on the individual's emotional and interpersonal functioning.

Low Self-efficacy / Weakness

As noted earlier, the MSS excluded the Insufficient Self-Control schema present in the YSQ given its lack of empirical support and overlap with ADHD symptoms. Instead, theoretically similar concepts with more empirical support were included. The construct of Low Self-Efficacy included in the MSS showed good model fit and a number of favourable psychometric

properties. It was strongly related to constructs which are theoretically related, including Dependence, Subjugation, Lack of Coherent Identity and Fatalism, offering evidence of convergent validity.

Fatalistic / External Locus of Control

Our scale measuring fatalism showed a number of favourable psychometric properties, and performed as expected in relation to other schemas that have an established theoretical relationship. For example, it had significant correlations with Pessimism, Unfairness, Meaningless World. The addition of this schema provides clinicians with a treatment target and more comprehensive schema model for understanding a construct associated with various psychopathology (Riachi et al., 2024) as well as important information about likely levels of treatment engagement and self-motivation.

Punitiveness / Unforgiving of Self and Punitiveness / Unforgiving of Others

The present results support the Rasch analysis findings of Yalcin et al. (2022), suggesting that the YSQ Punitiveness schema can be conceptualised as two separate schemas, with excessive criticism either internally (self) or externally (other) directed. This distinction is of clinical importance because, as argued by Yalcin and colleagues (2022), the focus of punitiveness has differential implications for an individual's functioning, as relationships are more likely to remain intact when the punitiveness is self- rather than other- directed.

Full Control

Despite the Full Control schema exhibiting poor reliability in our analyses, we chose to retain it in version 1.4 due to its theoretical significance and potential clinical utility. Notably, this schema showed a correlation with the previously included biased responding scale, Self-Deceptive Denial (see Appendix C), suggesting it measures, in part, a lack of reflective capacity. The observed pattern of negative correlations between Full Control and most schemas also supports this and is consistent with schema theory's conceptualisation of schemas as conditional and unconditional (Young et al., 2003). In this framework, Full Control may be considered a *conditional* schema, developing later as an attempt to reduce the activation of unconditional schemas more vulnerable in nature (such as Defectiveness; Young et al., 2003). As a conditional or secondary schema, Full Control provides a sense of agency, predictability and hope, which relieves the vulnerability and painful emotions associated with other schemas which may be unconsciously held, and reduces the necessity for other conditional schemas. The pattern of negative correlations suggests that Full Control schema functions as a denial of unconditional schema/s via a pathway of low conscious awareness of internal states or low self-reflective capacity. And yet, it is unrealistic or self-deceptive, as reflected by the positive correlation with the self-deceptive denial scale. As such, high scores on the Full Control schema may be suggestive of biased responding on the MSS and indicate that the client may be underreporting other schemas.

Conclusion

The MSS is a robust measure for clinicians, providing a shorter method of comprehensively assessing maladaptive schemas, assisting and enhancing schema-focused therapy.

The present research contributes more broadly to empirically validating the theoretical foundations of the schema model, synthesising contemporary research to provide an updated schema taxonomy, and provides a mechanism for rapid future research progression via an open-source assessment tool.

Limitations

Future work will aim to validate the schema organisation into Early Unmet Needs and Schema Focus groups using Structural Equation Modelling. Convergent validity will also be assessed in future by comparing the MSS to similar measures like the YSQ-R (Yalcin et al., 2023) or Brief Early Schema Questionnaire (Brockman et al., 2023).

Assessing the state and trait nature of the MSS schemas and identifying specific sources of measurement error is another important step. Other Schema measures have used test-retest reliability or intraclass correlation coefficients, yet these have several drawbacks such as an inability to control for person/occasion/item interactions and item variability over time (see Bloch & Norman, 2012 for more details). Therefore, Generalizability Theory analysis will likely be undertaken for this task, as such a thorough examination of the state-trait dynamic of maladaptive schemas has yet to be accomplished.

Given the achieved model fit of MSS schemas, interval conversion is possible and may be done in future to improve measurement precision allowing more accurate statistical analysis and comparisons.

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Appendix A: Schema Descriptions

The Schema Descriptions document that follows is intended for use as a stand-alone document that can be used by clinicians or shared with clients for psychoeducation.

Assessment powered by NovoPsych

Maladaptive Schema Scale Version 1.4 (MSS-v1.4) Schema Descriptions

NovoPsych.com.au

Buchanan. B., Bartholomew. E., Smyth. C., Hegarty. D. (2024).
A comprehensive questionnaire for schemas related to psychopathology: The Maladaptive Schema Scale - Version 1.4

The Maladaptive Schema Scale Version 1.4 (MSS-v1.4) is designed to meet the needs of mental health practitioners, building upon the foundational principles of the Young Schema Questionnaire (YSQ) while integrating cutting-edge psychometric advancements to enhance reliability and validity. This document provides a description of each of the 27 schemas to help to guide clinicians in their interpretation.

Abandonment / Anxious Attachment: “People will leave me” 2
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Social Isolation / Outsider: “I am different and don’t belong” 8
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Fatalistic / External Locus of Control: “Fate is in charge, so why bother” 15
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Subjugation / Submission to Others: "Others know better than me" **17**
Self-Sacrifice: "I should put others first" 18
Approval-Seeking / Excessive Need to be Liked: “I need to be liked by everyone” 19
Pessimism / Negativity: “Disappointment is inevitable” 20
Emotional Inhibition: “I must suppress my emotions” 21
Unrelenting Standards: "I must perform exceptionally" 22
Punitiveness / Unforgiving of Self: “I should be punished for my mistakes” 24
Punitiveness / Unforgiving of Others: “Others should be punished for their mistakes” 25
Entitlement / Specialness: “I am special and unique” 26
Unfairness: “I am not treated fairly” 27
Full Control: “Nothing is beyond my control” 28
Meaningless World: “My life is meaningless” 29
Lack of Coherent Identity: “I don’t know who I am” 30
Over-Reliance on Emotions: “If I feel it, it must be true” 31

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Abandonment / Anxious Attachment: "People will leave me"

This schema involves a fear of being abandoned or rejected, and in the context of romantic relationships, often manifests as insecurity about a partner's love and commitment. People with this schema anticipate that their meaningful relationships will not last. As such, they tend to be hypersensitive to perceived cues of abandonment and can misinterpret others' intentions in close relationships. They may excessively seek reassurance and validation from others, worry excessively about their relationships, and display clingy or dependent behaviours. They often perceive the availability of others to provide support to be unreliable and unpredictable. The schema also involves excessive worry about the absence of a significant relationship and heightened sensitivity to issues of reciprocity, commitment and care.

Examples of what maintains the schema:

- As this schema involves pervasive expectations that others will become unavailable, abandon or reject them, people with this schema might engage in behaviours aimed at keeping others close, such as being clingy or reassurance-seeking. The behaviours can lead to others feeling smothered, thereby pushing them away, leading to the very abandonment or rejection they sought to avoid.
- People with this schema may have relationships with partners who are unreliable or avoidant, thereby reinforcing the schema.

Examples of beliefs, assumptions or reactions related to the schema:

-I fear that my important relationships will end unexpectedly.
-I worry that people I love can't be there for me in a committed way.
-I feel confident that other people will be there for me when I need them. (Reversed)
-I worry about losing people that I rely on.

Possible origins of schema:

- This schema and attachment style may develop from early experiences with caregivers who were inconsistently available or unpredictably responsive.
- Caregivers were unstable or frequently withdrawn from the child, as may occur if a caregiver experienced depression, substance abuse, or anger, for example.
- The loss of a caregiver at an early age. For example, with the illness or death of a parent, or separation of parents.

Assessment powered by NovoPsych

Excessive Self-Reliance / Avoidant Attachment: “I can only rely on myself"

This schema is characterised by a wariness of intimacy and a reluctance to depend on others, often stemming from a desire to avoid vulnerability. People with this schema are reluctant to seek support or closeness from others and tend to keep personal issues to themselves, fearing being perceived as needy or becoming too dependent. They may minimise the importance of relationships, or rationalise that others have their own problems and should not be burdened further. There may be an emphasis on personal interests over cultivating relationships, an autonomous approach to handling life's challenges and a general avoidance of deep emotional connections, which they may find uncomfortable. People with this schema may fear being smothered or others becoming over-involved in their private matters.

Examples of what maintains the schema:

- People with this schema may distance themselves or withdraw from relationships to cope with their discomfort with interpersonal intimacy. When a partner responds to this by drawing closer, the discomfort with intimacy and need to maintain distance are perpetuated.
- Some people with this schema cope with this discomfort by avoiding intimate relationships altogether, and therefore do not have the opportunity to have corrective experiences to challenge the validity of the schema.
- The excessive need for self-reliance characteristic of the schema can be reinforced when the person successfully manages challenges alone and encounters difficulties when working with others.

Examples of beliefs, assumptions or reactions related to the schema:

-I always depend on myself and never on other people.
-I feel uneasy when people get too close.
-I feel extremely uncomfortable depending on other people.
-The last thing I want to do is bother people with my problems.

Possible origins of schema:

- This schema and attachment style may develop from early experiences with caregivers who were inconsistently responsive, or were rejecting or neglectful in response to the child’s expression of a need for closeness or support.
- Caregivers who were dominating, overinvolved or smothering, as the child learns that interpersonal closeness is uncomfortable;
- Caregivers who actively discouraged dependence, either through overt messages about the importance of independence or through behaviours that penalised seeking connection;
- Caregivers who were emotionally distant, unavailable, or dismissive of the child’s emotional needs, as this teaches the child to rely on themselves for comfort and support;
- Caregivers who are interpersonally dependent, as this can lead the child to overcorrect and only rely on themselves.

Assessment powered by NovoPsych

Emotional Deprivation:
"People aren't there for me"

This schema involves the expectation that one's practical or emotional needs will not be adequately met within personal relationships. People with this schema often believe that others are generally inattentive to their emotional requirements and are not reliably present when support or advice is needed. This often coincides with feelings of discomfort about expressing emotions or discussing personal matters with others due to the expectation that others won't be supportive, reinforcing a sense of isolation. This expectation can drive a heightened sensitivity to possible evidence of neglect. Though this schema tends not to be associated with emotions of high intensity, feelings of emptiness or loneliness may be described. Relationships may be experienced as lacking depth and genuine connection, leading to pervasive feelings of being neglected and disconnected from others. People with this schema often describe having a 'normal' childhood, making the emotional deprivation schema one of the more challenging to detect.

Examples of what maintains the schema:

- People with this schema may reenact the experience of deprivation, often having relationships with partners who are emotionally unavailable and thereby reinforcing the schema.
- Even in relationships with an emotionally available partner, people with this schema tend not to communicate their needs or emotions and subsequently feel hurt or disappointed as their needs go unmet, reinforcing the schema.

Examples of beliefs, assumptions or reactions related to the schema:

-I have others I can depend on for advice and emotional support. (Reversed)
-If I was in trouble, I wouldn't know who to call.
-Other people don't care about my emotional needs.
-I feel unsupported by others, so I wouldn't share my emotions.

Possible origins of schema:

- Emotional neglect during childhood is one of the most significant contributors to this schema. If caregivers fail to respond adequately to a child's emotional needs, the child may grow up feeling that emotional support and understanding from others are not available or forthcoming.
- Emotional neglect during childhood can present in different ways, such as a caregiver who was inconsistently available, or a caregiver who was physically or emotionally absent due to separation, divorce, death, health issues or chronic preoccupation with other issues.
- Experiences of rejection or abandonment by caregivers or important peers during childhood can contribute to the development of the belief that others will not meet one's needs.

- Children who feel overshadowed by siblings or other family members, perhaps due to the other's needs, illnesses, or characteristics being prioritised, can develop a sense of deprivation.

Mistrust of Others: "I cannot trust people"

This schema involves the expectation that people are deceitful, unreliable and likely to hide their true motives. People with this schema typically believe that dishonesty and betrayal are common in interactions, fostering a general suspicion and wariness towards others. Feelings of anxiety and threat are frequently associated with this schema, alongside a heightened sensitivity to any signs of deception in others, even without objective evidence of such. This schema can impair even casual and friendly relationships, as their suspicion, guardedness, and defensiveness can be abrasive. Consequently, people with this schema may experience interpersonal difficulties or low levels of social support.

Examples of what maintains the schema:

- Heightened suspiciousness can lead to an abrasiveness in interpersonal interactions, which others may respond to by distancing themselves or hiding their intentions, thereby reinforcing the schema.
- Some people avoid self-disclosures or relationships altogether to protect themselves from the anticipated hurt caused by the expected betrayal. Therefore, they do not have the opportunity to have corrective experiences that challenge the validity of the schema.

Examples of beliefs, assumptions or reactions related to the schema:

-People usually conceal their real intentions.
-I don't trust people.
-I don't believe what people say at face value.
-People usually tell the truth. (Reversed)

Possible origins of schema:

- This schema typically emerges from experiences in childhood or adolescence where the individual directly experienced or repeatedly witnessed lying, cheating, manipulation or deception, usually by someone close to them such as a caregiver.
- Caregivers were distrusting of others and either modelled this to the child or explicitly warned the child not to trust others.

Others are Dangerous / Malevolent: "Other people seek to harm"

A belief in the inherent danger of others, reflecting an expectation that people are generally self-serving and malicious, and it is necessary to anticipate harm and exploitation from them. People with this schema often find themselves on guard or suspicious of others, expecting harm even in situations where it might not be justified. They commonly feel anxious or threatened in social situations and hypervigilant of signs of danger in others. People with this schema often experience significant interpersonal difficulties, as they may misinterpret benign intentions as malicious, or could engage in preemptive defensive behaviours without provocation to protect themselves from anticipated harm.

Examples of what maintains the schema:

- Defensive behaviour in interpersonal interactions can elicit reactions from others that seem to confirm their beliefs that others are malicious, thus reinforcing the schema. For example, by attacking to protect oneself from anticipated harm, the other person may retaliate by attacking in return.
- People with this schema may resonate with and be attracted to abusive partners, thereby experiencing relationships that perpetuate the schema.

Examples of beliefs, assumptions or reactions related to the schema:

-Many people are selfish and unkind.
-People rarely care about the wellbeing of others.
-Violence is a major part of human nature.
-At their core, many people are bad.

Possible origins of schema:

- This schema may develop due to childhood experiences of mistreatment, especially by caregivers or other significant figures.
- Repeated experiences of humiliation or other forms of verbal abuse by caregivers or peers.
- Childhood abuse, particularly when perpetrated within the family.

Social Isolation / Outsider: "I am different and don't belong"

This schema involves feeling fundamentally different from other people, leading to a sense of not fitting in and rarely connecting with others. People with this schema feel excluded, not just on the level of individual relationships, but also believe that they are outsiders across broader social contexts. Even occasional connections with others do not typically alleviate the overarching experience of alienation and the distinct impression of not belonging with anyone. This perceived difference is typically not celebrated but rather is seen as a barrier to social connection. Individuals may feel that their interests, values, experiences, or characteristics are so different, undesirable or odd that others cannot understand, relate to or like them. As a result, they often feel isolated and lonely and may have low levels of social support.

Examples of what maintains the schema:

- This schema might lead people to misinterpret neutral or ambiguous social cues as alienating, confirming their belief that they are outsiders.
- Surrendering to this schema (behaving, thinking, and feeling as though one truly is different or isolated) can lead to further avoidance, withdrawal, and isolation in order to avoid the pain of anticipated rejection. This limits the opportunity to have corrective experiences in social interactions to challenge the validity of the schema, and limits opportunities for social skills to be practised and improved.
- Some people with the social isolation schema overcompensate for their perceived differences (for example, by making excessive efforts to gain popularity), leading to feelings of inauthenticity, reinforcing the idea that they only fit in because they conceal important parts of themselves.
- The schema can be reinforced by a heightened sensitivity to differences between themselves and others, making them reluctant to interact and connect socially.

Examples of beliefs, assumptions or reactions related to the schema:

-I'm inherently different from everyone else.
-I haven't met anyone that thinks like me.
-I am typically accepted by people. (Reversed)
-I am an outsider.

Possible origins of schema:

- Various experiences during childhood and adolescence, including parental rejection, criticism, or over-protection, can contribute to the development of the social isolation schema.
- Experiences whereby the child's family was observably different from others, for example, due to race, language, religion, or social status, led them to feel different.
- An observable difference between the child and their peers was evident and led them to feel different. For example, if there was a difference in the child's appearance or behaviour, as may be the case for a child experiencing developmental differences such as autism.

- Bullying or social rejection experienced during childhood.
- Frequent relocation in childhood, preventing the formation of a sense of belonging.
- Cultural or societal factors that perpetuate a feeling of difference.

Defectiveness / Shame: "I am unacceptable"

Central to the defectiveness schema is the belief that one is inherently flawed and inferior, along with the emotion of shame. People with this schema may fear that self-disclosure or revealing themselves to others would lead to rejection as they believe themselves to be unlovable and unworthy of acceptance. The schema is often associated with a hypersensitivity to real or imagined signs of rejection or criticism. Similarly, it can cause one's flaws to be in hyper-focus, overshadowing any recognition of personal strengths or positive qualities. The nature of the perceived flaws may be internally experienced (relating to experiences such as thoughts, urges or emotions) or externally observable (such as concern about social skills or appearance). People with this schema often feel unwanted, self-conscious and insecure around others and have a deep sense of shame about their perceived defects.

Examples of what maintains the schema:

- To protect from the feeling of shame associated with the exposure of one's defectiveness, people with this schema may avoid intimacy, thereby limiting opportunities for disconfirming the schema.
- Because they feel undeserving of love, acceptance or respect, people with this schema may inadvertently "click" with and become involved with critical people who reinforce their feeling of defectiveness.
- Some people may attempt to conceal or overcome their perceived defects by overcompensating with perfectionism, people-pleasing, or arrogant behaviour, which can reinforce the belief that their true self is flawed and unacceptable.
- Cognitive bias can maintain the defectiveness schema by overemphasising factors and experiences that confirm one's perceived defectiveness and dismissing those that are inconsistent, such as personal strengths or positive feedback.

Examples of beliefs, assumptions or reactions related to the schema:

-If people knew the real me, they wouldn't like me.
-I am inherently defective.
-My flaws make me unlovable.
-I have reasons to be ashamed of myself and my character.

Possible origins of schema:

- Critical, shaming, punishing or rejecting caregiving experiences in early life.
- Unfavourable comparisons to others or preferential treatment towards a sibling.
- Being blamed or made to feel like a disappointment by a caregiver.
- Ostracism by peers.
- Childhood abuse.

Vulnerability to Dangerous World: "I should be wary of the unsafe world"

This schema involves an exaggerated fear that catastrophe could occur at any time. This fear may be accompanied by the belief that the catastrophe cannot be prevented and that the consequences will be devastating. Furthermore, people with this schema typically expect that they will be unable to cope with it. The nature of feared catastrophic events can range widely, including illness, natural disasters, financial collapse, climate change or pandemics. This schema is characterised by feelings of anxiety and excessive worrying, related to the belief that the world is unsafe and unstable and serious hazards are inevitable.

Examples of what maintains the schema:

- Hypervigilance and selective attention to disasters through online media can reinforce this schema.
- Avoidance of situations perceived to involve risk, which limits opportunities for disconfirming the schema.

Examples of beliefs, assumptions or reactions related to the schema:

-I'm afraid of venturing too far because there are so many bad things happening.
-The world is safe for me. (Reversed)
-The world is a dangerous and unforgiving place, and I worry it will spiral into catastrophe.
-The world is a bad place and will harm me.

Possible origins of schema:

- Experiences in childhood that involved the excessive presence of danger.
- A significant adult projected intense anxieties onto the child, leading them to believe in a world that is excessively threatening.
- The child was repeatedly warned of the world's dangers or overprotected.
- The home environment was not physically, emotionally, or financially safe, and the child was not protected sufficiently.
- In adulthood or childhood, experiencing or witnessing a serious traumatic event (e.g., a car accident, severe illness, assault).

Dependence:
"I can't manage alone"

This schema involves a pervasive and excessive need to be taken care of by others, alongside behaviours and beliefs centred around a lack of self-sufficiency. Individuals with this schema often feel unable to handle daily life on their own, believing that they are not capable of coping. They may have difficulty trusting their own judgements and are indecisive. Typically, there is a heavy reliance on others for support, decision-making, reassurance and validation. People with this schema often feel anxious, helpless or inadequate when faced with the prospect of acting independently, which reinforces the dependence on others for most needs.

Examples of what maintains the schema:

- Being in relationships that reward or reinforce dependent behaviour, including partners who prefer to take a caretaking role, may perpetuate this schema.
- The avoidance of independent coping, which is characteristic of the schema, can lead to a real skills deficit, reinforcing the schema's accuracy. This also limits opportunities for acquiring and practising skills for independent coping.

Examples of beliefs, assumptions or reactions related to the schema:

-I cannot take care of myself, so I need others to take care of me.
-I feel incapable of managing daily tasks without help from others.
-I often worry about making decisions on my own and prefer someone else to make them for me.
-I feel confident making decisions on my own. (Reversed)

Possible origins of schema:

- This schema may be shaped by overprotective caregivers who did too much for the child, preventing them from learning necessary life skills and fostering a sense of dependency rather than encouraging independence.
- Caregivers who frequently criticised the child or undermined their ability to succeed independently.
- Observing and modelling behaviour from caregivers who themselves displayed dependent traits or were in highly dependent relationships.
- Through underprotective parenting or the inadequate provision of guidance, a child may need to become independent prematurely, making decisions and taking on age-inappropriate responsibilities without first establishing a sense of security and confidence in their abilities. This can lead to a lifelong echo, where they feel chronically out of their depth.
- Some family dynamics explicitly encourage dependency for cultural, emotional, or psychological reasons, where independence is viewed negatively or as a threat to family cohesion.

Failure / Achievement Inferiority: "I am not a successful person"

The belief that one is inferior in achievement or status or fundamentally inadequate compared to others. Whether accurate or exaggerated, this belief underpins an expectation that one will inevitably fail in areas of achievement (education, career, relationships, financial status, etc.). There is often intense social comparison and a focus on extrinsic motivators for achievement. People with this schema may be hypersensitive to feedback and focus on their failings while discounting or dismissing areas of strength or accomplishments. Some individuals with this schema may believe their perceived lack of success is due to their own ineptitude, while others may believe it is due to external factors not within their control. External attribution may be protective of self-esteem but can also lead to a sense of helplessness or unfairness.

Examples of what maintains the schema:

- This schema can lead to avoidance of challenges due to the fear of further failure. This avoidance can become a self-fulfilling prophecy, as refusing to engage in challenging activities can limit skills and successes.
- Selective exposure to highly successful individuals on social media may promote unfavourable comparisons.
- Cognitive bias can maintain the failure schema by overemphasising factors and experiences confirming their perceived failure and dismissing those that disconfirm the schema, such as personal strengths or successes.

Examples of beliefs, assumptions or reactions related to the schema:

- Most other people have achieved more than me.
- I feel proud of my accomplishments. (Reversed)
- I feel inferior when I think of the accomplishments of others.
- I compare my achievements with others and feel that I am not as successful.

Possible origins of schema:

- Caregivers who were overly critical or set unrealistically high expectations.
- Frequent unfavourable comparisons with siblings or peers.
- Growing up in environments where achievements were not recognised or praised or where caregivers themselves were highly successful.
- Experiencing significant failures or setbacks during formative years, such as educational or social struggles, can lead children to believe that they are a failure.
- Caregivers who ridiculed failure.
- Excessive exposure to success-focused social media without adequate contextual framing.
- Comparative lack of skill or achievement compared to peers, especially in an achievement-focused culture or family.

Low Self-Efficacy / Weakness: "I am weak and inept"

Central to this schema is a pervasive doubt in one's ability to successfully handle challenges or solve problems. This schema is characterised by feelings of inadequacy and helplessness, hesitation to engage with challenges, and the sense that tasks are insurmountable and unlikely to be completed. This perception affects the confidence and willingness to take on new challenges, often leading to avoidance behaviours and a self-perception of helplessness or incompetence. People with this schema may view themselves as fragile, easily overwhelmed or incapacitated by stress or difficulties.

Examples of what maintains the schema:

- Individuals with low self-efficacy may avoid challenging tasks, thereby missing opportunities to gain skills and experience, which could otherwise improve their self-efficacy.
- People may procrastinate or delay engaging with challenging tasks, leading to stress and under-performance. This aversive outcome reinforces the accuracy of the low self-efficacy schema.

Examples of beliefs, assumptions or reactions related to the schema:

-If a task is difficult, I'm unlikely to be able to accomplish it.
-I can rarely come up with solutions to my own problems.
-I can handle anything that comes my way. (Reversed)
-Most problems are too hard for me to deal with.

Possible origins of schema:

- Overprotective parenting that prevents a child from facing challenges and learning from failures can inadvertently send the message that the child is not capable of handling difficulties on their own.
- Growing up with caregivers who are overly critical or who frequently dismiss the child's abilities can lead to internalised feelings of inadequacy and incompetence.
- Not receiving positive reinforcement or encouragement when trying new things.
- Repeated experiences of failures or setbacks in earlier life can contribute to a feeling of incompetence.
- Experiences of bullying, especially if frequent and unaddressed, can damage self-esteem and foster feelings of weakness and ineptitude.
- Being unfavourably compared to siblings or peers, particularly in visible and valued domains like academics or sports, can also lead to a persistent sense of inadequacy.

Fatalistic / External Locus of Control: "Fate is in charge, so why bother"

The belief that life's outcomes are primarily governed by external forces and chance rather than personal effort or decisions characterises this schema. People with this schema may have a sense of apathy and resignation towards attempting to shape one's future due to the conviction that personal control is largely an illusion. They often believe that they have minimal influence over events, and that their efforts will not significantly impact their life's trajectory. Feelings of helplessness or powerlessness are commonly associated and can result in a lack of proactive behaviour and a passive approach to life's challenges and opportunities. Successes and failures are typically attributed to external factors such as luck, fate, or other people rather than one's own choices, abilities or actions.

Examples of what maintains the schema:

- The schema can be perpetuated through inaction, leading to situations where individuals feel even less control, further reinforcing a belief in the external determination of events.
- Cognitive bias can confirm the schema, as instances in which external factors determine outcomes tend to be selectively attended to, while the contribution of personal factors is minimised.

Examples of beliefs, assumptions or reactions related to the schema:

-The course of our lives are largely determined by chance; we have very little influence.
-No matter what I do, the outcomes of events are outside my control.
-There is no point trying to influence the future, because outside forces have more influence.
-I am in control of my future. (Reversed)

Possible origins of schema:

- This schema may develop through growing up in a home where events were unpredictable or chaotic.
- Frequent relocations or changes in life circumstances, where a child has no say or control, can reinforce the belief that external circumstances dictate life paths.
- Overbearing or controlling caregivers can prevent children from making their own choices, hindering the development of an internal locus of control.
- If efforts were rarely acknowledged or rewarded, children might conclude that their actions do not matter.
- Repeated experiences of failures or setbacks in earlier life without adequate contextual framing can lead to the belief that success or failure is determined by factors beyond personal control.
- Observing significant adults who themselves exhibit a fatalistic attitude or external locus of control.
- In adulthood or childhood, experiencing a significant trauma or event that transformed one's life can contribute to the development of a generalised sense of powerlessness.

Enmeshment / Diffuse Boundaries: "Emotional intimacy means having few boundaries"

This schema involves the belief that close relationships require a high level of contact to the point where individual boundaries are significantly diminished or absent. Sometimes involves the sense that there are blurry distinctions between the individual and significant others, such as parents, children, friends or partners. There is often an over-identification with each other's emotions and needs, which may reflect an excessive desire to care for, control or merge with the other person. As a result, individuals with this schema typically do not have a strong sense of their own independent identity. There is often over-involvement, or the desire for more involvement with other people, whether the other person reciprocates that desire or not. This schema typically leads to relationships where personal space, privacy, and individual autonomy are compromised under the guise of emotional closeness. There is a tendency to feel and absorb the emotions of others excessively and take responsibility for solving the other person's problems. Relationships are often characterised by dependency, where one or both parties feel they cannot function independently without the other (i.e., codependency).

Examples of what maintains the schema:

- This schema can be perpetuated through relationship dynamics where attempts to impose closeness on others leads to rejection or a clear assertion of boundaries, thereby reinforcing the idea that boundaries and a lack of closeness are the same thing.
- People with this schema may reenact the experience of enmeshment from their family of origin, often being attracted to and having relationships with partners who reinforce this sense of codependency.
- Some people avoid situations that require self-sufficiency or separation from an enmeshed other, thereby limiting the opportunities for developing a separate identity, healthy boundaries and independence.

Examples of beliefs, assumptions or reactions related to the schema:

-I am responsible for the emotions of the person I am closest to.
-With those closest to me, I don't know where my needs and emotions end and where theirs begin.
-I am so close to someone it feels like I have merged with them.
-The needs of the person closest to me consume me.

Possible origins of schema:

- Growing up with parents who were overly involved and intrusive in their children's emotional lives, often under the belief that this was a form of love and care.
- In the family of origin, boundaries were not established or respected.
- A parent being the "best friend" to their child, oversharing, or relying on their child for emotional support.
- Within the family, attempts to individuate were met with accusations of disloyalty or other distress.

Subjugation / Submission to Others: "Others know better than me"

A belief in the superiority of the judgement of others central to this schema fosters a deferential attitude where authority is rarely questioned. People with this schema rely on external guidance rather than personal insight or preference and tend to comply with instructions or norms without tuning into one's own needs or values. They often believe that conforming to the expectations and decisions of others is more important than exercising their own autonomy, and have difficulty communicating assertively. There is sometimes a build-up of resentment, anger or sadness that is rarely expressed. People with this schema may find it difficult to maintain boundaries in relationships and can find themselves in situations where others overly control them, further reinforcing the schema.

Examples of what maintains the schema:

- People with this schema may reenact the experience of subjugation, having relationships with domineering, strong partners who reinforce the importance of submission.
- People with this schema tend towards passivity and avoid situations that involve identifying and asserting their needs, opinions, and preferences. This limits the development of self-awareness and skills, as well as limiting opportunities to disconfirm the schema.
- People with this schema may behave in overly compliant ways, prioritising others over themselves, and therefore reinforcing the power imbalance in relationships.

Examples of beliefs, assumptions or reactions related to the schema:

-Other people know better than I do.
-I should always do as I'm told.
-Other people know what is best for me.
-I feel like I have to let others take control in relationships.

Possible origins of schema:

- This schema is sometimes caused by authoritarian parenting.
- Punishment of childhood self-expression or differences of opinion.
- The child was dominated or invalidated whenever they expressed feelings or needs.
- The child was not allowed to make their own decisions.
- A parental tendency towards volatility or unpredictable punishment.
- Caregiving in which approval and love were contingent on submission to authority.
- Observing a caregiver consistently subjugating themselves to others as a survival strategy in relationships.

Self-Sacrifice:
"I should put others first"

This schema involves the pervasive sense of obligation to prioritise the needs of others above one's own needs, preferences, or values. This view holds that one must always find time for others and have an unrelenting duty to serve. This can result in a cycle of neglecting one's own needs and well-being, endured in silence. Individuals may sacrifice their own needs in order to maintain a connection with others or as a way of avoiding difficult emotions such as guilt. They may be highly empathic and have increased sensitivity to the pain of others. People with this schema may develop resentment toward those who are taken care of due to the pervasive feeling that their own needs are not being met. However, they are likely to experience feelings of guilt if they do focus on their own needs. People with the self-sacrifice schema are more likely to tolerate needy or exploitative individuals, so may be more likely to find themselves in unsatisfying relationships.

Examples of what maintains the schema:

- The schema can be perpetuated when the individual inadvertently reinforces others' dependency on the self-sacrificer or through moral justifications around the virtues of selflessness.
- People typically feel guilty in response to the resentment associated with this schema. To alleviate these feelings of guilt, people with this schema return to self-sacrificing behaviours, thereby perpetuating the cycle.
- Individuals who self-sacrifice often receive positive reinforcement from others, confirming the belief that their value lies in meeting the needs of others.
- Some people may avoid relationships or situations requiring the assertion or prioritisation of their own needs, thereby limiting opportunities to have corrective experiences that could disconfirm the necessity for self-sacrifice.

Examples of beliefs, assumptions or reactions related to the schema:

-I always prioritise others no matter what's going on for me.
-I believe it is my duty to listen to other people's problems.
-My needs are as important as other people's needs. (Reversed)
-No matter how much I give to others, I can never give enough.

Possible origins of schema:

- This schema is sometimes developed in response to early family dynamics where the expression of personal needs was discouraged.
- A child was parentified or had a significant caregiving role at a young age.
- There was extreme emphasis on selflessness and kindness as a virtue (e.g., religious or moral beliefs).
- The child was made to feel selfish, guilty, or bad if they prioritised their own interests.

Approval-Seeking / Excessive Need to be Liked: "I need to be liked by everyone"

This schema involves a sense of self-esteem that is excessively reliant on acceptance, approval or reassurance from others. As such, one's sense of self tends to be shaped by the reactions of others and can lead to both an increased sensitivity to rejection and a tendency to make decisions that are not personally satisfying. People with this schema may not have a strong or authentic sense of their own identity, preferences and opinions, tending instead to modify them for the approval of others. In order to meet the need to be liked, people may have an excessive focus on achievement, status, appearance or other external measures of success.

Examples of what maintains the schema:

- Exposure to social media that glorifies popularity can reinforce the idea that being liked by others is paramount. This can pressure individuals to make choices aimed at enhancing social image rather than fulfilling personal desires, leading to feelings of emptiness and thereby perpetuating the craving for social reinforcement.
- By surrendering to the schema (for example, changing or conforming in order to be liked), the belief that one's own views and desires are not as important or valid as others is perpetuated.
- Some people avoid self-disclosure or disagreements as a strategy for maintaining others' approval. This avoidance reinforces the belief in the importance of others' approval, limits opportunities for corrective experiences, and reinforces the dependence on external validation for self-esteem.

Examples of beliefs, assumptions or reactions related to the schema:

-Gaining the approval of others is often more important to me than following my own desires.
-I want people to like me, so I would tend to agree with people even if I know they are factually wrong.
-Even if I don't like someone, I still strongly desire for them to like me.
-I find it hard to make a decision unless I know what other people think.

Possible origins of schema:

- The origins of this schema can include early experiences in which caregivers' love and attention were conditional on the child conforming to their expectations.
- The schema can be modelled for children in families that are overly concerned about outward appearances, status, or the opinions of others.
- In instances where the child had difficulty fitting in, they may have learned to behave as they believed others wanted/liked.

Pessimism / Negativity: "Disappointment is inevitable"

This schema is characterised by a habitual and overwhelming focus on the negative, often to the exclusion of any positives. There is a tendency to see the worst in situations, anticipate negative outcomes, expect problems and ruminate on the negative details of past experiences. Typically, the likelihood of negative outcomes is exaggerated. People with this schema often believe that the worst outcomes should be anticipated to protect from disappointment and tend to overly focus on the things that could go wrong, even when things appear to be going well. People with this schema may be excessively risk-averse and often struggle with feelings of hopelessness, low mood, and anxiety about the future.

Examples of what maintains the schema:

- The anticipation of a negative outcome can lead to the avoidance of taking risks or positive opportunities. As a result, there is a reduced opportunity to experience positive events that could disconfirm the schema, and a tendency to instead experience disappointing or unfavourable outcomes that reinforce the pessimism.
- Conversely, when negative expectations occasionally lead to vigilant behaviours that prevent negative outcomes, the initial fears can seem justified.
- People with this schema may behave in ways that increase the likelihood of negative outcomes, thereby creating a self-fulfilling prophecy. This is common in relationships, for example, where others can find the pervasive nature of the pessimism to be frustrating and withdraw.

Examples of beliefs, assumptions or reactions related to the schema:

-Things almost always go wrong for me.
-In uncertain times, I usually expect the best. (Reversed)
-Things inevitably don't go my way, so I prefer to expect the worst to avoid disappointment
-I am pessimistic about the future.

Possible origins of schema:

- The schema may develop following experiences of significant hardship or adversity during childhood (e.g., poverty, early loss/grief, trauma).
- This schema can be learned through caregivers who modelled highly depressed, pessimistic, or cynical thinking.
- The child was not sheltered from harsh realities or required to take on adult responsibilities.
- Repeated failures that were not adequately addressed or resolved can contribute to the development of pessimism.

Emotional Inhibition: "I must suppress my emotions"

This schema involves the restraint of emotions to avoid shame, a perceived loss of control or uncomfortable feelings. People with this schema may hold back feelings, avoid emotional engagement, or maintain a narrow emotional range in situations where a broader range of emotions would be typical or healthy. It involves a reluctance to express emotions, whether they are pleasurable or uncomfortable feelings (e.g. anger, joy, affection, or vulnerability). Individuals with this schema perceive emotions as unimportant or more detrimental than beneficial, leading them to ignore or suppress them as a protective measure. This suppression is often justified by an overemphasis on rationality and a devaluation of emotional experiences, leading to a stifled emotional life and difficulty in communicating their feelings and needs effectively. People with this schema may have trouble identifying their emotions, alexithymia or physical manifestations of emotions, such as muscle tightness or gastrointestinal symptoms. This schema can create barriers to intimate relationships and reduce overall emotional resilience.

Examples of what maintains the schema:

- When an individual repeatedly suppresses their emotions and tension accumulates, they may inadvertently release them in an uncontrolled outburst. The intensity of the outburst can reinforce the perceived risk of emotional expression.
- Conversely, the belief that emotions are dangerous can be reinforced when an individual avoids expressing emotions and nothing negative happens (i.e., they don't face rejection or conflict). This absence of negative outcomes can wrongly affirm their belief that suppressing emotions is a safe and effective strategy.

Examples of beliefs, assumptions or reactions related to the schema:

-Tuning into my emotions is helpful. (Reversed)
-My emotions do more harm than good.
-Emotions are not useful, so I need to ignore them.
-It is dangerous to feel emotions too strongly.

Possible origins of schema:

- The child learned to inhibit emotion as a result of experiences where emotional expression was discouraged or punished, or met with ridicule, shaming, or judgement.
- This schema can develop as a coping mechanism for overwhelming feelings associated with trauma.
- The child was expected to suppress spontaneous urges in favour of rigid rules, duty, rationality, ethics, or keeping up appearances.
- Parental emotional needs came first, so there was no space for the child to express themselves or develop emotionally.
- The child was exposed to expressions of emotion in a way that felt overwhelming or threatening.
- Cultural norms, including those related to gender, can shape beliefs about the appropriateness and meaning of emotional expression.

Unrelenting Standards: "I must perform exceptionally"

This schema includes the belief that one must always pursue very high internalised standards of behaviour, performance and achievement. Striving to meet these expectations typically results in feelings of pressure. People with this schema tend to be hypercritical of themselves and may also project their high expectations onto and criticise others. Unrelenting standards typically present as an excessive attention to detail characteristic of perfectionism, or selective attention to mistakes and an underestimation of performance. People with this schema often have rigid rules across different areas of life, including unrealistically high work ambitions or ethical expectations. They may believe their worthiness is based on a high level of accomplishment and, therefore, have fragile self-esteem and find it difficult to slow down, relax or spend time on pleasurable activities. There can be a fear of failure or chronic dissatisfaction about achievements and a tendency to sacrifice personal health, relationships or leisure in the pursuit of productivity. This can lead to stress, burnout, health issues and strained relationships.

Examples of what maintains the schema:

- Cognitive bias often maintains unrelenting standards via selective attention to mistakes and conversely dismissing, minimising or underestimating achievements.
- This schema can also be maintained by having extremely high expectations and goals that leads to a sense of continually falling short.
- Productivity or achievement based media such as books or interviews with high achievers may be consumed excessively, ostensibly to improve skills, but in fact reinforcing the expectation of extremely high standards.
- Unrelenting standards and subsequent achievements are often extrinsically rewarded (admiration, money) and reinforce the schema, even if they come at great personal cost (health, happiness).
- Burnout can perpetuate the belief in the need for high standards, as it might be interpreted as a sign that one needs to work even harder or manage time even more effectively in the future.

Examples of beliefs, assumptions or reactions related to the schema:

-If I make a mistake, I can let it go easily. (Reversed)
-Achieving high standards is more important than my own happiness.
-I should always perform at an extremely high level.
-It is ok for me not to be a high performer. (Reversed)

Possible origins of schema:

- Caregivers affection was conditional on the child meeting high expectations.
- Caregivers shamed or criticised the child when they failed to meet the excessively high standards expected.
- Caregivers modelled unrelenting standards in their own achievements and relationship with self.

- Early experiences of low levels of achievement or feeling inferior to peers and associated feelings of shame.
- Cultural or wider social influences that perpetuate a culture of achievement.

Punitiveness / Unforgiving of Self: "I should be punished for my mistakes"

This schema involves a belief that one should be punished or held accountable in some way for failing to meet expectations or making mistakes. The schema is characterised by harsh, relentless self-criticism and a difficulty or inability to forgive oneself. They might believe that being hard on themselves is the only way to avoid further mistakes or social rejection. Individuals with this schema find it difficult to be compassionate about their limitations, appreciate the normality of human imperfection and ignore extenuating circumstances related to mistakes. Feelings of guilt, shame or anger are often associated with this schema.

Examples of what maintains the schema:

- This schema can be reinforced if harsh self-criticism is associated with the avoidance of a future mistake, and a causal relationship is inferred.
- Cognitive bias often maintains the unforgiving of self schema via selective attention to instances where mistakes are followed by criticism.
- The persistent, repeated engagement in self-criticism perpetuates the schema as opportunities to have corrective experiences that could challenge the necessity of this behaviour are limited.
- Feelings of guilt or shame associated with this schema can be misinterpreted as evidence that punishment or criticism is deserved.

Examples of beliefs, assumptions or reactions related to the schema:

-If something goes wrong, I shouldn't get away with it.
-I try to be compassionate and understanding to myself when I make a mistake. (Reversed)
-If I fail, I should suffer the consequences.
-It doesn't matter how small a mistake I make is, I deserve to be punished for it.

Possible origins of schema:

- This schema may be caused by caregivers modelling a lack of forgiveness for themselves or others.
- The child may have experienced domination or been forced to apologise when they made mistakes.
- Caregivers who harshly punished the child and claimed this to be a consequence of the child's actions.
- Other early life experiences where making mistakes led to aversive, punishing consequences.
- Childhood abuse.

Punitiveness / Unforgiving of Others: "Others should be punished for their mistakes"

This schema is characterised by the belief that other people should be harshly punished for their mistakes. People with this schema are typically intolerant of and impatient with anyone who fails to meet expected standards. They often struggle with forgiveness as they do not accept human imperfection or the various external factors that can contribute to mistakes. Low levels of empathy can be present, amplifying this difficulty with forgiveness. This schema is often associated with persistent feelings of anger and dissatisfaction in relationships where mistakes are inevitable, leading to interpersonal difficulties that detrimentally impact social support.

Examples of what maintains the schema:

- Cognitive biases such as attribution bias, where individuals tend to attribute others' mistakes to internal factors (e.g., incompetence or malice) rather than external factors (e.g., situational factors or circumstances), can reinforce the belief that punishment is justified.
- This schema can be reinforced when one is harsh towards others, and the other person either modifies their behaviour or leaves, proving either way that their critical attitude was justified.
- It can also be reinforced through a sense of power or superiority gained when criticising others and can create a cycle of seeking out opportunities to criticise others to maintain this sense of control or superiority.

Examples of beliefs, assumptions or reactions related to the schema:

-People should be held to account for their failings.
-I try to be compassionate and understanding to others when they make a mistake. (Reversed)
-If someone fails, they should face the consequences.
-People deserve to be disciplined for their mistakes.

Possible origins of schema:

- This schema may be caused by a caregiver modelling a lack of forgiveness for themselves or others.
- The child witnessed people being dominated or forced to apologise when they made a mistake.
- An excessive emphasis on adherence to rules or procedures during childhood.
- Other early life experiences where making or observing another person making mistakes led to aversive, punishing consequences.

Entitlement / Specialness: "I am special and unique"

People with this schema believe themselves to be superior to others. They feel that they deserve special treatment and believe that they are not bound by the usual rules others follow. Power and control are of high importance. Interpersonally, this can present as an excessive competitiveness toward or domination of others or attempts to control or influence others. The schema can include a sense of contempt for those considered less capable, special, or of lower status. Typically, people with this schema have difficulty tolerating limits or restrictions and believe that they should be free to act as they wish regardless of what is realistic or how it affects others. This schema is often accompanied by low levels of empathy or concern for others' needs or feelings and difficulty with reciprocity.

Examples of what maintains the schema:

- Reinforcement of this schema may occur if individuals act in a demanding or assertive manner and their needs are met as a result. This perpetuates their belief in their right to special treatment and, over time, can lead to more pronounced entitled behaviours as they see the approach as successful.
- People with this schema typically do not present with distress or an awareness of the associated negative consequences of - and harm caused by - their beliefs and behaviour. As such, they are unlikely to be self-motivated to change or seek out situations or relationships that might challenge the schema.

Examples of beliefs, assumptions or reactions related to the schema:

-When I ask someone for something they should agree to it.
-I am above the usual rules that others follow.
-Other people should appreciate how unique I am.
-I deserve special privileges.

Possible origins of schema:

- Growing up without boundaries around personal and social limits can lead to difficulties in recognising and respecting others' needs and rights.
- Children who are excessively pampered or given whatever they want by their caregivers may develop an expectation that similar treatment will continue in other contexts.
- Caregivers who insist that their child is special, and engage in self-sacrificial behaviour.
- If caregivers are inconsistent with consequences, permissive, or lack rules altogether, a child may learn that they can manipulate situations to get what they want.
- Early outstanding achievements, which were the primary source of validation from others.

Unfairness:
"I am not treated fairly"

Individuals with this schema often feel that they are the victims of unfairness, leading to persistent feelings of indignation, anger, or powerlessness. The schema includes a sense of injustice and imbalance in the world and society and a perception that societal structures fail to protect from, correct, or address unfair behaviours. People with this schema are typically hypersensitive to perceived injustices. To cope with the perceived unfairness, they may blame others or become overly passive.

Examples of what maintains the schema:

- Individuals may selectively focus on instances where they perceive themselves as being mistreated while disregarding or minimising instances of fair treatment. This confirmation bias reinforces their belief in unfairness.
- Feeling overwhelmed by the perceived unfairness, individuals may withdraw from social interactions or avoid situations where they anticipate further unfair treatment. This avoidance limits opportunities for alternative experiences that would disconfirm their expectation of inevitable unfairness.
- When faced with perceived unfair treatment, individuals may respond with hostility, escalating conflicts and reinforcing their belief in unfairness. The hypersensitivity to perceived injustices can lead individuals to misinterpret neutral interactions or events as unfair.

Examples of beliefs, assumptions or reactions related to the schema:

-There is no justice in society.
-I am often treated unfairly.
-I commonly receive bad outcomes that I don't deserve.
-Good things happen to other people but not to me.

Possible origins of schema:

- This schema may be caused by growing up in an environment where caregivers were inconsistent with their affection, rules or punishments.
- Children who experience arbitrary punishments or witness siblings or others being treated more favourably may develop beliefs about life being inherently unfair.
- Experiences of bullying, social exclusion or discrimination.
- Trauma or abuse, particularly if the abuse was not adequately acknowledged or addressed.
- Experiences of institutional injustice.
- Caregivers who overprotect their children from unfairness or solve all their problems for them can inadvertently promote this schema when the child enters the 'real world' and experiences unfairness.

Full Control:
"Nothing is beyond my control"

This schema involves an exaggerated belief in one's ability to control events, outcomes, and other people's actions and feelings. This schema is characterised by the conviction that with enough effort, intelligence, or willpower, one can manage and influence virtually every aspect of life. While on the surface, this might seem like a positive trait, it often leads to significant stress, frustration, and interpersonal conflict when the inevitable limits of control are encountered. Due to the over-amplified sense of control, people typically take excessive responsibility for things that happen and have increased stress. This schema is associated with philosophies like 'manifesting', 'the law of attraction' and 'the power of positive thinking', that suggest that one can bring about any desired outcome simply by visualising success. This schema might lead to people ignoring real and serious constraints and risks, avoiding practical action and creating unrealistic expectations. This schema may also lead people to unfairly blame themselves or others for misfortune or unwanted outcomes.

Examples of what maintains the schema:

- This schema can be reinforced through the positive feelings experienced through believing one has a high degree of control.
- The schema's accuracy can be positively reinforced when efforts to control outcomes are paired with positive outcomes, even when the behaviour objectively may have had little or no relationship to the outcome.
- As a pervasive effort is made to control events, people with this schema have limited opportunities to learn the realistic limits of control.
- Cognitive bias often maintains the full control schema as there is a lack of awareness of or attention given to the various external factors that affect outcomes.

Examples of beliefs, assumptions or reactions related to the schema:

-I am in complete control of my future.
-There are limits to what I can do. (Reversed)
-If I exert enough willpower, I can change anything.
-I always maintain control so nothing is left up to chance.

Possible origins of schema:

- Experiencing a lack of stability or predictability during childhood might lead individuals to develop a strong need for control as a way to ensure safety and predictability.
- Traumatic experiences can lead to the desire to find a mechanism (such as the belief in full control) whereby one can exert control over an environment that was once unpredictable or dangerous.
- As an overcompensatory way of coping with a real or perceived powerlessness or lack of control experienced in earlier life.
- Consumption of unrealistic social media promoting philosophies related to manifesting or the power of positive thinking.

Meaningless World:
"My life is meaningless"

Central to this schema are feelings of existential void and purposelessness, reflecting a belief that personal actions and human life, in general, are fundamentally devoid of meaning. People with this schema may have nihilistic attitudes towards life's activities and aspirations, leading to a disconnection from broader societal goals and personal ambitions. It can lead to pervasive cynicism, chronic boredom, emptiness and emotional detachment. People with this schema typically feel detached from the world.

Examples of what maintains the schema:

- Social withdrawal reinforces the schema as social isolation experiences and relationships that could potentially provide meaning.
- Similarly, the passive behaviour characteristic of the schema can also reinforce the feeling that life is meaningless, as people remain in unfulfilling circumstances rather than pursue changes that might bring a greater sense of meaning or purpose.
- Frequent exposure to media promoting nihilistic themes and negative events can further reinforce the belief that life is meaningless.

Examples of beliefs, assumptions or reactions related to the schema:

-I have no purpose in the world.
-It is pointless to search for life's meaning or purpose.
-Everything I do will always be fundamentally meaningless.
-Humans lead pointless lives.

Possible origins of schema:

- The schema may develop from growing up in an environment where emotional needs were consistently unmet and meaningful emotional connections with caregivers were lacking.
- Experiencing trauma or living in a chronically unstable environment can lead to disillusionment and a sense that the world is inherently unpredictable and meaningless.
- Early exposure to significant suffering, either personally or through observing others (such as sick family members), without adequate support or explanation can lead to a nihilistic outlook.
- Observation of caregivers modelling cynicism or hopelessness.

Lack of Coherent Identity: "I don't know who I am"

This schema relates to an individual's internal experience of uncertainty, confusion, or inconsistency in their sense of self. People with this schema may have inconsistency in self-perception and frequently change views about themselves. They are often unsure of their preferences and beliefs and have difficulty knowing what they truly like, believe in, or value, leading to confusion or a sense of emptiness. Given this unclear sense of identity, they may experience challenges in making decisions about future goals. Some people may experience dissociative symptoms such as a sense of alienation from one's thoughts, feelings, or actions or a sense of self which is non-coherent and diffuse.

Examples of what maintains the schema:

- Individuals may actively avoid reflecting on their values, preferences and beliefs, which can perpetuate the sense of not knowing who they are. By avoiding introspection, they may remain in a state of uncertainty and confusion about their identity.
- Some individuals may engage in self-destructive behaviours as a way to cope. This can include substance use or risky behaviours, which serve as temporary distractions from feelings of emptiness or confusion but a subsequent sense of incoherence when they are in a different emotional state.
- Conversely, others may engage in identity exploration without limits or guidance, which can exacerbate feelings of confusion.

Examples of beliefs, assumptions or reactions related to the schema:

-I struggle to maintain a consistent sense of who I am.
-I don't know what my personal interests and beliefs truly are.
-I feel detached from myself.
-My view of myself changes frequently.

Possible origins of schema:

- Experiences of childhood trauma, abuse or pain may lead a child to dissociate as a form of psychological escape from reality.
- In the absence of nurturing and attention, children may struggle to develop a stable, coherent sense of self.
- The unexpected loss of a close family member or significant disruption to family circumstances can impact identity formation.
- A lack of reliable attachment can cause difficulties in the development of a coherent sense of self, as the child may continually adjust their behaviours and perceptions to align with their caregivers' unpredictable responses.
- Gaslighting, where an influential person uses manipulation to distort the person's perception of reality.
- Opposing cultural expectations.
- Lack of external scaffolding such as role models.

Over-Reliance on Emotions: "If I feel it, it must be true"

This schema is characterised by the tendency to place excessive importance on one's emotional state as a primary guide for decision-making and evaluating reality. Individuals with this schema often believe that their feelings are the most accurate indicators of truth, leading them to make decisions based on how they feel rather than on objective evidence or rational analysis, even when evidence exists to the contrary. A key assumption of this schema is that "if I feel it, it must be true." For example, if a person feels anxious, they might assume that something bad is definitely going to happen. This schema can impair decision-making, as there is a tendency to dismiss objective evidence when it contradicts emotional experiences, and impulsivity, characterised by a propensity to act on emotions without considering long-term consequences.

Individuals with this schema may be unable to distinguish between circumstances where emotional intuition can be helpful and circumstances where other sorts of information are more reliable. Consistent with the "wise mind" model in Dialectical Behaviour Therapy, using both emotional and rational minds together is most adaptive, whereas people with this schema may consistently use their emotional mind.

Examples of what maintains the schema:

- An attentional bias facilitated by this schema amplifies the awareness of successful instances of emotions guiding an individual to desirable outcomes.
- Over-reliance on emotions for decision-making may be due to or result in a skills deficit in logical reasoning and problem solving.
- Experiential avoidance may reinforce the tendency to rely on emotions in decision making.
- Solely relying on emotional information rather than facts can reduce conflicting information thereby avoiding cognitive dissonance. Integrating rational information into a point of view may increase cognitive dissonance, providing an unconscious incentive to rely only on intuition.
- Engagement in online platforms where emotional content is likely to receive high levels of engagement without considered or corrective feedback.

Examples of beliefs, assumptions or reactions related to the schema:

-When my head says one thing and my heart says another, I listen to my heart.
-My feelings are a reliable way to make decisions.
-My emotional reactions are accurate reflections of reality.
-When I face a problem I prefer to use my intuition rather than thinking.

Possible origins of the schema:

- Childhood experiences of a chaotic environment may lead a child to learn that emotional experiences are the most reliable form of guidance.

- Early experiences where emotional responses were overly validated in the absence of sufficient and reasonable limits.
- Over-reliance on emotions was modelled to a child by a caregiver.
- It could also arise in environments where emotions were the primary focus of interaction, leading to an internalised belief that emotions are the most important factor in understanding and navigating the world.

Organisation of Schemas According to Unmet Needs

The MSS-v1.4 categorises the 27 maladaptive schemas to a cluster relating to an early unmet need during childhood. By categorising schemas according to these fundamental emotional needs, the MSS-v1.4 provides a structure to assist clinicians in identifying possible childhood origins of the schema.

Early Needs and Respective Schemas

Safety & Attachment

- Abandonment / Anxious Attachment
- Excessive Self-Reliance / Avoidant Attachment
- Emotional Deprivation
- Mistrust of Others
- Others are Dangerous / Malevolent
- Social Isolation / Outsider
- Defectiveness / Shame
- Vulnerability to Dangerous World

Autonomy & Competence

- Dependence
- Failure / Achievement Inferiority
- Low Self-Efficacy / Weakness
- Fatalistic / External Locus of Control
- Enmeshment / Diffuse Boundaries

Freedom to Express Needs, Opinions & Emotions

- Subjugation / Submission to Others
- Self-Sacrifice
- Approval-Seeking / Excessive Need to be Liked
- Emotional Inhibition

Spontaneity & Play

- Pessimism / Negativity
- Unrelenting Standards
- Punitiveness / Unforgiving of Self
- Punitiveness / Unforgiving of Others

Realistic and Consistent Limits

- Entitlement / Specialness
- Full Control
- Over-Reliance on Emotions

Coherence & Fairness

- Unfairness
- Meaningless World
- Lack of Coherent Identity

Organisation of Schemas by Focus Category

An alternative schema structure to the early unmet needs table can also be considered. In this model, schemas are organised into five distinct categories that reflect primary relational patterns of responding: World, Inadequate Self, Inflated Self, Other People, and Relationships. These categories help clinicians discern the focus of schemas and identify patterns of internalising and externalising.

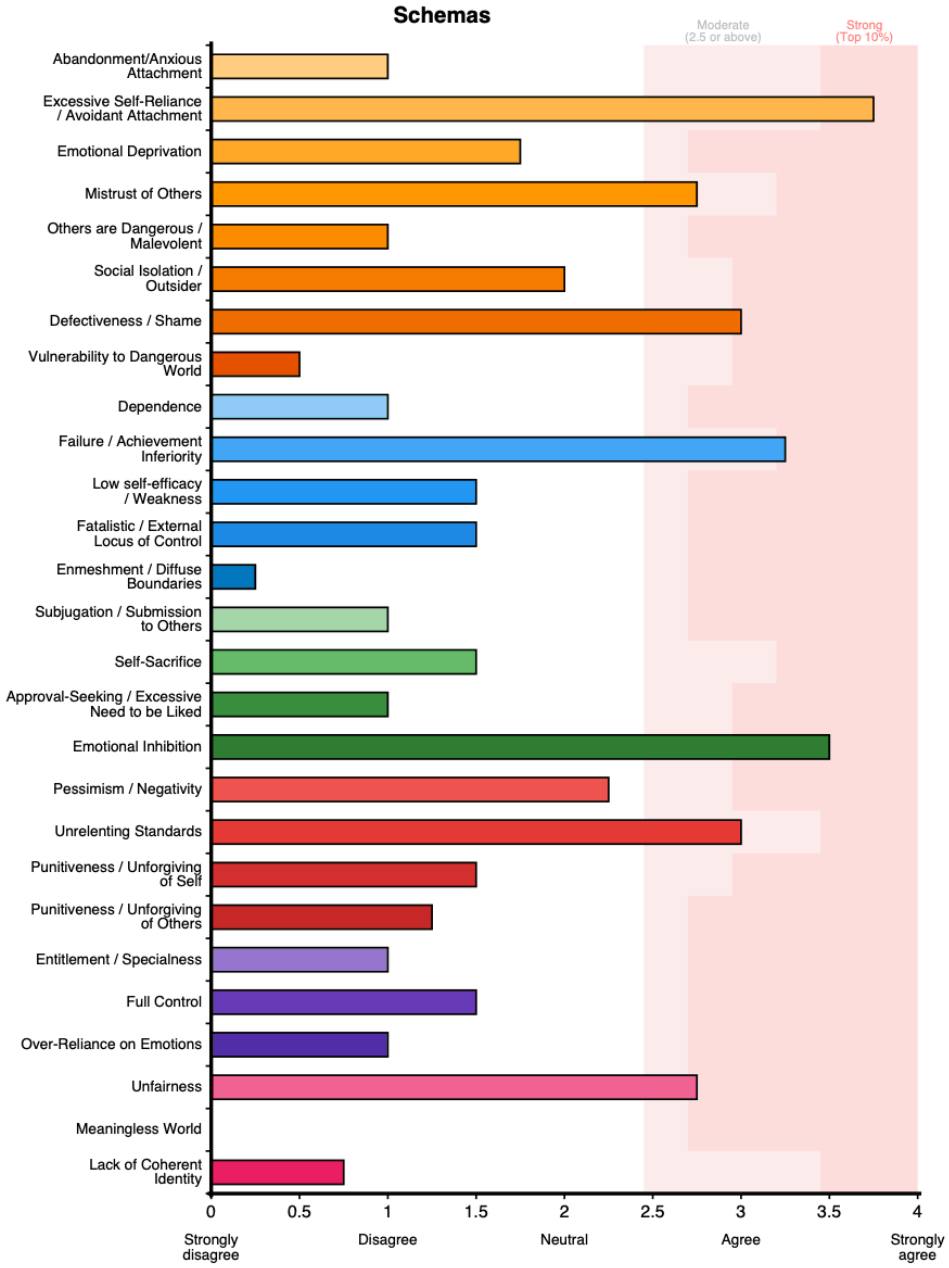
Five Relational Domains

World
Vulnerability to Dangerous World
Meaningless World
Pessimism / Negativity
Unfairness
Inadequate Self
Defectiveness / Shame
Low Self-Efficacy / Weakness
Fatalistic / External Locus of Control
Emotional Inhibition
Unrelenting Standards
Punitiveness / Unforgiving of Self
Lack of Coherent Identity
Failure / Achievement Inferiority
Inflated Self
Entitlement / Specialness
Full Control
Over-Reliance on Emotions
Other People
Others are Dangerous / Malevolent
Mistrust of Others
Punitiveness / Unforgiving of Others
Relationship
Social Isolation / Outsider
Abandonment / Anxious Attachment
Excessive Self-Reliance / Avoidant Attachment
Dependence
Enmeshment / Diffuse Boundaries
Subjugation / Submission to Others
Self-Sacrifice
Approval-Seeking / Excessive Need to be Liked

Assessment powered by NovoPsych

Appendix B: Sample Report

Maladaptive Schema Scale (MSS-v1.4)			
Client Name	Client A	*Date administered*	26 Nov 2026
Date of birth (age)	1 Jan 2000 (26)	*Time taken*	18s
Assessor	Dr Emerson Bartholomew		

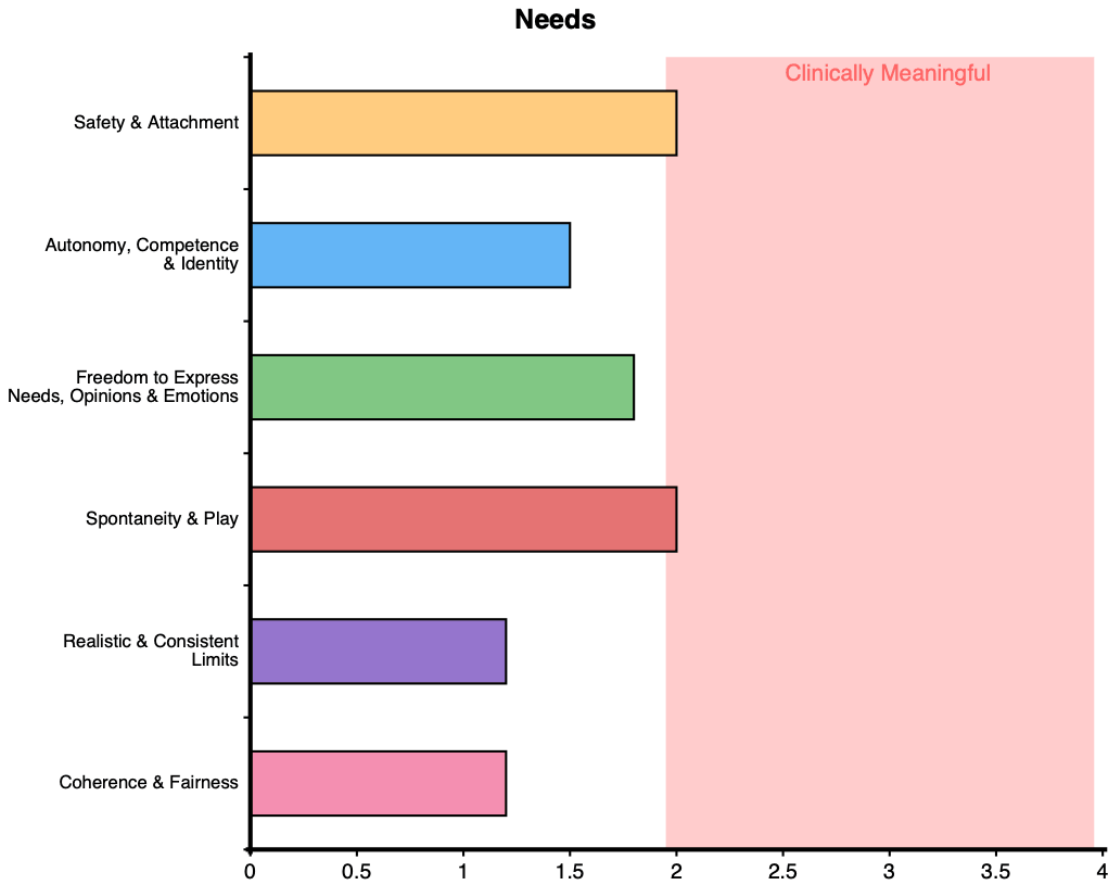


Client Name	Client A

Schemas

	Average Score (0-4)	Percent in Agreement	Belief
Abandonment / Anxious Attachment (Items 1-4)	1		
Excessive Self-Reliance / Avoidant Attachment (Items 5-8)	3.75	100	'I can only rely on myself'
Emotional Deprivation (Items 9-12)	1.75	25	
Mistrust of Others (Items 13-16)	2.75	75	'I cannot trust people'
Others are Dangerous / Malevolent (Items 17-20)	1		
Social Isolation / Outsider (Items 21-24)	2		
Defectiveness / Shame (Items 25-28)	3	100	'I am unacceptable'
Vulnerability to Dangerous World (Items 29-32)	0.5		
Dependence (Items 33-36)	1	25	
Failure / Achievement Inferiority (Items 37-40)	3.25	100	'I am not a successful person'
Low Self-Efficacy / Weakness (Items 41-44)	1.5		
Fatalistic / External Locus of Control (Items 45-48)	1.5	25	
Enmeshment / Diffuse Boundaries (Items 49-52)	0.25		
Subjugation / Submission to Others (Items 53-56)	1		
Self-Sacrifice (Items 57-60)	1.5		
Approval-Seeking / Excessive Need to be Liked (Items 61-64)	1		
Emotional Inhibition (Items 65-68)	3.5	100	'I must suppress my emotions'
Pessimism / Negativity (Items 69-72)	2.25	25	
Unrelenting Standards (Items 73-76)	3	100	'I must perform exceptionally'
Punitiveness / Unforgiving of Self (Items 77-80)	1.5		
Punitiveness / Unforgiving of Others (Items 81-84)	1.25		
Entitlement / Specialness (Items 85-88)	1		
Full Control (Items 89-92)	1.5	25	
Over-Reliance on Emotions (Items 93-96)	1		
Unfairness (Items 97-100)	2.75	75	'I am not treated fairly'
Meaningless World (Items 101-104)	0		
Lack of Coherent Identity (Items 105-108)	0.75		

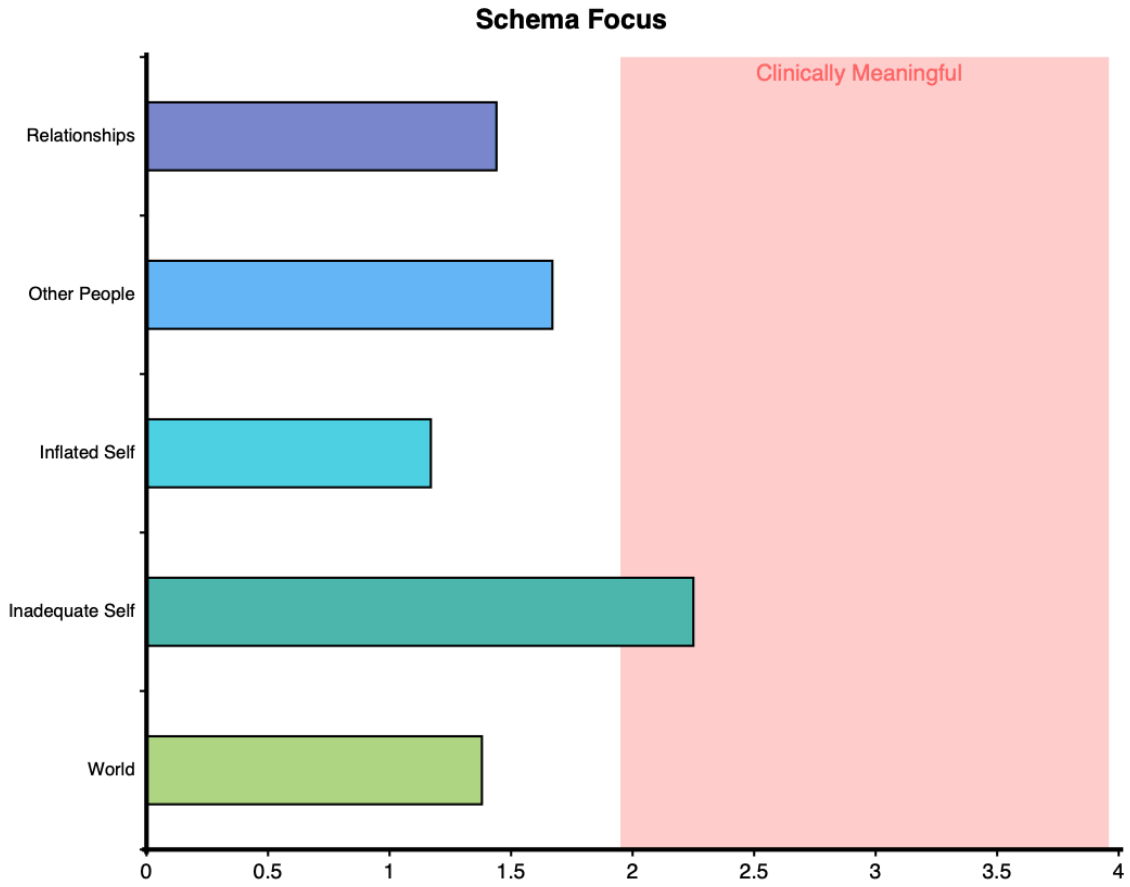
Client Name	Client A



Needs

	Average Score (0-4)	Indication
Safety & Attachment (Items 1-32)	2	
Autonomy, Competence & Identity (Items 33-52)	1.5	
Freedom to Express Needs, Opinions & Emotions (Items 53-68)	1.8	
Spontaneity & Play (Items 69-84)	2	Disrupted need
Realistic & Consistent Limits (Items 85-96)	1.2	
Coherence & Fairness (Items 97-108)	1.2	

Client Name	Client A



Interpretation

The client's responses indicate disrupted early childhood needs for: 'Spontaneity & Play' and 'Safety & Attachment'.

The client scored above the threshold in the 'Excessive Self-Reliance / Avoidant Attachment', 'Emotional Inhibition', 'Failure / Achievement Inferiority', 'Defectiveness / Shame' and 'Unfairness' Schemas.

Excessive Self-Reliance / Avoidant Attachment:
This schema is characterised by a wariness of intimacy and a reluctance to depend on others, often stemming from a desire to avoid vulnerability. People with this schema are reluctant to seek support or closeness from others and tend to keep personal issues to themselves, fearing being perceived as needy or becoming too dependent. They may minimise the importance of

relationships, or rationalise that others have their own problems and should not be burdened further. There may be an emphasis on personal interests over cultivating relationships, an autonomous approach to handling life's challenges and a general avoidance of deep emotional connections, which they may find uncomfortable. People with this schema may fear being smothered or others becoming over-involved in their private matters.

Examples of what maintains the schema:
- People with this schema may distance themselves or withdraw from relationships to cope with their discomfort with interpersonal intimacy. When a partner responds to this by drawing closer, the discomfort with intimacy and need to maintain distance are perpetuated.
- Some people with this schema cope with this discomfort by avoiding intimate relationships altogether, and therefore do not have the opportunity to have corrective experiences to challenge the validity of the schema.
- The excessive need for self-reliance characteristic of the schema can be reinforced when the person successfully manages challenges alone and encounters difficulties when working with others.

Examples of beliefs, assumptions or reactions related to the schema:
- I feel extremely uncomfortable depending on other people. (Strongly Agreed)
- I feel uneasy when people get too close. (Strongly Agreed)
- I always depend on myself and never on other people. (Strongly Agreed)

Possible origins of this schema:
- This schema and attachment style may develop from early experiences with caregivers who were inconsistently responsive, or were rejecting or neglectful in response to the child's expression of a need for closeness or support.
- Caregivers who were dominating, overinvolved or smothering, as the child learns that interpersonal closeness is uncomfortable;
- Caregivers who actively discouraged dependence, either through overt messages about the importance of independence or through behaviours that penalised seeking connection;
- Caregivers who were emotionally distant, unavailable, or dismissive of the child's emotional needs, as this teaches the child to rely on themselves for comfort and support;
- Caregivers who are interpersonally dependent, as this can lead the child to overcorrect and only rely on themselves.

Emotional Inhibition:
This schema involves the restraint of emotions to avoid shame, a perceived loss of control or uncomfortable feelings. People with this schema may hold back feelings, avoid emotional engagement, or maintain a narrow emotional range in situations where a broader range of emotions would be typical or healthy. It involves a reluctance to express emotions, whether they are pleasurable or uncomfortable feelings (e.g. anger, joy, affection, or vulnerability). Individuals with this schema perceive emotions as unimportant or more detrimental than beneficial, leading them to ignore or suppress them as a protective measure. This suppression is often justified by an overemphasis on rationality and a devaluation of emotional experiences, leading to a stifled emotional life and difficulty in communicating their feelings and needs effectively. People with this schema may have trouble identifying their emotions, alexithymia or physical manifestations of emotions, such as muscle tightness or gastrointestinal symptoms. This schema can create barriers to intimate relationships and reduce overall emotional resilience.

Examples of what maintains the schema:
- When an individual repeatedly suppresses their emotions and tension accumulates, they may

inadvertently release them in an uncontrolled outburst. The intensity of the outburst can reinforce the perceived risk of emotional expression.
- Conversely, the belief that emotions are dangerous can be reinforced when an individual avoids expressing emotions and nothing negative happens (i.e., they don't face rejection or conflict). This absence of negative outcomes can wrongly affirm their belief that suppressing emotions is a safe and effective strategy.

Examples of beliefs, assumptions or reactions related to the schema:
- Emotions are not useful, so I need to ignore them. (Strongly Agreed)
- My emotions do more harm than good. (Strongly Agreed)
- It is dangerous to feel emotions too strongly. (Agreed)

Possible origins of this schema:
- The child learned to inhibit emotion as a result of experiences where emotional expression was discouraged or punished, or met with ridicule, shaming, or judgement.
- This schema can develop as a coping mechanism for overwhelming feelings associated with trauma.
- The child was expected to suppress spontaneous urges in favour of rigid rules, duty, rationality, ethics, or keeping up appearances.
- Parental emotional needs came first, so there was no space for the child to express themselves or develop emotionally.
- The child was exposed to expressions of emotion in a way that felt overwhelming or threatening.
- Cultural norms, including those related to gender, can shape beliefs about the appropriateness and meaning of emotional expression.

Failure / Achievement Inferiority:
The belief that one is inferior in achievement or status or fundamentally inadequate compared to others. Whether accurate or exaggerated, this belief underpins an expectation that one will inevitably fail in areas of achievement (education, career, relationships, financial status, etc.). There is often intense social comparison and a focus on extrinsic motivators for achievement. People with this schema may be hypersensitive to feedback and focus on their failings while discounting or dismissing areas of strength or accomplishments. Some individuals with this schema may believe their perceived lack of success is due to their own ineptitude, while others may believe it is due to external factors not within their control. External attribution may be protective of self-esteem but can also lead to a sense of helplessness or unfairness.

Examples of what maintains the schema:
- This schema can lead to avoidance of challenges due to the fear of further failure. This avoidance can become a self-fulfilling prophecy, as refusing to engage in challenging activities can limit skills and successes.
- Selective exposure to highly successful individuals on social media may promote unfavourable comparisons.
- Cognitive bias can maintain the failure schema by overemphasising factors and experiences confirming their perceived failure and dismissing those that disconfirm the schema, such as personal strengths or successes.

Examples of beliefs, assumptions or reactions related to the schema:
- I compare my achievements with others and feel that I am not as successful. (Strongly Agreed)
- I feel inferior when I think of the accomplishments of others. (Agreed)
- I feel proud of my accomplishments. (R) (Disagreed)

Possible origins of this schema:
- Caregivers who were overly critical or set unrealistically high expectations.
- Frequent unfavourable comparisons with siblings or peers.
- Growing up in environments where achievements were not recognised or praised or where caregivers themselves were highly successful.
- Experiencing significant failures or setbacks during formative years, such as educational or social struggles, can lead children to believe that they are a failure.
- Caregivers who ridiculed failure.
- Excessive exposure to success-focussed social media without adequate contextual framing.
- Comparative lack of skill or achievement compared to peers, especially in an achievement focussed culture or family.

Defectiveness / Shame:
Central to the defectiveness schema is the belief that one is inherently flawed and inferior, along with the emotion of shame. People with this schema may fear that self-disclosure or revealing themselves to others would lead to rejection as they believe themselves to be unlovable and unworthy of acceptance. The schema is often associated with a hypersensitivity to real or imagined signs of rejection or criticism. Similarly, it can cause one's flaws to be in hyper-focus, overshadowing any recognition of personal strengths or positive qualities. The nature of the perceived flaws may be internally experienced (relating to experiences such as thoughts, urges or emotions) or externally observable (such as concern about social skills or appearance). People with this schema often feel unwanted, self-conscious and insecure around others and have a deep sense of shame about their perceived defects.

Examples of what maintains the schema:
- To protect from the feeling of shame associated with the exposure of one’s defectiveness, people with this schema may avoid intimacy, thereby limiting opportunities for disconfirming the schema.
- Because they feel undeserving of love, acceptance or respect, people with this schema may inadvertently “click” with and become involved with critical people who reinforce their feeling of defectiveness.
- Some people may attempt to conceal or overcome their perceived defects by overcompensating with perfectionism, people-pleasing, or arrogant behaviour, which can reinforce the belief that their true self is flawed and unacceptable.
- Cognitive bias can maintain the defectiveness schema by overemphasising factors and experiences that confirm one's perceived defectiveness and dismissing those that are inconsistent, such as personal strengths or positive feedback.

Examples of beliefs, assumptions or reactions related to the schema:
- I have reasons to be ashamed of myself and my character (Agreed)
- My flaws make me unlovable. (Agreed)
- I am inherently defective. (Agreed)

Possible origins of this schema:
- Critical, shaming, punishing or rejecting caregiving experiences in early life.
- Unfavourable comparisons to others or preferential treatment towards a sibling.
- Being blamed or made to feel like a disappointment by a caregiver.
- Ostracism by peers.
- Childhood abuse.

Client Name	Client A

Unfairness:
Individuals with this schema often feel that they are the victims of unfairness, leading to persistent feelings of indignation, anger, or powerlessness. The schema includes a sense of injustice and imbalance in the world and society and a perception that societal structures fail to protect from, correct, or address unfair behaviours. People with this schema are typically hypersensitive to perceived injustices. To cope with the perceived unfairness, they may blame others or become overly passive.

Examples of what maintains the schema:
- Individuals may selectively focus on instances where they perceive themselves as being mistreated while disregarding or minimising instances of fair treatment. This confirmation bias reinforces their belief in unfairness.
- Feeling overwhelmed by the perceived unfairness, individuals may withdraw from social interactions or avoid situations where they anticipate further unfair treatment. This avoidance limits opportunities for alternative experiences that would disconfirm their expectation of inevitable unfairness.
- When faced with perceived unfair treatment, individuals may respond with hostility, escalating conflicts and reinforcing their belief in unfairness. The hypersensitivity to perceived injustices can lead individuals to misinterpret neutral interactions or events as unfair.

Examples of beliefs, assumptions or reactions related to the schema:
- Good things happen to other people but not to me. (Agreed)
- I am often treated unfairly. (Agreed)
- There is no justice in society. (Agreed)

Possible origins of this schema:
- This schema may be caused by growing up in an environment where caregivers were inconsistent with their affection, rules or punishments.
- Children who experience arbitrary punishments or witness siblings or others being treated more favourably may develop beliefs about life being inherently unfair.
- Experiences of bullying, social exclusion or discrimination.
- Trauma or abuse, particularly if the abuse was not adequately acknowledged or addressed.
- Experiences of institutional injustice.
- Caregivers who overprotect their children from unfairness or solve all their problems for them can inadvertently promote this schema when the child enters the 'real world' and experiences unfairness.

Scoring and Interpretation Information

Scores for the 27 schemas are presented as an average score, where the number represents the level of agreement with the schema, as defined by the Likert scale:

Strongly Disagree = 0
Disagree = 1
Neutral = 2
Agree = 3
Strongly Agree = 4

Higher scores are indicative of stronger agreement with maladaptive schemas, and are associated with psychopathology and more dysfunctional relational, emotional or personal functioning.

A schema is considered to be moderate when an average score is 2.5 or more, while the schema is considered to be strong and of clinical significance when the average score is at or above the 90th percentile of a clinical sample, with a minimum of 2.75 so that strong always sits above moderate. Scores on the 90th percentile or higher indicate that the respondent scored in the top 10% compared with other patients receiving mental health care. The strong threshold varies across schemas from an average score of 2.75 (e.g. Dependence) to 3.5 (e.g. Lack of Coherent Identity). A higher threshold for "strong" indicates that there is a higher prevalence of a "moderate" schema among mental health clients.

A strong schema represents broad agreement with the schemas that are of theoretical importance to schema therapy in addition to a score that deviates from typical patterns of responding.

Scores are also presented as the percentage of responses where the client “Agreed” or “Strongly Agreed” with the items in the subscale, producing a “Percent in Agreement” metric.

In addition, scores are presented for each of the six early childhood needs. High scores on a need cluster strongly suggest that the cause of the schema is rooted in early childhood experiences. Scores of 2 or above are considered clinically meaningful and are suggestive of a childhood need that was chronically disrupted.

-- Safety & Attachment --
- Abandonment / Anxious Attachment (Items 1-4)
- Excessive Self-Reliance / Avoidant Attachment (Items 5-8)
- Emotional Deprivation (Items 9-12)
- Mistrust of Others (Items 13-16)
- Others are Dangerous / Malevolent (Items 17-20)
- Social Isolation / Outsider (Items 21-24)
- Defectiveness / Shame (Items 25-28)
- Vulnerability to Dangerous World (Items 29-32)

-- Autonomy & Competence --
- Dependence (Items 33-36)
- Failure / Achievement Inferiority (Items 37-40)
- Low Self-efficacy / Weakness (Items 41-44)
- Fatalistic / External Locus of Control (Items 45-48)
- Enmeshment / Diffuse Boundaries (items 49-52)

-- Freedom to Express Needs, Opinions & Emotions --
- Subjugation / Submission to Others (Items 53-56)
- Self-Sacrifice (Items 57-60)

- Approval-Seeking / Excessive Need to be Liked (Items 61-64)
- Emotional Inhibition (Items 65-68)

-- Spontaneity & Play --
- Pessimism / Negativity (Items 69-72)
- Unrelenting Standards (Items 73-76)
- Punitiveness / Unforgiving of Self (Items 77-80)
- Punitiveness / Unforgiving of Others (Items 81-84)

-- Realistic & Consistent Limits --
- Entitlement / Specialness (Items 85-88)
- Full Control (Items 89-92)
- Over-Reliance on Emotions (Items 93-96)

-- Coherence & Fairness --
- Unfairness (Items 97-100)
- Meaningless World (Items 101-104)
- Lack of Coherent Identity (Items 105-108)

Schemas are also categorised into five focal points. These categories help clinicians discern the focus of schemas and identify patterns of internalising and externalising.

-- World --
- Vulnerability to Dangerous World
- Meaningless World
- Pessimism / Negativity
- Unfairness

-- Inadequate Self --
- Defectiveness / Shame
- Low Self-efficacy / Weakness
- Fatalistic / External Locus of Control
- Emotional Inhibition
- Unrelenting Standards
- Punitiveness / Unforgiving of Self
- Lack of Coherent Identity
- Failure / Achievement Inferiority

-- Inflated Self --
- Entitlement / Specialness
- Full Control
- Over-Reliance on Emotions

-- Other People --
- Others are Dangerous / Malevolent
- Mistrust of Others
- Punitiveness / Unforgiving of Others

-- Relationships --
- Social Isolation / Outsider
- Abandonment / Anxious Attachment

Client Name	Client A

- Excessive Self-Reliance / Avoidant Attachment
- Dependence
- Enmeshment / Diffuse Boundaries
- Subjugation / Submission to Others
- Self-Sacrifice
- Approval-Seeking / Excessive Need to be Liked

Client Responses

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
1	I fear that my important relationships will end unexpectedly.	0	**1**	2	3	4
2	I worry that people I love can't be there for me in a committed way.	0	**1**	2	3	4
3	I feel confident that other people will be there for me when I need them.	4	3	2	**1**	0
4	I worry about losing people that I rely on.	0	**1**	2	3	4
5	I always depend on myself and never on other people.	0	1	2	3	**4**
6	I feel uneasy when people get too close.	0	1	2	3	**4**
7	I feel extremely uncomfortable depending on other people.	0	1	2	3	**4**
8	The last thing I want to do is bother people with my problems.	0	1	2	**3**	4
9	I have others I can depend on for advice and emotional support.	4	3	2	**1**	0
10	If I was in trouble, I wouldn't know who to call.	0	**1**	2	3	4
11	Other people don't care about my emotional needs.	0	**1**	2	3	4
12	I feel unsupported by others, so I wouldn't share my emotions.	0	1	2	3	**4**
13	People usually conceal their real intentions.	0	1	2	**3**	4
14	I don't trust people.	0	1	2	**3**	4

Client Name	Client A

Client Responses (cont.)

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
15	I don't believe what people say at face value.	0	1	2	**3**	4
16	People usually tell the truth.	4	3	**2**	1	0
17	Many people are selfish and unkind.	0	**1**	2	3	4
18	People rarely care about the wellbeing of others.	0	**1**	2	3	4
19	Violence is a major part of human nature.	0	**1**	2	3	4
20	At their core, many people are bad.	0	**1**	2	3	4
21	I'm inherently different from everyone else.	0	1	**2**	3	4
22	I haven't met anyone that thinks like me.	0	1	**2**	3	4
23	I am typically accepted by people.	4	3	**2**	1	0
24	I am an outsider.	0	1	**2**	3	4
25	If people knew the real me, they wouldn't like me.	0	1	2	**3**	4
26	I am inherently defective.	0	1	2	**3**	4
27	My flaws make me unlovable.	0	1	2	**3**	4
28	I have reasons to be ashamed of myself and my character	0	1	2	**3**	4
29	I'm afraid of venturing too far because there are so many bad things happening.	0	**1**	2	3	4
30	The world is safe for me.	4	3	2	**1**	0
31	The world is a dangerous and unforgiving place, and I worry it will spiral into catastrophe.	**0**	1	2	3	4
32	The world is a bad place and will harm me.	**0**	1	2	3	4
33	I cannot take care of myself, so I need others to take care of me.	**0**	1	2	3	4

Client Name	Client A

Client Responses (cont.)

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
34	I feel incapable of managing daily tasks without help from others.	**0**	1	2	3	4
35	I often worry about making decisions on my own and prefer someone else to make them for me.	0	**1**	2	3	4
36	I feel confident making decisions on my own.	4	**3**	2	1	0
37	Most other people have achieved more than me.	0	1	2	**3**	4
38	I feel proud of my accomplishments.	4	**3**	2	1	0
39	I feel inferior when I think of the accomplishments of others.	0	1	2	**3**	4
40	I compare my achievements with others and feel that I am not as successful.	0	1	2	3	**4**
41	If a task is difficult, I'm unlikely to be able to accomplish it.	0	1	**2**	3	4
42	I can rarely come up with solutions to my own problems.	0	**1**	2	3	4
43	I can handle anything that comes my way.	4	3	**2**	1	0
44	Most problems are too hard for me to deal with.	0	**1**	2	3	4
45	The course of our lives are largely determined by chance; we have very little influence.	0	**1**	2	3	4
46	No matter what I do, the outcomes of events are outside my control.	0	**1**	2	3	4
47	There is no point trying to influence the future, because outside forces have more influence.	0	**1**	2	3	4
48	I am in control of my future.	4	**3**	2	1	0
49	I am responsible for the emotions of the person I am closest to.	0	**1**	2	3	4
50	With those closest to me, I don't know where my needs and emotions end and where theirs begin.	**0**	1	2	3	4
51	I am so close to someone it feels like I have merged with them.	**0**	1	2	3	4
52	The needs of the person closest to me consume me.	**0**	1	2	3	4

Client Name	Client A

Client Responses (cont.)

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
53	Other people know better than I do.	0	**1**	2	3	4
54	I should always do as I'm told.	0	**1**	2	3	4
55	Other people know what is best for me.	0	**1**	2	3	4
56	I feel like I have to let others take control in relationships.	0	**1**	2	3	4
57	I always prioritise others no matter what's going on for me.	0	1	**2**	3	4
58	I believe it is my duty to listen to other people's problems.	0	1	**2**	3	4
59	My needs are as important as other people's needs.	4	3	2	**1**	0
60	No matter how much I give to others, I can never give enough.	0	**1**	2	3	4
61	Gaining the approval of others is often more important to me than following my own desires.	0	**1**	2	3	4
62	I want people to like me, so I would tend to agree with people even if I know they are factually wrong.	0	**1**	2	3	4
63	Even if I don't like someone, I still strongly desire for them to like me.	0	**1**	2	3	4
64	I find it hard to make a decision unless I know what other people think.	0	**1**	2	3	4
65	Tuning into my emotions is helpful.	4	**3**	2	1	0
66	My emotions do more harm than good.	0	1	2	3	**4**
67	Emotions are not useful, so I need to ignore them.	0	1	2	3	**4**
68	It is dangerous to feel emotions too strongly.	0	1	2	**3**	4
69	Things almost always go wrong for me.	0	1	**2**	3	4
70	In uncertain times, I usually expect the best.	4	3	**2**	1	0
71	Things inevitably don't go my way, so I prefer to expect the worst to avoid disappointment.	0	1	2	**3**	4

Client Name	Client A

Client Responses (cont.)

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
72	I am pessimistic about the future.	0	1	**2**	3	4
73	If I make a mistake, I can let it go easily.	4	**3**	2	1	0
74	Achieving high standards is more important than my own happiness.	0	1	2	**3**	4
75	I should always perform at an extremely high level.	0	1	2	**3**	4
76	It is ok for me not to be a high performer.	4	**3**	2	1	0
77	I try to be compassionate and understanding to myself when I make a mistake.	4	3	**2**	1	0
78	If something goes wrong, I shouldn't get away with it.	0	1	**2**	3	4
79	If I fail, I should suffer the consequences.	0	**1**	2	3	4
80	It doesn't matter how small a mistake I make is, I deserve to be punished for it.	0	**1**	2	3	4
81	I try to be compassionate and understanding to others when they make a mistake.	4	3	2	**1**	0
82	People should be held to account for their failings.	0	1	**2**	3	4
83	If someone fails, they should face the consequences.	0	**1**	2	3	4
84	People deserve to be disciplined for their mistakes.	0	**1**	2	3	4
85	When I ask someone for something they should agree to it.	0	**1**	2	3	4
86	I am above the usual rules that others follow.	0	**1**	2	3	4
87	Other people should appreciate how unique I am.	0	**1**	2	3	4
88	I deserve special privileges.	0	**1**	2	3	4
89	I am in complete control of my future.	0	**1**	2	3	4
90	There are limits to what I can do.	4	3	2	**1**	0

Client Name	Client A

Client Responses (cont.)

		Strongly disagree	Disagree	Neutral	Agree	Strongly agree
91	If I exert enough willpower, I can change anything.	0	**1**	2	3	4
92	I always maintain control so nothing is left up to chance.	0	1	2	**3**	4
93	When my head says one thing and my heart says another, I listen to my heart.	0	**1**	2	3	4
94	My feelings are a reliable way to make decisions.	0	**1**	2	3	4
95	My emotional reactions are accurate reflections of reality.	0	**1**	2	3	4
96	When I face a problem I prefer to use my intuition rather than thinking.	0	**1**	2	3	4
97	There is no justice in society.	0	1	2	**3**	4
98	I am often treated unfairly.	0	1	2	**3**	4
99	I commonly receive bad outcomes that I don't deserve.	0	1	**2**	3	4
100	Good things happen to other people but not to me.	0	1	2	**3**	4
101	I have no purpose in the world.	**0**	1	2	3	4
102	It is pointless to search for life's meaning or purpose.	**0**	1	2	3	4
103	Everything I do will always be fundamentally meaningless.	**0**	1	2	3	4
104	Humans lead pointless lives.	**0**	1	2	3	4
105	I struggle to maintain a consistent sense of who I am.	0	**1**	2	3	4
106	I don't know what my personal interests and beliefs truly are.	0	**1**	2	3	4
107	I feel detached from myself.	**0**	1	2	3	4
108	My view of myself changes frequently.	0	**1**	2	3	4

Appendix C: Deleted Items

The following items were deleted from the MSS-v1.3.

Item	Schema
I would feel guilty keeping secrets from the people closest to me.	Enmeshment / Diffuse Boundaries
I feel guilty if I don't keep in contact regularly with people closest to me, when we are apart.	Enmeshment / Diffuse Boundaries
I don't have privacy from the people closest to me.	Enmeshment / Diffuse Boundaries
If I was to do what I wanted, something bad might happen.	Subjugation / Submission to Others
I am a special or important person.	Entitlement / Specialness
People should listen to me because of who I am.	Entitlement / Specialness
If people just listened to me, the world would be a better place.	Entitlement / Specialness
I hate it when people think they know better than me.	Entitlement / Specialness
I am superior to others.	Entitlement / Specialness
To search for a purpose in life is a worthwhile goal. (Reversed)	Meaningless World
If I feel a strong emotion about a matter I'm more likely to be correct about it.	Over-Reliance on Emotions
My emotions mislead me. (reversed)	Over-Reliance on Emotions
Other people have more flaws than I do.	Self-Deceptive Denial
I look at myself objectively.	Self-Deceptive Denial
I have experienced jealousy at others' good fortune. (Reversed)	Self-Deceptive Denial
I am always a good listener.	Self-Deceptive Denial
I have done things before that I am ashamed of. (Reversed)	Self-Deceptive Denial

The following subscale was deleted from MSS-v1.3.

Self-Deceptive Denial:
"Self-reflection is not necessary"

The respondent scored high on the "Self-deceptive denial" scale, indicating an elevated risk of biased responses throughout the assessment. Therefore, it is recommended that this assessment be interpreted with caution. High scorers are more likely to downplay shortcomings, deny vulnerability and find it particularly difficult to acknowledge painful realities. They may not be consciously aware of this ego-defence mechanism and tend to exhibit a pattern of denying their vulnerabilities or unpleasant realities. They might consistently present an overly positive or unfazed facade, minimising problems or difficulties in their lives. People who score highly on this scale may have hindered personal growth and self-awareness, as the associated beliefs block the individual from engaging with reality in a meaningful way.

Examples of maintaining factors:

- A refusal to acknowledge personal challenges may prevent people from seeking help or adapting strategies that could address any underlying issues, maintaining a cycle of denial and potentially exacerbating personal or professional problems.
- Other people may respond to this person by accusing them of having an inflated ego or engaging in other criticism, which can reinforce the need for an ego-defence mechanism and maintain the schema.

Examples of beliefs, assumptions or reactions related to the schema:

-Other people have more flaws than I do.
-I look at myself objectively.
-I have experienced jealousy at others' good fortune. (Reversed)
-I am always a good listener.
-I have done things before that I am ashamed of. (Reversed)

Possible origins:

- Having caregivers who were highly critical, unforgiving or abusive may lead a child to develop this ego-defence mechanism.
- Caregivers' excessively high expectations and pressure to achieve may promote denial of weakness or failure.
- Caregivers met unpalatable disclosures or vulnerabilities with ridicule, punishment or other discouragement.
- Positive reinforcement was provided only when the child presented themselves in a certain way—successful, unfazed, or without problems.

The following items were deleted from the MSS-v1.2.

Item	Schema
I often feel uneasy when someone I care about spends time with others.	Abandonment / Anxious Attachment
Pursuing my interests is more important than building relationships.	Excessive Self-Reliance / Avoidant Attachment
Other people haven't been there for me.	Emotional Deprivation
I don't feel like I'm important to anyone, or have mattered to anyone.	Emotional Deprivation
If I meet someone new, I presume they are kind. (Reversed)	Others are Dangerous / Malevolent
I just can't fit in.	Social Isolation / Outsider
My bad traits can't be changed.	Defectiveness / Shame
I have many good qualities. (Reversed)	Defectiveness / Shame
I feel threatened by the unstable and unsafe nature of the world.	Vulnerability to Dangerous World
If I stray from someone's advice, I'll make the wrong decision.	Dependence
I need someone I can rely on to give me advice about everyday issues.	Dependence
I have little confidence in my abilities.	Low Self-Efficacy / Weakness
I am fully responsible for the emotions of some adults I am close to, such as a parent, partner or friend.	Enmeshment / Diffuse Boundaries
People closest to me should keep zero secrets from me, and I shouldn't keep anything from them.	Enmeshment / Diffuse Boundaries
If I'm physically apart from the person closest to me (e.g. parent, friend, child or partner), I should connect with them every few hours via text, phone or other means.	Enmeshment / Diffuse Boundaries
In relation to a significant other (e.g. parent, best friend or partner), I sometimes don't know where my needs and emotions end and where theirs begin.	Enmeshment / Diffuse Boundaries
With the person I'm closest to, there is no such thing as oversharing.	Enmeshment / Diffuse Boundaries
People with authority are usually right.	Subjugation / Submission to Others
I'd prefer to have a strong leader than be independent. (Reversed)	Subjugation / Submission to Others
I need to be liked by everyone I meet.	Approval Seeking / Excessive Need to be Liked
I feel good about myself whether I have people's approval or not. (Reversed)	Approval Seeking / Excessive Need to be Liked
I would find it embarrassing to tell someone how I'm feeling emotionally.	Emotional Inhibition
If something is worth doing at all, it's worth doing perfectly.	Unrelenting Standards

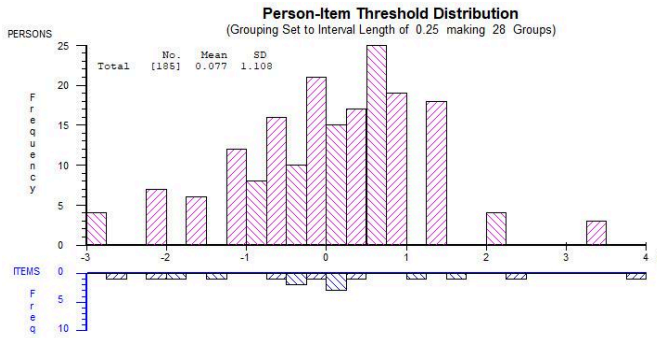
If someone wrongs me, they don't deserve forgiveness.	Punitiveness / Unforgiving of Others
Compared to other people, I have some special qualities.	Entitlement / Specialness
It is ok for me not to be a high performer. (Reversed)	Entitlement / Specialness
Good deeds are rewarded. (Reversed)	Unfairness
I am certain about my goals for the future. (Reversed)	Lack of Coherent Identity

The following items were deleted from the MSS v1.1

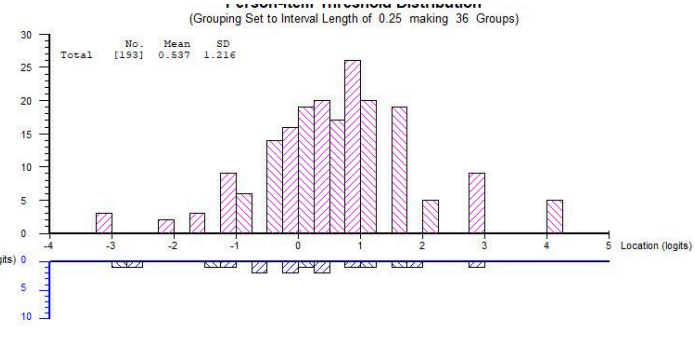
Item	Schema
I don't want people getting too close.	Excessive Self-Reliance / Avoidant Attachment
People are both selfish and unkind.	Others are Dangerous / Malevolent
People don't care at all about other people's wellbeing.	Others are Dangerous / Malevolent
The basic nature of people is to harm each other.	Others are Dangerous / Malevolent
At their core, people are bad.	Others are Dangerous / Malevolent
Human nature is to be caring and kind. (Reversed)	Others are Dangerous / Malevolent
I sometimes "click" with people. (Reversed)	Outsider / Different From Others
I worry a lot about bad things that happen in the world: natural disasters, climate change, pandemics, terrorism, financial collapse etc.	Vulnerability to Dangerous World
I find comfort in making my own decisions. (Reversed)	Dependence
No matter what I do, the outcomes of events are random and unpredictable.	Fatalistic / External Locus of Control
There is no point trying to influence the future because it is predetermined.	Fatalistic / External Locus of Control
Even with people I'm closest with, there is still such a thing as "over sharing". (Reversed)	Enmeshment / Diffuse Boundaries
Rules are meant to be broken. (Reversed)	Subjugation / Submission to Others
I always find time for others no matter what's going on for me.	Self-Sacrifice
I believe it is my duty to listen to other people's problems.	Self-Sacrifice
I often agree with people even when I know they are factually wrong, just so they will like me.	Approval-Seeking / Excessive Need to be Liked
I would be ok being an ordinary person. (Reversed)	Unrelenting Standards
People should be punished for their failings.	Punitiveness / Unforgiving of Others

If someone fails, they should suffer the consequences.	Punitiveness / Unforgiving of Others
People deserve to be punished for their mistakes, no matter how small they might be.	Punitiveness / Unforgiving of Others
I can't tolerate people getting away with making mistakes.	Punitiveness / Unforgiving of Others
I am both a special and important person.	Entitlement / Specialness
When I ask someone for something they should agree to it immediately.	Entitlement / Specialness
I'm not subject to the usual rules that others must follow.	Entitlement / Specialness
Other people rarely treat me fairly.	Unfairness
When good things happen to others, I often feel resentful and that it's an outcome of life's inherent unfairness.	Unfairness
In general, good things happen to good people. (Reversed)	Unfairness
If I exert enough willpower, I can change anything in the world.	Full Control
I always maintain control so nothing is left up to fate.	Full Control
To search for a purpose in life can be a worthwhile goal. (Reversed)	Meaningless World
I have no strong preferences or values.	Lack of Coherent Identity
I have flaws or shortcomings. (Reversed)	Self-Deceptive Denial
I have never done anything that I'm ashamed of.	Self-Deceptive Denial
I never get jealous over the good fortune of others.	Self-Deceptive Denial
I am always a good listener, even when someone is boring.	Self-Deceptive Denial
I have not always been honest with myself. (Reversed)	Self-Deceptive Denial

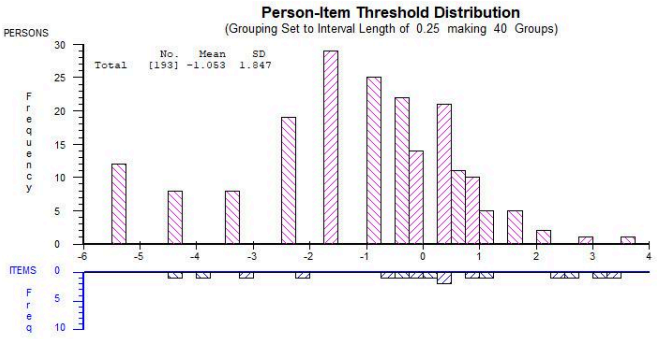
Appendix D: Person-item Distributions for the MSS Schemas.



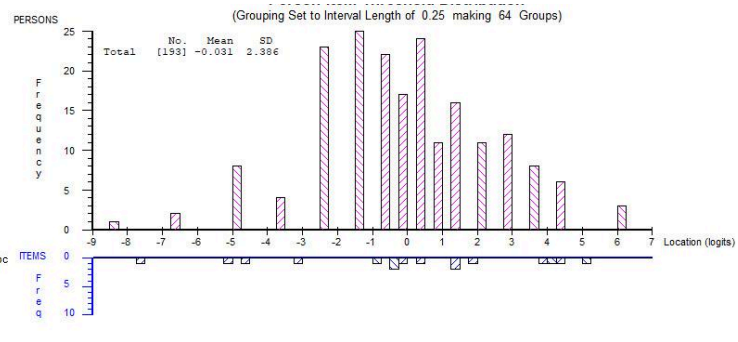
Abandonment / Anxious Attachment



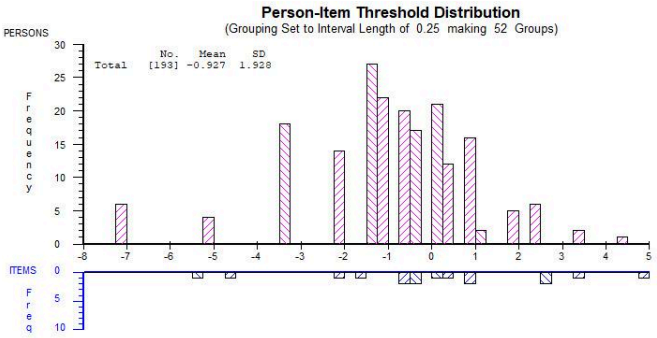
Excessive Self-Reliance / Avoidant Attachment



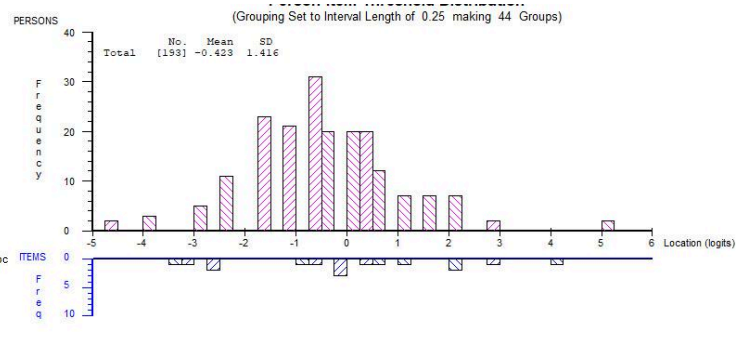
Emotional Deprivation



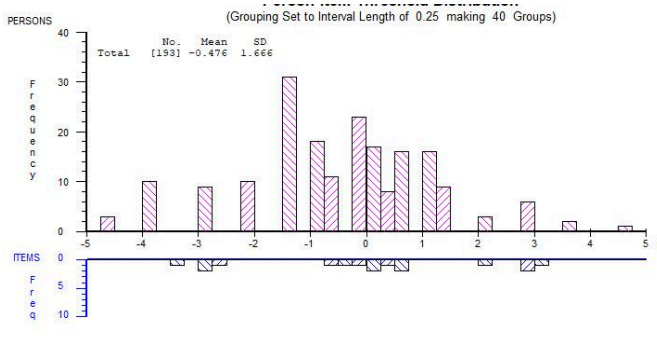
Mistrust



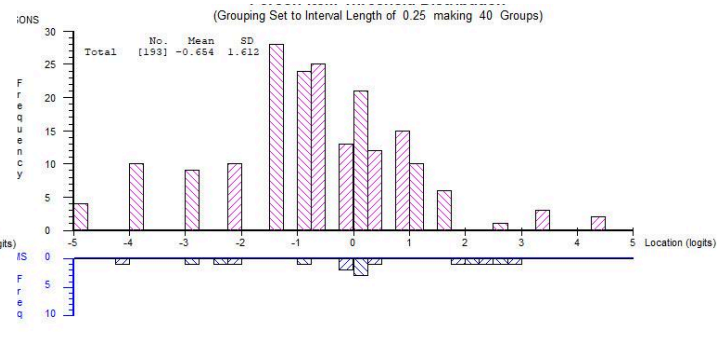
Others are Dangerous



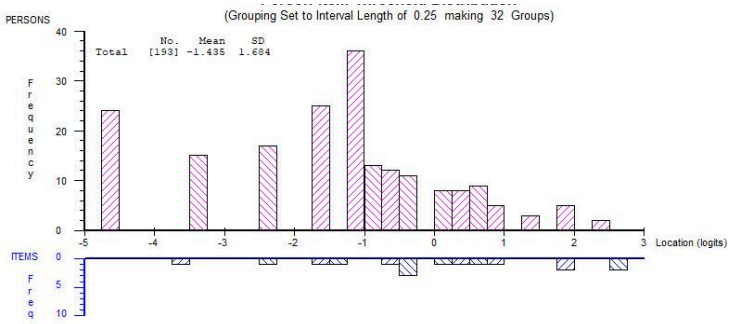
Social Isolation / Outsider



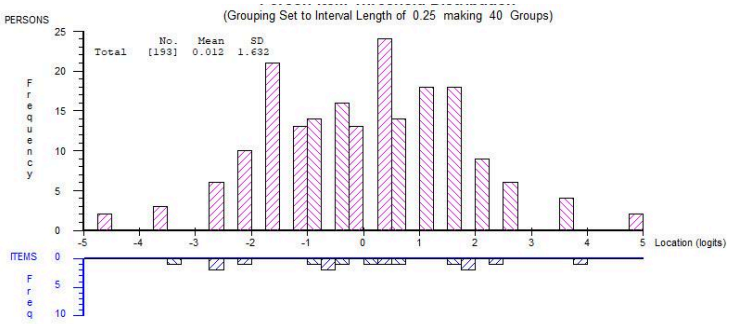
Defectiveness



Vulnerability to Dangerous World



Dependence



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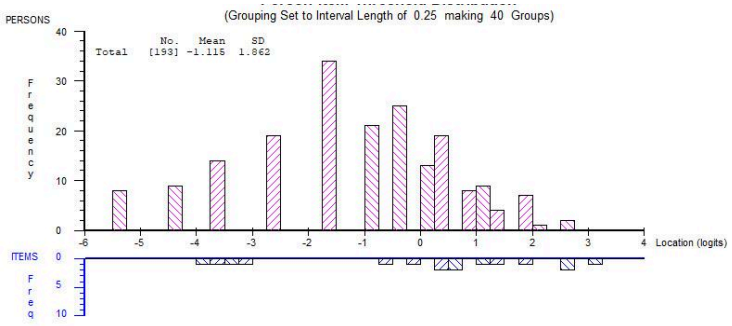
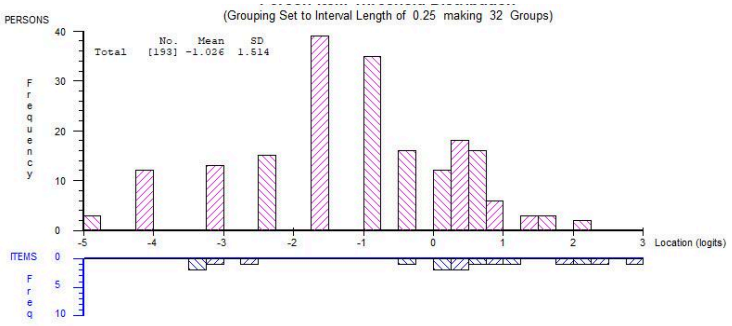
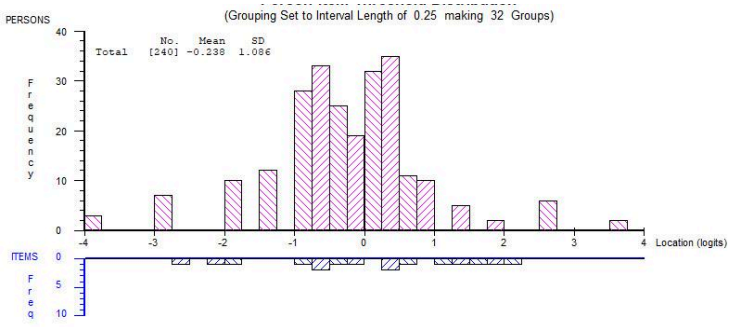


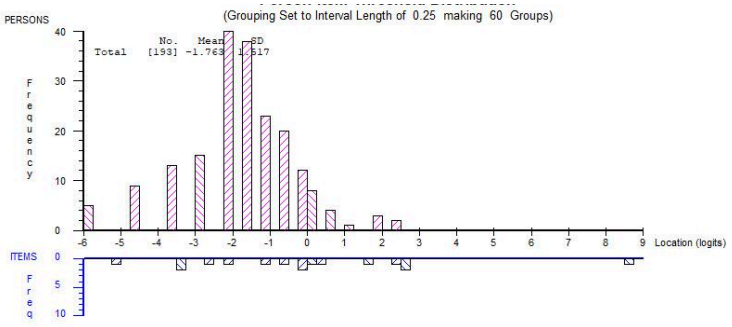
Low Self-Efficacy



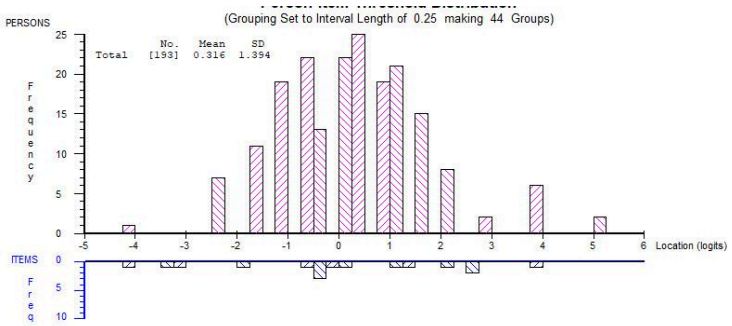
Fatalistic



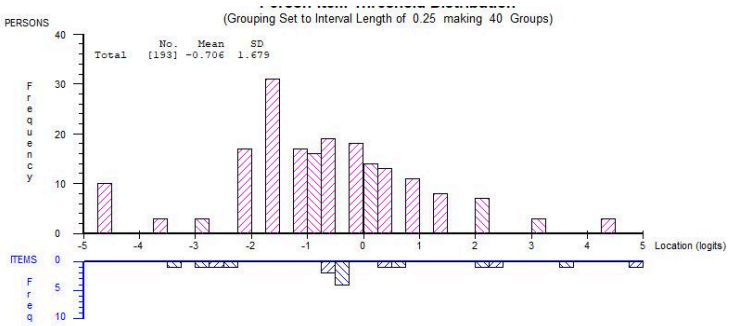
Enmeshment



Subjugation



Self-Sacrifice



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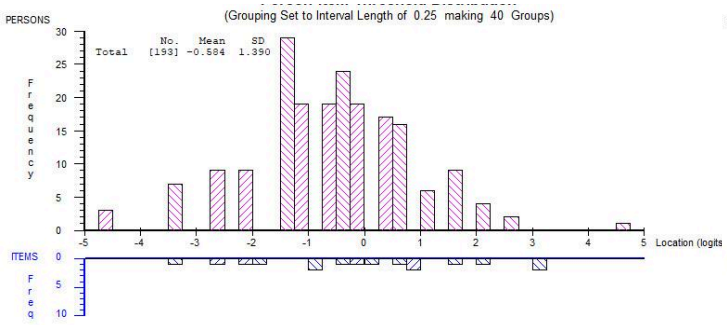
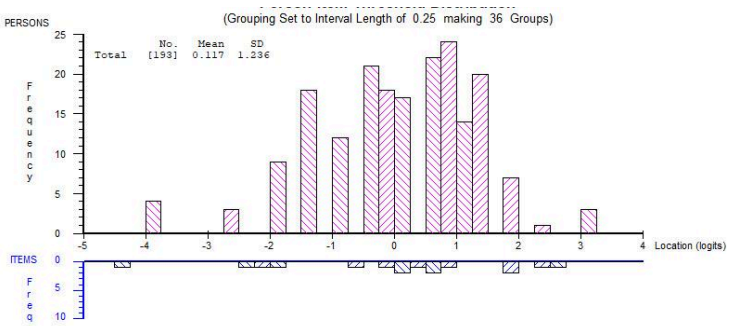


Emotional Inhibition



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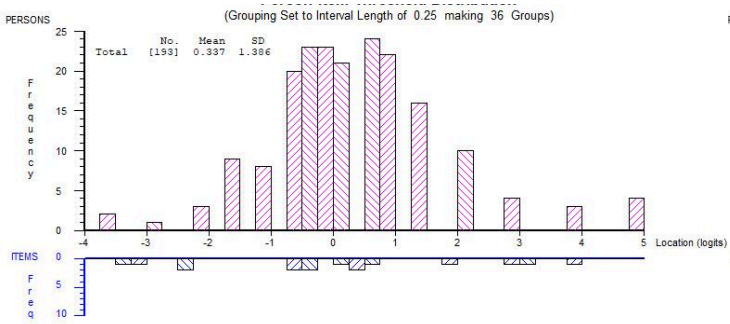
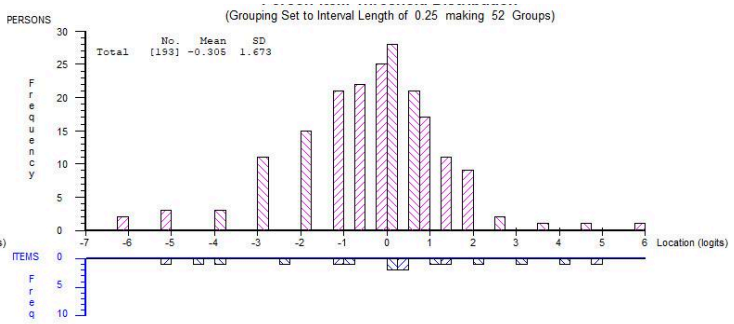
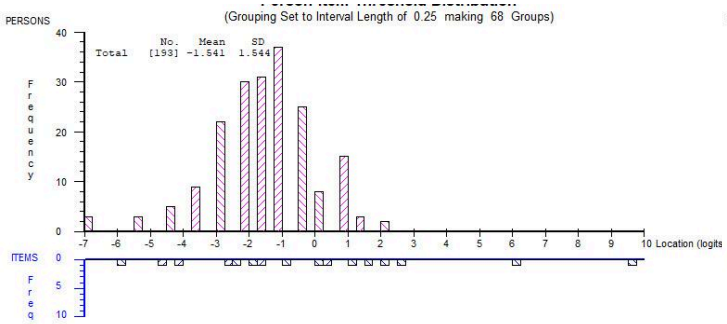


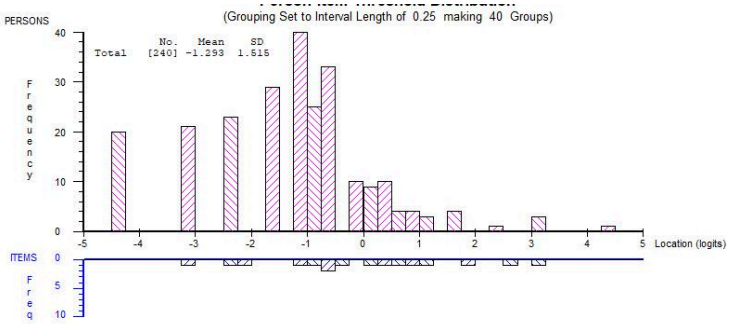
Unrelenting Standards



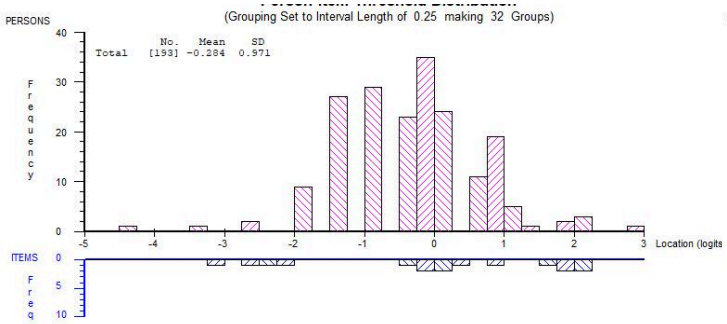
Punitiveness / Self



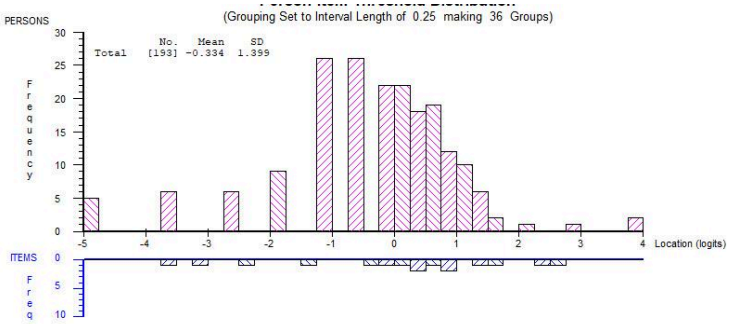
Punitiveness / Others



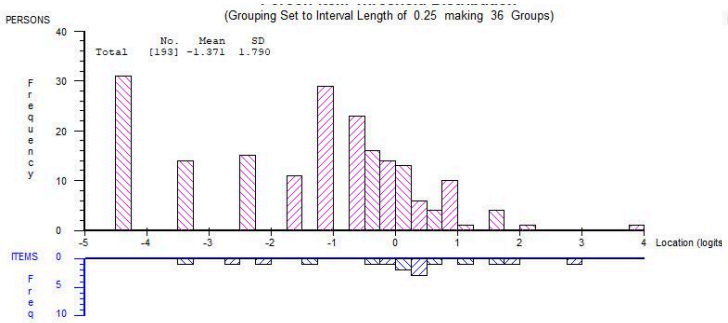
Entitlement



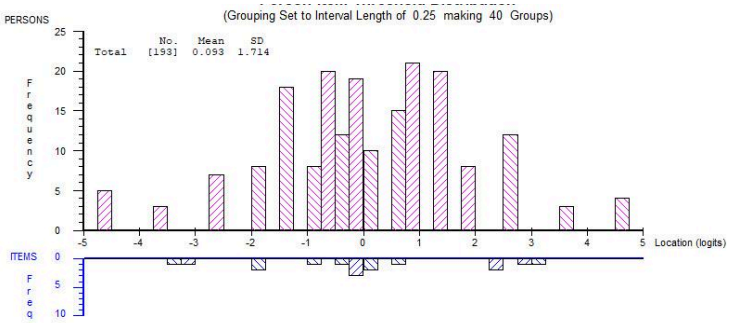
Full Control



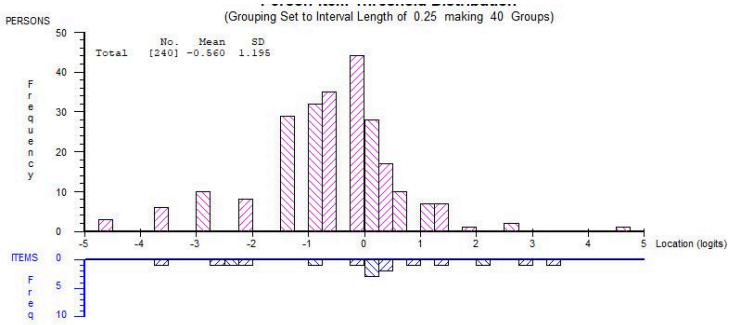
Unfairness



Meaningless World



Lack of Coherent Identity



Over Reliance on Emotions