Midpoint Ratings on Personal Constructs: Constriction or the Middle Way?

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Abstract

Midpoint ratings of elements on personal constructs have been given various interpretations, and the placement of the ideal self at the midpoint of a construct has been viewed as violating Kelly’s (1955/1991) Dichotomy and Choice Corollaries. This paper reports analyses, using a mixed models approach, of repertory grids completed by 80 clients referred to a clinical psychology service at up to five assessment points both pre- and post-therapy. A larger than expected number of ideal self ratings at the midpoint was found, and consideration of the content of several of the constructs concerned elucidated why it might have been that neither pole was preferred. Midpoint ratings of the ideal self increased over the course of therapy, and were not associated with depression or anxiety. Midpoint ratings of the ideal self and self now were also related to various structural measures of construing. Theoretical and clinical implications of the findings are discussed.
Midpoint Ratings on Personal Constructs: Constriction or the Middle Way?

A basic premise of personal construct psychology, enshrined in its Dichotomy Corollary, is that constructs are bipolar. The importance of this assumption is not least because of its implications for the personal construct view of choice and change. While there is some research evidence supportive of the bipolarity of construing (Bell, 2000; Bonarius, 1965; Millis & Neimeyer, 1991), other studies have challenged the view of constructs as strictly dichotomous (Epting, Suchman, & Nickeman, 1971; Mair, 1967; Riemann, 1990). Amongst the alternative suggestions are that constructs are unipolar (Bonarius, 1984; Riemann, 1990); that the contrast pole of a construct may be selected from a number of possible alternatives, and that as a result constructs may be “bent” (Yorke, 1983); and that some constructs may be more bipolar than others (Walker, Ramsey, & Bell, 1988).

The bipolarity assumption was reflected in Kelly’s original dichotomous method of repertory grid administration, in which the respondent was required to allocate elements (aspects of the person’s world) to one or other pole of a series of constructs. However, the rating methods that are now much more commonly used allow investigation of the placement of elements not only at particular construct poles but also at other points on construct dimensions. One such point, which will be a primary focus of this paper, is the midpoint.

Midpoint ratings of elements on constructs have been given various interpretations by personal construct theorists. For example, it has been suggested that such ratings can imply that the individual is unable to apply the constructs to the elements concerned (Fransella, Bell, & Bannister, 2004). A high number of midpoint ratings for an
element would therefore imply that the element is relatively meaningless for the individual and, being outside the “range of convenience” (Kelly, 1955) of his or her construct system, is likely to be anxiety-provoking. Some support for this position is provided by the finding in a student sample that high numbers of midpoint ratings in a repertory grid, particularly when applied to the self, were associated with high scores on a measure of meaninglessness from an alienation questionnaire, although with low scores on a measure of normlessness (Winter, Patient, & Sundin, 2009).

Midpoint ratings have also been regarded as indicating constriction, the drawing in of the outer boundaries of the perceptual field to deal with apparent incompatibilities, or conflicts, in construing (Kelly, 1955). Essentially, it is argued that conflictual elements may tend to be rated at the midpoint of constructs because the failure to assign them to either pole of the constructs concerned essentially excludes them from the individual’s field of vision. Some support for this view has been provided by associations that have been demonstrated between the use of midpoint ratings and suicidal tendencies, which themselves have been related to constriction (Kelly, 1961). For example, following a study by Landfield (1976) in which high use of “not applicable” or “?” ratings on a repertory grid were found to characterize suicidal clients, Dzamonja-Ignjatovic (1996) demonstrated that such individuals tended to give a high number of midpoint ratings to the future self (in contrast to ratings of death, fewer of which were at the midpoint in clients who had attempted suicide). Winter et al. (2007), studying clients who had deliberately harmed themselves, found that high numbers of midpoint ratings of the future self were associated with hopelessness and suicidal ideation, and that these, as well as the overall number of midpoint ratings in a repertory grid, reduced significantly over
the course of personal construct psychotherapy. However, conflicting results were obtained by Neimeyer, Heath, and Strauss (1985), who found no relationship between midpoint ratings and suicidal ideation, and by Hughes and Neimeyer (1993), who showed suicide risk to be predicted by a low number of midpoint ratings and therefore, in their view, a low level of subjective uncertainty. A more recent study by Hanieh and Walker (2007), using an innovative measure of constriction derived from “psychophotography,” found more constricted scores on this measure to be associated with high numbers of midpoint ratings of the self and future self in a repertory grid, and that depressed people displayed higher levels of constriction on all of these measures than did a control group.

Our particular concern will be with the placement of the ideal self element on constructs in a repertory grid. Kelly’s Dichotomy and Choice Corollaries not only imply that constructs are bipolar but that individuals should have a preferred pole of each construct, in that this pole “seems to provide the best basis for anticipating the ensuing events” (Kelly, 1955, p. 64) at that time. The preferred pole is generally assumed to be indicated in a repertory grid by the placement of the ideal self element on the construct concerned. It might be expected, therefore, that the ideal self would tend to be allocated to one or other pole on each construct rather than to intermediate points on construct dimensions, including the midpoint. Our primary aim has been to investigate this assumption. Further aims were to explore the correlates of midpoint allocation of the ideal self, and to consider whether these also applied to allocation of the actual self to the midpoint.
Method

Sample

Eighty clients were recruited by Watson (1998) in her comparative study of personal construct, cognitive-behavioural, and psychodynamic therapy (Watson & Winter, 2005). Females comprised 59% of the sample and the mean age of the groups was 35.7 years (standard deviation 10.7). The clients were referrals to a National Health Service Clinical Psychology Department, and each had been assessed at some or all of five time points. These assessments were conducted three months prior to therapy, immediately pre- and post-therapy, and at approximately six months and a year following therapy.

Measures

Repertory grids were completed at each testing session, together with the Beck Depression Inventory (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) and the Beck Anxiety Inventory (Beck, Epstein, Brown, & Steer, 1988), as part of a larger study into therapeutic process and outcome (Watson & Winter, 2005). The grids were principally defined in the first testing, where elements in the study were fixed according to the following role titles: liked man; self; liked woman; mother; disliked man; father; disliked woman; partner; sibling; ideal self; two significant others; self prior to presenting problems; self after therapy; therapist. Thirteen constructs were elicited in the first assessment session by Kelly’s self-identification form of triadic elicitation, in which, for successive triads of elements, each including the self, the participant was asked to say in what important way two of the elements were similar and thereby different from the third. If the client’s response appeared to contain an amalgam of constructs, the
constructs concerned were disentangled by discussion with the client, and were included separately in the grid. To obtain a further two constructs, the participant was then asked to describe his or her two major problems and the opposites of these. The participant then rated each element on every construct on a 7-point scale such that 7 represented one pole and 1 the other. At subsequent testing occasions, the same procedure was followed, but participants rated elements on their original constructs as well as on any new constructs elicited from them.

In total 247 grids were obtained at various points from pre- to post-therapy with the mean number of grids per person being 3.1. 26% only completed one grid while 30% completed all five grids. All elicited constructs were categorized using Landfield’s (1971) content categories. Ten percent of the constructs were also classified by an undergraduate psychology student and an inter-rater reliability (kappa) of 0.62 was obtained. In addition, GRIDSTAT (Bell, 2009) was used to obtain the following indices of construct structure.

**Intensity (complexity-simplicity).** A measure of intensity was calculated for each construct by averaging its correlations with all other constructs, higher scores indicating greater “cognitive simplicity.” An r to z transformation was used to make the nonlinear correlation a linear dependent variable.

**Construct asymmetry.** As intensity is based on correlations and is therefore a symmetric measure, we also considered a more recent asymmetric index which can be calculated for each construct (although it, like intensity, is more commonly calculated by grid). Bell (2004a) re-introduced the notion of asymmetric relationships between constructs, a concept necessary to Kelly’s conception of hierarchical structures in
construct relationships. Here a statistic, Somer’s $d$, was used to calculate prediction in both directions for a pair of constructs. Where the two values differ, an asymmetric or hierarchical relationship was said to exist. For each construct, a difference was calculated between the average (with other constructs in the grid) predictor and predicted coefficients.

**Conflict or inconsistency.** A measure of a very different nature is that devised by Bell (2004b) to index the inconsistency or conflict in a grid. This measure considers the relationship of an element to two constructs and the relationship between the constructs defined by all other elements. Where this is inconsistent, an instance of conflict or inconsistency is defined.

**Constriction.** Like other concepts of Kelly (1955), the notion of constriction can be interpreted either at the construct system level (“making one’s world manageable by shrinking it to a size he can hold in his own two hands,” p. 901) or the individual construct level (“constriction is a way of ruling out other elements,” p. 520). It is thus perhaps not surprising that different ways of operationalizing constriction have developed, some at the construct system level (e.g., cognitive complexity) and some at the construct level (e.g., number of midpoint ratings). Measuring constriction at the construct level suggests a link of this operation to the range corollary (“a construct is convenient for the anticipation of a finite range of events only,” p.68) and we might see a restriction in range as an example of construct level constriction. In this case we could assess this by the standard deviation of ratings on a construct as suggested by Fransella, Bell, and Bannister (2004, p.83). Accordingly, we assessed whether constructs differed in their standard deviations with respect to self now and ideal self location.
Analysis

To carry out analyses at the level of construct (within person) we used mixed model analyses of variance with persons as a random factor. In examining incidence of self or ideal self at a specific location (i.e. the dependent variable) we included stage of therapy as a fixed factor. In examining the effect of self or ideal self position and stage of therapy on measures derived from the grid, we treated testing, self, and ideal self location as fixed factors. A secondary advantage of the mixed model approach is that participants did not have to have complete data for all testing sessions (unlike repeated measures analysis). Analysis was carried out with PASW Statistics version 17.

Results

Distribution of Midpoint Ratings

The distribution of ideal self ratings is shown in Figure 1. It can be seen that there are two tendencies evident in these ideal self ratings. On the one hand there is the expected U-shaped distribution, where ratings are more likely to be at the extreme position. On the other hand there is a second tendency for ratings to be made at the middle position. About 15% of ratings were at the mid-point of the scale, whereas the expected trend from the other ratings would be around 5% to be consistent with the U-shaped distribution associated with extremity-oriented ratings for ideal self. This U-shaped distribution accords with the traditional extension from the original work of Kelly (1955/1991) and Hinkle (1965), where polarization is taken as an indication of the preferred pole. The finding of a larger than expected number of ideal self ratings at the midpoint is something of a surprise.
The distribution of ratings for all other elements was examined and none showed this tendency, although the therapist element did contain an unusually large number of midpoint ratings—but without the additional polarization among other ratings. This may reflect the fact that at the time of the pre-treatment grid assessments, participants had not yet met the therapist, who may therefore have been relatively unconstruable. This analysis, however, is at the level of the construct and does not take into account the possibility that some individuals routinely locate the ideal self at the midpoint while others allocate (as expected) the ideal to one or other pole of the construct. Table 1 shows the distribution of constructs per grid with the ideal self rated at the midpoint.

We can see that in 40% of grids location of the ideal self at the midpoint of a construct occurs four or more times within a grid (i.e. about one third of the time). It would seem possible that locating the ideal at the midpoint is thus a characteristic associated with completing a grid on an occasion, rather than being due to a particular construct.

**Midpoint Ratings and Construct Content**

We now turn to the effect of the content of the constructs, as coded by Landfield’s (1971) system, on the locating of the ideal self at the midpoint. As in Watson’s (1998) classification of all clients’ pre-treatment constructs, those concerning forcefulness and
tenderness were highly represented, accounting for nearly half of the constructs concerned. Other frequently occurring categories of constructs with the ideal self at the midpoint, mirroring Watson’s classification of overall construct content, concerned self-sufficiency, social interaction, emotional arousal, organization, and morality. It appears, therefore, that location of the ideal self at the midpoint is not characteristic of particular types of construct. However, as can be seen from the examples in Figure 2, ordered in terms of Landfield’s categories, many of these constructs appeared to pose stark choices to clients, such that it was small wonder that the ideal self was given midpoint ratings on them.

Incidence of Midpoint and Extreme Ratings by Testing

Statistical analyses were conducted at the construct level (within person by testing occasion). For each construct the position of the ideal self was recorded as being at the extreme, the midpoint or at some other rating position on the construct. We also recorded the location of the self now figure in the same way. We used mixed model analysis of variance with persons as a random factor and stage of therapy as a fixed factor to test whether locating the ideal self (or actual self) at the midpoint varied across testing occasions. We found significant differences in the proportion of constructs with ideal self at the midpoint, $F(4, 4542) = 5.78, p < .001$, and proportion of ideal self at an extreme, $F(4, 4542) = 10.69, p < .001$. Similarly we found significant differences in the proportion of constructs with actual self at the midpoint, $F(4, 4227) = 9.46, p < .001$, and proportion of actual self at an extreme, $F(4, 4564) = 29.01, p < .001$. It can be seen in Figure 3 that
the major change occurs between 3 month pre-therapy and the immediate pre-therapy testing but the trend of a decreasing use of extreme ratings (for both self and ideal) and a similar trend of increasing use of the midpoint for these two elements, continues across the post-therapy testings.

Using the mixed model (or multilevel) approach we were also able to assess the relation between the tendency to locate the ideal self at the midpoint (or extreme) at the construct level and anxiety or depression (as measured by the Beck scales) at the person level. No significant relationships with ideal self at the midpoint or the extreme were found. We also investigated whether ideal self at the midpoint was associated with the constructs generated in subsequent testings. There was no significant difference between the original and the added constructs with respect to location at the midpoint. Finally we checked whether therapy orientation was associated with midpoint ratings. Clients had been assigned to personal construct therapy (46% of grids), cognitive behavioural therapy (38%) or psychodynamic therapy (16%). Again there was no significant relationship between type of therapy and location of ideal self at midpoint.

**Grid Indices**

**Intensity (complexity-simplicity) by ideal self or self now location across testings.** We found no significant variation in construct intensity across the testing occasions. There was significant variation by ideal self position, $F(2, 4541) = 5.83, p = .003$ and a significant interaction between ideal self position and testing occasion, $F(2, 4520) = 2.32, p = .018$. When the ideal self was at the extreme, the average correlation
was highest indicating such constructs were more closely associated with other constructs than when the ideal was located elsewhere on the construct. Figure 4 shows the interaction as a profile of average construct intensity by ideal self position across the five testing points, and indicates that the interaction is largely due to the last testing and confined to ideal self locations at positions other than the midpoint. When ideal self is located at the midpoint average construct intensity is most stable. A similar analysis with self now location as a factor showed variation in testing occasion as a significant effect, but not the position of the self.

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Insert Figure 4 about here

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Construct asymmetry by ideal self or self now location across testings. There were no significant differences between the main effect of occasion of testing and the interaction between testing and ideal self position. However, there was a main effect significant difference by ideal self position, \( F(4, 4586) = 10.494, p < .001 \). An examination of confidence intervals about the estimated marginal means showed a positive significant difference (i.e., the predictor coefficient is greater than the predicted) when the ideal is at the extreme, but when the ideal is in the middle the predictor-predicted difference is zero, suggesting that locating the ideal at the midpoint tends to be associated with symmetric relationships between constructs. A similar pattern of results was obtained for the location of self.

Conflict by ideal self or self now location across testings. There was significant variation in conflict by ideal self position, \( F(2, 4544) = 48.37, p < .001 \), and a significant interaction between ideal self position and testing occasion, \( F(8, 4523) = 6.77, \)
Post-hoc comparisons showed that all main effect means were independent of the others. There was significantly less involvement in inconsistent or conflicting relationships for constructs where the ideal was located at the midpoint, and a reduction over the course of testing. The significant interaction between ideal self location and testing is shown in Figure 5. It can be seen that the interaction occurs in the period following the therapy, although the major reductions in conflict occur over the actual therapy phase.

Constriction by self or ideal self location across testings. A mixed model analysis showed that construct standard deviation differed significantly by testing, self now, and ideal self location. Statistics for these main effects and interaction terms are shown in Table 2.

The interaction between the testing and self now location was marginally significant but that between testing and ideal self location was not. The interaction between self now location and ideal self location was also significant and is shown in Figure 6.

When self now was at the extreme elements were more dispersed along the construct. Self now at other locations and self now at the midpoint were similar with respect to element dispersion for ideal self at both extreme and other locations, but differed when
ideal self was at the midpoint. Elements were most dispersed when both self now and ideal self were at extreme locations, and least dispersed when self now and ideal self were both at the midpoint. Since the location of self and ideal self could affect the measure of element dispersion, we repeated the analysis using the standard deviation of ratings for elements other than self and ideal self. The findings were similar.

**Discussion**

As we have seen, the placement of the ideal self at the midpoint of a construct may indicate that the person’s ideal is fairly meaningless or anxiety-provoking, or that the individual’s construing is constricted. For Feixas and Saúl (2004), it would suggest that the construct concerned confronts the person with a dilemma. However, it may simply indicate that, as with the examples of constructs which we have provided from Watson’s (1998) study, the individual’s preference is not to be extremely characterized by either pole. To take some of these examples, would you rather be domineering or domineered; destructive or possessive; manipulative or easily led; taking things personally or insensitive; shy or exhibitionist; violent or passive; or guilty or non-caring? It may, of course, be that some of these verbal labels provided by clients for their constructs may reflect multiple constructs, such that, for example, both “domineering” and “domineered” are contrasted with a midpoint position which is a construct pole in itself. However, an attempt was made in our elicitation procedure to disentangle multiple constructs when these appeared to be reflected in clients’ verbal labels. In any case, if the constructs in the above examples are typical of the “dilemmatic constructs” identified by Feixas, Saúl, and Ávila-Espada (2009), it may not be surprising that these workers found no difference between clinical and nonclinical samples in the percentage of dilemmatic constructs in
their grids, and did not find this percentage to be related to a measure of symptom severity.

Furthermore, rather than being associated with greater psychological distress, the tendency to locate the ideal self at the midpoint increased over the course of the assessment sessions, during which time most of the clients in our sample showed a reduction in such distress; and was not related to high scores on measures of depression and anxiety. It was also associated with higher levels of cognitive complexity, and greater stability in such complexity, than was extreme rating of the ideal self; as well as with lower levels of conflict.

Some of our findings were not specific to the ideal self element but also applied to the location of the self now. For example, the placement of the self now at the midpoint, like that of the ideal self, increased over the course of the assessment sessions. Location of each of these self elements at the midpoint was associated with more symmetric relationships between constructs, and location of both self now and ideal self at the midpoint was associated with greater constriction in terms of restricted dispersion of other elements. It is, of course, possible that our results may reflect features of the repertory grid employed in this study, such as the use of Kelly’s self-identification form of construct elicitation or the inclusion of the original set of constructs, elicited at a time when participants were probably in greatest distress, in all subsequent grids. To explore the external validity of our findings, further research could be conducted using different grid formats. However, these findings suggest that the extent to which self elements are placed at the midpoint may be a major structural feature of construing, which could carry implications for the way in which other elements are construed.
Clinical Implications

To return to our principal concern of midpoint rating of the ideal self, an implication of our results is that Kelly’s original notion of choice being between two alternatives, as translated by Hinkle (1965) into choice between two poles, does not generalize to constructs where the preferred position is not at either pole. Here Kelly’s notion must be translated into a more complex choice situation involving two reasons for choosing: choosing the preferred position over one rejected pole as well as choosing the preferred position over the other rejected pole. For example, why is it better to be somewhat introverted and somewhat extraverted than completely introverted? Why is it better to be somewhat introverted and somewhat extraverted than completely extraverted? Consideration of such questions, for example during therapy, may lead to the elaboration of a new construct, one pole of which captures the combination of being somewhat introverted and somewhat extraverted. One of the first descriptions of such an approach was by Baker (1978), who described it as “constructing middle ground,” and originally saw it as the answer to all his clients’ problems. Finding that clients almost invariably considered some aspect of their problem to be desirable and some aspect of its solution undesirable, he encouraged them to view their problem and its solution as elements of one pole of a more superordinate construct, the contrast pole of which was then elaborated as defining a “middle ground” position. However, finding that some clients did not benefit from this approach, he later developed a position based upon catastrophe theory, in which the client was enabled to dwell simultaneously at the two poles of a construct (Baker, 1980). More recently, Neimeyer (1993) has employed a “dialectical laddering” technique in clients who, during a conventional laddering
procedure, were unable to identify the preferred pole of a particular construct. In this technique, the originally antithetical construct poles are reconciled at a more superordinate level. Alternative methods of elaborating the middle ground between construct poles are the identification and consideration of people who manage to combine the qualities of these poles; and the construction of fixed roles incorporating aspects of both poles, and perhaps defining a construct orthogonal to these. Similarly, the client may be asked to explore a middle ground by writing a self-characterisation combining features of the two previously incompatible construct poles. One client who completed such a self-characterisation described the new self which it portrayed as “walking the path of in-between.” Some of the various other techniques that Feixas and Saúl (2005) have employed for the resolution of dilemmas may also be used to elaborate a middle ground between construct poles.

The possible benefits of such work may be highlighted by considering a few further clinical examples. Jill’s self-destructive behaviour during her university course became entirely comprehensible when a repertory grid indicated that she contrasted being self-destructive with being egotistical. Jack’s recurrent episodes of violence towards prisoners in his care was explicable in terms of one of his constructs, which contrasted being “a bully” with being “a coward.” John’s two-year unconsummated marriage, and his decision to terminate sex therapy when a degree of penetration was achieved, could be related to his construct contrasting feelings of sexual attraction with those of affection. It was clear in each of these cases that a resolution of their difficulties would essentially require the location of the ideal self at a position midway between the poles of the constructs concerned, and perhaps the development of a new construct to define this
middle position. Therapy with such clients might be regarded as consistent with the 
Buddha’s view that the path towards a cessation of suffering involves taking a middle 
way between extremes, such as those of hedonism and asceticism.

However, this is not to suggest that the location of the ideal self at the midpoint of 
a construct is universally desirable but rather that this depends on the content of the 
construct concerned. For example, while in the case of Bill, who had taken an overdose, 
the location of the ideal self and future self at the midpoint of his construct “depressed 
versus confused” may be considered optimal, its location at the midpoint of his construct 
“don’t see a future versus has a future” may indicate his uncertainty and anxiety 
concerning his future. For such an individual, as indicated in Kelly’s description of 
chaotic suicides, death may appear to provide the only certainty, and Bill, discussing 
whether he might attempt to kill himself again, said “I’m not sure I won’t do it tonight, 
tomorrow or next week.” Therefore, therapy with Bill might usefully have focused on 
elaborating a view of himself and his ideal self as being able to anticipate a future that did 
not involve death.

Conclusion

The burgeoning of methods of repertory grid analysis over the last half century 
has seen the development of a bewildering array of grid measures, which may seem 
increasingly removed from the raw grid data. However, we should not lose sight of the 
fact that relatively simple measures not requiring computer analysis, such as the number 
of midpoint ratings on constructs and the nature of the elements and constructs involved 
in these ratings, may carry considerable psychological and theoretical significance. As 
Feixas et al. (2009) have indicated, “the issue of middle-point ratings on the ‘ideal self”
(and maybe in the ‘self now’) is open to discussion, criticism, and further elaboration” (p. 163). Our study provides a contribution to such elaboration, as well as demonstrating the potential of the mixed model approach to the analysis of repertory grid data.
References


   In M. Farberow & E. Shneidman (Eds.), *The cry for help* (pp. 255-280). New York:
   McGraw-Hill.

Landfield, A.W. (1971). *Personal construct systems in psychotherapy*. Chicago: Rand
   McNally.

   (Ed.), *The measurement of intrapersonal space by grid technique. Vol. 1. Explorations
   of intrapersonal space* (pp. 93-107). London: Wiley.

Mair, J. M. M. (1967). Some problems in repertory grid measurement. I. The use of

   versus constructs as basic cognitive units. *International Journal of Personal Construct
   Psychology, 3*, 167-181.

   G.J. Neimeyer (Ed.), *Constructivist assessment: A casebook* (pp. 58-103). Newbury
   Park: Sage.

   group cognitive therapy for depression. In F. R. Epting & A.W. Landfield (Eds.),
   *Anticipating personal construct theory* (pp. 180-197). Lincoln, NE: University of
   Nebraska Press.

   Personal Construct Psychology, 3*, 149-165.


Table 1

*Distribution of Constructs with Ideal at Midpoint per Grid*

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Table 2

*Mixed Model ANOVA for effect of Self Now position and Ideal Self position on Constriction (Mean Construct Standard Deviation)*

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<td>8.01</td>
<td>.000</td>
</tr>
<tr>
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<td>16</td>
<td>4483.19</td>
<td>1.46</td>
<td>.105</td>
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</tbody>
</table>
Figure 1. Percentage of Constructs for Ideal Self Rating Points

Error bars: 95% CI
Forcefulness
Aggressive – weak
Enjoys arguing – avoids arguing
Controller – compliant
Domineering – domineered

Tenderness
Destructive – possessive
Soft – strict
Selfish – gives up rather than offends
Gives too much – takes too much
Manipulative – easily led

Self-sufficiency
Takes things personally – insensitive

Social interaction
Shy – exhibitionist

Emotional arousal
Violent – passive

Organisation
Disoriented – assumptive

Morality
Guilty – non-caring

Figure 2. Examples of Constructs on which Ideal Self received a Midpoint Rating
Figure 3. Proportions of constructs with Self or Ideal at Extremes or Midpoint across testing sessions.
Figure 4. Mean Construct Intensity by Ideal Self location across testing sessions.
Figure 5. Mean Percent Conflict by Ideal Self location across testing sessions.
Figure 6. Constriction (Mean Construct Standard Deviation) by Self Now Location and Ideal Self location across testing sessions.