

INVESTIGATING THE CONTENT OF CORE CONSTRUCTS

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Kelly recognised core construing as fundamental in maintaining a sense of identity. Given core constructs theoretically lay in a super-ordinate position to other constructs it is assumed they are limited in number. Operating at a low level of awareness, few empirical investigations have been undertaken to understand the content of core constructs. This study factor analysed the most frequently elicited core constructs with 419 adults. Four clear factors – labelled making sense, relatedness, achievement and individuality – emerged and these are discussed in relation to how people choose to act in order to maximise an elaboration of their core construing.

Key words: *Core constructs; Content; Factor analysis*

INTRODUCTION

In creating the Theory of Personal Constructs, Kelly (1955) suggested that individuals, like scientists, reach out to impose meaning on events with which they are confronted. As such events necessarily include the person's own notion of self, Kelly characteristically proposed that each person constructs the dimensions of their own identity. He employed the notion of core construing to describe higher order constructs that govern the maintenance of a person's identity. Such constructs lie fundamentally at the heart of the individual's sense of self, guiding each anticipatory choice, action and stance they may take. Core constructs therefore essentially determine existence, with Rowe (2003) suggesting that they are concerned with survival, enabling the person to hold dear fundamental notions they have of their self. Compared to constructs at a lower level, core constructs appear to remain invariably stable leading individuals to determinedly preserve a core belief about self, even in the face of invalidating evidence, rather than seek an alternative construction as a good scientist might.

Because of the possibility of profound threat if invalidated, core constructs, according to Leitner & Thomas (2003), exist at a low level of awareness. Although not readily accessible, we come to understand the world through the lens of our core constructs with little conscious awareness (McWilliams, 2004). We rarely appeal to core constructs, yet it

might be argued that all our actions ultimately seek to validate or avoid invalidation of a core construct.

Within the context of the organisational corollary, core constructs are considered as super-ordinate, having a wide range of convenience encapsulating the raft of self descriptions and actions a person characteristically accounts for in terms of their self (Stefan, 1977; Butt, Burr & Epting, 1997). Almost by definition core constructs, being at the pinnacle of a hierarchy, are theoretically few in number. Interestingly Rowe (2003) found, to her surprise, that not only is there a limited number of core constructs, but they also tend to have a degree of universality.

Hinkle (1965) devised a hierarchical method, later termed laddering by Bannister & Mair (1968), to elicit 'super-ordinate constructs of the preferred self'. Although there are no formal instructions for the process, laddering essentially hinges on a 'form of recursive questioning' to elicit higher order implications of a construct (Neimeyer et al., 2001). Fransella & Dalton (1990) suggest that laddering is "no more and no less than asking the question 'why?' "a person would prefer to be described by one pole of a personal construct rather than the other. Alternatively, once a person has identified a preferred pole of a construct, Neimeyer et al. (2001) suggest asking 'what is the advantage of that?' In adapting the process for children and young people Butler & Green (1998) suggest laddering may be undertaken with just one pole of a construct with

less intimidating questioning such as ‘how come that is important for you?’

Laddering self referenced constructs offers a befitting means of tapping into the hierarchical structure of self and eliciting core constructs. Revealing core constructs requires reflection. Fransella (2003) and Fransella et al (2003) suggest successful laddering requires the listener to suspend their own construing (tempering their own assumptions) and seek to subsume the other person’s construing (accepting their construing). It is in the process of laddering that one gets closest to an experience of being almost a part of the other person. Laddering is seen by many practitioners as possibly the most powerful procedure for eliciting the values a person holds and the meanings with which they organise their world. Empirical investigation has recently found validation for the procedure with ‘laddered’ super-ordinate constructs found to differ from subordinate constructs in terms of structure, process and content in ways that accord with theoretically derived assumptions (Neimeyer et al., 2001).

Despite their universality, the content of core constructs remains open to conjecture. Rowe contends that a person either experiences a sense of existence in terms of relationship to others with an accompanying fear of abandonment and rejection, or experiences existence in terms of a sense of order, achievement, clarity and control with the accompanying fear of chaos. Psychologists with alternative theoretical perspectives, such as Tatarodi & Swann (1995), echo this stance, suggesting two core dimensions - self liking and self competence. Self liking, which is socially dependent, draws on Cooley’s early theoretical proposition being formed through a process whereby one comes to view oneself as represented in the evaluative reactions of others (Cooley, 1902). This internalisation of the others’ perspective gives rise to constructs relating to social approval and fear of rejection. Self competence, on the other hand, relates to the sense of oneself as capable, effective and in control, judged against some internal standard.

This study sought to develop an understanding of the essence of core constructs in a non-clinical representative adult population through two linked processes. Initially a broad sample of core constructs was elicited from a group of non-clinical adults through each laddering 5 constructs. From this sample the 25 most frequently elicited core constructs

were collated into a short questionnaire called ‘Self Reflection’. The second phase of the study sought to explore common themes within the core constructs through factor analysis of the completed Self Reflection measure with another large, but different, group of non-clinical adults.

METHOD

Original elicitation

Sixty one non-clinical adults (age range 17 – 63) were invited to undertake a laddering exercise to elicit their core constructs. They were informed that the aim of the exercise was to understand how people thought about themselves and that the process would involve a set of repeated questions known as laddering. As arguably all aspects of a person’s functioning are considered to relate to their presentation of self, the starting point for laddering appears largely immaterial. Neimeyer et al. (2001) employed, for example, recently seen films and family members as alternative starting points in their research on laddering. In this study, each person was invited to think of three self descriptions (‘could you tell me three ways you might typically describe yourself), a valued possession and an activity they enjoyed as starting points. For each starting point laddering consisted of asking ‘how come that is important for you?’ and with each consequently elicited statement, a similar question was asked to reveal more super-ordinate constructs. Unlike traditional laddering, where individuals are asked for a contrast and their preferred position on the bipolar construct, this study laddered from just the emergent pole. Questioning in terms of ‘how come that is important for you?’ continued until the person felt unable to produce any further elaboration. The person was then asked to ladder from another starting point until the 5 ladders were complete.

In line with Neimeyer et al. (2001) the highest (most super-ordinate) statement on each ladder was selected. Eleven people were unable to complete all 5 ladders (9 people providing 4 and 2 people providing 3 each) leaving a pool of 292 core statements. Those with similar meaning and terminology were grouped together and shortened to a few key words with the most frequently elicited statements compiled to form the items for a short questionnaire

called 'Self Reflection'.

Measure

The 25 most frequently elicited core statements were randomly ordered to form the items for the Self Reflection questionnaire. Participants were informed that the questionnaire was part of a survey designed to help understand how people make sense of themselves. They were asked to check against each item 'according to how important the statement is for you' using a 5 point Likert scale anchored with '0' (not at all) and '4' (very much). Ratings for each respondent on all 25 items were entered on to SPSS (version 14) for later analysis. The study was approved by the ethics committee at the Institute of Psychological Sciences, University of Leeds.

Participants

419 adults, none of whom participated in the elicitation phase, with a mean age of 41.15 yrs, (s.d. = 10.6) and range 17 – 65 years participated. The population sample comprised of 79 (18.9%) male and 340 (81.1%) female, with 340 (81.1%) British white; 14 (3.3%) Asian; 12 (2.9%) Black British; 10 (2.4%) White European; and 43 (10.3%) from other ethnic backgrounds, which corresponds well with the 2001 British census. All geographical areas of the United Kingdom were covered with Yorkshire (106), the North East (66), East Anglia (52), London (46), and the South west (33) providing the most respondents.

RESULTS

Decisions regarding factor analysis were undertaken in line with Finch & West (1997) and Fabrigar et al. (1999). Through selecting the most frequently elicited core constructs, as outlined above, the extent of variables (25) in the domain of interest was assumed broad enough to uncover important common factors. Bartlett's test of Sphericity was highly significant (.000) thus suggesting the data was appropriate for factor analysis. The Kaiser-Meyer-Olkin Measure of sampling adequacy was 0.841, which, being far greater than the recommended value of 0.5 (Hutcheson & Sofroniou, 1999) suggests patterns of correlation are relatively compact, thus yielding distinct and reliable factors.

In line with Fabrigar et al. (1999) the principal axis method of extraction (in SPSS version 14) was employed in order to arrive at a realistic and parsimonious conceptualisation of the set of measures. Such factor analysis is data driven with few restrictions placed on the patterns of relations between the common factors and the measured variables. Through examining the scree plot (with a cut-off at the point of inflexion of the curve) and restricting the number of factors with % of variance >5, four factors were extracted.

As it might theoretically be expected that factors are related, an oblique rotation, which provides more accurate and realistic representations of how constructs are related to each other (Fabrigar et al., 1999), utilising Promax with Kaiser normalisation was employed. The first factor accounted for 23.3% of the variance. The pattern matrix and structure matrix produced the same representation, so the Structure matrix (which takes into account the relationship between factors) is presented in Table 1 with factor loadings of >0.4 displayed in bold. The factor correlation matrix suggested a .476 correlation between factors 1 and 3.

Factor 1 appears to consist of core constructs concerned with making sense, where a person strives for understanding, justice, authenticity and coherence in their construing of the world and their self. *Factor 2* consists of core constructs concerning relatedness where a person's sense of self, as contended by Rowe (2003) is embedded in the notion of relationship with others. *Factor 3*, which is linked to factor 1, is concerned with achievement and mastery which resonates with Rowe's notion of existence in terms of achievement. Finally, *factor 4* links core constructs concerned with individuality where a person's sense of self is bound up with notions of non-conformity, uniqueness, independence and anti-authoritarianism.

Table 1. *The four factors yielded by the principal axis factoring and Promax rotation (factor loadings >0.4 in bold)*

Factor	1	2	3	4
% variance	23.30%	10.97%	8.12%	5.24%
being able to understand	.735	.157	.213	.207
feel capable	.732	.227	.289	.164
fair mindedness and justice	.566	.134	.327	.209
being understood	.564	.318	.346	.197
competency	.563	.128	.339	.182
being genuine / authentic	.536	.026	.358	.180
security	.475	.423	.274	.001
feel healthy	.355	.081	.293	-.017
avoid criticism	.114	.750	.119	.119
meet others' approval	.173	.705	.206	.151
avoid rejection	.234	.660	.241	.080
pleasing others	.252	.598	.270	.007
conforming	.043	.492	.189	-.026
belonging	.256	.443	.299	-.081
achieving success	.401	.214	.699	.308
a challenge	.375	-.002	.629	.331
recognition	.301	.335	.615	.198
power	.089	.365	.530	.352
being competitive	.169	.275	.521	.352
being in control	.294	.364	.443	.218
being different	.308	.098	.395	.630
anti-authoritarian / rebellious	.063	.104	.212	.627
independence	.380	-.004	.479	.512
being an individual	.318	-.023	.419	.476
having freedom	.347	-.018	.322	.356

DISCUSSION

This study is one of the first to empirically seek an identification of the content of core constructs. It has fundamentally drawn on the practice of laddering (Hinkle, 1965) to elicit a range of core constructs from a broad range of adults. Although Neimeyer and colleagues (Neimeyer et al., 2001) have endorsed this approach as a valid means of identifying core constructs, there is a possibility that other elicitation procedures might reveal different core constructs with consequently a different factor structure. However, if Kelly is correct in his assertion of the robust, maintaining nature of core constructs it would prove enlightening in future studies to explore if indeed this is the case.

The four main factors to emerge from the principal axis extraction with Promax rotation indicate, as Rowe (2003) suggests, the finite nature of core constructs. However the limit of two core constructs, theoretically proposed by Rowe, seems unsupported by the empirical evidence. Although the four factors appear to include the two core dimensions suggested by Rowe (2003) – a sense of existence in terms of relationship to others with an encompassing a fear of rejection and a sense of existence in terms of achievement and control – the content of core construing appears much broader. A determined desire to make sense through striving for understanding, justice, authenticity and coherence plus a sense of individuality where a person's sense of self is bound up with notions of non-conformity, uniqueness, independence and anti-authoritarianism, also appear to be fundamental dimensions with regards to understanding core construing.

Labelling factors from is invariably compounded by pre-determined ideas. However an attempt to conceptualise the four factors was undertaken with respect to terminology that adults typically employ in relation to their self. In the following discussion, the 'self' labels, written in bold type, were all taken from a list of self referenced constructs elicited from over 1300 British adults aged 17-65 (Butler & Gasson, 2004). The four factors might thus be understood in terms of:

Factor 1: Making sense

Here core construing rotates around a person's sense

of their capacity to impose meaning and establish coherence leading to a sense of *self competence*. They evaluate themselves in terms of their scientific pursuit, searching for validation through greater understanding and justice, leading to competence and capability. Such core construing embodies Kelly's fundamental postulate, whereby a person strives for personal meaning. Although all actions, according to Kelly, are scientific in the sense of enabling the person to check their theories, if a person's core construing resonates with notions of competence, that person's actions also test their sense of self as a good scientist.

Factor 2: Relatedness

Here a person's sense of self, as contended by Rowe (2003) is embedded in the notion of relationship with others, particularly in terms of the search for approval and avoidance of criticism or rejection, leading to social conformity and *self respect*. The person, as it were, trades in the sociality corollary, seeking to detect the opinion of others about the self and incorporate these into the sense of self. A person's theory of self is thus tested through actions that anticipate favourable reactions from the other, either real or imagined. This idea is based fundamentally on Cooley's notion of reflected appraisal (1902), later elaborated by Leitner & Thomas (2003), in which they suggest it makes little sense to consider the self apart from the social milieu in which the individual operates thus contending that the self is best understood as a social construction. Through employing the core construct of *self respect*, people make choices dependent on the imagined effect their actions may have upon another's mind. They are likely to seek out the company of other people, build friendships, enjoy social engagements, value trustworthiness, support, help and care for others and have a sense of humour.

Factor 3: Achievement

This resonates with Rowe's second aspect of core construing, which relates to a sense of existence in terms of achievement where a person seeks challenges, success and power. Sport, academic pursuit and work tasks for example offer an individual a context in which, through their competitiveness and consequent recognition, they can test their sense of

self determination. Taking the perspective of William James and more latterly Harter (1999) a person's accomplishments are largely evaluated in relation to an internal frame of reference or personal standard, although validation may invariably arise through other people's acknowledgement of performance or a recognition of accomplishments through awards, passing a test, project or exam, winning a competition, gaining a bonus, achieving a promotion and so forth. From the factor correlation matrix, there is evidence that this factor of achievement shares some psychological territory with the first factor of making sense. Although the two may be related, 'making sense' appears to lean towards grappling with an understanding of the world whereas 'achievement' seems to reflect a person's need to impose themselves and control the events before them.

Factor 4: Individuality

The fourth factor suggests a person's sense of self is bound up with notions of non-conformity, anti-authoritarianism, rebelliousness and independence leading to a sense of *self reliance*. Here the person chooses, in a Kellyan sense, to act with creativity, rebellion, impartiality, unconventionality, dissent, maverick intent and possibly eccentricity in anticipating the greatest possibility for elaboration of their sense of individuality.

Because core constructs play such a fundamental part for the sense of self, through organising actions towards validation of a person's being, it might be expected, as Kelly suggested, that experiences which fail to validate the self would lead to emotion. McCoy (1977), for example, suggests love and happiness result from validation of core construing. Thus it might be hypothesised that such feelings emerge when we meet others' approval (where self respect is important), act in an idiosyncratic manner (if self reliance is important) or find we are able to understand something that previously proved difficult (if self competence is important). In contrast McCoy suggests invalidation of core construing leads to sadness, the feeling we experience when for example, we are criticised (where self respect is important) or fail an important task (where self determination is important). The experience of guilt is also explained in terms of core construing and, ac-

According to Kelly (1955), arises when a person acts in a fashion at odds with what they would anticipate about themselves. Thus failing to put effort in to a task (if self determination is important) or conforming to other people's wishes (if self reliance is important) would dislodge the person from their core role structure.

It is likely that a person's notion of self is maintained through more than one core construct and the variety of roles a person adopts may serve to validate different core constructs. Thus a person may primarily seek validation for a sense of self determination whilst at work, self respect when out with friends and self competence when trying to figure out the intricacies of a new hobby. Mair (1977) suggested the metaphor of a 'community of selves' to account for this experience and to help articulate the complicated nature of our role relationships. At another level any behaviour may serve to validate more than one core construct at any one time. Thus a person might best anticipate the greatest possibility for the elaboration of both their self respect and self determination by choosing to work diligently on a project at work.

It is interesting to postulate that a reliance on the validation of only one core construct may create psychological vulnerability for the individual. Where a person is dependent on one core construct to maintain their sense of identity, they may appear especially distressed should they experience invalidation. Thus should a person for whom self respect dominates their sense of identity, experience criticism, they might endure an acute sense of persecution. A person for whom achievement dominates their anticipatory validation, might experience acute frustration should they experience a situation where they are unable to compete, their power is taken away from them or they are prevented from asserting control. Interestingly individuals may feel in conflict if their actions validate one core construct but invalidates another. Thus tidying up a room because of visitors may validate self respect (because of a need to avoid unwanted criticism), yet invalidate a sense of self reliance (because of a need for individuality). Such hypotheses await empirical investigation.

As Hinkle (1965) originally mooted, an awareness of core constructs is essential for understanding the world of another person, and ourselves. As core constructs operate at a low level of awareness, eliciting

a person's fundamental sense of self may be the first time that person comes to understand the nature of their actions. By drawing on the sociality corollary in understanding the client's core construing, therapists of the Kellyan tradition have an important opportunity to enhance the therapeutic venture for both client and therapist.

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