Exploring Personal Construct Theory and Dissociative Identity Disorder

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Abstract

13 patients with dissociative identity disorder (DID), 13 with other mental disorders, and 10 non-diagnosed comparison participants were given Kelly rep grids. Contrary to predictions, displaying alternate personalities does not imply a more multidimensional level of thinking. Instead, the normal control group had the greater degree of complexity in comparison to both clinical groups. A notable clinical observation was that DID patients, compared to non-DID participants, had a greater understanding and speed in completing the rep grid. Findings are discussed in terms of the advantages of personal construct theory to shed a clearer light on the construct of dissociation.

Keywords: DID, Personal construct theory, rep grid

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Introduction

Dissociation, as a construct in psychology, sprang primarily from the work of Pierre Janet (1923). It referred to the splitting up of thought processes into compartments and sometimes the loss of conscious awareness of certain of these compartments. To describe these compartmentalized sectors of thought, sometimes lost to recall, Janet used the term subconscious. Morton Prince (1906) introduced instead the term co-conscious to subsume dissociative events. He did this to emphasize that these various compartments could maintain an equal status of awareness with normal levels of awareness. One important theoretical implication from this work emphasized that psychogenic amnesia was secondary, i.e., subsumed by, the dissociative processes rather than being a separate phenomenon.

Dissociation therefore emerged as part of a different construct network from Freud's psychoanalytic construct of repression (1943). Among other definitions, Freud defined repression as the warding off from conscious awareness that which is painful. Repressions, when viewed collectively, were subsumed by constructs of preconscious and unconscious, respectively (Cromwell, 1956). The latter constructs subsumed not only repressed material but also biological urges never fully on a conscious level.

From the beginning, dissociation was associated with psychological trauma. Although a history of trauma was found in only 44% of Janet's dissociated patients (van der Kolk, Brown, & van der Hart, 1989), this is far beyond chance expectation.

Although the two constructs, dissociation and repression, arose from different theoretical networks, they held in common an association with trauma and psycho-logically painful experience. Both constructs, each rejected by the alternate theorist,

had the benefit of abundant keen observation of clinical cases and a systematic relationship to their respective theories. Both constructs lacked the benefit of the Wiener Kreis (Bergman, 1954), the psychometric (Stevens, 1946) influence upon operational criteria, technical methods of reliability, and the constructivist and philosophy of science emphasis upon rules of theory structure.

Since these beginnings the construct of dissociation has become more object-tified in two major ways. One way concerns the formal typology (DSM-IV; APA, 1994) with operational criteria for DID. The other has been as a collective group of personality features: (a) imaginative absorption (such as daydreaming, reading, or other activity that reduces awareness of current time, space, and self); (b) deperson-alization (the loss of personal identity) and derealization (the loss of the place of self in time and space); and (c) psychogenic amnesia (a failure in memory of some aspects of experience) (Bernstein & Putnam, 1986). While attaining this increased empirical status, dissociation has lost the benefit of a systematic conceptual framework as when initially defined. One benefit of this empirical shift in recent years has been that the features of imaginative absorption are found to bear no empirical link to the other features of dissociation. On the other hand, depersonalization and derealization not only bear an empirical link to each other but also to psychogenic amnesia as an expression of ascending severity (Langelle, 1996). This latter research lent an aspect of construct validity to the earlier work of Janet and Prince for the superordinate construct of dissociation.

Another empirical outcome is that, among patients with mental disorders, a small but distinctive group exists that fit only the criteria for dissociative identity

disorder (DID; APA, 1994). This category includes what Prince previously called multiple personality disorder. Furthermore, dissociation is a part of the criteria that characterize the latter day concept of posttraumatic stress disorder (PTSD; APA, 1994). This construct of event-referenced trauma involves dissociation, anxiety, and depression.

Personal construct theory and Kelly (1955) rep grid methodology would appear to be an appropriate framework to investigate the purported features of dissociation. For example, the DSM (APA, 1994), like all typologies, affords hypotheses that would link dissociation constructs to the total person as an observational unit (i.e., element of classification). In contrast, a personal construct framework provides the theoretical possibility of the same individual having certain constructs constellations, or hierarchies dissociated and having others not dissociated.

Various questions have been framed about dissociation in terms of the orthogonal and hierarchical groupings of personal constructs. The relationship of focal traumatic events, such as combat (Sewell, 1991; Sewell, Cromwell, Farrell-Higgins, Palmer, Oldhe, & Patterson, 1996) and rape (Foa & Rothbaum, 1998), have been studied in relation to conceptual structure. Sewell found combat veterans with PTSD to have less elaboration of the implicit poles of constructs related to the focal traumatic combat event. Also, they had more concrete polarized constructs than combat veterans without the development of PTSD. Foa and Rothbaum (1988) found that the traumatized victims of rape were impaired in formulating a narrative report of what happened to them. In another study, Sewell (1996) found situation rep grid dimensions of traumatic event elaboration to discriminate between who would and

would not persist in posttraumatic symptoms for over 60 days following witness of a restaurant massacre killing 23 people. He and others also addressed whether the alternate personalities purported by DID victims, when used as separate element columns in a rep grid test, related to the "original self" column, to each other, or to other actual acquaintances (Cromwell, Sewell, & Langelle, 1996).

The DID diagnosis, like other mental disorders, is more easily characterized demographically in a small country such as Norway, where a national register exists to record and review all mental disorders within a common set of criteria. The purpose of the present research is to continue a query of the utility of dissociation and the DID construct within the theoretical framework of Kelly's personal construct theory. In particular, the questions here ask whether members of the DID group in fact differ from psychiatric and non-psychiatric control participants on the dimension of cognitive complexity. Cognitive complexity is "the capacity to construe social behavior in a multidimensional way. A more cognitively complex person has available a more differentiated system of dimensions for perceiving others' behavior than does a less cognitively complex individual" (Bieri et al. 1966, p. 185). One might assume that displaying alternate personalities implies a more multidimensional level of thinking. Hence a greater complexity among DID patients would be expected.

Method

Participants

A group of 13 women diagnosed with DID, and scoring in the critical range (> 30, mean 41.70) on the DES (Dissociative Experience Scale; Bernstein & Putnam, 1986)

were recruited from a search among mental health clinics in Norway and designated as the DID group. With a mean age of 31.0 (range 21-51) all had a history of at least one hospitalization for the designated mental disorder, but only three were currently in treatment. Seven were chronically disabled and six were either working or studying at college/university level.

A group of 10 women, inpatients with diagnoses other than DID and no clinical evidence or history of alternate personalities, were recruited from different mental health clinics through a formal written invitation by clinicians at the respective clinics. Designated the CC group, all patients were hospitalized and in extensive rehabilitation programs. Of those accepting invitation (mean age 31.9, range 20-50), four were diagnosed with major depressive disorder, three with bipolar disorder, one with schizophrenia, one with both anxiety and obsessive-compulsive disorder, and one with both eating disorder and PTSD.

The participants designated as the NC group (13 women, mean age 37.6, range 27-51) were recruited from employees at the institutions where the CC group was hospitalized. Those volunteering had higher education levels than the clinical groups (16.2 years, as compared to 14.7 for DID and 13.7 for CC).

The research was approved by the Regional Committee for Medical Research Ethics in Health Region V in Norway, and was conducted according to the Declaration of Helsinki. Written informed consent was obtained from all participants and no monetary reward was given.

Materials

The DES (Dissociative Experiences Scale; Bernstein & Putnam, 1986) is a 28-item self-report questionnaire witch provides a general measure of the level of dissociative experiences in everyday life. Participants are required to circle the percentage of time (given in increments of 10% ranging from 0% to 100%) that they have had the kind of experience described within each item. A total score is computed as the mean of the responses to the 28 items. From normative data high dissociaters are usually identified at a mean score above 30.

Dissociative diagnosis was determined through the SCID-D (Steinberg, 1995). The SCID-D is a 276 item structured clinical interview used in order to make DSM IV (APA, 1994) dissociative identity disorder diagnosis. It also includes registration of demographic data, work history, treatment history, somatic disease, substance abuse, and family history of mental disorder. The schedule has an overall interrater reliability of 0.68 (kappa), a sensitivity of 90%, and a specificity of 100% for the diagnosis of DID. A SCID-D interview usually takes about 90 minutes. The clinical interviews were administered by one research assistant who had been trained specifically for this task.

Being required to adapt the instrument to Norwegian language, the Kelly Role Construct Repertory Test (Rep Grid; Kelly, 1955) was administered as a paper and pencil test. As shown in Table 1, a total of 22 elements were used. Elements were self, parents, siblings, close relatives and others. In the DID group four of the elements (column memberships) consisted of “alternate personalities” (columns10, 11, 12, and 13) defined by the participants. Since the two other groups did not have DID, the

alternate personalities were replaced by ratings of self in four different situations respectively (e.g., "Yourself - in a classroom").

"Perpetrator" (column 9), used in the DID group, designated a person who had conducted severe sexual or physical abuse or the closest equivalent for the examinee. In the two other groups "a person who has hurt you the most" replaced this. It was explained that such a person could also include any person by whom the participant had been sexually or physically abused.

Table 1 about here

Procedure

Participants in the DID group underwent a thorough clinical assessment with the DES and the SCID-D to ascertain their diagnostic status with regard to DID.

Regarding the Kelly Rep Grid, all procedures were translated into Norwegian language for administration. Participants generated their own constructs from randomly grouped triads of elements. For each triad, they were asked to indicate ways in which two elements were alike and the opposite of the third. Twenty-two bipolar construct dimensions were thus elicited. Afterwards the participants filled in the 22 x 22 matrix where every element was scored on respective bipolar dimensions using a five-point scale.

Design and analyses

The grids were analyzed with regard to intensity with Flexigrid, a software program developed by the third author. Intensity is a classical measure of cognitive complexity and refers to the average correlation in the grid, arrived at by squaring all the correlations, adding them together and then taking the square root. A lower amount of correlations in the grid, i.e., lower intensity, is indicative of higher levels of cognitive complexity. One-way ANOVA (SPSS for Windows, version 11.5) was used to compare intensity in the groups, followed up by independent sample t-tests with prior hypotheses. Levene's test for equality of variances was used. None were found to be significant. The distributions were thus considered not to deviate from normal. A statistical power analysis was performed post hoc on the intensity differences between the DID and NC groups, and this is presented in the Results section. Furthermore, clinical observations were made in the test situation by the test leader (first author).

Results

Cognitive complexity

The three groups DID, CC, and NC, were found to differ in intensity [$F(2,33) = 3.364$, $p < 0.05$], the operational index for cognitive complexity (DID mean = .467; CC mean = .403, NC mean = .396). Groups were then compared by t-test with a priori predictions. Contrary to predictions, intensity of the DID group was significantly above the NC group ($p = 0.019$ corrected $< .05$; power, 64.6%), with a similar but non-significant trend to be also above the CC group. A graphic illustration of this is provided in Figure 1.

Figure 1 about here

Education and age

The three groups differed in educational level (F (2,33) = 4.669, p = 0.016; DID 14.8 years, CC group 13.7 years, NC 16.2 years). Breakdown analysis by t-test indicated a significant difference between NC and CC (5 - 3.591, d = 21, 0 - 0.002) with the NC group being higher in educational level than the other groups. No significant group differences occurred with regard to age.

Clinical observations

The three groups differed with regard to (1) how the participants related to the test-rules and the test situation and (2) how quickly they elicited the constructs (both construct poles and contrasts). The DID group had very little difficulty in understanding the rules of the test situation. They needed less instruction than the other two groups and after only a couple of rounds, they became nearly autonomous: After each presentation of triads, and without further explanations, they presented their pole - opposites. Only to a minor degree did they need assistance. Most of the participants in the DID group finished the session in 45 minutes, some of them finished in less than 30 minutes. The other two groups had far greater difficulties in spontaneously eliciting constructs and they needed a lot of assistance in terms of guiding questions. They seemed to have great difficulties in comprehending what the test leader was looking

for. Consequently, the sessions in which constructs were elicited stretched out for these groups, often lasting for 90 minutes, and with an average length of approximately 60 minutes.

Discussion

The major hypothesis of this study, that a link exists between cognitive complexity and DID, was not borne out. Our investigation disclosed group differences among the DID, CC, and NC groups. However, the direction of the differences did not support the hypothesis. Displaying alternate personalities does not imply a more multidimensional level of thinking. Instead, the normal control (NC) group had the greater degree of complexity. A number of explanations are available that might explain this result. A prominent one is that the dissociating of thinking and the report of alternate personalities helps to counter or simplify a multidimensional cognitive system. A second possibility is that the higher education level found among the volunteering employees of the NC group accounts for the low intensity level in this group.

Another issue that might bear upon the higher level of intensity in the DID group compared to the non-DID groups is the presence of disattention epochs among people with psychopathology. Dingemans, Space, and Cromwell (1986) found that while completing the rep grid, people with schizophrenia display epochs of disattention for brief periods and then restore their attention to task with normal high levels of test-retest reliability. Such a phenomenon, if found to be more general in psychopathology, would compromise the intensity measure of cognitive complexity unless repeated testing were conducted to remove this disattention related epoch

variance from the intensity measure. In sum, however, no evidence is found in this study to link intensity with a DID pathology as such.

How easy is it for people to generate constructs? Before the era of computer-assisted administrations of rep grids individual differences in time to complete a rep grid were obvious and well known. Perhaps the most important finding of this study has been the unexpected observation that the DID group displayed a greater ease and speed of completion of the rep grid task. Indeed, the members of the DID group had less difficulty understanding the rep grid instructions, required less assistance and were faster and more autonomous in completing the test.

Two notions are offered as bases to prompt further research on this topic. One possibility is that the DID group members have a more advanced social skill in role thinking and role conceptualization. Along with that comes vulnerability for dissociation in this prolific role taking ability. As suggested by Cromwell et al. (1996), they appear to think in terms of "person icon" configurations rather than in construct-contrast configurations.

Another possibility is that the speed differences between DID and non-DID persons may be viewed in terms of the dimension of reflectivity vs. impulsivity. In this case the non-DID person, with or without other mental disorder, may do more self-monitoring and second guessing of their response with each step in completing the rep grid. The DID persons would be viewed as acting more immediately without these contemplations.

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References

[APA] American Psychiatric Association (1994). *Diagnostic and Statistical Manual of Mental Disorders, 4th Edition*. Washington, DC: APA.

Bergman, G. (1954). *The metaphysics of logical positivism*. New York: Longmans, Green, & Company.

Bernstein, E. M., & Putnam, F. W. (1986). Development, reliability, and validity of a dissociative scale. *Journal of Nervous and Mental Disease, 174*(12), 727-735.

Bieri, J., Atkins, A. L., Briar, S., Leamann, R. L., Miller, H., & Tripoli, T. (1966). *Clinical and Social Judgement: the Discrimination of Behavioural Information.* New York: Wiley.

Cromwell, R. L. (1956). Factors in the serial recall of names of acquaintances. *Journal of abnormal and social psychology, 53,* 63-67.

Cromwell, R., Sewell, K. ., & Langelle, C. (1996). The personal construction of traumatic stress. In B. M.. Walker and J. Costigan et al. (Eds.), *Personal construct theory: A psychology for the future.* Carlton South: Australian Psychological Society Ltd.

Dingemans, P., Space, L. G., & Cromwell, R. L. (1983). How general is the inconsistency in schizophrenic behavior? In J. Adams-Webber & J. C.

Mancuso (Eds.), *Applications of personal construct theory* (pp. 265-284).Toronto: Academic Press.

Foa, E., & Rothbaum, B. O. (1998). Treating the trauma for rape: Cognitive-behavioral therapy of PTSD. New York: Guilford Press.

Freud, S. (1943). *A general introduction to psychoanalysis*. New York: Garden City.

Janet, P. (1923). *La medecine psychologique*. Paris: Flammarion.

Kelly, G. A. (1955). *The psychology of personal constructs*. New York: W. W. Norton.

Langelle, C. (1996). *The role of dissociation as a concomitant to reported childhood trauma:composition and sequelae.* Dissertation submitted to the Department of Psychology and the Faculty of the Graduate School of Kansas in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

Prince, M. (1906). *The dissociation of the personality*. New York: Longmans Green, & Company.

Sewell, K. W. (1991). Conceptual structure of Vietnam combat veterans: Relationship between posttraumatic stress disorder and poorly elaborated trauma constructs.Unpublished dissertation. Lawrence, KS: University of Kansas.

Sewell, K. W., Cromwell, R. L., Farrell-Higgins, J., Palmer, R., Oldhe, C., & Patterson, T. W. (1996). Hierarchial elaboration in the conceptual structure of Vietnam combat veterans. *Journal of Constructivist Psychology, 9(2),* 79-96.

Sewell, K. W. (1996). Constructional risk factors for posttraumatic stress response in a mass murder. *Journal of Constructivist Psychology, 9*, 97-107.

Steinberg, M. (1995). *Structured Clinical Interview for DSM-IV-TR Dissociative Disorders (SCID-D).* Oslo: Norsk Psykologforening.

Stevens, S.S. (1946). On the theory of scales of measurement. *Science, 103*, 667-680.

Van der Kolk, B. A., Brown, P., & van der Hart, O. (1989). Pierre Janet on post-traumatic stress. *Journal of traumatic stress, 2*, 365-378.

Table 1 Elements divided into five categories; real acquaintances, others, alter personalities, self, and perpetrator/hurting person.

Categories	Elements	
Real acquaintances:	1. Father (or "father figure")	2. Mother (or "mother figure)
	3. Brother (or friend)	4. Sister (or friend)
	5. Aunt	6. Uncle
	7. Teacher	8. Neighbor
	16. Friend #1	17. Friend # 2
	18. Therapist # 1	19. Therapist # 2
Others:	15. Prime minister	20. Royal person
	21. Movie star # 1	22. Movie star # 2
Alters:	10. Alter #1/Yourself – in a sport situation	11. Alter #2/Yourself – when you are abandoned
	12. Alter #3/Yourself – in a classroom	13. Alter #4/Yourself – as a child
Self:	14. Yourself – the way you are these days	
Perpetrator:	9. Perpetrator/Person who has hurt you the most	

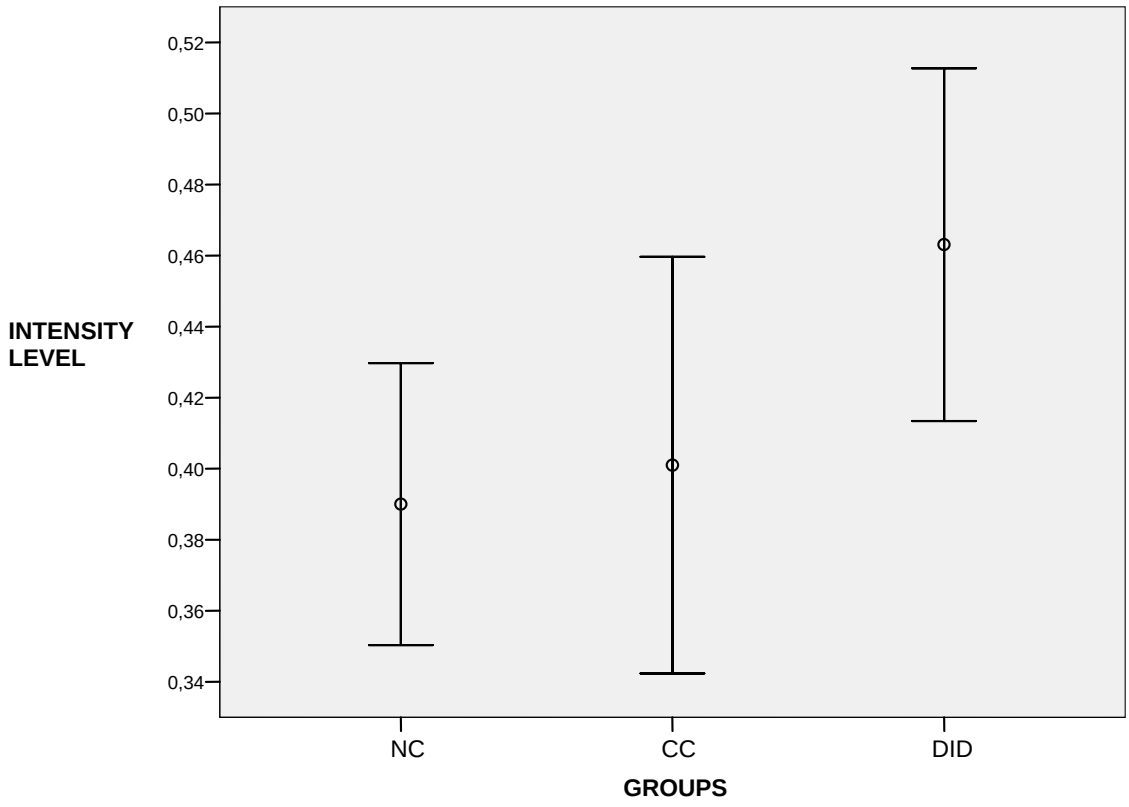

Figure 1 Illustration of the intensity variance and mean intensity level within the three groups; the non-diagnosed comparison group (NC), the clinical comparison group (CC) and the dissociative identity disorder group (DID).