COGNITIVE COMPLEXITY AND DISSOCIATIVE IDENTITY DISORDER

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Thirteen patients with dissociative identity disorder (DID), 13 with other mental disorders, and 10 nondiagnosed comparison participants were given individual grids. Results showed that displaying alternate personalities did not portend a more multidimensional level of thinking. Instead, the nonclinical comparison group had the greater degree of complexity in comparison to both clinical groups. A notable clinical observation was that DID patients, as compared to non-DID participants, had a greater understanding and speed in completing the grid. Findings are discussed in terms of the advantages of personal construct theory for conceptualizing the construct of dissociation.

Introduction

Dissociation, as a construct in psychology, springs primarily from the work of Pierre Janet (1923). It refers to the splitting up of thought processes into compartments and, sometimes, to amnesia for certain of these compartments. From the beginning, dissociation was associated with psychological trauma. A history of trauma was found in 44% of Janet's dissociated patients (van der Kolk, Brown, & van der Hart, 1989), which is far beyond chance expectation.

Dissociation emerged separately from the psychoanalytic construct of repression, which Freud (1915 and 1917/1943) defined as the warding off from conscious awareness of that which is painful. Although the two constructs arose from different theoretical networks, they held a common linkage to trauma and pain. Both constructs, each rejected by proponents of the other, had the benefit of being derived from keen observation of clinical cases. Both also had a systematic relationship to their respective theories. However, neither construct benefited from (a) the philosophical insights of the Vienna Circle (Bergman, 1954), (b) the psychometric (Stevens, 1946) emphasis on reliable operational criteria, or (c) the more recent influence of constructivism and philosophy of science on psychological theory. As professional psychology has developed, the construct of dissociation has become more objectified in significant ways. One way concerns the formal typology of the DSM-IV-TR and its operational criteria (American Psychiatric Association [APA], 2000). Accordingly, the DSM-IV-TR characterizes dissociative identity disorder (DID) as involving the presence of two or more distinct identities, or personality states, each with its own relatively enduring pattern of traits (APA, 2000).

When it comes to applying personal construct theory to studying dissociation, both Langelle (1996) and Cromwell, Sewell, and Langelle (1996) have administered Kelly's (1955) Role Construct Repertory Test to high-dissociators, including DID patients. They hypothesized that high-dissociators differ from both normal controls and other mentally disordered populations in terms of how they construe the world, relationships, and life events. Cromwell et al. (1996) suggested that persons with DID, when confronted with certain contradictory outcomes, do not exercise the typical option of revising their self-constructs. That is, they seem not to reconstrue themselves by developing new constructs or building a more hierarchical construct system. Instead, they resolve cognitive dissonance and their sense of intrapsychic conflict by creating personified constructs, or "alternate" personalities.
Persons with DID have been thought to activate different cognitive and neurophysiologic structures depending on the situation and the level of threat to which they are exposed (van der Hart, Nijenhuis, Steele, & Brown, 2004). Sel (1997) depicted this type of multifaceted cognitive functioning as a "complex adaptive system" (CAS). A typical CAS will involve a variety of dissociative capabilities that serve to protect the organism during and after overwhelming stress. These capabilities are believed to reduce the risk of severe disruptions in the developmental process. Hence, dissociation can, paradoxically, be regarded as an effective means of self-preservation, and also as a process that wards off more rigid fragmentation, such as in schizophrenic psychosis. In other words, the symptoms of DID might reflect an organism reaching for, within its own constraining parameters, the most optimal solution, a notion not far from what Cromwell et al. (1996) tentatively proposed.

The purpose of the present research was to shed new light on the complex condition of DID and 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, we explored individuals with DID, as compared to individuals with other mental disorders and nonclinical 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). In this investigation cognitive complexity is operationalized narrowly as "intensity." Intensity refers to the average correlation in the grid, arrived at by squaring all the correlations, adding them together, and then taking the square root.

Method

Participants

A group of 13 women diagnosed with DID was recruited from a search among mental health clinics in Norway. These participants were designated as the DID group. With a mean age of 31.0 (range 21 to 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 the college/university level. A group of 10 women (mean age 31.9, range 20 to 50) in-patients with diagnoses other than DID and no clinical evidence or history of alternate personalities was recruited from different mental health clinics through a formal written invitation by clinicians at the respective clinics. Designated the clinical comparison (CC) group, all patients were hospitalized and in extensive rehabilitation programs. 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 posttraumatic stress disorder (PTSD). Finally, the participants designated as the nonclinical comparison (NC) group (13 women, mean age 37.6, range 27 to 51) were recruited from employees at the institutions where the CC group was hospitalized. 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. No monetary compensation was provided.

Materials

Dissociative identity disorder diagnosis was determined by administration of the SCID-D (Steinberg, 1995), a 276-item structured clinical interview used to make DSM-IV-TR (APA, 2000) dissociative disorder diagnoses. 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.

A version of the Kelly Role Construct Repertory Test (rep grid; Kelly, 1955) adapted to the Norwegian language was administered as a paper-and-pencil test. A total of 22 elements were used. Elements were self, parents, siblings, close relatives, and others. In the DID group, four of the elements consisted of "alternate personalities" defined by the participants. Given that the two other groups did not have DID, the alternate personalities were replaced by ratings of self in four different situations.
(e.g. "yourself—in a classroom"). The element "perpetrator" was applied in the DID group to designate a person who had committed severe sexual or physical abuse, or the closest equivalent, against the participant. 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.

Procedure

Regarding the grid used in this study, all procedures were translated into Norwegian 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. Afterward, the participants filled in the 22-by-22 matrix in which every element was scored on respective bipolar dimensions using a 5-point scale. Finally, participants in the DID group underwent a thorough clinical assessment with the SCID-D to ascertain their diagnostic status with regard to DID.

Design and Analyses

The grids were analyzed with regard to intensity using 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 degree of correlations in the grid (i.e., lower intensity) is indicative of higher levels of cognitive complexity. One-way ANOVAs (SPSS for Windows, Version 11.5) were 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 was 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. Furthermore, clinical observations were made in the test situation by the test leader (the first author).

Results

Cognitive Complexity

The three groups (DID, CC, and NC) were found to differ in intensity [F (2,33) = 3.364, \( p < .05 \)], the operational index for cognitive complexity (DID mean = .467, \( SD = .082 \); CC mean = .403, \( SD = .082 \); NC mean = .396, \( SD = .063 \)). Groups were then compared by t-test with a priori predictions. Intensity of the DID group was significantly above the NC group (\( p < .05 \); power, 64.6%), with a similar but nonsignificant trend to be also above the CC group.

Clinical Observations

The DID group had little difficulty in understanding the rules of the test situation. They needed less instruction than did the other two groups and, after only a few rounds, they became nearly autonomous. After each presentation of triads, and without further explanations, they were able to provide bipolar constructs. Only to a minor degree did they need assistance. Most of the participants in the DID group finished the session in 45 min; some even finished in less than 30 min. The other two groups had far greater difficulties in spontaneously eliciting constructs, and they needed a lot of assistance in terms of guiding questions. Consequently, sessions for these participants lasted for more than an hour.

Discussion

Our investigation disclosed group differences among the DID, CC, and NC groups, but not in the direction to support a link between DID and higher levels of cognitive complexity. Displaying alternate personalities did not imply more multidimensional thinking. Instead, the NC group had the higher degree of complexity (lower intensity).

Strikingly, the data suggest a resourceful, albeit rigid, adaptation. Participants with DID were found to have an unrestrained and near-intuitive grasp of the grid test instruction. On the other hand, individuals with DID had lower indices of cognitive complexity than did normal controls. One might speculate as to why this result occurred. Possibly the explanation is linked to the
very nature of DID—that is, the existence of alternate identities. Hence, the occurrence of a partitioned personality system might counter, or simplify, the development of a multidimensional cognitive system.

As another pathway, cognitive complexity might be countered by an elevated capacity in DID to enter hypnotic trance states (Dale et al., 2009). However, these issues need to be explored more fully in future research. More research is also called for to ascertain the extent to which the grid methodology captures the essence of the DID diagnosis, which is the presence of two or more distinct identities or personality states. Such research might be done in line with an approach used by Golinkyna and Ryle (1999) among individuals with borderline personality disorder, in which each participant was tested in different personality states.

Finally, it must be taken into account that problems exist in the use of summary measures such as intensity (Bell, 2003) to represent construct differentiation. Such summary measures could mask variations among individual correlations. Concordantly, one might argue that the utility of the intensity score as an operational definition of the degree of differentiation among personal constructs (“cognitive complexity”) as opposed to their level of integration (as proposed originally by Bannister, 1960) is related to some degree of uncertainty. As intensity is concerned with complexity of constructs, not distinctions among elements, it might have been more appropriate to look also at relationships between self and alternate selves for the different groups, as relationships among elements need not be the same as relationships among constructs (see, for example, Bell, Vince, & Costigan, 2002).

References


