

Individual–context interaction as a guide in the treatment of personality disorders

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The diagnosis and treatment of personality disorders is strongly influenced by personality theories based on trait models, and the influence of the context is relatively neglected. Developments within psychology and neurobiology have led to the awareness that the manner in which personality characteristics are expressed is strongly determined by interaction with the context. The clinical implications of these developments are set out and Acceptance and Commitment Therapy (Hayes, Strosahl, & Wilson, 1999) is highlighted as a development within psychotherapy that is linked to a contextual diagnosis. Employment reintegration of patients with personality disorders is presented as an example of a context-oriented approach. Neurobiological insights support the idea that active focusing on the outer world reduces negative affects. (Bulletin of the Menninger Clinic 71[1], 42-55)

In clinical practice, the framework used for the diagnosis and treatment of personality disorders is strongly anchored in personality theories based on *trait* models. These models are based on the assumption that the behavior of individuals is determined by relatively stable personality characteristics whereby the role of the context is of little importance. During the past few decades, an interesting discussion has been developing in this field between the *trait* adherents on the one hand and the so-called *situationalists* on the other (Mischel, Shoda, & Smith, 2003). This discussion has led to the awareness that the manner and extent to which certain personality characteristics are expressed are variable and strongly determined by interaction with the situational context in which the behavior is displayed. As yet little use is made of these insights in clinical practice.

In this article, we will further assess the relationship between individual and context in the case of personality disorders. The therapeutic

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possibilities opened up by a more systematic approach to the interaction between an individual and the relevant context will also be dealt with. We acknowledge that trait factors will always be at play, but we argue for giving more attention to a context-oriented approach. Central to this article is the idea that active focusing on the outer world contributes to the attainment of more functional behavior. Employment reintegration of patients with personality disorders will be presented as an example of a context-oriented therapeutic approach.

The relevance of active focusing on the environment is supported by neurobiological insights. Goal-directed behavior will lead by activation of the prefrontal cortex to a reduction of negative affects and so contribute to more emotional stability.

Personality–Context Relationship

The social–cognitive approach to personality has produced a set of research establishing that cross–situational consistency between behavior and personality is minimal (Mischel, 1968). An individual may display heightened aggressive behavior in a given situation, for instance with colleagues, while in a different situation, for instance in private, conforming behavior will be displayed. The discussion between *situationalists* and *trait* adherents has led to an approach wherein the relationship between personality and behavior is seen as probabilistic: The probability of displaying particular behavior will increase or decrease according to certain contextual variables. Added to this there are different variables that will influence the nature of this relationship. For example, people differ in the extent to which they display consistent behavior. Also, any given situation varies in the extent to which either personality or situational variables will play a part (Buss, 1989). So there is always an interaction between different personality characteristics, leading to a specific result within a given situation. The role of personality characteristics will come into play both in the anticipation of, and in the reaction to, a situation. The personality defines the way in which any situation is experienced and interpreted. The personality also plays an important part in the choice of situation that a person puts himself or herself into (Atkinson, Atkinson, Smith, & Bem, 1993).

De Mey (2004) argues the case for an operant personality theory, in which the relatively stable variables in the interaction between an individual and context are seen as a contingency between behavior and context rather than as characteristic of personality. In other words, the constant factors governing behavior are not the personality characteristics but the way in which an individual acts in any situation. This is re-

ferred to as a “when . . . then . . . pattern.” For instance: *When* put in formal situations, *then* the individual will react with a heightened aggressive behavior pattern.

From a biological perspective, it is also becoming increasingly clear that the relationship between an individual and the (social) context is a dynamic process. It is generally accepted that about 50% of (normal) personality characteristics are genetically determined (Jang & Vernon, 2001). Yet this genetic makeup is not a static factor. The circumstances will influence which genes will be read (Meaney, 2004). In this way, circumstances have a direct influence on the neuronal processes and will influence the personality. In addition, an individual will select the context that best suits his or her personal characteristics, and this chosen context will in turn reinforce the personality characteristics (Jang & Vernon, 2001).

Diagnosis of personality disorders

The *DSM-IV* (APA, 1994) divides personality disorders according to a syndromal approach to personality disturbances. Inherent to this approach are a high abstraction level, often unobservable behavior and quite often ambiguous definitions. For clinical diagnosis, symptoms are approached using a selection of prototypical features of the *DSM-IV* classification that arise from the underlying reference framework, rather than focusing on the specificity (contextual or otherwise) of the problems the patient presents. Generalization is of course a result of this diagnostic process: An established behavior pattern is expected (whether implicitly or not) to be demonstrated in all contexts. Consideration is hardly ever given to the context and its effect on behavior and the expression of personality features. When contextual aspects are named, these are predominantly considered to be a consequence of personality features.

In addition to structured or unstructured methods of evaluation using *DSM-IV* criteria, many other methods exist. Yet these methods are also based on theoretical models for the selection and categorization of information aimed at establishing more or less stable, static “underlying” personality dynamics or dispositions (Cloninger & Svrakic, 1997; Goldberg, 1990; Kernberg, 1984). The concept that behavior is a function of the relevant context will be endorsed by any clinician, and yet it is hardly ever a consideration in this method of diagnosis. As a result, treatment is based on interpretations of etiology and characteristics of the syndrome. In personality models that view *trait* as a constant factor, the main assumption is that the developmental history is crucial to forming personality and that treatment should be geared to becoming

conscious of and working through the underlying dynamics or cognitive schemes.

Current *trait* models approach the diagnosis of personality problems by devising hypotheses and constructs that relate to underlying static, historically determined dynamics or schemes considered responsible for the resulting problematic behavior. A contextual approach, on the other hand, would focus on a functional analysis: *which behavior is displayed in which circumstances, which are the determining situational variables, and to what degree does an individual thereby express certain characteristics?* Moreover, the extent to which behavior is seen as undesirable is strongly determined by the context in which the behavior takes place.

In other words, contextual diagnosis does not look for indications of existing concepts of personality. In contextual diagnosis, the main question is: Which personal characteristics in which circumstances will channel behavior in such a way that it is problematic, either for the patient or for his or her environment (Hummelen, de Haas, & Spinhoven, 2003). This problematic behavior could take either the form of the development of symptoms (psychopathology) or the form of nonattainment of personal goals, such as being unable to develop and maintain successful relationships, work, education, and social domains.

Treatment aimed at Individual–Context Interaction

In clinical practice, therapists of different psychotherapeutic schools focus attention on the influence of contextual aspects of psychopathology and the question of which behavior is (mal)adaptive. This, however, is predominantly of a pragmatic nature and is not guided by a systematic consideration of a contextual approach.

A form of psychotherapy that does approach the case from the person–context interaction is the ecological psychotherapy developed by Willi (1999). He uses the term *personal niche*, meaning the relevant domain of the environment with which the individual interacts. The environment encompasses both other people and the material environment (e.g., housing, workplace, and pets). A given individual endeavors to obtain responses from his or her environment. Response reactions are those in which the environment reacts in such a way that the interaction by the individual is affirmed. The individual is primarily guided by obtaining this response reaction and will thus endeavor for an optimal adaptation to the context. This means that when the environment changes (which is of course continuously the case), this inherently leads to a motivation in individuals to adjust their behavior in order to obtain an ef-

fective interaction with their personal niche. This is thus a contextual approach whereby motivation is guided by the relevant situation and accompanying feelings and thoughts follow as a consequence.

In Willi's approach, obtaining feedback from one's environment is essential to maintaining psychological health. The responses from the environment are necessary for the development and maintenance of skills, reality testing, and a feeling of self-esteem. When an individual withdraws from interaction with the environment, feedback is unavailable and then fantasizing about interactions may begin. In turn, the fantasized interactions lead to a decrease in reality testing and impair the ability to learn from new situations. Self-esteem is strongly linked to the experience of effective interaction with one's environment. An individual needs to feel that the environment has a need for him or her (the need to be needed), and needs to receive recognition for completed tasks.

Ecological psychotherapy focuses attention on developing a personal niche and the necessary skills appropriate to the individual. This means that in this approach consideration is given to the influence of the actual situation and the response of others to the individual. The other is viewed primarily as an actual person (not as a transference figure) whereby it is important to differentiate between one's own opinions of a situation as opposed to the opinions of the other. Quickly identifying and responding to signals from the outside world when a person is not interacting effectively is also important. A limitation of ecological psychotherapy is the fact that interventions are of a very general nature.

An interesting, relatively new development within psychotherapy that is linked to the contextual approach described above is Acceptance and Commitment Therapy (ACT; Hayes et al., 1999). ACT evolved from Functional Contextualism. It is based on the premise that psychological reactions (cognitions, feelings, impulses) are the result of interaction between the individual and his or her context, context here being defined as encompassing both the actual contextual variables as well as the personal learning history. Inherent to ACT is that not only behavior but also thoughts and emotions are seen as a response to the context. From an ACT perspective, psychological problems are a result of a constant tendency to control inner experiencing by avoidance or actively deterring cognition, *resulting in a withdrawal from relating to the context*. The more a person allows his or her behavior to be determined by the control and avoidance of inner processes, the less he or she will be inclined to make behavior choices that accord with his or her own goals and values within the context in which he or she functions. This leads, especially in cases of personality problems, to the creation of relatively

rigid patterns which then govern behavior and also form a barrier to a functional interaction with the environment. This also causes dysfunctional behavior to be continued even though the expected result is not achieved, and so potentially corrective experiences will have no impact. Learning from new experiences does not take place and adaptation is insufficient.

The following experiment illustrates the above (Hayes, Brownstein, Haas, & Greenway, 1986): Two groups were given tasks to perform on a computer screen. Group 1 was given clear instructions; group 2 had to use *trial and error* to find out what the task involved. Group 1 immediately carried out the task successfully. Group 2 discovered the object of the exercise after some time and then completed it successfully. Without prior notice, the rules of the game were changed during the experiment. Group 1 persevered in consistently applying the instructions that they had learned. Group 2 adapted perfectly to the new rules. The behavior of group 1 is illustrative of how patients with personality disorders cope with their environment.

Central to ACT is that the more a person allows his or her own behavior to be ruled by the psychological reactions that surface in a particular context, the less he or she will be able to react to the actual situation, as a result of which his or her behavior will be less functional. Classic behavior therapy focuses exclusively on observable behavior and ignores internal psychological processes. From the ACT perspective, cognitive and affective processes are valued as fundamentally equal to observable behavior. They are conditioned responses and are functionally related to contextual variables.

Current forms of insight or cognitive psychotherapy are aimed at either explaining why a person has developed certain psychological reactions or at the “correction” or rationalization of the psychological reactions. ACT, on the other hand, attempts to reduce the influence of psychological reactions on behavior choices and to increase the sensitivity to the real and relevant context and its inherent possibilities of achieving needs, values, and goals.

Neurobiological Mechanisms

The importance of focusing on context and the psychological changes that may result by doing so is supported by recent neurobiological insights. The amygdala being part of the limbic system plays an important part in negative affects such as anxiety. There are significant indications (studies of rat populations [Morgan & LeDoux, 1995] and also PET scans on humans [Abercrombie et al., 1996]) that indicate that activation of the medial prefrontal cortex inhibits the amyg-

dale, with a reduction of the anxiety response as a result. Because of this inhibition of the amygdala, an important role is attributed to the prefrontal cortex (PFC) in the regulation of emotions (Davidson, Jackson, & Kalin, 2000; Goldsmith & Davidson, 2004). Recent functional neuroimaging studies have also found increased prefrontal and decreased amygdala activation for the reduction of negative emotion (Ochsner, Bunge, Gross, & Gabrieli, 2002; Ochsner et al., 2004).

Hariri, Brokheimer, and Mazziotta (2000) found in an fMRI study that whereas perceptual processing of angry and fearful facial expressions is associated with bilateral amygdala response, linguistic evaluation of these same stimuli is associated with an attenuated amygdala response and a correlated increase in (right) ventral PFC activation. In an ensuing study, cognitive evaluation of fearful facial expressions was associated with an attenuation of the amygdala activation and a correlated increase in the response of the ventral PFC (Hariri et al., 2003). A trend was found for a decrease of the autonomic reactivity corresponding with the attenuation of the amygdala activation. Therefore engagement of the PFC, through appraisal and evaluation of experiences, appears to modulate the response of the amygdala (Hariri, Mattay, Tessitore, Fera, & Weiberger, 2003).

In an fMRI study of the effect of cognitive reappraisal of aversive images using situational-focused strategies with reinterpretation of emotions, actions, and outcomes of individuals in their situational context, there was found an activation in both left and right lateral PFC, a decrease in amygdala activation, and a down-regulation of aversive affect (Ochsner et al., 2004). This situation-focused reappraisal recruited regions of lateral PFC that are associated with the maintenance and manipulation of information about stimuli in the external world (D'Esposito, Postle, & Rypma, 2000). Cognitive reappraisal of aversive images using self-focused strategies in which the personal relevance of events is altered gives an activation of the medial PFC, decreased activation of the amygdala, and reduction of negative affects (Ochsner et al., 2003). The medial PFC is associated with initiation of behavior and its role in emotion regulation is also found in other studies (Davidson et al., 2000).

The functions of the medial and lateral PFC are, among others, initiating behavior, goal-directed action, and organization and planning. These are functions that come into play when a person focuses on the outside world. Therefore neurobiological findings support the idea that activation of the executive functions of the PFC is associated with a reduction of negative affects. In other words, activating the PFC (e.g., by

purposeful action) would consequently result in a reduction in the anxiety level.

Recently neuroimaging has increasingly been used in cases of personality disorders, especially in cases of borderline personality disorders (BPD; for a review, see Schmahl & Bremner, 2006). A consistent finding in different studies with BPD patients is a smaller amygdala volume (Driessen et al., 2000; Schmahl et al., 2003; Tebartz van Elst et al., 2003). This reduction of amygdala volume separates BPD from posttraumatic stress disorder, in which the amygdala seems to be structurally unaffected (Schmahl, Vermetten, Elzinga, & Bremner, 2003). It is found that BPD patients have a amygdala hyperreactivity. Herpertz et al. (2001) found a heightened activity and a slowed extinguishing of the amygdala in BPD patients confronted with aversive images. The strong affective instability of BPD accords with this heightened and prolonged activation of the amygdala. These findings are confirmed in a study by Donegan et al. (2003) in which borderline patients showed significantly greater (left) amygdala activation to facial expressions of emotion compared with normal controls. Donegan et al. concluded that a hyperreactive amygdala could predispose borderline patients to be hypervigilant and especially overreactive to the emotional expressions of other people.

In addition to this amygdala pathology in borderline patients, there are also findings pointing to prefrontal pathology in these patients. Soloff, Meltzer, Beeker, and Greer (2003) studied BPD patients with a history of suicide attempts and/or automutilation. They found a hypometabolism in the medial and orbital cortex and could correlate this to a reduction in serotonin. Serotonin dysfunction had been shown to be related to the occurrence of impulsive behavior (Coccaro & Siever, 2005).

After reviewing the literature, Schmahl et al. (2006) concluded that a dysfunctional network of brain regions exists consisting of orbitofrontal and dorsolateral prefrontal cortex, amygdala, anterior cingulate cortex, and hippocampus that seems to mediate much of the BPD symptomatology. From this perspective, therapeutic interventions to stabilize borderline patients would be geared at a neurobiological level to a decrease of amygdala activity and an activation of prefrontal cortex. The most accessible intervention in this respect might be to try to activate prefrontal structures, based on the hypothesis that this activation could lead to a down-regulation of amygdala hyperreactivity.

Seen from this perspective, it follows that the activation of the PFC should be an important component in treating personality disorders; adding employment reintegration to the treatment is a potent way of achieving this. Dealing with the social roles that are linked to the rele-

vant situation compels the individual to focus attention on that situation; goal-directed behavior is called for, and planning is necessary to adjust behavior to accord with the situation and with other people.

Employment Reintegration and Personality Disorder

In the treatment of personality disorders, the role of employment is a side issue. In only a few publications about BPD did we find remarks on the importance of work. In a follow-up of a BPD group with a relatively good recovery, Paris (2003) recorded the establishment of employment and/or affiliation to a political or religious group. These changes in social context provide an increase in structured experiences and also, as a rule, an increase in social support. The question is whether the BPD symptomatology remission precedes the changes in social context or whether it is the changed context that causes the symptoms to decrease. Another possibility is that this is a mutually reinforcing process. Another study (McGlashan, 1993) also shows that the ability to work is connected to recovery from BPD.

The sparse research shows that psychotherapeutic treatment of personality disorders does not reach the workplace (Thunnissen, Duivenvoorden, & Trijsburg, 2000). An explanation could be that current treatment is disorder oriented and is much less specifically aimed at patient-context interaction. Subsequently, little attention is paid to the particular skills necessary for specific work situations.

Another widespread assumption is that the patient should first be treated for psychological problems and only following treatment, if at all, should employment reintegration be addressed. By separating treatment in this way, psychological problems are not addressed in the actual context of the patient, and as a result the patient's focus on inner processes will be reinforced, thus creating greater barriers to a return to work.

In the literature, no mention of an employment reintegration program for personality disorders is to be found except for some general points on the need for structured employment with regard to BPD (Hennesey & McReynolds, 2001). We have developed an employment reintegration program for patients with a B or C cluster personality disorder who had not been in a work environment for at least two years.

The program:

In addition to a day-long group-training the program entails a compulsory whole or half-day per week of employment practice, including individual supervision by an employment guidance counselor. The group training is given for 6 months, after which the employment practice is expanded. A contextual social-cognitive reference framework is

used, consisting of education, empowerment, the identification of risk factors in work situations, recognition of one's own problematic personality characteristics, skills training, and broadening of the coping repertoire. All important is the active checking of insights and experimenting with new behavior alternatives in differing contexts. Particular attention must be paid to interpersonal functioning, which, both in the training group and during the work experience, proved to be the main cause of stagnation. The importance of work-context training is supported by the results obtained in employment reintegration for patients with chronic psychotic disorders. Skills training for these patients on the work floor produces about three times the effect compared to that obtained through work placement *following* an initial training period (Twamley, Jeste, & Lehman, 2003).

The training targets differ according to the possibilities of the client. Working from a handicap model the aim is the identification and acknowledgment of risk factors, pitfalls, and limitations. Working from the skills model, training is aimed at implementing new behavior. Working with a change model, the aim is to change dysfunctional ideas and ineffective strategies.

Our experience with this program is that patients clearly try to avoid the employment practice. This was especially notable during intake when it was made clear that patients could take only part in the training if they also worked for at least half a day (later on, volunteer work was also allowed). Patients tried to impose their will by strongly expressing their need for therapy in order to solve their psychological problems *before* being able to work. It became clear at a later stage that this initial resistance was based on the anxiety of a renewed failure in a work situation. We think that this avoidance of a concrete work situation is partly due to a long-term dysfunctional learning process, aimed at controlling internal psychological reactions, and possibly reinforced by earlier psychotherapeutic treatments. Avoidance of work practice leads to a reduction of reality-oriented relationships and to an increase in fantasized relationships. In accordance with the above, all the clients displayed a stubborn overestimation of their own possibilities. Loss of contact with the demands of the real world was also apparent in a strongly egocentric attitude, resulting in very poor insight into the actual reactions of others to their behavior. This often created an area of conflict.

Viewed from the individual perspective, the patients' behavior could be classified as narcissistic. Based on the premise that narcissistic behaviour patterns function as a protection against hurtful experiences at work, it follows that attention should be focused on broadening the skills necessary for dealing with the reality of the work situation. Simply discussing problems at work proved to be totally inadequate. It was

crucial to clarify concrete work situations per client through role play. Influencing work problems in a positive way was achieved only through presenting the reality of a concrete work situation to the patient by role play. Constantly being engaged in an interaction with the context is exactly what enabled the patients to develop new behavior and, parallel to this, to reduce the preoccupation with negative thoughts. An observation (however, no systematic assessment was being made) during the program was that the patients showed a clear reduction in regressive behavior compared to what is usually observed in clients with a personality disorder. Even though the attitude described above (demanding therapy, and egocentric behavior) was evident, there was relatively little emotional instability and impulsiveness. In the cases of a few patients with whom we were familiar from earlier treatments, we were able to make comparisons with their functioning in the employment reintegration program. The decrease in their level of regression was very clear. Research is necessary to investigate whether this subjective observation can be empirically validated.

There are various possible explanations of the above. Obviously one explanation could be that patients have little opportunity for regression due to the structured program. Another possibility is that discussing one's emotional makeup does not take place during the program. If and when emotions were discussed, it was only done so indirectly, namely, by asking how these emotions are present in one's functioning at work. This way it is less intrusive and therefore less likely to induce regression than when dealing with emotions as the core of one's self. One could also explain the relatively low regression on the basis of recent neurobiological insights, especially those concerning the influence of activation of the PFC on the amygdala and subsequently on anxiety levels. Work activates the PFC by means of actualizing the executive functions, such as those for goal-directed behavior, planning, and organization. In this respect, work is a therapeutic intervention in itself.

Conclusion

It is important to include context in both the diagnosis and treatment of personality disorders. The treatment of a patient separate from the context contains the inherent risk of the patient (and therapist) becoming fixated on inner experiences with the result that adaptation to the context is impaired. The focus on avoidance or control of aversive emotional experiences should be redirected toward the achievement of valued goals. This approach not only makes sense in the light of new developments in theories of personality and psychotherapy, but also corresponds to new insights from neurobiology. Activation of the PFC by

means of goal-directed behavior can contribute to the reduction of emotional turmoil. The role of employment is a very important aspect of the individual-context interaction and should be addressed in a systematic manner in the treatment of personality disorders.

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