

LOSS OF
"BACKGROUND":
A PERCEPTUAL
THEORY
OF DISSOCIATION

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ABSTRACT

The present theory explains how specific dissociative reactions arise for the first time during a traumatic experience. During dissociation, according to this theory, the perceptual background associated with perception is lost or altered, creating "dysfunctional perceptual organization" (Fine, 1988). Dissociative symptomatology maps one to one with the background components of perceptual experience. The hypothesized psychological mechanism leading to the loss of or change in perception and, thus, to a change in background during trauma, is perception focused on the threat. Focused perception leading to changes in background can occur spontaneously or intentionally. Specific dissociative reactions hypothetically link to specific traumatic precipitants.

Ross (1989) writes that "[t]he field [of dissociation] lacks an adequate theory or model" (p. 65). Similarly, Putnam (1989) writes that "[a]lthough a number of theories or models exist that attempt to account for the genesis of one specific form [of dissociative disorder], MPD, no theory has attempted to account for the range of forms that traumatically induced dissociative disorders can take" (p. 23). This paper begins the formulation of such a theory by considering *how dissociation occurs*. More specifically, the present theory attempts to explain how, during a traumatic experience, the initial specific dissociative reaction arises. Once trauma bound reactions are understood, their enduring as dissociative symptoms following trauma can be established.

The Approach Taken in this Paper

This paper follows a phenomenologically-oriented method of argumentation and grants conclusions developed through phenomenological philosophy. To make the remainder of the paper more accessible to the phenomenological novice, an orientation to this approach will follow, terms will be defined and, then, the logical steps set forth in this paper will be summarized.

From the phenomenological point of view, human experience is a living process and presents itself as a synthesized whole. Abstractions, from the phenomenological point of view, must be based on experience as it is experienced. The abstract and the specific, or the conceptual and the concrete, can never be separated. This approach begins with specific experiences that will open up as general concepts and, finally, leads to an interweaving of the abstract and the concrete.

Experience is always the starting point. Phenomenological language attempts to remain faithful to experience as experienced and can often lead to awkward and unusual "languageing." A few concepts clarified now will help with later word usage. From a phenomenological point of view, the world is not an objective reality. The world is inherently subjective: people "live" in different subjective worlds—for example, some live in a hopeful world while others live in a hostile one. This implies that the consensually granted "objective" world is a *subjectively* generated "construct." Thus, the phenomenological term "lived-world" communicates not only the inherently subjective nature of the experienced world but the active way each person constitutes that world in consciousness and lives it. Additionally, an "objective stimulus" cannot be established phenomenologically because even a pinpoint of light, a concrete sense datum, used in a classic perception experiment possesses meaning for the experimental subject. A "pinpoint of light in the overall experimental context" is filled with meaning and cannot be stripped of the subjective way it is experienced. To point out the significance of context in establishing meaning, a similar pinpoint of light might be a star at night. Both pinpoints of light, "objectively" the same, are experienced differently. To discuss anything requires isolating it conceptually; phenomenologically, however, experience remains whole. It is a living person, who brings his or her "unique lived-world" to the experiment and sees the pinpoint of light.

Definitions

A distinction needs to be made between a dissociative style of functioning leading to the diagnosis of a dissociative disorder and the experience of discrete dissociative reactions during a trauma. *Dissociative experience* is defined as the experience of any dissociation-like experiences such as those described in the *D.SM-III-R* (1987) or the SCID-D (Steinberg,

1993). Experiencing one's body as unreal is a dissociative experience. *Dissociative reaction* is defined as a *dissociative* experience during and in response to a trauma. Thus, experiencing one's body as unreal during an earthquake would be a dissociative reaction. *Dissociative symptom* is defined as an enduring or repeated dissociative experience when no apparent external trauma is occurring. Experiencing one's body as unreal day to day when there are no external traumas is a dissociative symptom. The literature asserts that trauma is the cause of dissociative symptom (Putnam, 1989; Ross, 1989).

Overview of Fundamental Concepts from a Phenomenological Perspective

This theory will explain dissociation initially occurring during trauma. Later in this section, the discussion will start from the familiar dissociative symptoms which are known to the clinician, and then evolve to the experience which precedes those symptoms, dissociative reactions. These dissociative reactions link conceptually to dissociative symptoms through how those symptoms cluster into perceptual categories.

The next section begins by considering two issues connected with dissociation: 1) dissociation as a result of trauma; and 2) dissociative symptoms and dissociative reactions as perceptual experiences. These perceptual experiences cluster in categories which will later be defined as background - I, mind, body, world and time.

The ensuing section considers perception phenomenologically and reveals that, although perception of figure-ground is both a dissociative and associative process, it does not adequately explain dissociative reactions. Alterations of the most basic organization of "normal" perception will be shown to underlie the form of dissociative reactions: namely, the ever-present background components (I, mind, body, world, and time) are lost or degraded. Each background component maps one to one to the perceptual categories associated with dissociative disorders.

The subsequent section develops an understanding of the dissociative process by exploring three experiential situations. In the case of a sudden and intense stimulus, perception fixes on the "stimulus" while background perception drops out. In a second example, a startling "percept" need not be "objectively" loud or painful, but can be subjectively of such significance as to be startling. In a third example, background can also drop out when stimulation does not change (as in immobilization). Therefore, traumatic threat rivets perception such that background is lost or changed and the person reacts dissociatively. Meaning and the emotional significance of the situation contribute to riveting perception on a threat.

In the final section, the perceptual process of focusing on traumatic threat generates predictions about what kind of traumatic situation might evoke a particular dissociative

reaction. For instance, derealization which is a change in the perception of the world would be driven by perception focusing away from the world and drawn to another stimulus - for example, physical pain. On the other hand, depersonalization which is a change in the perception of one's self would derive from perception focusing *away* from the self and toward some other percept - for example, a threat in the world.

1) Dissociation and Trauma

All of the dissociative disorders have as precursors trauma or extreme psychosocial stress (*DSM-III-R*, 1987; Putnam, 1989; Ross, 1989), and it is assumed that a dissociative disorder itself occurs in response to trauma. The assumption that dissociative experiences stem from trauma requires empirical demonstration. "If we accept the observation that many dissociative reactions have their origin as an adaptive response to overwhelming trauma, then we can inquire into why one form of dissociative reaction occurs (or is chosen) over another form for a particular traumatic precipitant" (Putnam, 1989, p. 23). Putnam asks why a particular dissociative reaction occurs in response to a particular traumatic situation. The present theory begins to answer this question. One might start by looking for regularities in dissociative experience. Such regularities can be found in the specific categories of perceptual experience which comprise dissociative symptoms.

2) Dissociative Reactions and Dissociative Symptoms as Perceptual Experience

Although this theory focuses on dissociative reactions during trauma and not dissociative symptoms, eventually a comprehensive theory of dissociation will need to adequately explain how dissociative reactions link to dissociative symptoms. The author assumes that dissociative symptoms are dissociative reactions which have persisted post-trauma. Consequently, considering dissociative symptoms defines implicitly the relevant domains for considering dissociative reactions. As detailed in the following paragraph, dissociative symptoms are perceptual experiences. The author assumes that dissociative symptomatic perceptual experiences were originally dissociative perceptual reactions during trauma. The perceptual characteristics of dissociative symptoms, therefore, establish what specific perceptual experiences (in other words, perceptual dissociative reactions) need to be examined during trauma.

This paragraph summarizes the kinds of dissociative perceptual experiences which occur as symptoms (according to the *DSM-III-R*, 1987). Psychogenic amnesia involves some kind of memory loss. Amnesia is included here for completeness but will be excluded from the theory since amnesia is an outcome of trauma and not a perceptual experience at the time of trauma. Psychogenic fugue entails a loss of or change in identity, while multiple personality disorder involves multiple identities, usually with amnesias across some personali-

ties. Depersonalization disorder entails feeling unreal, experiencing one's body or extremities as changing size, perceiving one's body from outside or anesthetic, experiencing oneself as mechanical or in a dream, and not controlling body or speech. During derealization, perception changes so that the external world appears unreal, the shape or size of objects changes and others might be perceived as dead or mechanical. As well, the experience of time commonly changes. People have the subjective sense that it is difficult to remember or find recollection slowed. These symptoms are ego-dystonic and reality testing remains intact.

Considering this list of symptoms, two conclusions are pertinent to the present paper: 1) all dissociative symptoms (except amnesia) are perceptual experiences; 2) the perceptual changes cluster in the following domains: identity, mind, world, body, and time. Therefore, perception of identity, mind, world, body, and time establish the kinds of dissociative perceptual reactions that need to be considered to develop a theory of dissociation during trauma.

In summary, currently there is no theory of dissociation and there is no explanation of why particular dissociative reactions occur in response to particular traumatic precipitants. Traumatic situations are assumed to be the cause of dissociation. The assumption that dissociative reactions become dissociative symptoms directs the exploration to initial dissociative reactions during trauma. Lastly, dissociative symptoms cluster in specific perceptual domains: identity, mind, body, world, and time. Examining the impact of trauma on these perceptual domains focuses the inquiry.

A PHENOMENOLOGICAL APPROACH TO DISSOCIATION

Overview

This section provides a phenomenological perspective on perception. While perceiving figure/ground can be considered both dissociative and associative, this conceptualization does not explain dissociative reactions. Merleau-Ponty (1962) establishes that all perceptual experience includes perception of I, mind, body, world, and time --- the same perceptual domains in which dissociative symptoms and dissociative reactions cluster. These domains are collectively defined as the perceptual background. Dissociation involves a change in how background domains are perceived. Additionally, these background domains have a relationship to dissociative disorders.

Figure-Ground Perception

Fine (1988) asserts that the cognitions evidenced by DIDs are tied to an underlying dysfunctional perceptual organization. "I propose that a dysfunctional perceptual organization underlies their [MPDs] often disjointed cognitions and affects and is, therefore, at the origin of their distorted perceptions of reality.... some Gestalt perceptual organizing

principle subtends initially cognition and then affect" (p. 5). The most elemental Gestalt principle is the organizing of perception into figure and ground: The figure is *what* is perceived, and the ground surrounds yet recedes "behind" the figure. An example of this phenomenon is the vase illusion, an ambiguous drawing which looks either like a vase or like two faces in profile. When the vase is the figure, the other parts of the drawing recede behind it; when the two profiles are the figure the "vase" part recedes behind them. Any "object" of perception follows this same principle: the sound of a car, a tree to the side of the lawn, or an itch on the arm.

Beere (in press), in a more comprehensive exposition of this theory, has argued that the process of perception is itself both an associative and dissociative process: a figure is a meaningful association of perceptual "input" which is, simultaneously, dissociated from the ground. Though useful in a preliminary way to understanding dissociation, this understanding does not explain dissociative reactions, such as alterations in body size or experiencing the world as unreal. That a figure is dissociated from the ground (such as, "body" or "world") does not explain why this specific figure is experienced dissociatively (for example, the body getting larger or objects becoming two dimensional). Dissociative percepts remain figure/ground percepts. Consequently, a different approach to perception is necessary to explain dissociation.

The next section presents a broad, phenomenological focus on perception in general, describes how it is inherently organized, and provides the first step in explaining dissociative reactions during trauma.

Changes in Perceptual Organization Underlies Dissociative Reactions

Everyday experience as well as phenomenological philosophy link invariant perceptual components with figure-ground perception. Merleau-Ponty persuasively argues for the primacy of perception in *The Phenomenology of Perception* (1962) and proposes the following essential components of experience.

First, there is always an "I" who "perceives" the "figure" in a "ground." Second, the "I" always finds itself located in a "mind." Wherever there is a mind, there is an associated body; wherever there is an embodied person, there is an associated mind. Thus, third, "I" am in a body. In phenomenological language, "I am embodied." Fourth, my embodiment is in the world. The "world" is not an objective reality but a subjective one which is meaning-filled and phenomenologically termed the "lived-world." Fifth, all experience, all perception occurs in and over time: the present moment comes from a past which leads to a future.

Consider again the vase illusion. A subject in a perception experiment perceives a vase shifting to profiles and back again. The experience as experience is ostensibly watching the illusion. However, this switching of figure and ground happens in the context of the "background," an integrated

set of perceptual experiences usually ignored. Describing the experience of the background in the first person, "I" (in this "embodied" "mind") watch the vase change into two profiles. The whole experience occurs in the overall context of my lived-world, though it takes place in this particular laboratory. Time marks out this experience: I arrived here a short time ago, saw the vase a moment ago and see the two profiles now and will leave later. "I" "take" my "body," "mind" and "lived-world" with me when I leave. From a more abstract point of view, the subject's identity, mind, body,

lived-world and time continue perceptually as peripheral or background components of the situation, whether the illusion is perceived as a vase or two faces. The background components existed for the subject before the experiment and will persist after the experiment. On leaving the building where the experiment took place, I hear the sound of a car, see a tree to the side of the lawn as I take my first step on the sidewalk, and feel an itch on my arm. Each new percept (the sound, the sight and the itch) occurs within the greater context of the background: I, having this mind and this body, in this lived world, perceive, over time, this sound (car), then this sight (tree) and next this sensation (itch). Note that the background is experientially distinct from the ground which links to yet recedes behind the perceptual figure. The car's sound (figure) stands out from other sounds (ground); the tree (figure) stands out from the lawn (ground); and the itch (figure) stands out from the arm (ground). My awareness centers on the figure, peripherally notes the ground and ignores the background (I, mind, body, world and time). The background is ever-present, yet seldom noticed. Like lights being on in a room, the background is taken for granted and not given much notice until it changes.

These five components comprise a framework for perceptual experience and, this underlying organization of perceptual experience as figure-ground-background is taken for granted. *The term "background," as distinct from ground, defines ever-present components of the perceptual framework.* Experience generally presents itself whole: I, having this **mind, in this body**, in this *world*, all of which are in *time*, perceive this figure in this ground.

What is figure, ground and background can interchange. Thus, I could focus perception on the passage of time, sensations in my body or how I experience myself. Each focus yields a unique figure (a temporal one, a bodily one or a

TABLE 1
Relationship Between Loss of or Change in the Specific Component of the Perceptual Background and Dissociative Diagnosis

Component Lost or Changed	Dissociative Disorder
"I"	Fugue; Multiple Personality Disorder
Mind	Depersonalization; Amnesia
Body	Depersonalization (Disembodiment)
World	Derealization
Time	Changes in experienced time (Detemporalization)

mental one). The rest of the background, however, remains constant. Perceiving figures in any one of the background components does not change how that component is perceived. For example, perceiving a chair in a room (a specific percept in the world) does not change the basic sense of this occurring in my lived-world.

Recognizing the presence of the background in perception clarifies what happens during dissociation. Components of the background are lost or lose their constancy. People depersonalize and lose the "I" who perceives, or lose "their minds." People derealize and lose the reality of their body or of the surrounding world. People lose time. In other words, *during dissociation, the background is lost or loses constancy.* The lived-integration of the perceptual organization, figure-ground-background, constitutes meaningful lived-experience and the rupture of this lived-integration makes dissociative experience bizarre. This might be what Fine (1988) is referring to with the phrase "dysfunctional perceptual organization": The perceptual background, which establishes the meaningful context for a percept, is lost, and the usual way perception is organized into figure-ground-background becomes dysfunctional. Specific dysfunctional ways of perceiving the background link directly to different dissociative reactions and symptoms.

Dissociative reactions and symptomatology map one to one with changes in perception of the background components of experience. (See Table 1.) Amnesic disorders will not be considered in this paper since memory loss occurs after and not during the traumatic situation. Fugue and Dissociative Identity Disorder both involve alterations in identity; the "I" component of the background is lost or changed. Depersonalization disorders pertain to unusual mental experience; the "mind" aspect of the background is lost or changed. The person might feel unreal or as if in a dream. Depersonali-

zation also can stem from disembodiment or alterations in perception of the body, another component of the background. The body, for example, might seem to change size. Disembodiment has not been differentiated from "mental" dissociative experiences (*DSM-III-R*, 1987) and, thus, is considered depersonalization within the usual nosological system. Derealization involves alterations in perception of the world, yet another background component. The world, for example, might appear unreal or objects might become larger or smaller than usual. Changes in the experience of time are frequent companions to dissociative disorders and reactions; time is the last component of the background. Time can, for example, slow down or speed up.

In summary, the perceptual background includes all the elements which eventually become dissociative reactions and dissociative symptoms. Amnesia, a post hoc "symptom," has been excluded since the theory cannot explain an experience occurring post-trauma which is, in addition, non-perceptual. The perceptual background, therefore, has a strong connection with dissociative reactions and dissociative symptoms. Loss of or change in background, however engendered, leads to a dissociative experience (reaction or symptom). The next section will focus on how the perceptual process during trauma constitutes experience in this dissociated fashion.

A PHENOMENOLOGICAL EXPLANATION OF THE DISSOCIATIVE PROCESS

Overview

It would seem that, as Fine (1988) has observed, dissociation does indeed relate to some kind of dysfunctional perceptual organization and this dysfunction pertains to a loss of or change in perception of the background. During trauma, perception focuses on the threat, blocks out background components and, thus, evokes dissociative experience. The next three sections discuss specific experiential situations which can lead to loss of background: 1) a sudden, intense stimulus, 2) significance of the stimulus as subjective threat, and 3) no change in stimulation.

1) A Sudden, Intense Stimulus

Ordinary experience flows. It continually shifts and changes. Many dissociative experiences freeze time. An intense, sudden stimulus, such as an explosion, a flash of light or a sudden pain freezes time and "dissociates" the percept. The sudden, intense stimulus interrupts the smooth flow of experience and immediately "glues" perception to the stimulus. Only the stimulus is in awareness at that moment. The explosion momentarily fills awareness. The context is temporarily lost: for a short time, perception of the body or the sense of self might be lost. The startling and intense stimulus is split off experientially from the ordinary flow of perceptual experience. The passive voice is appro-

priate here since the experience is that perception is "pulled" to the stimulus, instead of intentionally focusing to it.

It is as if the intense focus on the sudden stimulus leads to a consequent and reflexive loss of perception of the background. An exclusive and narrow perception of a figure becomes a paradigm for how background is lost.

2) Subjective Threat

"Intensity" need *not* equate to "objectively" loud, bright, or painful. A child *who* respects and loves both parents would experience a parent's passionate, though clothed embrace with an unknown lover, intensely and subjectively disturbing. This situation could be experienced subjectively as an "explosion," similar to a sudden and intense stimulus. Perception will engage a situation, then, based on its significance to the perceiver.

3) No Change in Stimulation

Dissociation of the body or the dissolving of perception of the world, for example, can occur when the stimulus does not change. To perceive frequently requires changing stimulus input. Thus, while driving long distances, when I do not move my arms, they disappear as percepts. When I move them or tighten the muscles, my arms reappear as percepts. Clients sometimes actively work to immobilize the body or to look at one spot, and, thus, to dissolve the perception of the body or of the visual world. This experiential situation points out that dissociation does not solely result from an automatic response to trauma but can also be consciously engendered by restricting perception and, thus, blocking out the background.

Synthesis

The previous discussion can be synthesized to yield two paradigms: 1) a general paradigm for dissociation and 2) a specific paradigm for trauma-induced dissociation.

1) General Paradigm for Dissociation

Three issues are salient from the earlier sections. First, a sudden and intense figure can intrude into and dominate perception. Second, the significance of a figure to the perceiver can be emotionally charged and impact the individual much like a sudden and intense figure. Third, an exclusive and narrow focus of perception can exclude background perception and lead to dissociative experience. In all cases, *dissociation occurs since the figure becomes an exclusive focus and the background fades or changes.* This, then, is the *general paradigm* for dissociation.

2) Specific Paradigm for Traumatic Dissociation

Many traumas possess the characteristic of being sudden, intense and, by definition, subjectively threatening. When an event possesses these characteristics, perception focuses on the sudden threat and background components are not

perceived. In other words, loss of background is a plausible consequence of a sudden, traumatic threat. Clearly the trauma need not be "objectively" intense or sudden. *What is necessary to elicit a trauma-induced dissociative reaction is a threat of sufficient severity to engage perception so that background components are lost. If perception in a traumatic situation is riveted to a threat, then the threat becomes an exclusive focus of perception and the background fades or changes.* This, then, is the specific paradigm for a dissociative reaction during trauma.

Based on the perceptual process leading to trauma-evoked dissociative reactions, different kinds of traumatic conditions can be linked to specific dissociative reactions. The following section clarifies those connections and makes specific predictions about which dissociative reactions arise from specific traumatic situations.

HYPOTHETICAL PRECIPITANTS OF DISSOCIATIVE REACTIONS

The perceptual process which leads to the loss or change in background components during trauma is a focused perception on what is threatening. *In a traumatic situation, when the locus of threat is in one domain of the background, that domain is NOT perceived dissociatively; it would not be subject to a dissociative reaction. In a traumatic situation, background domains which do not contain a threat might be blocked out; background domains which do not contain threats are likely to manifest dissociative reactions.* However, there are violations of this general principle which will be discussed later. The following sections discuss characteristics of dissociative reactions: 1) complexity and psychological demand, 2) frequency of dissociative reaction, 3) detemporalization, 4) derealization, 5) depersonalization, 6) disembodiment, and 7) loss of or change in identity.

1) Complexity and Psychological Demand

An alter personality, while dissociative, is a psychologically complex event that probably did not occur from a single trauma nor without substantial preparatory experience and psychological mediation. An alteration in time involves changes in the perception of sequences of events as they occur, a more immediate response which would seem to require less complex psychological processing than that required for alter creation. These two kinds of dissociative reactions are at the extreme in terms of complexity: creating the alter is very complex while changes in time are less complex. This speaks to relative complexity. It does not suggest that changes in the experience of time are not complex experiences. In addition, these two kinds of dissociative reaction are at the extreme in terms of what they demand psychologically from the traumatized individual; creating the alter demands more psychologically, while changes in time demand less. The author hypothesizes that more severe trauma will evoke the most complex dissociative reactions; they place greater psychological demands on the victim.

2) Frequency of Dissociative Reaction

The field of dissociation needs an exploratory study of the precise kinds of dissociative reactions people report, what kinds of trauma precipitate what kinds of dissociative reactions, and what kinds of dissociative reactions cluster together. The author hypothesizes that, in a random sample of dissociative reactions occurring in the general population, the more complex and psychologically demanding symptoms will occur less frequently, and the less complex and psychologically demanding symptoms will occur more frequently.

The order of the frequency of dissociative reactions (Table 2) has, in part, been established empirically (Beere, 1992 & 1993). Clearly, the hypothesized frequencies are preliminary and subject to empirical validation. A sample of 189 college students (70 males, 109 females, and 10 gender unknown; average age-19.3) reported having experienced one or more traumas (81 reported one trauma, 47 reported two traumas, 20 reported three traumas, and 41 reported four or more traumas). Students reported whether they had experienced 15 specific dissociative reactions during trauma. The percentage of students reporting a particular category of dissociative reaction is listed in Table 2. The results are consistent with the predictions made by the theory. The remainder of this section presents the theoretical explanation for the ordering of the dissociative reactions and connects that explanation to the obtained frequencies.

Disembodiment or changes in the experience of the body during trauma are reported least frequently (12%). Since the body is a stable and consistent source of perceptual input, it is a perceptual "constant" resistant to change. To experience a change in the size or shape of the body requires a marked alteration in perceptual processing. Greater "force" is needed to alter perception of the body than perception of the mind which is more fluid - especially when the body is active and not immobilized or passive.

The frequency that traumatized subjects report derealization or changes in perception of the world (24%) ranks between disembodiment (12%) and depersonalization or alterations in the experience of the mind (36%). The world is a source of consistent and reliable sensory input. Body-related perception in comparison to world-related perception does not involve the processing of inconsistencies like those found in world-related perception. Perception of the "world," in contrast to perception of "mind," would remain more stable or resistant to change. Continual processing of the incongruities inherent in perception of the world result in size and color constancy. For example, shadowed colors (say of the carpet) tend to be seen as the same as unshadowed colors (say of shadowed areas of the carpet) despite differences in hue. As a further example, close and distant telephone poles are perceived as the same height despite marked differences in the length of their "stimulus sources." Distant objects which stimulate small areas of the retina are perceived equal in size to objects which stimulate larger areas.

TABLE 2
Hypothetical Characteristics of Traumatic Precipitants Evoking Specific Dissociative Reactions

Complexity/ Demand	Percent Subjects Reporting	Dissociative Reaction or Symptomatology	Background Component Lost/Changed	Perceptual Focus
Most		MPD or Fugue	Loss of or change in the "I": Alter self	1. Horrifying acts (possibly forced) 2. Horrifying intentions
	12%	Disembodiment	Loss of or change in body	1. Anticipated bodily injury 2. Anticipated trauma 3. Immobilization 4. Massive external threat 5. Startling, intense pain
	23%	Detemporalization	Time stops	Startling (sudden, intense) trauma
Moderate	24%	Derealization	Loss of or change in world	1. Startling (sudden, intense) trauma 2. Exclusive perception of the mind; strong emotion 3. Bodily pain
	33%	Detemporalization	Time speeds up	Non-specific and non-startling threat
	36%	Depersonalization	Loss of or change in mind	1. Strong emotions 2. Bodily pain 3. World threat 4. Anticipated (world) threat
Least	45%	Detemporalization	Time loss	Not explained by this theory - associated with amnesia
	57%		Time slows	Trauma extends over time; anticipation of trauma

Perception of the world involves the active processing of incongruities which results in perceived regularities. In phenomenological language, this perceptual process points to the constituting character of consciousness - experience is constructed (constituted) in consciousness. World-related perception, though experientially consistent, involves the continual processing of inconsistencies. The empirical ranking of body-related dissociative reactions as less frequent, world-related dissociative reactions as next most frequent, and mind-related dissociative reactions as more frequent makes sense after considering what is involved in perceiving each background domain. The results accord with the basic logic of the theory.

3) *Detemporalization*

Detemporalization (see Table 2) is not unitary, in contrast to the expectations of the author, and will be discussed before the other dissociative reactions. Time speeding up and stopping require additional explanatory steps. Preliminary data (Beere, 1992 & 1993) indicate that time stopping occurs least frequently (23% of the subjects report this dissociative reaction during trauma) while time speeding up was more frequent (33% of the subjects report this dissociative reaction). Time loss was even more frequent (45% of the subjects report this dissociative reaction), and time slowing was most frequent (57% of the subjects report this dissociative reaction). Making the assumption that these changes in the experience of time are statistically independent, a chi square comparing their frequency (chi square=52.16, df=3, p-.000) indicates that their rate of occurrence is significantly different. The author assumes that the kind of detemporalization is a function of the kind of trauma.

"Time" cannot be considered a simple background dimension. The remainder of this section explains how the experience of time shifts according to this theory: first, general comments on the passage of time, next time slowing, then time speeding up, time stopping, and lastly, time loss.

The passage of time. The background is peripherally perceived and "tracked" coincident with figure-ground perception. There is, as it were, a certain base rate amount of perceptual "information" continually monitored which constitutes the "normal" experience of time for an individual. Experienced time involves tracking ongoing perceptual changes in the figure, ground and background. For example, I sit quietly watching the river (visual figure). I note the river's flow and the ripples on the surface (visual figure) and hear the burble from unseen rocks downstream (auditory world background). Periodically, I swallow, shift my position slightly and sometimes notice my breath and my eyes (body background). I am non-verbally aware that I feel at peace (mind background). Occasionally a marshy smell (olfactory world background) comes with a breeze I feel against my left cheek (world and body background). Though relatively static, "watching the

river" involves a plethora of changing percepts in figure, ground and background. Tracking these changing percepts generates the experience of time-that "watching the river" took place over time.

Time slowing. What happens when time slows? According to this theory, time slows (see Table 2) if perceptual input is limited to the figure. If an anticipated threat in the world becomes the perceptual focus, then the background components are perceived less focally or not at all. Taking the extreme situation to make the point, if all perceptual input stems from the threat, none comes from the background. Since the experience of the "normal" passage of time involves tracking perceptual input from figure, ground and background, perceiving only the threat "expands" or "slows" the subjective experience. There is, in effect, "less" happening perceptually over the same "objective time" and, thus, time is experienced more slowly. Before the accident, for example, while visually tracking the oncoming car (perception focusing on threat in the world), time slows down. Since restricting the focus of perception is, according to this theory, the cause of dissociative reactions in general, time slowing should be the most frequent time-related dissociative reaction. This is supported by the data.

Time speeding up. Time speeds up (see Table 2) when the threatening situation demands attentive perception to all aspects of the perceptual context: figure, ground, and background. In this situation, there is more perceptual input than usual (thoughts, sensations, sights, sounds, and so on) and, as a result, "more" is happening perceptually during the same "objective time period" and, thus, experienced time seems faster. This is described in Table 2 as "non-specific and non-startling threat." In other words, the threat is not focused and requires wide and attentive deployment of perception. As an example, an adequate but not outstanding piano student, who comes from a competitive family of professional musicians, finds that time moves fast during his piano lessons with a demanding and critical teacher. The student must pay close attention to all aspects of the situation (thoughts, body, the piano visually and auditorially, the score, and the teacher's words and non-verbal cues). As a result, "more is happening" than usual and time speeds up.

Time stopping. In contrast, the theory predicts that time stops (see Table 2) with a sudden and intense trauma. Even though a startling trauma will lead to a sharp perceptual focus on the threat, it momentarily freezes time. Since experienced time involves tracking changing perceptual input, time would stop when perception of "input" does not change. This occurs when a sudden and startling trauma affixes perception to the threat. In other words, the suddenness of the trauma interrupts the natural flow of perception and leads to the experience that time stops.

Loss of time. Loss of time (see Table 2) is yet to be explained adequately, in part because it involves amnesia for prior experience. The present theory does not attempt to explain amnesia.

4) *Derealization*

Derealization, loss of or change in the world background (see Table 2), would occur when perception focuses on non-world components. The rationale derives from the more general explanation of how dissociative reactions occur at the time of a trauma. If perception focuses on bodily pain, it will lead to loss of or change in the other background components and, thus, lead to changes in the world-related background or derealization. Similarly, exclusive focus on "internal" events (such as strong emotions) would lead to derealization.

A different kind of explanation is required to explain why a startling trauma leads to derealization. Although this appears to violate the general paradigm, the analysis leads to the same conclusion: that background is lost or degraded. Perception fixes on the startling figure. In this situation even though perception focuses on the world, other aspects of the world are lost or changed since perception focuses narrowly on the threat. Consequently, even though the threat is in the world, the background characteristics of the world are lost, leading to derealization.

5) *Depersonalization*

According to the theory, depersonalization (see Table 2) requires perceptual focus on body or world which will exclude mind aspects of the background. Intense physical pain (that has not been "numbed out") would focus perception on the body, leading to depersonalization. Strong emotions are experienced as physical sensations in the body; to experience the emotion, perception focuses on the emotions and this leads to depersonalization. Lastly, if a threat appears in the world, perception focuses on the threat, leading to depersonalization.

6) *Disembodiment*

Disembodiment (see Table 2) requires focusing perception away from the body. Consequently a massive external threat will focus perception on the world. The rationale for the use of the adjective "massive" is to distinguish this threat from that evoking depersonalization. According to the theory, disembodiment requires a trauma of greater severity than that required for depersonalization. Furthermore, in contrast to actual bodily injury, which is not theoretically linked to disembodiment, anticipating bodily injury is linked theoretically to disembodiment. Repeating the logic once again, being injured would focus perception on the body, while anticipating that injury would focus perception on the upcoming injurious situation which focuses perception away from the body. As discussed earlier, limiting bodily input through immo-

bilization would lead to disembodiment.

Finally, as with a startling external trauma, startling and intense pain, so long as it does not physiologically become numb, will violate the general paradigm for dissociation yet lead to dissociation. The rationale is identical to that made for external trauma. Perception focuses exclusively on the pain and perception of the body-background is lost or degraded.

7) *Loss of or Change in the "I"*

From the author's perspective, this is the most speculative aspect of the theory and is not entirely consistent with the overall formulation previously presented since it does not involve background. The question to be answered is "What are the circumstances which force the loss of identity and the creation of a second?" The hypothetical answer to this question (see Table 2) is that real world events put the person in a situation in which actions must be taken yet "cannot" be performed by the current self. Preliminary support comes from research on switching (Beere, 1992a). Thus, horrifying acts, totally inconsistent with one's current identity, would lead to an alter self. Note that "horrifying" is defined by the self-concept. Thus, someone diagnosed with fugue finds spontaneity a necessity yet the prior identity cannot express those needs and impulses and finds them horrifying. The author believes that many children who become DID are forced to act in ways that are totally identity-discrepant; to engage in identity-discrepant actions requires a new identity. Finally, it is unclear to the author whether action is necessary for a change in identity or whether intentions which are horrifyingly self-discrepant are sufficient to evoke a change in identity.

IMPLICATIONS AND CONCLUSION

Traumatic situations are seldom as clear-cut as the present theory postulates. Most real life traumas will involve a profusion of events leading to a dissociative reaction. The present theory attempts to differentiate aspects of that complex response. In general, then, traumatic dissociative reactions will be mixed across background domains.

The prior analysis clarifies four conceptual distinctions necessary to develop a comprehensive theory of dissociation: 1) perception, 2) identity, 3) memory, and 4) emotion. How these four issues differentiate and interrelate is not clear.

1) *Perception.* As emphasized in the present theory, dissociation can be an immediate perceptual reaction to trauma. The immediate perceptual response needs to be differentiated from and, then, connected to dissociative symptoms. What are the interrelationships between dissociative reactions, dissociative symptoms, and dissociative defenses?

2) *Identity.* Although the present theory posits an explana-

Lion for alterations in identity (such as alter personalities), it is apparent that identity and immediate perceptual reactions are different kinds of psychological processes. The creation of new identities and dissociative perceptual reactions seem to be different psychological phenomena and, thus, require different explanations.

3) *Memory*. An apparent omission in this theory pertains to alterations of memory. Amnesia is a major diagnostic symptom for dissociative disorders. Amnesia, however, is a post hoc symptom which follows a trauma. The present theory attempts to explain dissociative reactions during trauma. What particular dissociative reactions during trauma, what characteristics of the trauma itself and what personal characteristics of the traumatized individual link to amnesic sequelae? How do the changes in perceptual organization, particularly loss of background components, relate to hypernesia and amnesia in particular?

4) **Emotions**. The role of emotions is ambiguous. Emotions involve simultaneously cognition (mental), physiological reactions (bodily), and interpreted external events (world). Are emotions simply an aspect of an individual's response to trauma which also evokes the dissociative reaction?

This theory posits that a dissociative reaction is the result of narrow perceptual focusing during trauma. Consequently, the dissociative reaction during trauma does not function as a psychological defense. Although this conclusion appears inconsistent with current thinking about dissociation, the theory pertains to reactions and not symptoms. We still must address many questions. How do those reactions become integrated as a dissociative style of functioning? How does dissociation become a defense? What are the circumstances, either of the trauma or the individual, that are associated with dissociative reactions persisting after the trauma and becoming symptoms? How does this kind of perceptual learning come about? How do dissociative reactions, emotion, and amnesia interrelate? What are the conditions associated with either learning or not learning a dissociative style of perceiving?

The theory appears to have merit as a preliminary conceptualization of dissociation during trauma, but requires evidence for substantiation and elaboration. It should be apparent also that this theory does not purport to explain all dissociative phenomena. Initially, the theory focuses narrowly on dissociative reactions during trauma. However, the hypothesized mechanism, a narrowing of perception which affects perception of the background, can be extended to non-traumatic situations such as intentional dissociation and dissociation during positive situations. Nonetheless, it is not the purpose of the author to explain all dissociative phenomena with this theory. The theory will undoubtedly need to be modified, clarified and extended as evidence is gathered. Hopefully, in appealing to both experience and evi-

dence, the theory can initiate a more focused and differentiated grounding of dissociation. ■

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