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Psychopathology as adaptive development along distinctive pathways

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Abstract
Contrary to the standard assumption that psychopathology stems from developmental immaturity (retardation, fixation, regression), people diagnosed with psychopathology typically develop along distinctive pathways in which they build complex, advanced skills. These pathways are based on adaptation to trauma, such as maltreatment, or to problems in affective–cognitive regulation, such as those in autism. They do not fit normative developmental frameworks. Research has characterized several types of distinctive pathways, especially those arising from maltreatment; they are marked by normal developmental complexity but distinctive affective–cognitive organization. In one study sexually abused depressed adolescent girls admitted for treatment in a mental hospital described themselves-in-relationships with age-appropriate, complex developmental levels equal to those of both nonabused depressed girls and other adolescents. At the same time, they showed a powerful negativity bias contrasting with the positivity biases of other girls. Many of them produced dramatic switches in affective–cognitive organization across assessments contrasting with the similar organization showed by other girls. In another study toddlers from maltreating families showed a consistent negativity bias in play and representations of interactions. We show how to portray these distinctive developmental pathways through the example of Hidden Family Violence, in which people dissociate their private violent world from their public, good-citizen world.

In psychopathology people develop along distinctive pathways that progress gradually to complex, mature forms. Contrary to common conceptions in psychology and psychiatry, most people with psychopathology are not developmentally immature, but instead they have taken a different pathway. People with borderline disorder, depression, sociopathy, obsessive–compulsive disorder, autism, multiple personality, or schizophrenia have developed along a specific pathway toward psychopathology. In that pathway they develop mature, complex, high-level skills. Instead of being developmentally delayed, retarded, or regressed, they are developmentally different (Calverley, Fischer, & Ayoub, 1994; Fischer & Pipp, 1984; Robins & Rutter, 1990).

The distinctive pathways of psychopathology arise from people's personal histories of trauma or from other problems in emotion–cognition regulation, and they show great diversity (Fischer & Ayoub, 1994; Herman, 1992; Noam, 1986). Along these alternative pathways, people develop richly complex, sophisticated skills for adapting to their trauma or regulation problems—skills that also produce their psychopathology. The false appearance of developmental immaturity arises from assessments based on conventional frameworks for development that do not capture these people's strange and distinctive patterns. Traditional attempts to normalize diversity into one universal developmental pathway seriously distort the variability of development.

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To detect the pathways of pathology, researchers and practitioners need to begin from each individual's perspective and life history, not from conventional frames for development. A dynamic, embodied framework begins not with a decontextualized analysis of development but with a specific "person-in-context" as the fundamental unit of analysis (Fischer, 1980; Fischer & Bidell, 1997; Gottlieb, 1992; Lerner, 1991; Noam, 1990). People build their own development through their activities in important contexts and relationships. There is no single "natural" progression of cognitive–emotional development followed by all human beings.

In our research, evaluation of cognitive–emotional development uses assessment instruments that start from people's own perspectives and include multiple contexts to detect the natural variability in people's responses. This research shows that troubled preschool children and adolescents produce complex adaptations, not developmentally immature ones. We describe key characteristics of several distinctive pathological pathways, especially those associated with child maltreatment or with autism. Children subjected to abuse develop adaptations characterized by pervasive negativity of core self-representations and powerful skills for switching and dissociating cognitive–emotional organizations across contexts and moods. Children with autism develop adaptations strongly shaped by their problems in interpreting feelings and relationships. These pathways progress to high skill levels that are age appropriate, but they are not the pathways that are typically assessed in clinical or educational settings.

Psychopathology Involves Developmental Adaptation, Not Delay

Most psychopathology involves development to high levels of complexity, with skills adapted to trauma and regulation problems (such as anomalous emotional or cognitive processing in autism or depression) rather than to the normative environment that is assumed in traditional analyses. Processes of dissociation and splitting provide especially clear examples of the adaptive and complex nature of development of psychopathology.

Traditional views in clinical psychology and psychiatry assume that psychopathology involves developmental immaturity, resulting from fixation, regression, or retardation (Freud, 1923/1961, 1936/1966). The assumption that psychopathology is based in developmental immaturity has been elaborated extensively in ego psychology (Blanck & Blanck, 1974; Hartmann, 1939), object relations theory (Kernberg, 1976; Mahler, Pine, & Bergman, 1975), and self psychology (Kohut, 1971). The more severe the disorder, the more immature the person is assumed to be. Westen (1989) provides a helpful critique of the immaturity assumption in object relations theory and self psychology.

This assumption has been dramatically overthrown in recent years for schizophrenia, even though a few decades ago this disorder was widely assumed to involve severe developmental immaturity (Benes, 1995; Murray & Lewis, 1987; Weinberger, 1987). The current consensus on schizophrenia is that it does not emerge until adolescence or early adulthood and is a problem of relatively mature development, not a fixation or regression to primitive developmental stages. Despite this change in beliefs about schizophrenia, the developmental immaturity of most other psychopathology continues to be taken for granted in clinical theory and practice.

Contrary to the false impression of immaturity provided by traditional analyses, the developmental levels involved in pathology are typically the same as those in normal development. That is, the complexity of cognitive skills in pathological patterns of interaction is similar to the complexity in nonpathological patterns in people of the same age. The mechanisms by which a person coordinates or isolates domains of activity may differ in pathological patterns, but the cognitive complexity does not differ. For example, a girl who has been repeatedly abused by her parents will often adapt through avoidance, denial, and depersonalization. With development and increasingly sophisticated capacities, she will construct increasingly complex, sophisticated skills to sustain those defenses. In fact, developmental advances sometimes put a person at greater risk of psychopathology, as when higher stages of ego development in adoles-

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cence seem to produce greater risk of depression and suicide (Noam, Paget, Valiant, Borst, & Bartok, 1994).

With developing defenses, a person who has been abused may appear erratic and unpredictable with others, self-focused, emotionally volatile, and rigid in her beliefs. From her own perspective, however, she is constructing sophisticated skills for sustaining herself in the face of abuse. In traumatized children, behaviors often described as erratic include shifting between approach and avoidance strategies in dealing with adults (Cicchetti, 1991; Crittenden, 1988). These strategies make sense for her because the same adults that nurture her also abuse her. The combination of approach and avoidance strategies are part of her self-protective dance.

In much psychopathology, people keep information separate that in normal development would be integrated. For example, while most adults can integrate positive and negative interactions with parents, adults who have been maltreated may dissociate or split positive and negative. Similarly, adults who suffer from cognitive–emotional anomalies such as autism and depression will separate and integrate domains and emotions in ways different from normative patterns. These distinctive skills develop to highly complex, sophisticated levels, but they can also have unfortunate (pathological) consequences elsewhere in life. To an outside observer, a person may seem developmentally immature, unable to act in normal ways or make connections that other people make. However, when viewed from his or her own perspective, the same person is developmentally advanced, building complex skills that include sophisticated coordinations and discriminations. Just as the person with pathology cannot act normally, "normal" people cannot produce many of the skills producing the pathology. Such diversity and psychological fractionation is a normal characteristic of human beings.

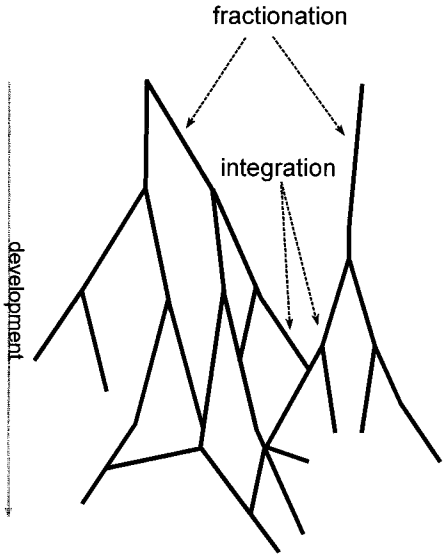


Figure 1. Developmental web.

Developmental webs: Naturally fractionated and potentially integrated

The limitations of traditional conceptions of psychopathology arise naturally from the limitations of traditional conceptions of development (Fischer & Bidell, 1997). Description of pathological developmental pathways requires a framework for analyzing development that differs substantially from conventional ones. The framework of dynamic skills theory provides not only concepts of development that facilitate apprehending alternative pathways but also methods for detecting and assessing the skills comprising the pathways, including their developmental level based on their complexity.

Conventional concepts of development oversimplify and homogenize developmental pathways, forcing them into simple linear ladders (Freud, 1936/1966; Freud, 1933/1965; Kohlberg, 1969; Loevinger, 1976; Piaget, 1983). Development does not occur in linear steps like those in a ladder, but instead it forms a web, with multiple independent strands that branch and join, as illustrated for a few strands in Figure 1. That is, a child develops simultaneously along parallel strands, which form a sequence of skills within each domain (strand) but little sequential ordering across domains. For example, in one strand children can develop skills for playing ball, in a second strand skills for aggressive interactions with peers, in a third strand skills for interacting with their mother as caregiver, and in a fourth

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strand skills for interacting with a doctor during an illness. These strands remain naturally independent unless a child expressly coordinates them.

In this way development is naturally fractionated in a kind of passive dissociation, with skills organized independently in terms of task, context, and emotional state, as illustrated by the arrows indicating two separate strands in Figure 1 (Fischer & Ayoub, 1994; Fischer & Pipp, 1984). A person's mind contains many distinct control systems that are not connected with each other or coordinated. Because of the pervasiveness of fractionation, children (and adults) frequently do not even recognize that certain elements go together in the world, such as that most people are both good and bad.

The fractionation of particular domains need not remain permanent, however, because skills can be integrated when a person actively coordinates them, as marked by the coming together of separate strands in Figure 1. People must work to bring together skills that start as naturally fractionated; for example, a 4-year-old boy coordinates the domain for his mother as caregiver with the domain for a doctor, understanding that his mother is also a pediatrician (a representational mapping, Level Rp2):

$$[KIM_{MOTHER} — KIM_{DOCTOR}]. \quad (1)$$

Integration occurs across emotional domains as well, including the coordination of positive and negative categories such as good and bad or nice and mean into a common strand. Independent of the coordination of his mother's roles, the boy coordinates the domains of mean and nice about himself, understanding that he can be both mean and nice at the same time:

$$[ME_{NICE} — ME_{MEAN}]. \quad (2)$$

Further integration can incorporate additional domains in a skill, as when a few years later the boy coordinates the parental and professional roles of both his parents to form a representational system (Level Rp3) (Watson & Getz, 1991):

$$[KIM^{DOCTOR}_{MOTHER} \leftrightarrow BOB^{PROFESSOR}_{FATHER}]. \quad (3)$$

Dissociation in normal and pathological development

Although most cognitive–developmental research emphasizes the role of integration across domains, people use coordination for separation between domains as well as for integration. Controlled separation, or dissociation, is pervasive in human beings and is highlighted in psychopathology. The separation produces the misleading appearance that a person's skills are low level and uncoordinated, although in fact they involve high-level coordination for the purpose of dissociation.

Dissociation is often thought of as a type of pathology, in which a person splits him- or herself into parts that are kept separate through an unconscious, active process (Breuer & Freud, 1895/1955; Freud, 1917/1961–1963; Freud, 1923/1961; Kernberg, 1976; Putnam, 1994). Examples include dissociating a feeling from the thought where it originated, dissociating the self into multiple personalities, and splitting family and friends into good and bad people. In fact, however, dissociation is not limited to pathology but is a normative process that facilitates both adaptation to extreme experiences such as trauma and also performance of diverse activities that can interfere with each other. Most people possess major dissociative skills, as evidenced in dreaming and in automatized activities, such as driving while carrying on a conversation (Erdelyi, 1985; Fischer & Pipp, 1984; Foulkes, 1982; Hilgard, 1977; Mischel & Mischel, 1958; Vaillant, 1986).

In addition, although dissociation is sometimes totally unconscious, it can involve degrees of consciousness, in both normal and pathological dissociation, as we will illustrate below for several kinds of psychopathology. Two common types of dissociation that involve partial consciousness of the separated domains are isolating dissociation and compartmentalization. In isolating dissociation, settings such as public and private often govern the splitting of Jekyll and Hyde personalities, with some (incomplete) awareness of the duality (Fischer & Ayoub, 1994, 1996). In compartmentalization one domain is separated off as if it is in a separate compartment,

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again with some awareness, as when a person presents a mask or false self in interactions (Noam, 1986; Showers, 1992).

With experience and development, dissociative skills can become highly complex. The distinctive developmental pathways in many forms of psychopathology are often defined by dissociative skills that develop to advanced forms and promote adaptation to trauma and other regulation problems (Cole & Putnam, 1992; Famularo, Fenton, Kinscherff, Ayoub, & Barnum, 1994; Herman, 1992; McCann & Pearlman, 1992; Noam, Powers, Kilkenny, & Beedy, 1990; van der Kolk, 1987).

The case of 8-year-old Shirley, described in the documentary *To a Safer Place* (Canadian Broadcasting Corporation, 1990), illustrates the adaptive and complex nature of dissociative skills in traumatic situations. Over a number of years, Shirley's father repeatedly raped her in her bed in the basement of their home. Whenever she resisted, he attacked her physically, beating her to the point of sometimes knocking her unconscious. She constructed skills for dissociation from the rape experience to cope with this horrible situation. While her father was molesting her, she concentrated on a small hole in the wall next to her bed, until she felt herself to be inside the hole instead of in her body. In this way, she dissociated her experience from the rape, allowing herself to endure it without overt distress and thus without provoking her father's wrath. Occasionally her father would rape her in a different place, where there was no hole in the wall for her to put herself into. Then she could not dissociate herself from her distress, and as a result of her resistance, her father would beat her up in addition to raping her.

This skill for dissociating her experience into two distinct selves was clearly adaptive, allowing her to survive the rape without being physically beaten. Shirley put her experiencing self *ME-SHIRLEY* into the hole in the wall, where she could feel safe and concerned for her other self, the *YOU-SHIRLEY* who was being hurt and was afraid:

$$[\textit{YOU-SHIRLEY}^{\textit{HURT}}_{\textit{SCARED}} \nleftrightarrow \textit{ME-SHIRLEY}^{\textit{SAFE}}_{\textit{CARING}}]. \quad (4)$$

In Formula 4 Shirley's dissociative coordination is denoted by the double-headed arrow with a vertical bar through it, whereas a nondissociative coordination is denoted by a similar arrow without the bar, as in Formula 3. This kind of skill structure in Formulas 3 and 4 is a representational system (Level Rp3), which is the most complex level used by children of Shirley's age. What Shirley has done is to employ the general capacity for building representational systems to construct a skill for dissociating herself from her body so as to cope with the trauma of incest.

When Shirley placed herself in the hole in the wall, she coordinated her representation of herself as observer with that of herself as victim of incest. This kind of coordination is paradoxical, in that an integrative capacity is used to sustain a dissociation of self into two parts. The skills are simultaneously separated and coordinated, with the coordination maintaining the separation, as diagramed in Formula 4. Unless this coordination is recognized, the dissociative skill appears to involve several lower level skills instead of one dissociative coordination, and the high level of the skill then goes undetected.

Assessments of Shirley's self-representational capacity could have captured her development only if they included ways of detecting these dissociative skills. Assessments based on normative models of development assume benevolent parent–child relationships and nondissociative self-representations (for example, Kernberg, 1976; King & Kitchener, 1994; Kohlberg, 1969; Loevinger, 1976; Noam et al., 1990). Consequently they misdiagnose Shirley's developmental pathway as primitive and immature, detecting, for example, only one of the two dissociated Shirleys and thus missing the sophistication of the skill in Formula 4. This mistaken assessment perpetuates the error of treating such dissociation as primitive pathology instead of dynamic adaptation to trauma (Fischer & Pipp, 1984; Gilligan, 1996; Herman, 1992).

Our research indicates that victims of maltreatment commonly develop along distinctive pathways like Shirley's instead of normative ones and that their psychopathology can be understood only by starting from their spe-

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cific perspectives, based in their life histories (Fischer & Pipp, 1984; Herman, 1992; Noam, 1990). Otherwise they will be forced into a normalized developmental model and misdiagnosed as immature, continuing the mistakes of the dominant paradigms of clinical and educational theory and practice.

Active dissociation like Shirley's is clearly a developmental accomplishment. Shirley had to create a coordination in order to actively keep the two Shirleys separate in her experience. Such strong forms of active dissociation become even more complex and powerful during adolescence, when a person becomes capable of using complex abstract skills to coordinate many components of action, thought, and feeling.

Developmental levels in abused, depressed adolescent girls

Dissociative skills are difficult to detect with most conventional assessments because dissociation involves separating and hiding part of the skill. Close familiarity with a person is typically necessary to detect and describe dissociative skills, as in a detailed case history (Fischer & Ayoub, 1994). However, a simpler method is available to assess development of other relevant skills, including less extreme or more conscious forms of fractionation and dissociation.

With the Self-in-Relationships Interview we have tested the hypothesis that psychopathology arising from sexual abuse involves high-level skills appropriate to a person's age. We and our collaborators devised the SIR to support adolescents or adults in characterizing themselves in important relationships. The interview helps people to use their own perspective to describe and coordinate their self-characterizations and thus to form a detailed portrait of self-in-relationships with as much complexity as they choose to give it (Fischer & Kennedy, 1997; Harter & Monsour, 1992; Kennedy, 1994). The interview is designed to detect the full range of a person's developmental levels in a single session and to assess the effects of variations in contextual support. Most of the findings relevant to our current argument involve the high-support condition, in which a person constructs a visual display of herself or himself in relationships, as illustrated in Figure 2.

By means of this interview, Calverley, Fischer, and Ayoub (1994; Calverley, 1995) assessed the developmental levels of a sample of 92 depressed adolescent girls between 10 and 18 years of age. Abuse was prevalent in the sample, with 57 girls having experienced a history of childhood sexual abuse, 37 physical abuse, and at least 21 neglect, with only 25 having no recorded history of maltreatment. All the girls had been institutionalized in a psychiatric hospital for several weeks to be treated for depression as well as related behavioral problems such as acting out. The sexually abused and nonabused girls were similar demographically and had similar symptomatology in most categories, but the abused girls showed more evidence of borderline traits, self-mutilation, and posttraumatic stress disorder.

During their stay in the hospital, the girls were assessed individually by an experienced female interviewer (R. Calverley). The interview is highly interactive, requiring a sensitive interviewer who can help establish a sense of trust with each girl. In the study the transcripts revealed significant emotional investment by both abused and nonabused girls, dealing with important relationships and traumatic personal histories. This kind of investment is probably essential to the results we obtained.

Each girl was asked to describe what she was like in five different close relationships: with girlfriend, mother, father, romantic friend, and "the real me no matter who you are with." For each relationship the girls were asked to write down five descriptions on small pieces of self-sticking paper and to note whether each description was positive, negative, or both. The girls then placed these descriptions on three concentric circles, as shown in Figure 2. The SIR diagram in Figure 2 was produced by Alison, a 17-year-old Anglo girl who had been sexually and physically abused by her father and several other men

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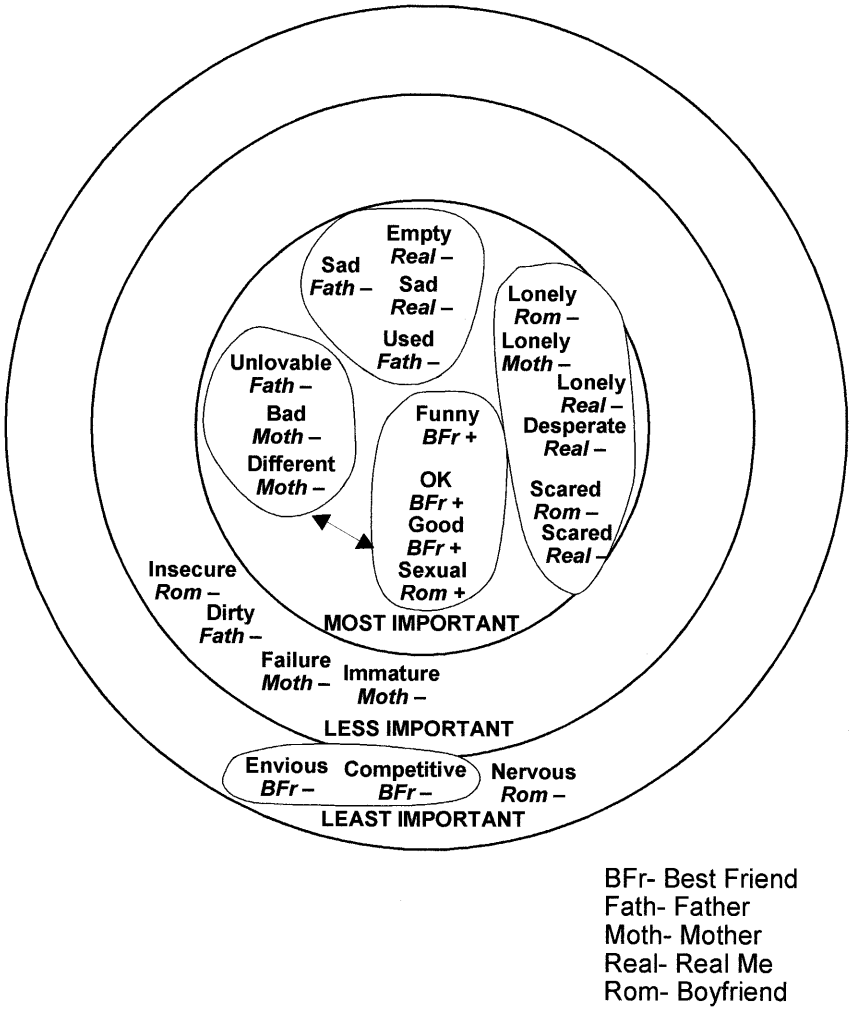


Figure 2. Self-in-relationships diagram of 17-year-old Alison. Positive and negative valences are marked by + and –. Lines drawn around groups indicate similar characteristics, and lines between groups or characteristics indicate opposite or conflicting relations, with arrowheads marking conflicts. Abbreviations for different role relationships are listed in the key on the diagram.

starting at age 4 years. The central circle was marked "Most Important," the middle circle "Less Important," and the outer circle "Least Important."

After placing the descriptions on the circles, the girls grouped the descriptions by similarities and noted relations of opposition or conflict. For similarities, they placed similar items near each other and drew circles around them, explaining the bases for their groupings. For oppositions and conflicts, they drew lines between descriptions or groups that were contradictory or conflicting and explained those relations; arrows on the ends of a line indicated conflict. The interviewer then asked a series of questions about specific descriptions, groupings, and relations. These questions were designed to assess the six levels of skill development that are commonly seen during middle childhood and adolescence (Levels Rp1 single representations through Ab3 abstract systems, as described by Fischer

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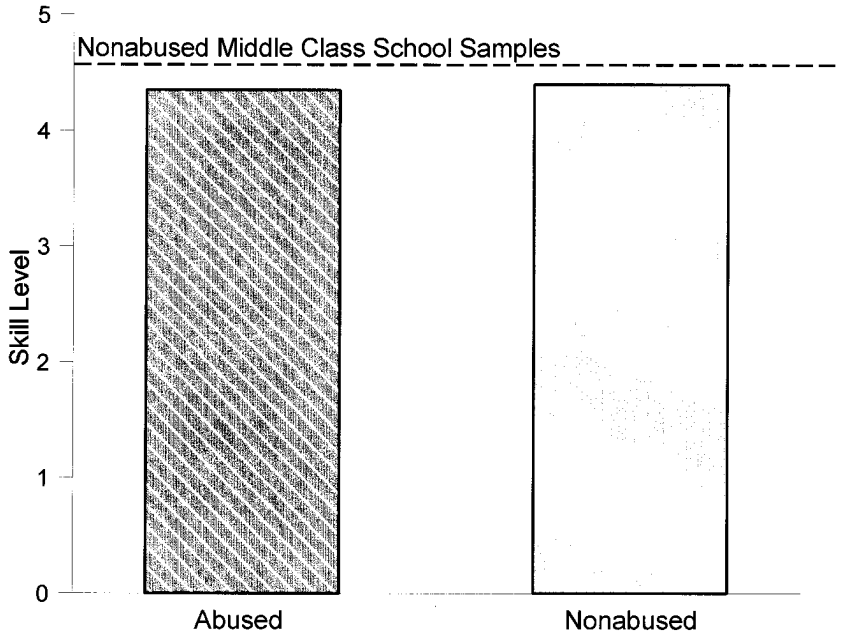


Figure 3. Levels of self-in-relationships for abused and nonabused depressed girls. The dotted line marks the approximate mean developmental level of adolescents from prior studies of students in schools (as opposed to psychiatric hospitals).

[1980] and Fischer & Rose [1994]). Each girl's answers were coded for skill level, and following standard definitions, her developmental maturity was assessed by determining her highest skill level during the interview, as well as the distribution of levels.

The developmental levels of self-in-relationships in this high-support assessment condition were remarkably similar for the sexually abused and nonabused girls, as shown in Figure 3. Thus the presence of abuse and associated symptoms such as borderline characteristics did not seem to affect developmental level. In addition, the levels of both abused and nonabused groups were similar to those found in other research with adolescents in the same age group who were assessed in school and not hospitalized, as indicated by the dotted line in Figure 3. These other studies used not only the SIR but also measures of concepts in other domains such as arithmetic, epistemology, and social morality (Fischer, Kenny, & Pipp, 1990a; Kitchener, Lynch, Fischer, & Wood, 1993; Lamborn, Fischer, & Pipp, 1994). In prior research, adolescents in this age group have typically demonstrated a highest level of either single abstractions (Level 4 in Figure 3 for most 10- to 14-year-olds) or abstract mappings (Level 5 for most 15- to 18-year-olds).

The evidence thus shows that the girls evidenced normal developmental levels of self-in-relationships despite their psychopathology. The presence of depression in both groups and problems associated with severe trauma in the abused group did not apparently interfere with the girls' development of age-appropriate skills for self-in-relationships, when they were interviewed from their own perspective. There was no support for hypotheses of developmental immaturity or regression.

However, the sexually abused girls' development did differ powerfully from that of the nonabused girls. The abused girls showed distinctive developmental pathways growing out of their traumatic histories. Their descriptions of self-in-relationships reached normal levels of complexity but were organized differently from those of girls with no history of sexual

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abuse. In both this study and other research, maltreatment has led to at least two distinctive characteristics of developmental pathways: Representations of self and others center on negative evaluation rather than positive, and dissociative splitting develops to complex and sophisticated levels.

Developmental levels in autism

Autism is very different from the disorders related to maltreatment, but it too produces distinctive developmental pathways rather than mere developmental immaturity. Autism involves severe impairments in understanding emotions, other people, and relationships, deficits that are apparently based in abnormal brain development (Dawson, 1989; Kanner, 1943; Minshew & Pettegrew, 1996; Mundy & Hogan, 1994). People with autism typically miss the relational connections in speech and gesture and are unable to identify the meaning of basic signals of emotions (facial expressions, tone of voice, words). These deficits do not reflect general retardation or cognitive immaturity, except in cases where there are other kinds of brain anomalies. In most cases the deficits seem to be specific to feelings, other people, and social relationships and not to involve general retardation or developmental delay. Indeed, a number of autistic individuals are extremely intelligent, attending college and/or acquiring sophisticated specialized skills.

Donna Williams, the autistic author of *Nobody Nowhere*, has written a compelling, courageous account of her early life and experience. Few autistic people have written about their experience, but Williams describes her different pathway vividly. She provides a valuable resource for moving beyond normative interpretations of autistic behavior and thus provides a vehicle for beginning to describe a developmental pathway from the perspective of an autistic person. There has been little research describing autistic development, although there have been major efforts to describe overt autistic behaviors and symptoms and to characterize the neurological anomalies.

In conjunction with autistic people's difficulties understanding and relating to other people, they often have difficulty comprehending spoken language. Williams describes the experience of hearing language as if the sounds had to go through some "complicated checkpoint procedure," with her segmentation of the sounds often producing a strange and unintelligible message (p. 69). The problem is not deafness but analysis of language. A few autistic individuals have turned out to benefit greatly from using an alternative form of speech such as American Sign Language (Bonvillian, 1978).

In connection with their social–emotional deficits, autistic children often have difficulty conceptualizing how pieces fit together into a meaningful whole. They tend to experience social life as a collection of parts, an incoherent series of events (Williams, 1992). On the other hand, they often have special talents with integrating skills in well defined domains, such as music, chess, computers, or mathematics, and they frequently solve problems by piecing events together in extraordinarily complex ways.

Behaviors of autistic people often appear quite disturbed to those around them. Relatives and mental-health professionals describe them as unresponsive and actively avoidant, especially of people. Although autistic persons may have a strong desire to connect with their world, their actions indicate otherwise to the average observer. They may display rigid, stereotyped behaviors, such as rocking their bodies and flapping their hands, they may use an oddly pitched tone of voice and echo things said to them, and they usually avoid physical contact. Attempts to interrupt their routines are frequently met with temper tantrums or aggression.

Donna Williams' descriptions of her early life and the evolution of her thinking provide a basis for understanding how development proceeds along this alternative developmental pathway called autism. Especially important characteristics of her development were her difficulty in integrating social–emotional information, her hypersensitivity to much sensory stimulation, including touch, and her strong ability to tune out events around her. A simple example of her skill and her deficit was her reaction to someone commenting on

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her singing as a young child. After hearing the comment, she stopped singing in front of other people, evidencing remarkable self-control in order to avoid being heard, but she did not realize for a number of years that people could hear her even if she could not see them (p. 15).

Central to Williams' developmental adaptation was the construction of agents or shells to both communicate with others and to protect herself from the outside world that was so foreign to her. These compartmentalized agents indicated complex development starting from an early age and continuing through adolescence and adulthood. For example, by approximately 3 years of age, she had constructed an agent that she called Willie to protect her from frightening people and situations. Willie was characterized by "hateful glaring eyes, a pinched-up mouth, a rigid corpse-like stance, and clenched fists. Willie stamped his foot, Willie spat when he didn't like things, but the look of complete hatred was the worst weapon . . . " (p. 11). Already during the preschool years, Williams had become skilled at purposely turning herself into Willie ("losing myself") when she needed protection.

Williams describes a rich life involving several such compartmentalized agents. Each of them had specific roles to play in communicating and coping with the outside world, and she consciously used each as a front or mask to protect herself, Donna.

At about age 5 Donna was wandering in a neighborhood park and met a girl named Carol, who took an interest in her and brought her home to visit. Carol and her mother were kind to Donna, washing her face and giving her something to drink. Donna decided that she wanted to live in Carol's world. She began to construct an agent that she called Carol, initially built around imitating Carol and eventually developing into a major part of Donna's world. This extensive development took place even though Donna did not continue to interact with the real Carol.

Carol became the "girl in the mirror" who looked just like Donna. Somehow the look in the eyes in the mirror told Donna that it was really Carol there. Donna would talk to Carol, and Carol would copy her. "I was angry. I didn't expect her to do that. My expression asked her why, and hers asked me. I figured the answer was a secret" (p. 18). Donna imitated Carol's behaviors for interacting with other people and so used the agent Carol to relate socially. Carol laughed, made friends, and acted relatively normal with other people. Donna used Carol to relate to her mother and other people, but perceived her as a compartmentalized agent, "the perfect dancing doll" (p. 20). The real girl "Carol spoke to people. I learned to talk *at* people" (p. 22).

Williams describes continuing development of these agents, Willie, Carol, and Donna—becoming increasingly complex in childhood, developing self-consciousness in adolescence, and having an identity crisis in early adulthood. This pathway is not impoverished, retarded, or developmentally immature. It shows the rich complexity of normal human development. When it is viewed from the perspective of normality, deficits appear everywhere, but such an analysis fails to capture the real development that is occurring in autism. The social–emotional deficits are genuine, but so are the accomplishments growing out of the autistic framework.

When children are maltreated, they have strong emotional reactions that affect how they develop. Likewise, when children suffer from autism, their emotional reactions powerfully shape what they learn and what they do not learn. Emotions play a central role in shaping the diverse pathways of psychopathology.

Evaluative Biases in Emotional Shaping of Developmental Pathways

Emotions powerfully affect both normal and pathological development, shaping people's activities, perceptions, and memories (Barrett & Campos, 1987; Fischer, Shaver, & Carnochan, 1990b; Lazarus, 1991). Emotional experiences in important relationships have an especially potent effect, shaping children's implicit attitudes towards others and themselves (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1969; Cicchetti, 1991; Noam & Fischer, 1996). When children are traumatized through maltreatment, they form different working models of the interpersonal world

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and themselves from children who are treated more benignly. Instead of mostly positive attachments, self-concepts, and role relationships, they develop negative ones. When children suffer from cognitive–affective anomalies such as autism, they too form different models of the interpersonal world as well as themselves, as shown in the description of the case of Donna Williams, described above. (In general, we use emotion and affect interchangeably, except that affect emphasizes individual subtleties and emotion emphasizes biological foundations.) The specifics of the negative or anomalous patterns differ according to the children's histories, with the various patterns typically reaching high levels of complexity. They construct developmentally mature skills, but ones that often lead to later problems of psychopathology.

Positivity and negativity form a major evaluative dimension of the emotional organization of development. For over a century, research has shown that across diverse people and cultures, experience and action are organized in terms of a dimension that is variously characterized as positive–negative, approach–avoidance, acceptance–rejection, or promotion–prevention (Greenwald, 1980; Higgins, Roney, Crowe, & Hymes, 1994; Osgood, Suci, & Tannenbaum, 1957; Shaver, Schwartz, Kirson, & O'Connor, 1987; Tesser & Martin, 1996; Wundt, 1905/1907). In general, people show a strong bias toward the positive, especially in representation of self, evaluating themselves as basically good and as more responsible for positive than negative events. Children who experience maltreatment, however, often show a fundamental alteration of the organization of evaluation, representing themselves and their worlds in pervasively negative terms. The normative positivity bias is either gone or restricted to a few domains. Children who have cognitive–affective anomalies such as autism also show alterations in the organization of evaluation, because it is such a central dimension of psychological organization.

Normative positivity bias

Toddlers routinely produce a kind of positivity bias that clinicians often label as *affective splitting*, in which the children represent themselves as nice or good and someone else as mean or bad, whether or not the circumstances warrant that evaluation (Fischer & Ayoub, 1994; Harter & Buddin, 1987; Hencke, 1996). For example, in stories about nice and mean interactions, 2- and 3-year-olds routinely describe the self as nice, ME_{NICE}, and then shift to characterizing another child as mean, YOU_{MEAN}, splitting by affective evaluation and person.

$$[ME_{NICE}] > [YOU_{MEAN}]. \quad (5)$$

Normal children frequently show this kind of splitting even when they must seriously distort events and activities. With development and a supportive environment, children (and adults) can integrate across this split, recognizing that both they themselves and other people can be simultaneously nice and mean. The simplest skill for integration of nice and mean in oneself was shown in Formula 2, and here is the parallel skill for integration of nice and mean in another person, which children are first capable of constructing at approximately 4 years of age:

$$[YOU_{NICE} — YOU_{MEAN}]. \quad (6)$$

Although older children and adults can integrate across the positive–negative split, the tendency to affective splitting remains throughout life. It can be limited but not eliminated.

Adolescents and young adults normally develop more sophisticated forms of emotional bias as well—most notably, a dramatic positivity bias in their constructions of self-in-relationships. They routinely place mostly positive characteristics in the most important region of their SIR diagram and mostly negative characteristics in the least important region. Figure 4 illustrates this bias for 15-year-old Nicole, a nonmaltreated Anglo girl from a study by Kennedy (1994). To highlight the valence distribution, all components but the pluses and minuses have been removed from the diagram. Nicole placed most of her positive characteristics in the most important (core) region while including only two ambivalent characteristics and no negative ones

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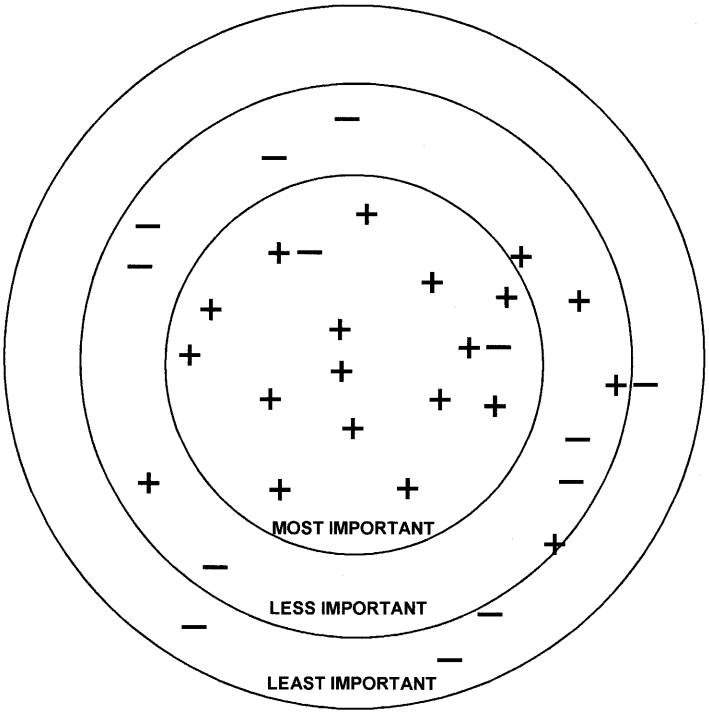


Figure 4. Positivity bias in self-in-relationships of 15-year-old nonabused girl Nicole.

there. This kind of positivity bias occurs with remarkable consistency across adolescents in cultures as diverse as the United States, South Korea, and China (Cheng, 1996; Fischer & Kennedy, 1997).

Negativity bias from abuse

Abuse and neglect can produce a fundamental change from positivity to negativity for a child, reorganizing his or her developmental pathway. The trauma of maltreatment can alter a child's emotional organization to produce a negative core instead of a positive one. We have evidence for such changes in representations of both self-in-relationships and social interactions.

Negative self-in-relationships. Sexual abuse affects the evaluation dimension for self-in-relationships, pervasively altering the affective organization of development. In the study of depressed adolescent girls, most of those who were sexually abused showed a high frequency of negative self-characteristics and a strong negativity bias in the core of self-in-relationships. They saw themselves as fundamentally bad, as illustrated in Figure 5 for Alison (whose full self-in-relationships diagram was presented in Figure 2). In contrast, girls who were depressed but not sexually abused retained the normative bias toward the positive despite their depression.

Alison had a horrendous history of sexual and physical abuse, depression, and self-mutilation. She was sexually and physically abused by her father between 4 and 15 years of age, and in addition she was sexually and physically abused by another unidentified person between 7 and 14 years and then raped by a male friend within the year before her hospitalization. Her self-characterizations were dominated by negatives, although she did see her few positive characteristics as important, as shown in Figure 5.

Fourteen-year-old Jessie had a devastating history of sexual abuse, having been abused from age 5 by multiple perpetrators starting

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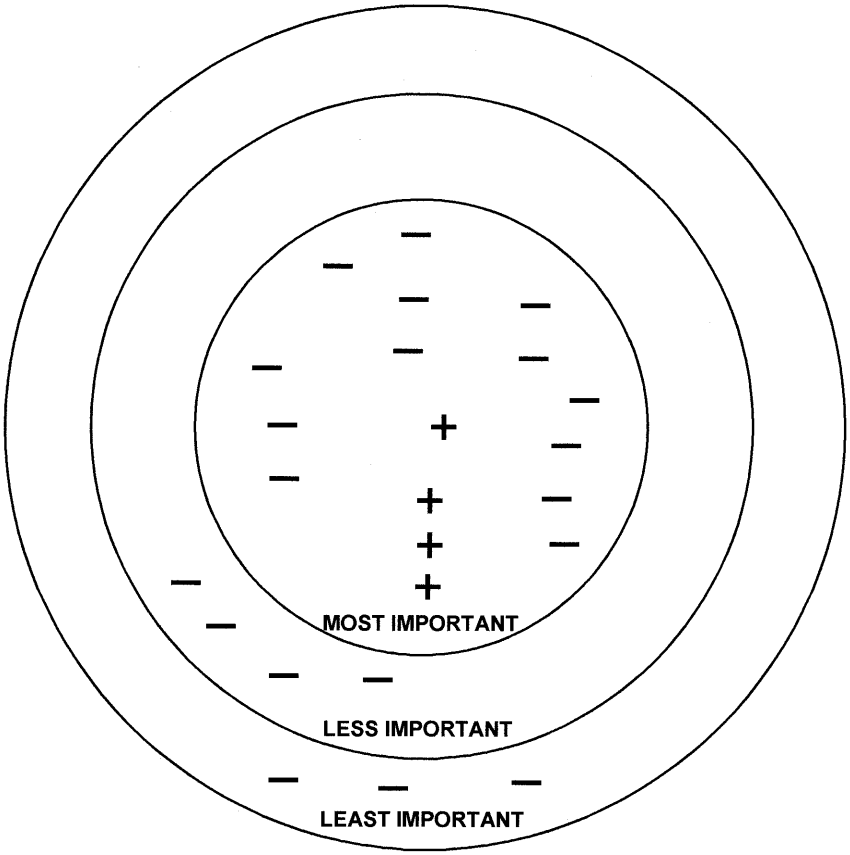


Figure 5. Negativity bias in self-in-relationships of 17-year-old abused girl Alison.

with her father and continuing with several of her mother's subsequent sexual partners, facilitated by her mother's cooperation. As shown in Figure 6, Jessie demonstrated a higher proportion of positive characteristics than Alison, but over half of them were negative. Moreover, she indicated that all the most important self-descriptions were negative, with all the positive ones placed outside the central core of the diagram.

At the same age a nonabused patient, 14-year-old Susan, presented a sharp contrast, with a positivity bias like Nicole's, even though she had been admitted to the hospital for depression and related problems. Her self-in-relationships diagram showed a strong positivity bias, similar to those found in most adolescent girls in other studies, as shown in Figure 7. A large majority of her self-descriptions were positive, and she placed only positive characteristics in the most important region, relegating almost all the negative ones to least important.

For the sample of sexually abused girls, the negativity bias to core self-in-relationships was clear. In the most important region of the diagram, sexually abused girls ($n = 57$) placed nearly three times as many negative characterizations as did girls who were not sexually abused ($n = 35$): 32.6 versus 11.4 percent, $p < .001$, as shown in Figure 8. Although many of the abused girls showed less extreme biases than Alison and Jessie, most of them placed a predominance of negative characteristics in the core self and described more negative characteristics overall.

The positivity bias of the nonabused girls remained strong despite their serious prob-

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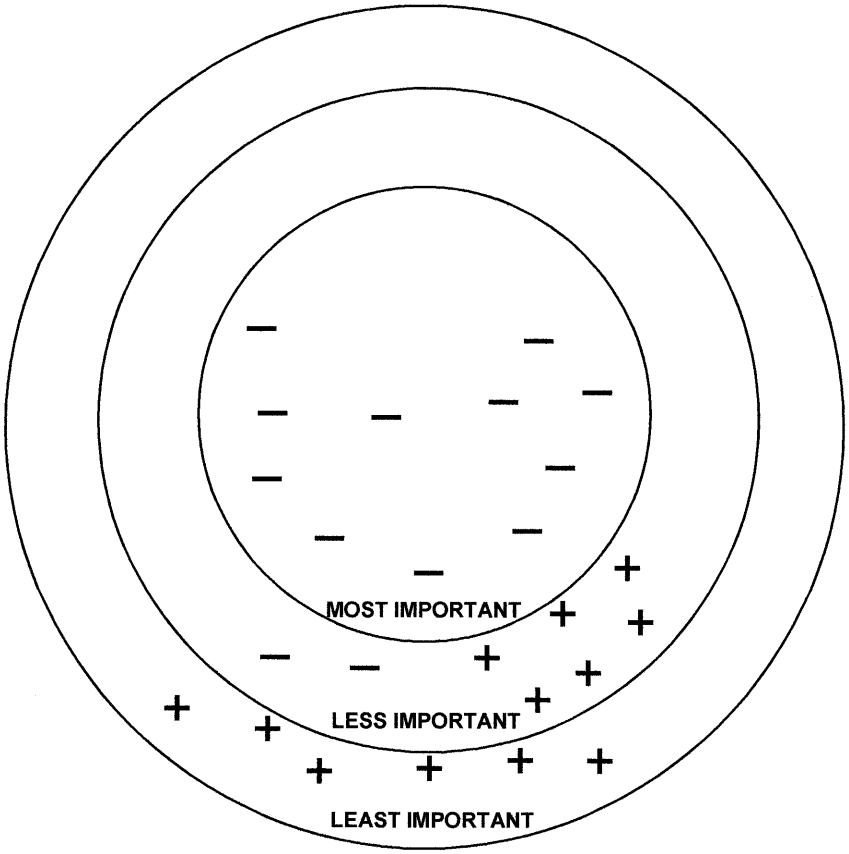


Figure 6. Negativity bias in self-in-relationships of 14-year-old abused girl Jessie.

lems: All of them suffered from depression, many of them had been physically abused or neglected, and some of them gave more negative self-characteristics than nondepressed adolescents in prior studies. Still these girls rated the vast majority of their most important characteristics as positive.

The negativity bias associated with sexual abuse is particularly dramatic, but negativity biases appear in other kinds of abuse as well, affecting developmental pathways from an early age. The forms that the negativity takes seem to differ as a function of the type of trauma that children experience.

Negative interactions with others. Children who grow up in violent, unstable homes and neighborhoods often develop a negativity bias in their representations and expectations about social interactions with both peers and adults. For example, in another study in our research group, toddlers and preschoolers attended a daycare center for inner-city troubled families, with whom the state's Department of Social Services had intervened because of problems of abuse or neglect. We observed the children's pretend play with peers, in a pair-play therapy situation, and in structured-story assessments (Ayoub, Raya, & Fischer, 1993; Raya, 1996).

These children showed powerful negativity in many parts of their play, much different and more pervasive than we have found in research with children from families not identified as troubled. For example, an interviewer demonstrated stories about positive or negative interactions (nice or mean) and asked the children to act out similar stories (approxi-

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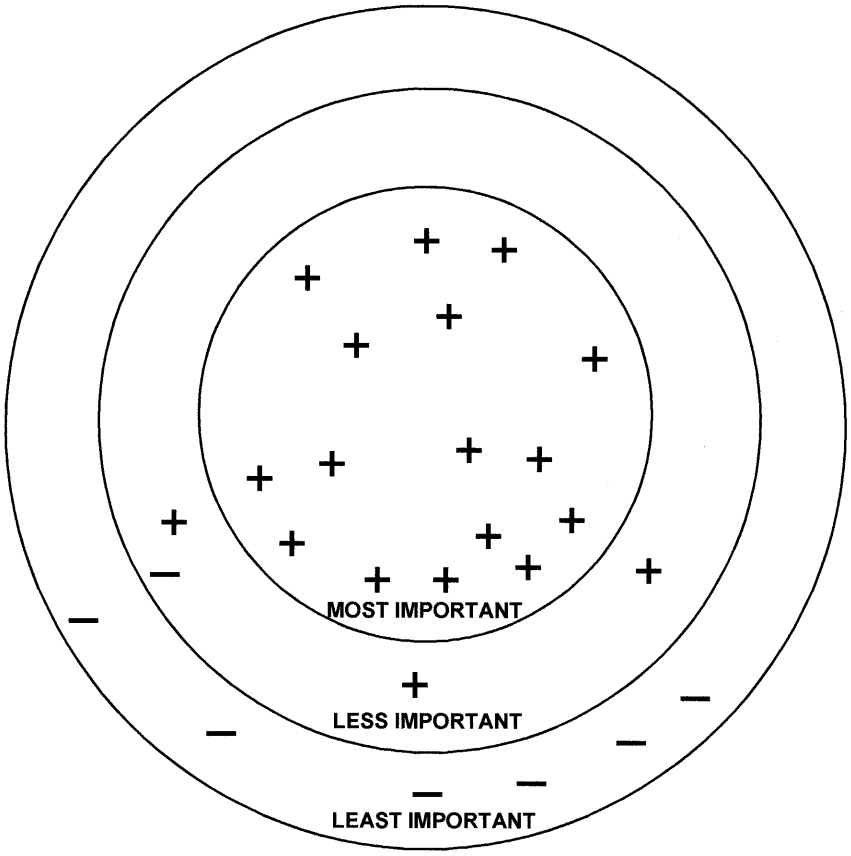


Figure 7. Positivity bias in self-in-relationships of 14-year-old nonabused girl Susan.

mately 15 stories per child, half of each valence). A subsample of twelve 2- to 3-year-old children were three times as likely to change a positive story into a negative one as to change a negative story into a positive one, $p < .01$, as shown in Figure 9. In this negativity bias, they transformed stories from nice or happy to mean, nasty, and violent.

In the nice stories demonstrated to the child, a doll with the child's name did several nice activities with another doll, such as sharing food and toys, playing together, and making positive comments such as "I like you" or "I want to be your friend." The stories thus represented both ME_{NICE} and YOU_{NICE}. The children from maltreating families frequently changed the characters into ME_{MEAN} and YOU_{MEAN}, with activities such as hitting, grabbing food and toys, saying "I hate you," and attacking with weapons. Sometimes the children became so involved in the negativity in their stories that it boiled over into their interactions with the real children and adults around them (Buchsbaum, Toth, Clyman, Cicchetti, & Emde, 1992; Cicchetti, 1991; Cicchetti & Beeghly, 1987).

The maltreated children's developmental pathways for social interactions were strongly biased toward the negative. Their developmental web for stories about nice and mean interactions showed a substantial tilt in favor of mean, as illustrated in Figure 10, which presents developmental orderings of a series of stories about nice and mean interactions. Stories about mean interactions developed earlier and were more energetic and richly elaborated. Nice interactions were often turned into mean ones. Of course, there were also substantial variations in the ways that diverse children represented and dealt with the

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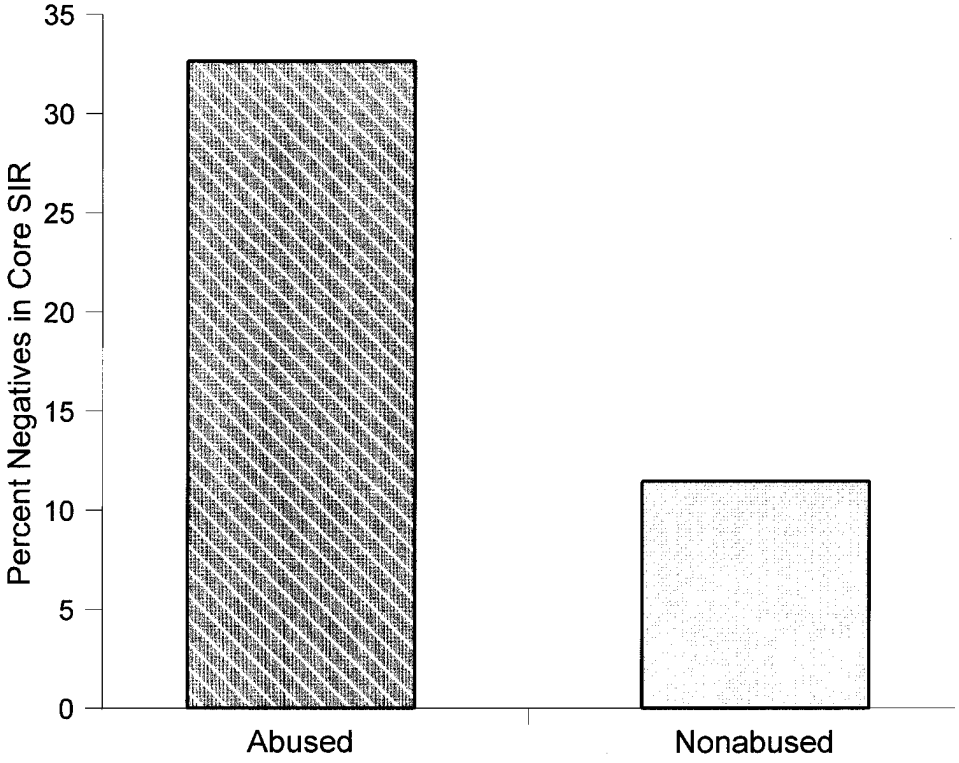


Figure 8. Negativity in core self-in-relationships in abused and nonabused depressed girls.

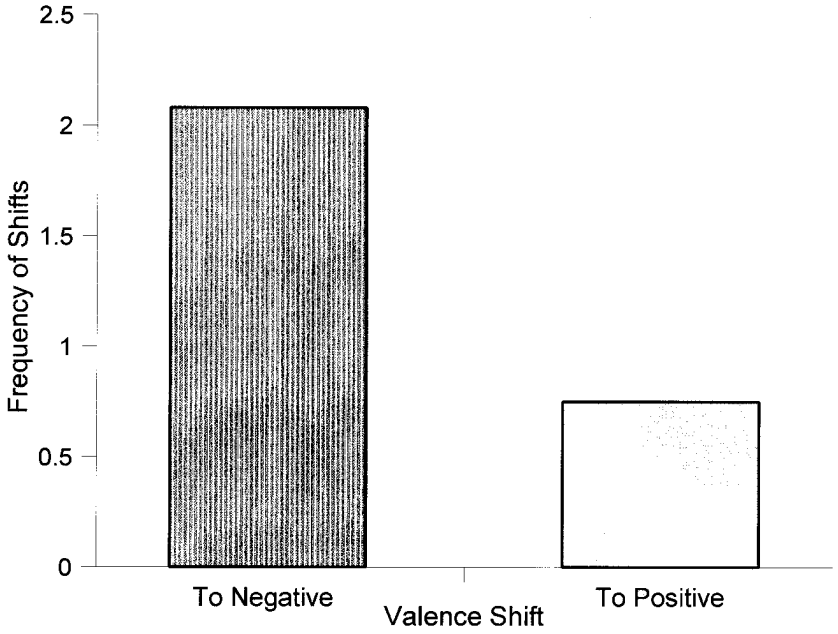


Figure 9. Valence shifts in nice and mean stories of 2- and 3-year-olds from troubled homes.

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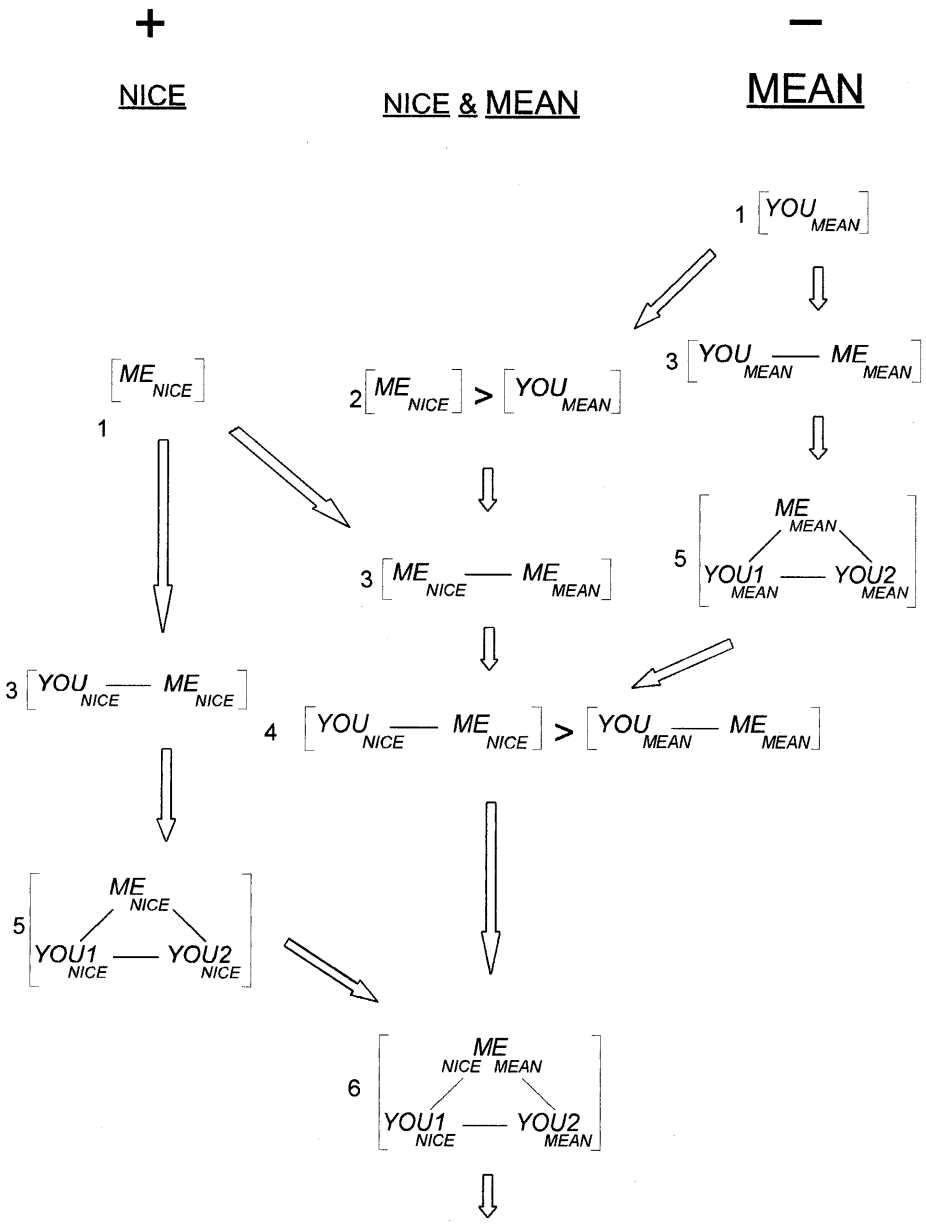


Figure 10. Developmental web of nice and mean interactions biased toward the negative.

negative emotions, such as how much fear was intermixed with anger and how much anger was suppressed.

In summary, one of the most important characteristics of maltreated children is that they show a bias toward the negative instead of the positive. They assume a negative evaluation of themselves and other people, reversing the positivity assumption that is common in nonmaltreated children and adults. The world of people begins with an assumption of meanness, sadness, danger, and violence. In addition, maltreated children often switch their evaluation bias across domains, changing their polarity from negative in one domain to positive in another. They show other kinds

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of switches in organization as well, such as dissociations that change affective–cognitive organizations between domains. This negativity bias illustrates how psychopathology involves distinctive developmental pathways, not immaturity or lack of complexity. A negativity bias seems immature only if maltreated children's activities are analyzed with a perspective that assumes a positivity bias as the norm. With this normative perspective, the complexity of organization centered on negativity is lost, and maltreated children's behaviors are seen erroneously as primitive.

Switching, Splitting, and Dissociation in Pathways of Psychopathology

Individuals with psychopathology often develop high-level skills for switching or dissociating between affective–cognitive organizations in different domains. Based on the contexts in which they experience maltreatment or affective–cognitive regulation problems, they organize their world into domains with highly distinct social–emotional structures, often involving strong switches between positive and negative biases. These dissociative organizations typically reach high developmental levels and explain many of the symptoms associated with psychopathology, such as affective splitting, dramatic switches in patterns of activity across contexts, and complex patterns of interactions and relationships in adolescence and adulthood.

Affective splitting in psychopathology

In the clinical literature a type of affective splitting is often attributed to patients with dissociative disorders linked to abuse, such as borderline and narcissistic personalities (Kernberg, 1976; Kohut, 1971; Mahler et al., 1975). These patients are said to split other people into the good and the bad—those who are worthwhile, friendly, and trustworthy versus those who are loathsome, dangerous, and not to be trusted. That is, people are treated as all-good or all-bad. Even with one person, patients show switches between good and bad depending on their own affective state: Today a patient treats his therapist as $LOUISE_{GOOD}$, but next week he treats her as $LOUISE_{BAD}$. The most common clinical interpretation is that these patients are developmentally arrested, demonstrating affective splitting similar to that of young children (Westen, 1989).

This interpretation is problematic, as shown by several of the phenomena of affective biasing that we have described. No doubt these patients do show affective splitting, but the presence of such splitting is not abnormal, nor is it evidence for developmental arrest. Likewise, young children do indeed show such splitting, but so do normal adults, especially when they are dealing with emotional issues or relationships. We have documented elsewhere that affective splitting is characteristic of adult functioning even at the most sophisticated developmental levels (Fischer & Ayoub, 1994).

What is distinctive about these patients is not the existence of splitting but the way their splitting switches dramatically across situations. These frequent switches produce the appearance of exceptional ambivalence that is commonly described in borderline patients or erratic or bizarre shifts in emotions and activities, as is commonly described in autism and other types of psychopathology. In research with maltreated children and adolescents, we have found evidence for several patterns of unusual shifts in evaluative organization, which are related to common descriptions of borderline or dissociative symptoms. Some of these patterns involve switching affective–cognitive organization across domains, and some involve a more powerful dissociation of domains.

The normality of splitting

Young children split the world into positive and negative, as illustrated in Formula 5 above—self versus other as in ME_{NICE} versus YOU_{MEAN}, or good people versus bad as in splitting playmates into $JASON_{GOOD}$ versus $AARON_{BAD}$. Healthy adults also make such splits in more complex forms, varying from the normative positivity bias in representations of self-in-relationships to the division of the world into good and evil. The good things about me are important, and the bad things

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are not. I am responsible for the good things that happen to me, but somebody or something else caused the bad things. I am kind to my friends, but I make life difficult for my enemies. God protects me, and Satan attempts to lead me into sin. Today I love my friend or lover, but tomorrow we have a fight and I hate him or her.

These are all cases of affective splitting, and they are not necessarily primitive, pathological, or erroneous. Affective splitting is characteristic of human functioning at all developmental levels, deriving from the pervasive organization of action and thought by positive/negative evaluation.

Because of the pervasiveness of splitting, its presence cannot be used to characterize borderline and narcissistic disorders or any other kind of psychopathology. A reconceptualization is needed that focuses not on the presence or absence of splitting but on how the organization of positive/negative evaluation is different in these disorders, developing along distinct developmental pathways.

Switches with contextual support

What characterizes dissociative disorders, we propose, is the way that evaluative organization switches from one situation to another. The switching involves more than splitting, which is present in everyone, and more than a general negativity bias. In dissociative disorders people switch dramatically between evaluative organizations across contexts in ways that do not fit the normative models for cognitive–affective organization assumed by therapists and educators. Maltreatment leads to such switching, as when child victims must switch whenever their caregivers change from loving to abusive and vice versa. Some of these switches are readily observed, such as the dramatic changes with context and mood evident in borderline patients, who routinely dichotomize the world into black or white, wonderful or terrible. Other switches are hidden from view, such as dissociative splitting to cope with trauma, as exemplified by Shirley's placing herself in the hole in the wall.

With an in-depth analysis of a subsample of the sexually abused girls in the Self-in-Relationships study, we found a kind of shifting developmental organization that illustrates these evaluative switches (Calverley et al., 1994). Of the 16 girls in the subsample, seven had histories of prolonged sexual abuse, and nine had no histories of sexual abuse. Both sets of girls were assessed under two conditions, one providing support for high-level self-in-relationships descriptions and the other providing no such support.

The nonabused girls demonstrated a normatively consistent organization across conditions, like that of nonpatient adolescents in other studies (Kennedy, 1994). They showed a moderately positive correlation between skill level and negative self-characterizations in both conditions. In contrast, the abused girls produced a major switch in developmental organization across the two conditions. They evidenced a positive correlation in the high-support condition, a pattern similar to the nonabused girls; but in the low-support condition, the correlation reversed to become strongly negative, as shown in Figure 11. The relation between the abused girls' negativity in self-characterizations and their developmental level thus reversed as they changed support conditions, instead of remaining stable as it normally does. This finding means that a number of abused girls switched their developmental levels from high to low or low to high when the contextual support changed.

Explicating this finding requires description of the two assessment conditions in the Self-in-Relationships Interview. The findings reported earlier involved only the high-support condition, in which the girls had the support of both a self-diagram and a series of structured questions by the interviewer designed to facilitate high-level understanding. The low-support condition was a more spontaneous situation, duplicating the conditions in most traditional instruments for measuring self-concept (McGuire & McGuire, 1982; Montemayor & Eisen, 1977). Each girl was asked simply to describe what she was like and then to indicate which of her self-descriptions were similar and which were opposite.

This low-support condition produced consistently lower developmental levels than the high-support condition in both abused and

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Figure 11. Correlations between negativity and developmental level for abused and nonabused girls under high- and low-support conditions.

nonabused girls, as such conditions do across many different populations and tasks (Fischer, Bullock, Rotenberg, & Raya, 1993). Low support also produced great variability as well as an average decrease in the number of self-characterizations. Because of the variability in number of characteristics under low support, the percentage of negative characteristics was measured only for the high-support condition, and correlations were calculated between negativity for high-support and the developmental level for each condition.

The normative developmental pattern of a moderate positive correlation between negativity and developmental level arises from the typical changes in negative self-representations with age. As children and adolescents grow up, they gradually acknowledge that they have some negative characteristics in their relationships and thus increase the proportion of negatives that they describe. At the same time, they continue to "split" the negatives by relegating them mostly to the less and least important regions of the SIR diagram. This pattern has held in prior research for both high- and low-support assessments. The nonabused girls demonstrated this normative pattern consistently across conditions, like most adolescents in previous studies. The girls produced moderate positive correlations, $r = .53$ for high-support and $r = .45$ for low support, as shown in Figure 11.

For the abused girls, however, this normative pattern occurred only in the high-support condition. When support was low, the abused girls switched to a negative correlation between level and negativity. The sexually abused depressed girls produced the normal pattern with high support, $r = .65$, but a strong negative correlation with low support, $r = -.72$. Although the individual correlations with this small sample were of marginal statistical reliability, the difference between the correlations was highly reliable ($p < .01$), both for the abused girls in high versus low support (.65 and –.72) and for the abused and nonabused girls in low support (–.72 vs. .45).

In general, abuse led not to developmental arrest or retardation but instead to dramatically varying affective–cognitive organization in different contexts as well as a general negativity bias. The abused girls switched their organization of self-characterizations as they changed support conditions. Those who were highly negative about themselves could sustain high-level understanding only when they had the support of a sympathetic interviewer and a SIR diagram, whereas those who were

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less negative showed relatively high levels without support.

We propose that similar changes in affective–cognitive organization characterize people with borderline and narcissistic disorders, many of whom have histories of maltreatment (Westen, 1994; Westen & Cohen, 1992). When clinicians attribute primitive affective splitting to patients, they fail to capture the sophistication of such switches in affective–cognitive organization—alterations across contexts or moods that indicate unusual high-level skills rather than primitive ones.

Dissociative skills in autism

The kind of switching shown by the abused girls can be readily detected by observing people in several related contexts. Types of switching that are based in more hidden dissociation are difficult to detect; detailed case material is needed to analyze these dissociative patterns. Fortunately, the extensive clinical literature provides in-depth case material for beginning to analyze dissociative pathways of psychopathology. Dissociation and switching are common in many types of psychopathology, including not only problems related to abuse or trauma but also biologically based disorders such as autism. Autistic people appear to create dissociated selves or agents that they use to connect to the social world that otherwise eludes them.

Donna Williams in her autobiography, *Nobody Nowhere,* expressly describes her own dissociation and switching, as we introduced above. She created the agent Carol to relate to other people in a more normal way than she herself could, and the agent Willie to protect herself and scare away other people. For a number of years in childhood and adolescence, she especially focused on developing Carol, since she wanted to get along with others and become more socially acceptable. She saw Carol as the only way out of her "inner prison" (p. 20), even though Carol was detached from her true self, and the people Carol interacted with were like characters, as opposed to real people. Carol became the dominant force controlling most of what Donna did and leading her to get along much more effectively at home and in school. However, she never told people that her name was Carol. She did not like using names (even "Donna") and was afraid that naming Carol would cause her to lose control of Carol's world.

In adolescence, Williams began to insist that her name was no longer Donna, but she still did not tell people that she was Carol. Instead, she asked people to call her Lee. For her, this name change indicated that people were communicating not with her true self but with one of the agents she had created, Carol or Willie. This struggle with who she really was became more intense as she grew into her early 20s. She recognized that Carol and Willie were facades and that the real Donna was in danger of being lost. She struggled with the sense that Donna was not worthy but was mad or strange. After a suicide attempt, she entered treatment with a kind psychiatrist who worked to help her make new connections between her dissociated internal and external worlds. One result was that she wrote about her experience in *Nobody Nowhere*.

Apparently, autistic individuals cope with their social–emotional difficulties by developing complex dissociative skills for getting along with other people and relating to the social world from which they feel disconnected and intrinsically foreign. Much more research is needed to analyze developmental pathways of autism in more depth and detail, and to test out the analysis that we have proposed.

The database for analyzing developmental pathways of maltreatment is much stronger. Maltreatment typically leads to development of sophisticated dissociative skills, and research has already provided empirical foundations for detailed portraits of several distinctive developmental pathways arising from abuse.

Dissociative pathways from abuse

People who have been maltreated or otherwise traumatized frequently develop powerful dissociative skills, like Shirley's dissociating herself from her body during rape (Formula 4). Dissociation becomes pervasive in the so-

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cial–emotional lives of people who are regularly traumatized, and they develop complex, high-level skills for dissociation, typically organized by both context and affective state.

Fischer and Ayoub (1994) have analyzed in detail two such types of dissociation, multiple personality disorder and hidden family violence. Because hidden family violence is less known, we will focus on describing the role of dissociative splitting there. Hidden family violence involves switching affective–cognitive organizations between contexts, with the switching based on a strong form of dissociative skill that is remarkably difficult to detect in an interview or standardized assessment.

In hidden family violence, a family publicly fits the ideal for hard-working, responsible, morally upright citizens; but in private they live in violence, with some family members acting as tyrants brutalizing others as victims. We call this pattern *hidden family violence* because the private, violent world is energetically hidden from public view. The family uses dissociation to rigidly separate public and private, shifting from one to the other as contexts change and thus isolating public and private skills and contexts. The result is a distinctive affective–cognitive organization in each domain that dissociates private tyrants and victims from public competent, impressive citizens:

$$\underset{\text{private}}{\left[\text{SELF}_{\text{TYRANT}} \text{—} \text{OTHER}_{\text{VICTIM}}\right]} \not> \underset{\text{public}}{\left[\text{SELF}_{\text{COMPETENT}} \text{—} \text{OTHER}_{\text{IMPRESSED}}\right]} \quad (7)$$

The vertical bar through the greater than symbol indicates that the shift between public and private domains involves dissociation. The social roles of tyrant–victim and competent–impressed comprise sophisticated persona coordinating many behaviors, far beyond the clusters of concrete behaviors involved in earlier roles such as ME_{BAD}, ME_{GOOD}, or DAD_{BOSS}. Concrete roles develop earlier during the preschool and grade-school years, while these abstract personality roles first emerge during adolescence and early adulthood. With the earlier concrete roles, young children have some difficulty sustaining isolating dissociation between private and public, but by adolescence they become highly adept at dissociation, using skills like that in Formula 7.

In one case of hidden family violence, Mr. M was a successful businessman and community leader in a small town, but in private he was abusive to his wife and children. He went far beyond the usual distinction most families make between public and private, forming a dissociation that unconsciously isolated public and private spheres. In public, he was well known as a prosocial, responsible, positive person—active in community services and charity, a good neighbor, and a hard worker. In private, he tyrannized his family, insisting that they follow a rigid set of rules for how to behave and abusing them verbally and physically when they broke his rules.

The separation of public and private was so powerful that in the public sphere—talking with a neighbor, business associate, policeman, or social worker—Mr. M was completely unable to speak about the violence at home. He dissociated the worlds thoroughly, seeming to know nothing about the violent actions when, for example, a social worker asked him about reports of violence in his home. To his colleagues in business and community, he described his family as good, close, and widely respected, emphasizing that his successful business made his wife and children happy, that he and his family attended church regularly, and that they did good deeds in the community. He said that his wife was the perfect woman for him and his children were well behaved. He presented himself as a model husband, father, and citizen.

At home, on the other hand, Mr. M needed to be correct in everything and was routinely degrading and abusive to his wife and children. He read them passages about morality from the Bible and other books and told them that they were clearly bad because they did not live up to those moral requirements. He sometimes beat the children mercilessly for their alleged bad activities. As a result of his physical abuse of the children, his wife contacted the Department of Social Services, with great hesitation and distress.

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Mr. M consistently denied the allegations of violence and abuse. Even in the face of physical evidence, he insisted that he was a good father who did not harm his wife or children. His descriptions of his private life with his family gave no hint of his tyranny at home. In the public realm, he appeared to truly believe that he was not abusive or violent. A common assumption about this kind of case is that Mr. M was simply lying, but the situation seemed to go beyond simple falsehoods. Mr. M so completely dissociated his public and private worlds that in public he did not comprehend the allegations against him.

Evidence indicated that during Mr. M's childhood his father had been harsh and abusive in private but positive and virtuous in public, thus teaching Mr. M to dissociate public and private. Nevertheless, Mr. M described his childhood in ideal terms, saying that he had been extremely happy and that his father had been a good provider who was widely respected still today.

In hidden family violence the dissociative splitting of public and private worlds is organized around specific contexts. It is not simply internalized in the person, but it is closely tied to different settings, which people use to structure and maintain their dissociation. The dramatic nature of the separation and its link to context is particularly clear in cases where a person eventually overcomes it and brings the two worlds together.

The case of Marilyn van Derbur (1991) illustrates powerfully how distinct contexts support dissociation of public and private worlds in hidden family violence. Van Derbur was a highly successful and popular student during high school in Denver and college at the University of Colorado, graduating with honors and eventually becoming Miss America. Only at 24 years of age did she overcome the dissociative split that she had learned in her family between what she called her day child and her night child. During grade school and early adolescence her father frequently abused her sexually at night. Outside of her bedroom, she was the day child—happy, loving her father, doing well in school and sports, and having no conscious knowledge of the experiences of her night child. In the context of her bedroom at night, she was the night child—lying awake in a fetal position, feeling degraded, and experiencing night terrors in fear of her father's next visit to her bed. The abuse stopped in middle adolescence when she went away to preparatory school. Later at age 18 she began to have intense nightmares as well as other periods of intense anxiety, especially on dates. Eventually she remembered the abuse and made it public in order to help other abused girls.

In summary, repeated maltreatment leads to not only pervasive negativity but also several kinds of switching in affective–cognitive organization, usually supported by different contexts. These patterns of switching indicate that maltreatment alters developmental pathways by enhancing certain kinds of fractionation with development, as well as by producing a negativity bias in affective organization of both self and others in important domains. With switching across domains and active dissociation, a negativity bias pervades some domains, altering the normal positivity bias of evaluation. There is no developmental immaturity but instead development along distinctive pathways, based in switching affective–cognitive organizations and a pervasive negativity bias.

Portraying Pathways of Psychopathology: Development of Hidden Family Violence

A major task for the study of psychopathology is to characterize the distinctive pathways that arise from maltreatment, autism, and other problems in emotion–cognition regulation (Fischer & Pipp, 1984; Herman, 1992; Noam, 1986; Robins & Rutter, 1990). Using the methods of skill theory combined with detailed clinical cases and studies of development of maltreated children, Fischer and Ayoub (1994, 1996) have described several pathological pathways related to maltreatment, especially multiple personality disorder and hidden family violence. We will use hidden family violence to illustrate the description of these developmental pathways for children in families like Mr. M's.

Growing up with hidden family violence,

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these children progress through a sequence of increasingly complex, dissociated skills in which they move from being a victim to becoming abusers, victims, or otherwise damaged adults. They learn to separate the private roles of tyrant and victim from the public roles of competent, virtuous citizens.

In their relationships people act in accordance with specific roles, based on cultural norms, their own particular histories, and their experiences with the other individuals involved. We have extensively studied development of cultural and individual roles, devising methods and concepts to describe and measure them (Fischer, Hand, Watson, Van Parys, & Tucker, 1984; Lamborn et al., 1994; Watson & Fischer, 1980). Using these tools, we have described not only ordinary social roles but also the central roles in hidden family violence. In general, children gradually construct working models of relationships based on the major role relations that they live with in their families, friendships, and primary social settings such as school. Gradually they develop from single concrete roles to complex models of relationships that connect multiple roles, like those for Mr. M in Formula 7. The organization of the roles is based on the specific people, their typical interactions and emotions, and the contexts of interaction.

Figure 12 outlines a dissociative pathway for development of hidden family violence from approximately 2 years of age to early adulthood. The series of six levels for public and private domains portray two dissociated sequences of role relationships. The line between public and private domains marks increasingly effective isolating dissociation (the same process denoted by the vertical bar in Formula 7). Children growing up along this pathway learn to shift between public and private based on context (such as at home vs. in school or in bed at night vs. out of bed during the day).

Early development of concrete public/private dissociation

Maintaining this private/public dissociation is difficult for young children. The dotted line at the top of Figure 12 indicates that dissociation is not firmly established in early development but is maintained largely through the parents' behaviors, with some support from differences between private and public contexts. The diagram begins late in the 2nd year, when children can begin to show some crude dissociation in response to family demands. In public settings their parents are polite and kind to them, while at home or alone they are often abusive tyrants. At this age children start to actively suppress some negative behaviors and expressions, especially when alone with their abusive parents (Ayoub et al., 1993; Cicchetti & Beeghly, 1987; Crittenden, 1988). They can use the context to mark how their parents will treat them, as ME_{GOOD} or ME_{BAD}, and to try to adapt. When 2-year-old Johnny saw his father becoming angry, for example, he attributed negativity to himself, ME_{BAD}, and attempted to shift to what he believed his father wanted, ME_{GOOD}, giggling and trying to play a chasing game that his father liked. Nonabused children also attempt to affect adults in similar ways, but children of hidden family violence are required to build markedly different strategies for public and private worlds.

The difficulties in maintaining the private/public dissociation can cause serious trouble for the children at young ages, when they have difficulty controlling the different strategies effectively. A few weeks after Johnny started preschool, for example, his teacher reported to his parents that he would beat up other children, especially when he thought that she was not looking. Johnny's father told the teacher that he would deal with the problem at home, where he severely beat Johnny for getting in trouble in public. For the next few days, when Johnny came to school, he was extremely withdrawn and did not play with other children at all.

At about age 4 the development of a new level of skill (Rp2 mappings in Figure 12) leads to the construction of roles that children can use to adapt to all kinds of social interactions, including abuse. They can now consistently link their own social category with someone else's, playing doctor to another child's patient, mother to a hungry babydoll, or bad child to an angry parent's boss:

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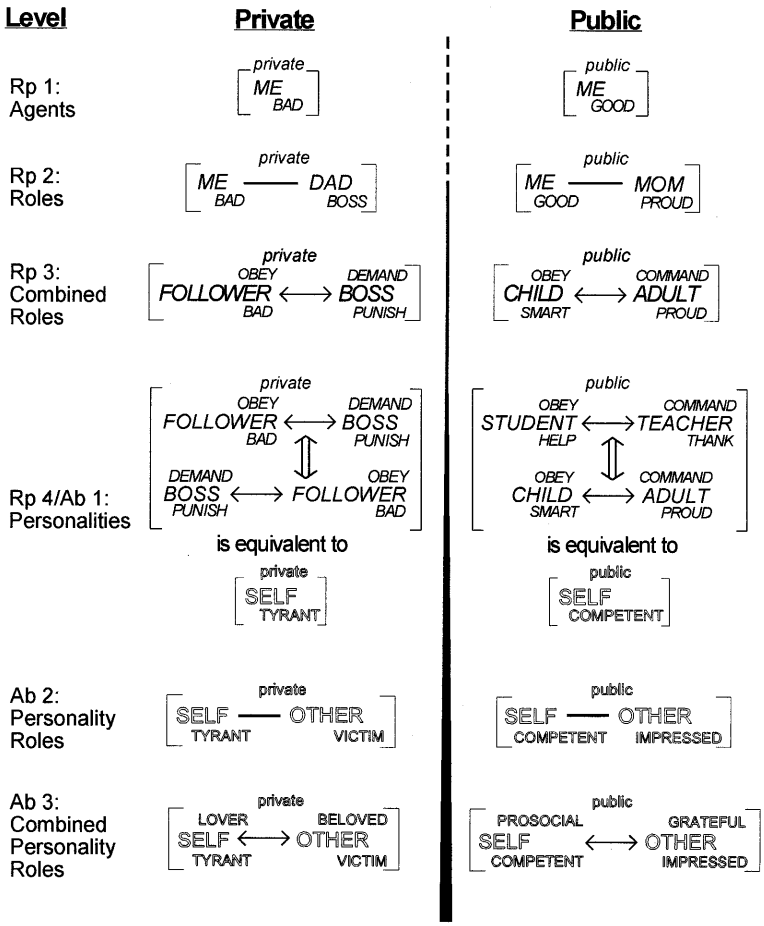


Figure 12. Development of dissociated public and private worlds in hidden family violence. The line between public and private indicates that the two domains are actively isolated through dissociation, with permeability between them gradually disappearing as the line becomes solid and thick. The abbreviations in the Level column indicate skill levels: Rp1 single representations, Rp2 representational mappings, Rp3 representational systems, Rp4/Ab1 systems of representational systems, which are also single abstractions, Ab2 abstract mappings, and Ab3 abstract systems. The labels accompanying each level indicate the types of personal working models that are characteristic of each level: agents, roles, etc.

$$\overset{private}{[ME_{BAD} \text{ — } DAD_{BOSS}]}. \qquad (8)$$

These roles give children a much greater capacity to control their interactions with their parents in both public and private domains, and they begin to establish firm dissociations between the two domains, taking on distinct roles like those separated by the dissociation line in Figure 12.

These children "live like chameleons, learning to shift colors based on the demands of the adults around them. As the children grow, they incorporate a sense of badness based on their private lives, and at the same time they begin to identify with the aggressor to meet his or her needs and eventually, in many cases, to take on his or her role as they grow up" (Fischer & Ayoub, 1994, p. 200). In private, they also identify with the role of victim, which they typically experience in some adults as well as in themselves. Simultaneously they learn the roles of ME_{GOOD} in public, often showing controlled, polite behavior and

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expecting their father or mother to be proud and treat them well in public settings.

At this same age and developmental level, major advances in dissociative skills are evident in other disorders too. In multiple personality disorder, children can dissociate and coordinate distinct agents for the first time at 3 to 4 years, showing the first clear indication of their emerging disorder (Bliss, 1980; Fischer & Pipp, 1984). In the case of Donna Williams' autism, she likewise began to use her first clearly dissociated agent at this age, Willie, whom she used to keep other people away.

Roles become much more complex at the next level, combined roles, where multiple role characteristics are integrated in a single skill and roles are generalized beyond the specific interactions in a child's own family. For hidden family violence, in private the ME_{BAD} role becomes generalized to form a category of person who follows or is victimized, *FOLLOWER*, which extends to other people beyond the child him- or herself. The follower role includes obeying demands as well as being identified as bad, as shown in Figure 12: $FOLLOWER_{BAD}^{OBEY}$. In the public domain a similar development takes place, with ME_{GOOD} generalized to form a category of person who does several good things simultaneously, such as being smart and obeying commands: $CHILD_{SMART}^{OBEY}$.

With these advances, children are able not only to behave more complexly within a role but also to shift between roles while maintaining the private/public dissociation. Surreptitiously, a child can act secretly as the boss to another child, who he or she puts in the role of follower.

The case of 9-year-old Roger illustrates the dissociation of public and private combined roles and the older child's facility at switching between these roles even in an obviously public setting such as school (Fischer & Ayoub, 1994, p. 207). Roger's father was unpredictable and violent at home but an upright, responsible citizen in public. His mother was depressed and passive. In the classroom, Roger was a model *STUDENT*, especially when the teacher or some other adult was watching him. He helped teachers to prepare class materials, offered to help them monitor other children, and was generally attentive and pleasant. Out of sight of adults, on the other hand, he commonly took on the role of *BOSS*, threatening other children, taking away their favorite possessions, and forcing them to help do his homework. As soon as he was faced with an older, stronger child, especially a boy, his role changed to *FOLLOWER*. He deferred to the stronger boy, acting out his wishes and begging not to be harmed.

Later development of abstractions for dissociation

Within the next few years Roger moved from the concrete role combinations of late childhood to build abstract skills for understanding inner motivations and personalities in early adolescence. His dissociation became much more effective because he could maintain his private/public dissociation by taking people's personal motivations and beliefs into account. These abstract skills for what we call *personalities* come from coordinating several combined roles into a single unit, as diagramed in Figure 12 for the private personality of $\mathbb{SELF}_{\mathbb{TYRANT}}$. Roger coordinated a combined role for acting as boss to someone else as victim with a second combined role in which he acted as victim to someone else as boss. His goal was to remain the boss and avoid becoming the victim, and the ability to coordinate the two sets of roles gave him facility in sustaining himself as tyrant. In the public domain Roger coordinated his role as student helping the teacher with his role as child making adults proud of him, creating a public personality of $\mathbb{SELF}_{\mathbb{COMPETENT}}$.

By age 16, Roger had become highly skilled at switching between these public and private selves, and he was building skills at the next level, Ab2 in Figure 12. He could coordinate his own personality with other people's in a Personality Role, acting as effective student leader, $\mathbb{SELF}_{\mathbb{COMPETENT}}$, in relation to $\mathbb{OTHER}_{\mathbb{IMPRESSED}}$, an adult authority who recognized his effectiveness. As a sophomore he was a member of the student council and the track team, and he worked hard to gain the attention of the vice principal (who was responsible for enforcing most of the

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school rules) as well as of influential older student council members. He presented himself as a competent person who knew the answers better than other students, especially younger ones, with whom he was often surreptitiously cruel. In this way he was becoming skilled at isolating public and private personality roles, as in the skill in Formula 7 for Mr. M.

Roger's personality roles for dissociative splitting between public and private were complex and advanced, reaching the upper limit of skills shown by most adolescents of his age. A few years later, Roger developed even more complex skills for combining several personality roles, as illustrated for level Ab3 in Figure 12. His dissociative splitting was especially notable in his efforts to find himself a wife. Beginning with his primary personality role for the private domain,

$$\overset{\text{private}}{\left[\text{SELF}_{\text{TYRANT}} - \text{OTHER}_{\text{VICTIM}}\right]}, \quad (9)$$

he attempted to combine it with a personality role for a love relationship.

$$\overset{\text{private}}{\left[\text{SELF}_{\text{LOVER}} - \text{OTHER}_{\text{BELOVED}}\right]} \quad (10).$$

The combination is shown in the the row for Combined Personality Roles for the private domain in Figure 12.

At age 24 Roger began dating a 17-year-old named June, who upon graduating from high school had come to work as a secretary in his office. Initially, in the public phase of his courtship, he showered her with presents and told her how perfect and special she was. As their relationship grew, however, he became controlling and possessive and repeatedly tried to show superior knowledge over her. He tried to dictate how she dressed, he criticized her cooking, and he ordered her not to go out alone. In this unfortunate combination of tyranny and love, he strived to bring June into his private dissociated world and separate off her role as the "perfect mate," keeping it in the public domain. In some cases, people like June accept such role dissociation and join into the pattern of hidden family violence, while in others they either reject the relationship or help their violent partner to form a different, more benevolent relationship pattern.

The distinctive pathway for hidden family violence thus develops to complex, advanced skill levels. Similar distinctive pathways develop for other forms of relationships and psychopathology. In other articles we have described several such pathways, including ones for multiple personality, disengagement from relationships, and formation of a love relationship between two partners sharing tendencies to dissociative splitting (Fischer & Ayoub, 1994, 1996). With the tools of dynamic skill analysis, developmental pathways can be described for many diverse forms of psychopathology, and the myth of developmental immaturity in pathology can be put to rest.

Conclusion: Development, Adaptation, and Society in Psychopathology

Distinctive developmental pathways constructed in response to trauma or cognitive–emotional anomalies are not developmentally primitive or delayed. To the contrary, they are sophisticated adaptations in which children construct powerfully different affective–cognitive organizations. For example, abused children commonly see themselves as pervasively negative instead of positive. They become highly skilled at switching affective–cognitive organizations between domains, as they must switch when important adults in their lives change from caregiver to abuser and vice versa. Many of them go beyond affective switching to build powerful dissociations of domains, such as the isolation of private and public worlds in hidden family violence and the separation of distinct persona for different contexts in multiple personality disorder. Similarly, autistic children work energetically within the limits of their social–emotional deficits to construct complex skills for relating to their worlds, including dissociative skills involving agents that interact more normally with other people. These skills at dissociation and switching are impressive adaptive achievements, which follow normal developmental progressions for complexity.

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At what point does such an adaptation become pathological? Surely dissociation as an adaptation to trauma is not pathological; and it is unclear what is gained even with deficit-based disorders such as autism by labeling them as developmentally primitive. Instead what is clearly pathological is the cultural disease of incest and other forms of child maltreatment, as Breuer and Freud (Breuer & Freud, 1895/1955) recognized early on and others have rediscovered more recently (Cole & Putnam, 1992; Famularo et al., 1994; Herman, 1992; van der Kolk, 1987; Westen, 1994).

The profound affective–cognitive problems of many severe dissociative adaptations such as hidden family violence, multiple personality disorder, and autism may provide a basis for labeling them *pathological*, but that label has interfered with understanding the adaptations, such as dissociation and switching. As a result of the label, these people have been assessed through normative models of mind and development, in terms of which they are found wanting. Instead of thus misunderstanding and blaming the victims, scientists and practitioners need to portray their adaptations and distinctive developmental pathways.

The recent prominence of neurobiological explanations of pathology exacerbates this problem even further. Whether analyzing dissociative disorders, depression, attention deficit disorder, autism, or violence, the focus becomes identifying the "disease" in people's brains and nervous systems and then finding some biochemical means to fix their supposedly broken brains (Breggin, 1991; Star, 1989). Problems with the nervous system do sometimes cause problems in affective–cognitive regulation and lead to distinctive developmental pathways, as with autism and chronic schizophrenia. Yet often neurobiological explanations and biochemical fixes provide a means of covering up a person's adaptation instead of understanding its bases and strengths and acknowledging its causes in diseases of culture and family as well as body and brain. Neurobiological interpretations and interventions can contribute to hiding people's adaptations to traumatic lives instead of recognizing their effectiveness and working with it.

When negativity biases, dissociative processes, and affective switching are appreciated as adaptive and sophisticated, the understanding and treatment of psychopathology change dramatically. People's "pathological" skills can be accepted as adaptive strengths instead of denigrated as immature remnants of early childhood. This shift can help change the valence of an abused person's sense of self to positive and make available a number of sophisticated skills for the therapeutic process to build upon (Rogers, 1995). We believe that in practice many effective therapists and intervention programs already take this approach.

In psychopathology people develop along distinctive pathways that typically reach sophisticated levels of adaptation to trauma and problems in affective–cognitive regulation. Whether these adaptations stem from diseases of culture, family, or body, scientists and practitioners need to appreciate the complexity and effectiveness of pathways to psychopathology. Only then will they be able to understand psychopathology and intervene effectively.

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