Disorganized and Unresolved States in Adulthood

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Abstract

Fear plays a central role in attachment theory and disorganization in adulthood. Fear associated with traumatic memories interferes with resolution of trauma resulting in disorganized mental states, captured as unresolved/disorganized speech surrounding loss and/or abuse in the Adult Attachment Interview. Mothers who are unresolved experience fear stemming from traumatic memories and display frightening behavior towards their infants. Disorganization can predispose individuals to dissociative mental processes, including altered states (absorption), PTSD, and depersonalization. Social psychologists have conceptualized adult disorganization as fear of the romantic partner. Studies examining stability of adult disorganization indicate unresolved loss is more readily resolved than unresolved abuse. Understanding disorganization in adulthood, including experiences that support reparation and reorganization, is important for developing effective interventions.

Highlights

- Fear related to traumatic memories can result in disorganized adult mental states.
- Mothers who are unresolved may display frightening behavior toward their infants.
- Disorganization can predispose individuals to dissociative mental processes/states.
- Adult disorganization can also be conceptualized as fear of the romantic partner.
- Stability studies suggest unresolved loss may be more readily repaired than abuse.

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Attachment disorganization is grounded in John Bowlby's influential theory of the long-lasting emotional tie a child develops to the caregiver [1]. Infants are predisposed to form an attachment relationship with a primary caregiver and this bond serves the biological function of protection. Cues to danger within the environment arouse attachment behaviors in the infant, such as crying and clinging, with the goal of gaining infant-caregiver proximity and restoring the affectional bond. Infants whose caregivers accurately perceive and respond to their cues with sensitivity come to trust their caregiver will be available when needed and form secure attachment relationships. Those whose caregivers are unresponsive and unavailable or respond inappropriately to their mood and ongoing interests form insecure attachment relationships [1, 2, 3].

Attachment disorganization in infancy is thought to arise from incompatible behavioral tendencies. When the caregiver is simultaneously the source of comfort and the source of alarm, the infant experiences "fright without solution" and competing tendencies to approach and flee from the caregiver resulting in a collapse of behavioral strategies and the display of disorganized and disoriented behavior [4, 5]. Hinde [6] observed that animals display "conflict behavior", such as turning in circles and freezing of all movement, when incompatible behavioral systems were aroused. Disorganized behaviors take the form of conflicted, confused, and/or apprehensive behavior toward the caregiver [5]. Attachment disorganization in infancy is important to understand because it increases an individual's vulnerability to later relationship disturbances and pathological outcomes [7, 8].

Attachment relationships are important over the life course, "from the cradle to the grave" [9, p. 207]. Disorganization in adulthood is conceptualized as stemming from fear

associated with memories of traumatic events which interfere with the ability to mentally resolve the traumatic experience [5, 10]. Disorganization in adults has been captured as unresolved/disorganized speech surrounding loss and/or abuse in the Adult Attachment Interview (AAI) coding system [11]. Adults are administered an hour-long semi-structured interview in which they describe and evaluate a number of attachment-related experiences, including loss of attachment figures through death and threatening experiences, such as abuse [12, 13]. Main, Goldwyn, and Hesse [11] examined these narratives to assess adults' attachment security and disorganized and disoriented mental states stemming from trauma termed "unresolved/disorganized" states of mind. Speakers are considered unresolved with respect to loss, abuse, or both, if they display slips in the monitoring of reasoning or discourse during discussions of potentially traumatic experiences, such as death of significant persons, physical maltreatment, and/or sexual abuse. Lapses in the monitoring of reasoning include indications of incompatible beliefs, such as the belief the person who died many years ago is still alive (in a physical, not religious, sense), as shown, for example, by discussing the deceased person in the present tense. Lapses in the monitoring of discourse include sudden alterations in the person's typical manner of speaking throughout the interview and extreme attention to detail surrounding the trauma that is inappropriate to the discourse context of the AAI. A meta-analysis of over 10,000 AAIs reported approximately 18% of individuals in low-risk samples are assigned to the Unresolved status, while Unresolved is overrepresented (38%) across various clinical populations [14].

Disorganized attachment has been theorized to predispose individuals to experience dissociative mental processes stemming from trauma [10, 15, 16, 17]. Mothers classified as unresolved on the AAI have a significant propensity toward absorption in daydreaming and self-

hypnotic (i.e., dissociative) states of consciousness [18]. In another study of 62 predominantly religious/spiritual participants, those classified as unresolved with respect to trauma predicted a lifetime occurrence of mystical experiences and that this link was mediated by the propensity to enter altered states of consciousness, termed absorption [19]. Absorption was not related to more conventional aspects of religion (e.g., theistic beliefs) and degree of religiousness. This finding is consistent with more recent research showing that unresolved mothers were more likely to experience blunted amygdala responses on fMRIs when viewing images of their infants' sad faces as compared to viewing happy faces [20]. In contrast, mothers who did not experience trauma showed *greater* amygdala responses when viewing sad faces as compared to happy faces [20]. Overall, findings support the association between disorganized attachment mental states in adulthood and dissociative mental processes. Zajac and Kobak [21], however, did not find an association between unresolved trauma and dissociation in a nonpsychiatric sample. Given this finding, Zajac and Kobak [21] raise the question of whether AAI classifications precede or simply coincide with psychopathology.

Psychiatric inpatients classified as unresolved, versus not-unresolved, showed more dissociative symptomatology [22] and adolescent inpatients with higher dissociation scores were more often classified as Unresolved than those with lower scores [23]. Among 60 adult female childhood abuse survivors, an unresolved trauma classification conferred a 7.5-fold increase in the likelihood of a PTSD diagnosis [24]. Unresolved trauma was also associated with higher scores on the Cambridge depersonalization Scale in a sample of 43 depressed patients and 41 control subjects [25]. Depersonalization is a maladaptive response to stress which includes feelings of detachment from one's self. This relation, however, was only found when the women

classified as unresolved carried the GG-allele, which is linked to oxytocin, providing evidence for a gene-environment interaction in the prediction of depersonalization.

Neurological correlates have been found for unresolved states of mind. Bahm, Simon-Thomas, Main, and Hesse [26] administered AAIs to 31 women and, one year later, administered EEGs to them while they viewed death-related images. Unresolved status related to heightened vigilance and arousal on the EEG a year later, and in particular neurophysiological sensitivity to images indicative of symbolic death (e.g., cemetery). The authors explain that mental processing resources may be coopted by loss-themed information from external reminders of death, as well as internal reflection, as evidenced by the AAI. The link between unresolved status and maladaptive mental states is compelling and future research should continue to examine these links, as well as differences between unresolved loss versus abuse.

Unresolved loss and abuse both originate in trauma, though of a different nature. Beverung and Jacobvitz explored whether and how someone becomes unresolved for some losses and not others [27]. They assessed numerous conditions under which the loss occurred. Suddenness of unexpected death (e.g., car accidents, heart attacks) was the only factor that predicted an Unresolved classification for that loss on the AAI. Regarding unresolved abuse, Madigan and colleagues [28] found that a history of sexual abuse with a concurrent dismissing classification was associated with higher unresolved trauma scores prenatally in a sample of adolescent mothers. Another factor to consider in conceptualizing unresolved states of mind due to trauma is the source of the trauma, for instance, relationship to the person lost or who perpetrated the abuse. Mothers classified as unresolved due to loss of a parent, versus other person, more often engaged in frightening behavior with their infants [29]. It will be important

for future studies to consider the nature and intensity of traumatic events, beyond than their simple presence.

Unresolved loss versus abuse is difficult to study, partly because of discrepant reporting of abuse across multiple interview attempts [30, 31]. In a study of the transition to marriage across 21 months, stability of the unresolved classification was higher for those who experienced more negative life events between interviews [30]. In another study, AAIs were administered to 55 adolescent mothers prenatally, at 6 months, and 12 months [28]. Unresolved abuse scores overall did not show any consistent rate of change, though severity of physical abuse was associated with increases in unresolved abuse scores over time [28]. Unresolved loss scores, on the other hand, steadily declined over time, suggesting that unresolved losses can more readily become resolved [28]. There was significant individual variation, though, and preoccupation attenuated declines in unresolved loss scores [28]. Reisz [32] also found a similar association between preoccupation and continuity of the unresolved status across a 24-month period, spanning the transition to parenthood. These findings suggest that it will be important to further explore relations between organized and disorganized mental states, as adults' attachment security may affect the capacity of individuals to integrate and resolve traumatic experiences. Organized representations may influence the presence, stability, and severity of unresolved loss and abuse. Further, the developmental course of unresolved loss and abuse differ, which has implications mental well-being and the quality of close relationships with their partners and children.

Mothers who are unresolved are thought to continue to experience fear associated with traumatic memories and display behaviors that are frightening to their infants [10]. Mothers classified as unresolved have been observed to freeze with a dazed expression when approaching

their infants and to engage in primitive behaviors such as barring their teeth and growling during feeding [29, 33]. Frightening/frightened maternal behavior has been shown to mediate the relationship between Unresolved status and attachment disorganization [34, 35, 36]. Anomalous maternal behavior, assessed using the AMBIENCE system, which includes Frightening/frightened maternal behaviors, also fully mediated relations between unresolved status in mothers and attachment disorganization in infants [37]. Observations of mother-child interactions at 8- and 24-months revealed that maternal Frightening/frightened behavior showed stability from infancy to toddlerhood [34]. Further, new forms of Frightening/frightened behaviors emerged at 24 months consistent with children's developing capacities (e.g., language, symbolic play), and forecast psychopathological symptomology at 7-years [34]. Future studies should continue to explore the effects of these early experiences on children's later development.

Since the typical primary attachment figures in adulthood are considered to be close, romantic relationships, Hazan and Shaver [38] applied concepts of attachment developed from studies on the parent-child relationship to adult romantic relationships. Whereas developmental and clinical psychologists usually rely on the AAI to assess attachment disorganization in adulthood, social psychologists use continuous, dimensional measures of attachment style assessed via self-report. Adults endorse items typically yielding two relatively orthogonal attachment style dimensions that represent insecure attachment orientation: anxiety and avoidance. Low scores on both dimensions reflect a higher level of attachment security [39]. High scores on both the anxiety and avoidance dimensions, termed fearful avoidance, has been linked to confusion, disorientation and uncertain behaviors with partner and with having a partner who is abusive or neglectful [40].

Expanding on ideas about infant disorganization, Paetzold, Rholes, and Kohn [41] proposed that a central characteristic of disorganization in adulthood is fear of the romantic partner. Their 7-item dimensional self-report measure, "Adult Disorganization", mediated associations between memories of early trauma and externalizing behavior in a study of 510 adults [42]. Adult Disorganization was theoretically and empirically distinct from fearful avoidance, which is characterized by high endorsement of two organized attachment strategies. These findings are consistent with studies using the AAI to assess attachment disorganization in adulthood. Young adults classified as Unresolved with respect to trauma were observed engaging in more controlling behavior with romantic partners compared to those who were not unresolved [43]. Observations of marital and parent-child interactions comparing women classified as unresolved for loss versus not unresolved for loss showed that unresolved loss was associated with less positive emotion and more anxiety and anger in interactions with both husbands and preschool children [44]. Future research will hopefully continue to expand and refine our understanding of disorganized states of mind in the context of romantic relationships.

In conclusion, disorganized attachment in adulthood is a dynamic field experiencing exciting breakthroughs as research delves more deeply into what it means to be "disorganized" in adulthood, the origins and trajectories of such states, connections to other important relationships, and caregiving behavior. Understanding the developmental course of disorganization in adulthood will be important for developing effective interventions.
It will also be critical to follow qualities of romantic partners over time among disorganized adults to identify their role in maintaining or furthering disorganized mental processes or assisting with reorganization.

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