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REVIEW ARTICLE



## Emerging criteria for the low-coherence cannot classify category

Anna Maria Speranza , Giampaolo Nicolais, Carola Maggiora Vergano and Nino Dazzi

Department of Dynamic and Clinical Psychology, Sapienza University of Rome, Rome, Italy

### ABSTRACT

As suggested by Main et al., to respond to the need for an adaptation of the existing Adult Attachment Interview (AAI) coding system, especially regarding the application to nonnormative samples, this study presents additional criteria that characterize the low-coherence cannot classify (CC) category. Three AAIs were selected from a sample of parents of maltreated children. All transcripts indicated a very low coherence, with no evidence of contradictory insecure discourse strategies. Moreover, global category descriptors were identified, together with specific indices of discourse characteristics and features that highlight the breakdown in reasoning and discourse experienced by the speakers. The aim of the study is to illustrate new criteria to identify and rate a low-coherence CC profile toward the operationalization of this pervasively unintegrated state of mind. Through the definition of additional criteria for low-coherence CC category, our study helps the AAI and its coding system be more flexible and effective when dealing with clinical samples.

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### KEYWORDS

Adult Attachment Interview; disorganization; cannot classify; low-coherence; coding system; clinical samples

## Introduction

The present study begins with a description of the primary challenges regarding the traditional Adult Attachment Interview (AAI) scoring and classification system by Main, Goldwyn, and Hesse (2003), with transcripts from clinical samples. The presence of serious violations of narrative coherence, which suggests a global alteration or an impairment of a “coherent” state of mind with respect to attachment, poses significant methodological problems, thereby requiring an adaptation of the traditional coding system. After reviewing different attempts to deal with such coding difficulties and describing peculiar features of low-coherence cannot classify (CC) category, this study puts forward emerging criteria for the coding of this category. The top-down as well as the bottom-up approaches used to identify the categories and specific indices of proposed criteria will be illustrated through the analysis of three selected “hard-to-code” interviews.

### *State of mind with respect to attachment in clinical samples*

The AAI coding system was initially developed by Main and Goldwyn (1984) and Main, Kaplan, and Cassidy (1985) based on the Bay Area study, a community sample study, and it was

validated by a number of studies which demonstrated some continuity across lifespan and powerful predictability in the intergenerational transmission of attachment (van IJzendoorn, 1995). By the late 1990s, the AAI has been extensively used outside of the context in which it was developed (i.e. nonclinical groups of middle-class parents), proving to be an extremely useful tool in clinical samples (Steele & Steele, 2008; van IJzendoorn & Bakermans-Kranenburg, 2008). Despite that only a few systematic associations have been found between specific disorders and different states of mind with respect to attachment (internalizing disorders with dismissing attachment and externalizing disorders as preoccupied and/or unresolved) (Bakermans-Kranenburg & van IJzendoorn, 2009), the introduction of unresolved/disorganized and CC categories (Main et al., 2003) became especially relevant in clinical samples. Therefore, research has begun to highlight the importance of the CC category for specific clinical populations such as suicidal or obsessive-compulsive disorder adolescents (Adam, Sheldon-Keller, & West, 1995, 1996; Ivarsson, 2008), homeless adolescents (Taylor-Seehafer, Jacobvitz, & Holleran Steiker, 2008), victims of (child) sexual abuse (Stalker & Davies, 1998; van Hoof, van Lang, Speekenbrink, van IJzendoorn, & Vermeiren, 2015), marital violent men and criminal offenders (Babcock, Jacobson, Gottman, & Yerington, 2000; Holtzworth-Munroe, Stuart, & Hutchinson, 1997; van IJzendoorn et al., 1997), and adults with dissociative disorders (Farina et al., 2014). Moreover, individuals with particularly extreme and traumatic attachment experiences, such as Holocaust child survivors (Koren-Karie, Sagi-Schwartz, & Joels, 2003) and adolescents with reactive attachment disorders (Goldwyn & Hugh-Jones, 2011), seem to share difficulties in the representation of attachment experiences and low-coherence narratives. In most of these populations, a more thorough understanding of the CC category could be helpful in understanding the consequences and effects of traumatic, disrupted, or disorganized attachments in childhood.

The utilization of the AAI with nonnormative samples may reveal a series of complex methodological problems in terms of validity and reliability, most of which have been well summarized by Turton, McGauley, Marin-Avellan, and Hughes (2001). It can also indicate the challenges to both interviewers and coders, especially when subjects have suffered adversity and deprivation in their early years. It has been suggested (Koren-Karie et al., 2003) that the current coding system might require specific descriptors in regard to the populations exposed to particular traumatic experiences. More specifically, individuals who have experienced multiple caregiving contexts, the absence of attachment figures, and/or extreme traumatic ruptures in the attachment system may present transcripts characterized by a pervasive collapse of reasoning and discourse, thus straining the traditional AAI classification system to grasp their peculiar attachment state of mind. In an attempt to address coding difficulties arising from these transcripts, several authors have proposed alternative criteria that can help identify these specific states of mind with respect to attachment. These attempts have followed two different directions: in one case, the authors have proposed alternative systems (Crittenden, 1997; Lyons-Ruth, Yellin, Melnick, & Atwood, 2005), and in the other, the authors have extended the original criteria to adapt them to the new difficulties emerged from clinical populations (Goldwyn & Hugh-Jones, 2011; Hesse, 1996; Koren-Karie et al., 2003; Turton et al., 2001).

An alternative coding system was first proposed by Crittenden (1997) with the use of many more AAI categories. This proposal, however, inasmuch as it was a theoretically derived system, does not currently provide empirical support and reliability due to the excess of AAI types of attachment classifications. Lacking validation and inter-rater reliability on larger clinical samples, this excessive number of categories turns out to be a confetti

approach (Bakermans-Kranenburg & van IJzendoorn, 2009) that is in fact not easily replicable. In the opposite direction and based on empirical evidences, the proposal of a new coding system called hostile-helpless (HH) was developed by Lyons-Ruth et al. (2005) by creating additional interview-wide codes to capture indicators of a pervasively unintegrated state of mind with respect to attachment, not limited to the discussion of trauma and loss. As the authors claim, this is a new parallel system, distinct and independent from the traditional work of Main et al. (2003) as highlighted also by the study of Frigerio, Costantino, Ceppi, and Barone (2013) which found only modest but significant overlaps between the two systems. This approach identifies specific states of mind in clinical subjects, proposing an alternative classification system.

Extension of the traditional coding system was initially proposed by Hesse (1996) who first discussed the emerging CC category as a global breakdown in the organization and maintenance of a singular strategy in contrast with U breakdown in the discussion of loss or trauma, pointing out the high percentage of CC classifications in clinical samples where institutional care or extreme experiences occurred. Afterwards, as it will be discussed below, the emerging characteristics of CC category were included in the Scoring and Classification Systems (Hesse, 2016; Main et al., 2003). The application of the AAI to subjects with severe psychopathology or extreme attachment experiences has led to further important proposals to the classification system. Turton and colleagues (2001) have identified a number of specific narrative features in hard-to-code transcripts and drawn attention especially to extreme derogation and self-derogation. Moreover, their analysis highlighted that some transcripts “may be characterized by such an absence of affect or of any reflection about the likely impact of attachment-related experience on development that [...] a further dismissing category ‘not attached’ might be more apt than simply ‘restricted in feeling’ (Ds3)” (p.293). In a comparable manner, Koren-Karie et al. (2003) proposed a newly emerging category titled, “Absence of Attachment Representations” (AAR). Characterized by specific markers, this category indicates a collapse in the representational foundations of the attachment system, especially when individuals face extremely traumatic experiences for extended periods during childhood or adolescence. Within the theoretical framework defined by Main et al. (2003) in their scoring and classification system, Goldwyn and Hugh-Jones (2011) showed some particular phenomena in the AAI of adolescents with reactive attachment disorder, namely, extreme derogation and extreme detachment. Such phenomena could be considered as markers of the CC category, thus indicating some possible developments in the existing classification system.

### **CC category: an update**

The CC category is considered in transcripts when no single attentional strategy is identifiable and/or there appears to be a collapse in discourse strategy at a global level (Hesse, 1996). Different from what occurs in unresolved/disorganized transcripts, where a breakdown in strategy is only observed in the discussion of a loss or trauma, CC transcripts represent a globally disorganized state of mind.

The first type of CC category, referred to as “contradictory insecure discourse strategies,” describes when the interviewee, mid-interview, shifts his/her state of mind from a dismissing to a preoccupied stance or presents two distinct states of mind in describing different individuals (Hesse, 1996; Main et al., 2003). In these cases, the expert coder simultaneously

assigns scores of above 6 for scales that belong to different states of mind such as idealization (dismissing) and angry preoccupation (preoccupied).

Main et al. (2003) proposed three new criteria for transcripts in which there is a breakdown in discourse strategy, without manifesting contradictory “insecure” scale scores: (1) interviews that lack an apparent discourse strategy, where low coherence occurs with the absence of elevated scores for an insecure state of mind or the interviewee refuses to engage in the interview, thus showing a lack of strategy for discussing a (supposed) traumatic background; (2) topics that frighten the listener without proper introductions; and (3) when an insecure and a secure strategy are combined, but neither predominates, as when a fully dismissing strategy alternates with a prototypically secure one.

Our research strategy follows such attempts to provide guidelines for delineating CC transcripts, proposing further operationalization and development of additional indices for quantifying certain violations of coherence. As a consequence, additional criteria for the low-coherence CC category were derived from the analysis of 200 AAI transcripts from a high risk sample of parents whose children were involved in abuse and maltreatment situations within the family (Families were sent by Social Services or Juvenile Court to the Diagnosis and Treatment Unit of a specialized center that provides clinical intervention in child abuse and maltreatment). Fifty-two (26%) parents’ interviews were classified as cannot classify: 20 (10%) CC and 23 (11.5%) U/CC, both with contradictory strategies; 9 (4.5%) CC low-coherence (5 U/CC and 4 CC). After an in-depth analysis of all these CC transcripts, newly identified criteria for low-coherence interviews that could be added to the AAI classification manual (Main et al., 2003) are proposed. This particular state of mind will be illustrated by providing some brief excerpts from three interviews and information regarding the interviewees’ life stories.

### Common background: a harsh childhood

Regarding the first case, Laura is a 48-year-old woman who never knew her biological parents. She experienced the sudden and permanent loss of her mother through abandonment and has no information regarding her father. Laura spent the first 3 years of her life in an orphanage before being adopted. Her adoptive parents suffered the premature death of their 4-year-old biological daughter, due to leukemia. As a child, she used to spend most time with her mother, since her father was at work all day. However, through her infancy and childhood, both of her adoptive parents continuously blamed Laura for not being like their deceased daughter. Laura recalls that she was a pessimistic and introverted child with an ugly and unpleasant personality, especially since she never used to laugh. She also mentions that she was frequently disobedient and violent and that she believed that everyone was against her. While recalling critical moments of distress, such as being scared, injured, ill, or emotionally upset, she highlights the unavailable, unsupportive, and rejecting reactions from her adoptive parents. It is also important to note that, since the age of 5, her mother used to leave Laura alone for weeks (either with the father or among a friend’s family), pretending that she had to take care of her ill grandmother who was living in another city. When Laura was 11 years old, she was placed under institutional care for 1 year, due to a failure at school.

Concerning the second case, George is a 42-year-old professional. He is the second-born child of a wealthy family in which both parents were deeply involved in their professions.

Several months after his birth, George experienced a traumatic separation from his parents that lasted for 8 years. After being placed under his grandparents' care, his parents decided to keep and take care of his older brother. Although the grandparents' resided two floors below, his parents never visited George during those years. In addition, the grandparents were not loving caregivers, and they used to beat the child or threaten to abandon him when he was being disobedient. While living with the grandparents, 8-year-old George was hospitalized for more than a month, due to septicemia, which was a direct result of the lack of care. Eventually, he returned to his parents' home, feeling both uncomfortable and foreign. This "new" caregiving context was harsh and harrowing for George. He recalls the "blindness" of his parents regarding basic needs such as food, proper education, personal hygiene, and affection. As for himself, George recalls that he usually avoided causing any trouble for his grandparents or his parents, but he would occasionally provoke their resentment, anger, or anxiety. When he was 12 years old, George's parents divorced and he did not see his father for more than 4 years.

In the third case, Mary is a 26-year-old woman who experienced traumatic attachment relationships since infancy. She comes from a family of low socioeconomic status, with poor environmental conditions, basic household income, and a lack of education. She was raised in a small house with an abusive father, an alcoholic mother, and a drug-addicted uncle who lived with the family since she was 13. She has a sister and two brothers, one of whom is a deaf-mute. The mother greatly depended upon Mary, due to her illness with alcohol addiction. She used Mary for her own physical and psychological needs and forced her to take care of the household and her brothers. Mary was also directly exposed to family discussions, physical fights, and episodes of domestic violence, including screams, insults, the throwing of objects, and physical blows, which usually resulted in police intervention. Thus, since she was a child, Mary felt responsible for her mother and repeatedly protected her from her abusive father. Moreover, the father used to beat and throw objects at Mary, which often left her with wounds, scars, and even stitches on her head. Mary recalls that her father frequently rejected everyone, both emotionally and physically. When Mary was 8 years of age, he placed her and her younger brother into an educational institute. Eventually, her uncle took custody of her brother, but not of Mary. When Mary was 17 years old, she became pregnant and had a daughter, which was immediately after an earlier pregnancy that was terminated by an abortion (see [Table 1](#) for a summary of their traumatic experiences).

The three AAls illustrated above were coded according to inferred experiences and state of mind scales, as described in [Table 2](#). In general, the interviewees failed to describe and evaluate the attachment-based recollections as well as use a consistent and clear style of speech, thus preventing the proper attribution to an organized category.

### **Classifying a low-coherence CC state of mind**

In describing the emerging characteristics of the CC category for these interviews, the present study utilized the coding system by Main et al. (2003), which requires a "top-down" and "bottom-up" approach to assessment. Top-down classification describes transcript features that include both personal history and general category descriptors of the speaker's overall state of mind with respect to attachment, while the bottom-up approach identifies specific scales or dimensions that the coder may examine throughout the text of the interview. By

**Table 1.** Traumatic experiences in the three cases.**Laura**

Abandonment by the biological mother and placement in an orphanage at birth (0–3 years)  
 Unavailability and rejection from the adoptive parents  
 Placement in an institutional care at 11 years old for 1 year  
 Loss of her grandmother during childhood  
 Loss of her uncle during adolescence

**George**

Ejection from home and release into the grandparents' care for the first eight years of life  
 No visit from the parents during those years  
 Hospitalization for over a month for septicemia, due to a lack of care  
 Neglect and rejection from the parents since he returned home  
 Parents' divorce when he was 12 years old  
 Loss of his grandmother at 12 years old

**Mary**

Neglect and rejection from the parents  
 Alcoholic mother  
 Drug-addicted uncle living in the same house since she was 13 years old  
 Placement in an educational institute at 8 years old for several weeks  
 Exposure to severe episodes of domestic violence  
 Physical abuse from the father  
 Abortion during adolescence  
 Loss of her mother at 18 years old

**Table 2.** AAI scoring of inferred childhood experiences and the current state of mind.

	Laura		George		Mary	
	Mother	Father	Mother	Father	Mother	Father
<i>Inferred experiences</i>						
Loving	3.0	3.0	1.5	1.0	(2.5)	(2.0)
Rejecting	7.5	7.5	9.0	9.0	C.R.	(7.5)
Involving/role-reversing	1.0	1.0	1.0	1.0	7.5	(3.5)
Neglecting	4.0	3.0	9.0	9.0	(6.0)	(6.0)
Pressure to achieve	1.0	1.0	1.0	6.5	1.0	2.5
<i>State of mind for parents</i>						
Idealizing	4.0	4.0	1.0	1.0	(4.0)	(3.5)
Involving/preoccupying anger	4.0	1.0	1.0	1.0	2.0	1.0
Derogation	1.0	1.0	1.0	1.0	1.0	1.0
<i>Overall state of mind</i>						
Overall derogation		1.0		1.0		4.0
Insistence on lack of recall		1.5		3.0*		1.0
Passivity		2.5		1.5		4.5
Metacognitive processes		1.0		1.0		1.0
Fear of loss		1.0		1.0		1.0
Unresolved loss		9.0		7.5		7.5
Unresolved trauma		NA		NA		3.5
Coherence of transcript		2.5		2.0		2.0
Coherence of mind		1.5		1.0		1.0

\*Possible traumatic memory loss.

providing several excerpts, the following section will describe the categories and specific indices of the criteria, which, in turn, can help coders identify and evaluate a low-coherence AAI transcript.

### **Personal history and global category descriptors**

Early experiences of low-coherence CC individuals are often characterized by two main types of disrupted care histories: (1) absence of significant attachment experiences; and (2)

**Table 3.** State of mind in the low-coherence CC category.*Personal history and global category descriptors*


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Absence of significant attachment experiences
Presence of traumatic attachment
Precarious sense of personal identity
Occurrence of affective dysregulation
Manifestations of secure-base distortions

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presence of traumatic attachment. In both cases, despite having parents, it seems as if the child did not have the opportunity to develop a unique attachment relationship, thus resulting in a representational emptiness or fragmentation with regard to attachment representations. In addition, a precarious sense of personal identity emerges and characterizes the entire interview.

In these transcripts, it is also possible to identify specific memories or descriptions that lead to the presence of significant affective dysregulation and/or manifestations of secure-base distortions during childhood (Table 3). It is important to note that these aspects mainly emerge when the attachment system is activated, i.e. when the speaker recounts episodes to support the description of his/her relationship with the parent, during separations from the caregiver, and when he/she was ill, hurt, or emotionally distressed.

Regarding early attachment experiences, Laura was abandoned at birth by her biological mother and placed in an orphanage. According to Laura, "I lived in the dark, they made us live in the dark." She also precisely recalls being adopted when she was "3 years and 2 months old." When asked to describe the relationship with her parents, she states, "I owe my life to a death of a child," referring to the premature death of the adoptive parents' daughter. She does not remember any physical contact, emotional support, loving endorsements, or any other signs of closeness/comfort with her adoptive parents when distressed. In addition, the parents showed extreme avoidance of Laura's needs and attachment by criticizing her delay of developmental acquisitions and pervasively stressing the differences between her and their biological daughter: "You are not like our Juliette, you don't learn to sing the carols, and you don't learn the lullabies! It freaks me out that you cannot memorize such an easy thing!" Furthermore, they placed Laura under institutional care for insufficient school results, which led to a new rejection from the attachment relationship.

Within this background, instances of absence of significant attachment experiences can be seen in Laura's interview. It appears that she does not understand the meaning of a relationship or the feeling of being "terrified" for years when the adoptive father returned home from work, since she was not familiar with having a caregiver figure in her life. In the following excerpt, the interviewee appears astonished about her adoptive mother's primary care, despite the description of significant experiences of neglect and rejection in the transcript. Since Laura was not used to be taken care of or being the focus of the caregiver's attention, the way that she describes the relationship is beyond the indices of idealization, which usually characterizes dismissing transcripts: "She [adoptive mother] would ask me, 'What do you fancy for lunch?' ... You know ... I just thought ... so these things are real? These things really do exist?!"

Furthermore, during the recollection of negative episodes, Laura often provides a narrative that seems unreal or as if the experience did not occur. It appears as a cliché, thus suggesting a representational emptiness, especially since it occurs while speaking



about her feelings of being sent away to a boarding school for a year during childhood: “No, no. I just pretended that nothing happened.”

Similarly, the dramatic nature of George’s childhood concerns his prolonged custody by his grandparents, while his older brother remained with his parents. It is worth emphasizing that the grandparents lived in the same building, and during the course of the first 8 years of his life, George does not recall any visit from his parents. In this regard, it is noteworthy to highlight that other studies (Adam et al., 1996; Goldwyn & Hugh-Jones, 2011) have previously found indices of disorganization related to experiences of extreme separation from parents. As a child, George seemed to realize the separation with his parents, but he constantly had “this feeling of absence” since he was unable to understand its meaning. Indeed, when the grandmother told him to look up at their windows, he says, “I am not so sure, I am not convinced.” George suffered not only from the abandonment of his primary family but also from the unloving behavior and extreme neglect by his grandparents, which manifested into George’s hospitalization. As a result of his neglect from both his parents as well as his grandparents, George was unable to turn to a figure that could comfort and protect him (or merely take care of him).

As in the previous case, George’s history highlights a concrete absence of significant attachment experiences. In contrast to Laura, he showed an open stance concerning his inability to find a caregiving figure to be closed to or his failure to obtain a sense of belonging in early childhood. When asked to describe the relationship with his parents, George stated the following (note that the questions asked by the interviewer are in italics):

It is an embarrassing question, since it was absolutely non-existing, as I just told you ... when I manifested this ... you know, this longing to my granny, she said, “But they are not far away. Look, you just have to look out the window, you look up and your mother is there” ... This was to say ... mum is at the fourth floor, we are at the second ... and so I remember that, as a child, I looked up at those windows ... (*And these meetings never happened?*) No ... it was my granny’s way to try to reassure me ... Since when I was born, I was thrown out of the house.

Continuing on with the description of the relationship with the parents, the overall impression is that the interviewee has no familiarity in attachment figures, due to repeated changes of primary caregivers that prevented the formation of lasting attachment bonds:

I find it hard ... how can I say ... to split the word parents ... to separate this word if not referring to the whole family context ... More than a child born to a couple of parents, I am born to a context ... so you know ... I don’t feel that I am son of one or another ... I feel that I was the child of ... how can I call it ... this vision.

In the next case, the context and the affective environment in which Mary was raised is characterized by a disrupted caregiving system. When asked to describe the relationship with her parents, she simply answers, “I miss everything.” In contrast to the previous cases, the presence of traumatic attachment characterizes Mary’s history. The absence of the parents was not the dominating factor in her past, but instead, it was the helplessness of her mother (as a caregiving figure) and the abusive behavior of her father that prevented the child from turning to love, comfort, and protection when necessary. In this regard, episodes of physical abuse and domestic violence were often recounted as follows:

He [father] always hit me ... I had stitches on my head ... I always physically interposed me so that he could not hit mum ... because ... what? Would I allow him to hit my mum?! (. . .) We have to beat

the shit out of each other ... it is not the first time he runs after me with knives! (...) Both of them ... they fought, they beat the shit out of each other ... again and again! There were fights, quarrels ... the police each and every day! (...) My father tanned me so much ... and the many times I had stitches on my head ... only heaven knows! (...) When my father, my brother ... I was pregnant ... they clobbered me... And me ... I really wanted to be killed that way ... I didn't deliver ... I covered, and my uncle said "I am taking her away with me because you are clobbering her!"

Regarding Mary's personal history, it is important to observe that the coder did not consider the rating enough to infer the childhood experiences with her parents (i.e. as loving, rejecting, involving/role reversing, or neglecting). This rough estimate, which has been placed in parentheses (see Table 2), might be indicative of the speaker's difficulty (or inability) to access early episodic memories, which prevents the development of defined attachment representations. Similarities can be observed in the study by Koren-Karie et al. (2003) regarding the assignation of a new AAI classification (i.e. AAR) to two cases in which childhood experiences were unable to be inferred from the transcript, thus resulting in a "cannot rate" scoring for each scale. Adverse childhood experiences (ACEs), together with the inability to offer a clear portrait of the quality of the experiences with the caregivers, may underline a fragmentation at the level of attachment representations.

Together with the representational difficulties concerning attachment experiences, other features have been considered as specific category descriptors. First, in these AAIs, the narrative of the self may appear to be vague, as an expression of a precarious sense of personal identity, due to the shortage of self-other differentiation concerning the attachment figures. For instance, in addition to indications of confusion between the caregiver and the self, self-awareness may be so fragile that even childhood descriptions do not appear to be the consequences of genuine memories, but rather the images or stories provided by the caregiver that the interviewee endorses/embraces as if they were his/her own. The following is an example:

Mary: (*Did you ever feel your mother was not capable to look after you in an adequate way?*) Well, when I drank...

(*Did you see much of your grandparents when you were little?*) I just saw my granny that ... I remember when I was little, I was sitting on a chair, me and my granny beside me, you know ... I was one-year old and she had already died.

(*Can you remember what would happen when you were hurt physically?*) I remember that ... when I was little ... when I was born I had needles in my head, I say, I was born very little.

Second, following what Bowlby (1988) claimed regarding the successful accomplishment of affect-regulation functions resulting in a sense of attachment security, and recent findings concerning attachment strategies (Mikulincer & Shaver, 2008), in low-coherence CC transcripts, it is possible to observe the occurrence of affective dysregulation, especially in managing needs or moments of distress during childhood. Quite frequently, the lack of an emotional regulation strategy (or at least its extreme impairment) is evident when the interviewee is struggling to provide descriptions of his/her caregiving figures. The following speakers oscillate between extreme de- and hyper-activation (Fonagy & Bateman, 2008), thus impacting the individuals' capacities to emotionally regulate:

George: (*What is the first time you remember being separated from your grandparents?*) I was eight ... (George returns to his parents' house)... For me it was a shock, I had no familiarity with my family of origin, and I just had negative reactions, for example, in the morning.

Sometimes, I just didn't want to go to school ... I felt sick ... I specifically remember that ... one morning I really had an uncontrollable reaction ... I think it was a rageful reaction ... I actually pooped in my pants. And this then clearly provoked another reaction of agitation and resentment on the part of my mother who had to change me.

Mary: He used to meet women frequently... Once I had to go to a huge, 7-foot-tall nigger woman ... you know ... to throw her out ... I had to jump on a table ... just to kick her and throw her out of the house ... you know ... I really want[ed] to throw you [him] and the nigger woman out of the second floor balcony!!!

Third, manifestations of secure-base distortions (Zeanah & Boris, 2000) are apparent throughout the narratives, especially in regard to the interviewees' behaviors during childhood. For example, Laura is hypervigilant regarding the caregiver and she seems frightened of displeasing or provoking him, thus showing a "frozen watchfulness" (Steele, 1983) toward the parent:

*(How was the relationship with your parents when you were a child?)* I laugh a lot about it, but we also laughed a lot when I could understand that it was a silly fear ... that my dad really scared me (...) also my uncle who was a priest scared me ... I saw too much serenity there.

*(Can you remember specific incidents of this fear relationship with your father?)* You know, when dad came back home, he would leave home early in the morning when I was still sleeping so I didn't have the chance to see him often, so I didn't see him often, right? ... Just at night when I went to sleep.

As a child, Mary was preoccupied with her mother and she assumed the responsibility of managing her emotional wellness as well as providing protection from her father. In this case, longitudinal research on attachment has documented the manifestation of controlling behaviors in early disorganized children, especially those showing a caregiving or a punitive coercive pattern toward the caregiver (Bureau, Easlerbrooks, & Lyons-Ruth, 2009; Lyons-Ruth, Bronfman, & Atwood, 1999; Main & Cassidy, 1988; Moss, Cyr, Bureau, Tarabulsky, & Dubois-Comtois, 2005; Solomon & George, 2008; Wartner, Grossman, Fremmer-Bombik, & Suess, 1994). These adaptations are understood to attend to the function of overseeing a caregiver who is the source of unintegrated fears (Solomon, George, & De Jong, 1995). Reports of controlling behavior toward adoptive parents were also found in adolescents with reactive attachment disorder (Goldwyn & Hugh-Jones, 2011) and children with extreme attachment difficulties (Howe & Fearnley, 2003). Based on the findings of previous studies, disorganized and controlling patterns of attachment behaviors represent a malfunction of the attachment relational system that endangers the child with excessive unmodulated stress (Lyons-Ruth & Jacobvitz, 2008; Spangler & Grossmann, 1993), thus suggesting an inability of emotional regulation extended over time. For example, Mary recounts episodes of extreme role-reversal in order to protect her mother from the abusive father:

He [father] always hit me ... I had stitches on my head ... I always physically interposed me so that he could not hit mum ... because ... what? Would I allow him to hit my mum?! I'd rather be hit by him than her!!!

As a result of the representational emptiness in regard to attachment figures and experiences, low-coherence CC interviews are inordinately arduous to classify. It seems that such individuals "erased attachment figures from their arsenal of representations" (...) [and] "absence has become a main motive in their narrative in adulthood" (Koren-Karie et al.,

2003, p. 393). Theoretically, it is possible to advance the hypothesis regarding a correspondence to the construct of “nonattachment” (Lieberman & Pawl, 1988; Zeanah & Boris, 2000) in children with no opportunity to develop attachment relationships and engage in intimate social bonds.

The coder’s impression is that the interviewee is unable to reflect on past experiences with the caregiver and provide elaborate affective impressions related to these experiences. A hallmark of the CC transcript is the individual’s difficulty of describing central relationships, thus underlying a lack (or an absence) of mental representations of an attachment figure. In this regard, such descriptions of the relationship with the caregiver seem to be remarkably inconsistent, and with respect to coherence in terms of Grice’s four maxims (1975, 1989), they prevent the individual from being able to follow the maxim of quality, i.e. “Be succinct, and yet complete” (Main et al., 2003, p. 46).

### *Discourse characteristics and features in low-coherence CC transcripts*

Low-coherence transcripts, as a whole, may be so incoherent that they are difficult to follow and evaluate. Nevertheless, although violations of Grice’s maxims may take atypical forms from those provided for state of mind scales and general categories in traditional AAI coding systems (Main et al., 2003), the present study found recurring narrative indices throughout the transcripts. These reiterated narrative anomalies were then compared and revised according to Grice’s criteria.

The four main areas in which the indices are identified include (1) odd or lacking description of the primary relationship, (2) collapse of reasoning, (3) collapse of discourse, and (4) behavioral reactions. As shown in Table 4, each main area includes a number of specific discourse characteristics.

It is interesting to note that these are the same general areas within which Main et al. (2003) have identified indices of unresolved/disorganized responses to loss or abuse. However, some important differences should be highlighted (a) in unresolved/disorganized transcripts, U indices appear during discussion of loss/abuse or as invasion of information regarding a death or an abuse into other topics, while in low-coherence CC transcripts, discourse’s alterations concern descriptions of the primary relationships or attachment experiences even in absence of loss or abuse events; (b) by virtue of the very different nature of these classifications, U/d classification could be hypothetically assigned from a single high passage of the interview, while low-coherence CC classification should be identified by the simultaneous presence of several indices throughout the interview.

#### *Odd or lacking description of the primary relationship*

The state of mind in the low-coherence CC category reveals a breakdown in the representational foundations of the attachment system, which is characterized by a marked difficulty in describing primary relationships. For example, the speaker may answer with a description of an early relationship in a negative form, such as “The relationship with my mother was a relationship of no aggression” and “He was not a figure of command, but of fear,” which prevents the application of Grice’s maxim of quality (i.e. “Be truthful and have evidence for what you say”). The present study found similar examples in the research by Turton et al. (2001), which included (*What words would you use to describe your relationship with your mother?*) “Well, it wasn’t close. . .” (p. 291). In other cases, the relationship is not described in

**Table 4.** Discourse characteristics and features in the low-coherence CC category.

<b><i>Odd/Lacking description of the primary relationship</i></b>
Negative statement of the relationship
Descriptions of partial aspects of the relationship
<ul style="list-style-type: none"> <li>• Behavioral routines</li> <li>• Perceptive-sensorial details</li> <li>• False recalls</li> </ul>
Specific aspects of disorganization
<ul style="list-style-type: none"> <li>• Inability to access an elaboration of the relationship</li> <li>• Inability to define the relationship</li> <li>• Evidence of interchangeable attachments</li> </ul>
<b><i>Collapse of reasoning</i></b>
Confusion between the caregiver and the self
Psychologically confused statements
<ul style="list-style-type: none"> <li>• Occurrence of dissociative episodes</li> <li>• Use of the third person</li> <li>• Traumatic memory loss</li> </ul>
<b><i>Collapse of discourse</i></b>
Prolonged silences
Disoriented speech
Odd associations/proverbs not pertinent or relevant with the context
Visual-sensory images/unusual attention to detail
<b><i>Behavioral reactions</i></b>
Extreme responses
Incongruous reactions
Frightened mental state

terms of overall experience, but through descriptions of concrete or partial aspects (e.g. *Could you describe your relationship with your grandmother?* “Oh God, please don’t ask me about these relationships ... I don’t remember about ... relationships, I remember that my grandmother ... at Christmas we ate asparagus, peaches in syrup, so...”) and behavioral routines. In regard to the latter, when asked to choose between the adjectives of “serenity or tranquility” that best represented the mother, the interviewee stated:

You know ... also when we went to ... I don’t know ... to school ... you do your own things, you wake up, you go to school, she takes you there, she comes back to take you back home, then you play with your friends, maybe you do your homework, maybe the day finishes quite early.

In regard to partial aspects, in Laura’s interview, it is possible to observe disorganizing perceptive-sensorial details that were similar to those found in unresolved transcripts in which there is the absence of an event of loss or trauma. Often these descriptions are impossible or false memories that may question if the individual undoubtedly experienced them:

I was adopted when I was 3 years and 2 months old, so back in ‘58, August ‘58, I can remember ... I can remember parts of my life ... eyes ... light ... I can remember my father’s hand.... Yes, the right hand on the banister and the left hand in the hand of my father’s...

In this case, the ability to integrate or develop a more stable, global experience through interpersonal relationships (at least at an abstract level) appears to be lacking.

Other specific aspects of disorganization in the description of primary relationships may be seen through the speaker's inability to access an elaboration of the interpersonal experience or define the relationship with caregivers (e.g. by providing, at the most, one or two adjectives chosen for the description of early relationships), along with interchangeable attachments or nondiscrimination between attachment figures manifested by the confusion among caregivers. In this regard, Laura provided a single adjective regarding the relationship with her mother, as with her father. Her descriptions seem abstract and unglued from factual and concrete episodes, thus underlying her inability to define the bond with her caregiver. For example, after being asked to look for adjectives that best describe the relationship with her mother during childhood, she stated, "She was fantastic, she was my everything . . . she actually was the light . . . she is the world, the life, all, the light." In addition, when asked to describe specific incidents, she stated, "The world takes me out from shit and puts me in a golden castle, it gives what I never had."

Similarly, George was unable to differentiate between attachment figures and describe the significance of the bond. As seen in the following excerpts, he describes episodes through sensations and in an abstract manner:

So there was a . . . a slow, yes, a slow decline in his abilities and also his relationship with us, till he just came to avoid relationships . . . but I was already living with my grannies, with my parents, and I rarely met them. . . .

*(Was there a figure you felt mostly related to, whose parental attitude was in a way predominant for you?) [7 sec.] . . . How can you say it when you are raised (laughter) by your grandma till 8 and from 8 on by your mother? In a way, there was also my aunt to whom I felt connected, by the way . . . let's say that figures giving me a deeper sense of freshness when I was a child were my aunt and my uncle since they were an age they could have also been my parents though they were my uncles, but they didn't have a parental effect so I felt, let's say, a natural sympathy for them . . . but it would be . . . well maybe they were those inspiring me ( . . . ) I can speak about, how can I say it? . . . what should I speak about, about the ideals that I feel my family transmitted to me? . . . that is to say . . . how I consider male figures within my family? You know, I don't know, I'd like you to help me transform this question of the interview into something that makes sense for me.*

### *Collapses of reasoning or discourse in the discussion of primary relationships*

Unresolved/Disorganized states of mind in relation to loss or abuse are usually characterized by several lapses in the monitoring of reasoning and/or discourse. This suggests the presence of incongruous and incompatible beliefs or shifts of state, both of which indicate the interference of memories or unusual absorptions upon consciousness (Main & Hesse, 1992). Localized disintegration of speech and/or thinking is understood to be a sign of interference from terrifying and overwhelming memories or absorptive emotional experiences that are triggered by the discussion of a loss or trauma (Hesse, 2016). In the low-coherence CC transcripts, the present study found comparable indices of disorganizing or disorienting processes with respect to relationships or attachment experiences.

In the three AAls presented in this study, these lapses may be recognized throughout the interviews, as seen in the descriptions of the relationship between the caregiver and specific biographical events, including situations of emotional distress, illness, and separation from parents. Indices of disorganized speech and thinking have also been identified in these transcripts, in association with significant experiences with caregivers. More specifically, they occur in times of need and when the attachment system is activated, thus indicating the presence of pervading and recurring aspects of coherence violation in the transcripts.

Similarly, other studies have underlined, for instance, the presence of markers of disorganization during descriptions of separation from caregivers (Adam et al., 1996) or descriptions of adoption reported by the speaker (Goldwyn & Hugh-Jones, 2011).

In regard to reasoning collapse, evidence for the presence of disorganizing or disorienting processes in early experiences can be seen through the confusion between the caregiver and the self, which is consistent with the lack of self-other differentiation, which was described earlier as one of the general descriptors of the CC category. For instance, Mary states, "Because I couldn't find myself into the stroller!" (*Did you ever feel that your mother couldn't look after you adequately?*) "Well, when I drank."

Psychologically confused statements may also suggest lapses in the monitoring of reasoning. Hesse and Main (1999, 2000) linked such lapses to the possible intrusion of dissociated ideation or mildly dissociative experiences occurring in the interview context (Main et al., 2003). Evidence of disorientation can be detected by moments of absorption that denote a lack of awareness during the narration or a recollection of events as if they had been recounted and discussed earlier in the interview. Affects associated with the parent-infant relationship seem to interfere with the individual's ability to reflect on and mentally integrate early experiences. In the CC transcripts, the speaker seems to lose track of the interview queries or contexts. This is especially noticeable when a short passage is followed by a pause, as if a dissociative process had been activated.

Another marker that may reflect an unconscious strategy to defensively exclude cognitive and affective information that is overwhelming and terrifying is the use of the third person while speaking about oneself. An analogue aspect has been observed as an indicator of attempts to distance or depersonalize in the study by Borelli et al. (2013). This finding suggests that disorganized individuals use second-person pronouns more frequently during the discussion of loss and trauma. For example, George stated that "Mum was with Paul who was doing his military service and George who went 'Mum I'm going to my parents in law!...'"

Confused statements also occur in the emergence of traumatic memory loss. This has been conceptualized "as being either complete absence of memory for some significant period of life or for the details of a particular overwhelmingly frightening event and the surrounding period" (Main et al., 2003, p. 75). According to the AAI scoring and classification system, Main et al. stated that loss of memory for a particular period may be accounted for by traumatic experiences that highly trouble the speaker (regarding E3 classification). In addition, it may be the insistence on lack of memory, which implies a high score on this scale associated with the dismissing pattern, especially when it serves to block discourse and further queries. Conversely, in the CC interviews, although there may be a profound inability to access memories of personal history, this failure is not associated with fear (unless when the cases are CC/E3), confusion, or any other preoccupation regarding this absence. Moreover, although the individual does not rely on the lack of memory to distance him/herself from difficult aspects of the past, such a lack appears to imply an involuntary inability to recall significant aspects of early interpersonal experiences. A similar phenomenon can be observed in the study by Koren-Karie et al. (2003) in which the subjects did not remember their childhood without deliberately avoiding or blocking participation in the interview. In this regard, George speaks about his first 8 years during which he lived with his grandparents, thus suggesting the presence of this type of traumatic memory loss: (*You said that during the whole year, your parents were unavailable, and that, although you were in the same building, you didn't happen to meet at all*) "But my mother says that she came and visited me, but I can't remember."

Moving to the level of discourse collapse, indices of disoriented speech may also be examined according to Main et al. AAI scoring system (2003). However, this assessment focuses on the relationship with the caregiver, rather than the loss or trauma experience. Hence, in these CC transcripts, it is possible to note the exhibition of repeated long silences in the middle of sentences, nonsense sentence fragments, intrusion of visual-sensory images, and manifestation of odd associations/proverbs that are irrelevant to the context or discussions regarding early experiences with the caregiver. These are examples of discourse breakdown, with strong violations of coherence involving absorption and disorientation that takes the interviewee out of the appropriate interview context. This may also be understood as efforts to dissociate memories concerning these experiences. An example of odd association can be seen in Laura's interview:

*(Do you think this experience at boarding school affected you in any respect?)* ... Yes, because at that time, I realized I had ... I call it sixth sense, seventh sense. ... Anyway, my sensitivity ... when Kennedy died ... there was thunder, and I said, "Kennedy is dead," then they turned the TV on and they said, "Laura, you are right!" ... [5 sec.]. When Pope John died ... you know ... unfortunately, I have this sensitivity.

Likewise, Mary exhibited disoriented and incoherent speech while describing the relationship with her parents (first example) or while recalling an episode of distress (second example):

My father is alive ... [5 sec.]. Well ... mum, you know, mum died when she was 38, she left me two small brothers ... [5 sec.]. They didn't go to school because ... ok, one is deaf-mute. He has a ... mentality ... you know ... he deals these cards, these things ... when it happened that my brother, that they arrested my brother when he was 19 he said to me, "You have to leave too! Go and find your brother and leave!" But since I am ... I don't know ... maybe sort of stupid ... that after 38 years ... I think I didn't understand anything in life ... you know ... I just failed (cries).

*(When you were upset as a child, what would you do?)* ... I listened to words... [4 sec.]. A child should never listen to ... "Look! The pigs are down there!" *(What did you do then?)* Nothing ... what could I do? ... I looked down from the window, indeed when I asked "Oh my god, I am so afraid! What are they gonna do to me?" ... They go, "What are they gonna do to you!" ... compared to what Ronald saw ... you know ... this is nothing! Ronald was there when the pigs rushed in, he saw they got Kojak out while he destroyed everything ... you know ... I'm saying that ... Aurelia, the Aurelia police station has got all the records.

### **Behavioral reactions**

Another feature of low-coherence CC interviews is the presence of extreme or incongruous behavioral reactions surrounding interpersonal experiences. As the three cases in this study have disclosed, subjects may exhibit laughter at their own pain while recounting negative, frightening, or dramatic childhood events. "Laughter at pain" is a significant indicator in Lyons-Ruth et al.' Hostile/Helpless system (Lyons-Ruth et al., 1999, 2005), which reveals the tendency to dismiss the impact of difficult or traumatic childhood experiences. For instance, since Laura was abandoned at birth and lived in an orphanage until adoption at the age of 3, she revealed an incongruous reaction at the beginning of the interview when asked about the general description of her relationship with caregivers: "I had a father and a mother (laughter)... My biological mother (laughter)." Along these lines, despite the abusive atmosphere of her childhood, Mary laughs at the threatening and frightful behavior of the father: "We have to beat the shit out of each other ... it is not the first time he [father] runs after me with a knife! (laughter)."



Different passages of these transcripts are likely to characterize the presence of a frightened mental state with respect to childhood attachment experiences. This overwhelmed stance is not related to specific congruous events (e.g. traumatic events), but instead, it is linked to the relationship with the caregiver and/or to loss. Fearfulness may also arise from disrupted parents' behaviors and situations concerning relational trauma or absence of attachment experience. In addition, attentional and behavioral strategies can collapse, which may be the result of a disorganized attachment-caregiving system (George & Solomon, 2011) that fails to buffer the child against extreme levels of fear. Thus, there is a clear, theoretical association with the lack of regulating negative effects, as previously discussed in the contents of global category descriptors. Moreover, according to Mikulincer, Birnbaum, Woddis, and Nachmias (2000) and Mikulincer, Gillath, and Shaver (2002), the representations of attachment figures and attachment-related worries are activated even when there are no external threats.

Laura described her state of fear through visual-sensory images in the absence of any threatening circumstance:

*(How was the relationship with your parents when you were a child?)* I laugh a lot about it, but we also laughed a lot when I could understand that it was a silly fear ... that my dad really scared me (...). It wasn't just my father, but also my uncle who was a priest ... I eventually understood that he was a priest, wearing this long black suit, going back and forth with this newspaper (...). So also my uncle scared me ... I saw too much serenity there.

Similar feelings can be seen when George speaks about the relationship with his father:

It was hard with my father when I was 8 because ... he scared me, let's say that I wasn't familiar with a certain kind of reactions with ethics, in that my father is a man with ethics who quite often argued in a way ... not like ... verbally ... they were not physical quarrels, but a man who frequently had outbursts (...) and this scared me because I wasn't familiar with that (...) that fear I had when I was a child that made me feel squashed under his will. *(Would you illustrate a specific memory helping me better understand this feeling of being squashed?)* They were those spare moments when he would come close ... maybe they were to me, you know, I was not used to stay with him, they were moments of panic, of fear indeed, because he is a man who did not know me and whom I didn't know, with whom I didn't grow up during my childhood.

As a final note, it is important to say that these three interviews have also been classified as unresolved/disorganized with respect to recent deaths (U/CC). Indices of U/d responses were typical (i.e. indications of disbelief that the person is dead, disorientation with respect to time, etc.), but they didn't overlap with low-coherence CC indices. In other transcripts, interviewees show a general inability to rally an organized stance without being unresolved, because no loss or abuse occurred or because these events were not described with U/d indices.

## Conclusion

The three transcripts in this study, used to present the emerging criteria for the low-coherence CC category, include harsh, personal histories that commonly describe the intergenerational cycle of violence in child abuse and neglect. They are further evidence that parents with high reported exposure to ACEs generally fall into the unresolved/CC category (Murphy et al., 2014). In addition, these transcripts are extremely difficult to code within the present parameters set by the AAI's coding manual. Although it is clear to expert interviewers/coders that

the very low coherence of the narratives/transcripts point to the existence of a disorganized state of mind with respect to attachment, this globally disorganized stance is difficult to frame in terms of a specific coding category. Moreover, when the “contradictory insecure discourse strategies” CC phenomenon is not evident throughout the interview, it generally results in spurious coding of either assigning a very weak “F” category or forcing an insecure classification. Thus, concerns have been raised regarding the general application of the AAI scoring and classification system to nonnormative samples (Goldwyn & Hugh-Jones, 2011; Hesse, 1996, 2016; Koren-Karie et al., 2003; Lyons-Ruth, Yellin, Melnick, & Atwood, 2003; Main, Hesse, & Goldwyn, 2008; Melnick, Finger, Hans, Patrick, & Lyons-Ruth, 2008; Minde & Hesse, 1996; Turton et al., 2001).

The adaptation of the traditional coding system, encouraged by Main et al. (2003), considers three new criteria for transcripts in which a breakdown in discourse strategy (with no manifestation of contradictory insecure scale scores) is evident. In addition, the present study explicitly suggested additional criteria for quantifying certain types of coherence violations that should be developed in light of establishing further CC profile operationalization. In particular, this study began by collecting “hard-to-code” AAI transcripts that lacked an apparent discourse strategy or the interviewee refusal to discuss a traumatic experience or a supposed one (Main et al., 2003). The emerging criteria for the low-coherence CC category seemed to be applicable to this type of AAI in which the interviewee is unable (rather than refusing) to coherently engage in the interview, primarily due to a real (rather than a supposed) traumatic background.

Other studies have attempted to identify new categories and specific markers of disrupted attachment constellations (Goldwyn & Hugh-Jones, 2011; Hesse, 1996, 2016; Koren-Karie et al., 2003; Turton et al., 2001). Most of them have emphasized how extreme childhood experiences could undermine the foundations of attachment representations and identified indices like self-derogation, extreme derogation, or extreme detachment as specific indicators for these clinical populations. These attempts encouraged us to set up a research strategy toward the identification of additional criteria that could characterize the low-coherence CC category within the original classification system (Main et al., 2003). With this respect, we identified a top-down and a bottom-up approach considering indices regarding the collapse in reasoning and discourse, behavioral reactions, and the odd or lacking description of the primary relationship.

This top-down approach to the three presented transcripts made it possible to significantly detect the indices regarding absences of attachment figures and traumatic ruptures in the attachment system, which are quintessential to those involved in abusive environments. However, it must be underlined that the interviewees did have caregiving figures during their respective childhoods and they differed from those who lacked any possibility of developing emotional attachments due to extremely depriving environments (see “nonattachment” described by Lieberman & Pawl, 1988). In different ways, Laura, George, and Mary’s histories were characterized by severe adverse experiences during childhood and adolescence, which were disruptive for the development of coherent attachment representations. Absent or traumatic caregiving was actually evident at the level of representation, where emptiness, inconsistency, and fragmentation were clearly seen in the transcripts. In this regard, the coding of “inferred parental behavior” appeared to be complex, due to the speakers’ inability to effectively narrate their childhood experiences. As Turton et al. (2001, p. 285) pointed out, the severity and multiplicity of adversities and deprivation experienced by

nonnormative populations make their biographies “impossible to follow,” especially for AAI interviewers/coders. Previous studies have highlighted the difficulty of rating the AAI experience scales with particular samples, including Holocaust survivors (Koren-Karie et al., 2003) and adolescents with reactive attachment disorder (Goldwyn & Hugh-Jones, 2011).

From an attachment perspective, absent or traumatically ruptured attachments are expected to impact the development of personal identity, the regulation of affects, and “D-like/related” behaviors. In this regard, it was not surprising to see how the interviewees’ descriptions were evanescent. In addition, they did not experience security in their primary relationships, and as it is well known, the child’s sense of inner security (which is based on an optimal balance between basic trust and mistrust) provides important foundations for identity formation. Moreover, when self-other differentiation is weak, due to traumatic rearing environments, the child is left with no choice but to confuse personal identity with the (confusing) caregiver’s identity, that is, when childhood memories express the caregiver’s descriptions, rather than a personal point of view. Furthermore, as seen in the inextricable intertwining of attachment and emotional vicissitudes in which attachment relationships are, by definition, fear regulation strategies, the interviewees generally lacked a strategy, especially when dealing with emotional distress. In line with the development of “D” patterns in abused and maltreated children, secure-base distortions, as defined by Zeanah and Boris (2000), were frequently described as predominant behavioral patterns during the interviewees’ childhoods.

The present study also identified four main areas that cluster the interviewees’ frequent statements and linguistic modalities, thus forming a peculiar constellation of “dissociative” modality in low-coherence CC transcripts. Odd/lacking descriptors of the primary relationship have, in common, the unconscious attempt to define characteristics of attachment relationships in their absence or traumatic nature. When the interviewees are explicitly asked to describe these relationships, the representational vacuum and/or fragmentation and contradictions take the form of counterintuitive descriptions (i.e. the relationship can only be tentatively described as what it is not) or partial and fragmented aspects. The collapse of reasoning and discourse indices confirms the profound effects of dissociative states, both on the quality of language and of the thought processes already found in traditional AAI coding. In addition, extreme behavioral reactions described in the recollections of past episodes appear as the hallmark of childhood disorganization.

Our identified additional criteria make it possible to frame and describe the effects of very harsh and depriving experiences during childhood on attachment representations. The relative absence of such representations is common also in Koren-Karie’s and Turton’s populations, where massive relational trauma is the distinctive feature of subjects’ experience. Thus, methodological proposals from these authors preserve a clear heuristic value for the investigation of early relational deprivation sequelae.

In the same vein, also Lyons-Ruth’s HH system was developed to describe specific effects of early traumatic attachment experiences, since it captures globally contradictory and unintegrated representations of caregivers. However, HH system doesn’t much apply to the absence of attachment representation, since it describes HH states of mind with individuals polarized toward either a punitive (hostile) or a caregiving (helpless) representational stance. As a result, the HH system is devised to capture different effects of traumatic childhood experiences, thus not overlapping with the low-coherence CC approach and criteria and showing that there is actually more than one pathway to disorganization.

Through the definition of emerging criteria for low-coherence CC category, our study makes it possible for researchers to use in a more flexible way the AAI interview and coding system when dealing with clinical samples.

## Implications and future directions

Warning against a deterministic view of attachment disorganization, Granqvist (2016) recently noted that D behaviors in children are not necessarily indexes of abuse and/or maltreatment from their caregivers. In a similar vein, disorganization or CC cases do not automatically predict a link to maltreatment. Nonetheless, as academic and clinicians involved in the trauma field, it is our belief that the proposed criteria can lead to a more accurate and systematic evaluation of families involved in childhood maltreatment. Detecting a higher percentage of parents characterized by disorganized states with respect to attachments would be the key to not only breaking the intergenerational cycle of trauma but also intervening in a disrupted caregiving system that constitutes a significant risk factor for the psychopathology of the children. Moreover, targeted therapeutic interventions for these otherwise “non-psychopathological” parents would be of immense value for the processing of dissociation and its enduring effects, both on the parent and the child.

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## ORCID

Anna Maria Speranza  <http://orcid.org/0000-0001-8988-2940>

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