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Exploring Expressions of Disorganization in the Strange Situation in a High-Risk Sample

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OVERVIEW

Purpose: To explore behavioral expressions of Disorganization in the Strange Situation.

Goals: 1) To examine the relative frequencies of different Disorganized behaviors, and **2)** To determine whether infants assigned different secondary classifications display distinct behavioral expressions of Disorganization

Results: 1) The prevalence of the behavioral indices of Disorganization in the Strange Situation were described. **2)** Distinct profiles of Disorganized behaviors emerged for dyads receiving different secondary classifications.

Conclusion: The frequency of occurrence of the various behavioral indices of Disorganization vary considerably and are expressed to varying degrees by infants in Disorganized relationships. Future research should investigate whether this diversity is associated with distinct antecedents and consequences.

INTRODUCTION

● The Ainsworth (1978) Strange Situation is the "gold standard" for assessing infant attachment.

● The **Disorganized** classification was introduced when it became difficult to classify some dyads with the original Ainsworth classification system (i.e., Secure, Avoidant, Resistant) particularly in high-risk samples.

■ Based on their review of ~200 difficult-to-code tapes, Main and Solomon (1990) identified commonalities among infant behaviour and proposed a formal coding scheme for Disorganization based on discrete behavioral indices (see Table 1).

  ● Since that time, no study has examined the discrete patterns of infant behaviour that lead to a Disorganized classification.

● Disorganization in infancy is associated with a diverse array of antecedents (e.g., maltreatment, low-SES, unresolved loss/abuse) and consequences (e.g., aggression, dissociation).

  ● Given this diversity and the heterogeneity of the patterns of behavior associated with Disorganization, there is good reason to investigate the existence of structurally and developmentally distinct categories of Disorganized relationships.

■ All dyads classified as Disorganized also are given a secondary, best-fitting organized classification (i.e., Secure, Avoidant, Resistant).

  ● This secondary classification a) highlights the diversity within the Disorganized category and b) is a reasonable starting point for the examination of differences among Disorganized dyads.

Table 1. Themes of Disorganized Behavior from Main & Solomon (1990) Coding System for Disorganization.

Thematic Heading	Description
I. Sequential Contradictory	Infant shows strong attachment behaviours followed suddenly by avoidance behaviours.
II. Simultaneous Contradictory	Infant shows avoidant behaviours at the same time as showing distress behaviours.
III. Undirected/ Misdirected	Infant displays undirected, incomplete and interrupted movements and expressions.
IV. Stereotypies	Infant displays stereotypies, asymmetrical movements, mistimed movements and anomalous postures.
V. Freezing/Stilling	Infant displays freezing, stilling and slowed movements and expressions
VI. Apprehension	Infant displays direct indices of apprehension regarding the parent.
VII. Disorganization/ Disorientation	Infant displays direct indices of disorganization or disorientation to his or environment.

METHOD

PARTICIPANTS

● A subset of 57 adolescent mother-infant dyads classified as Disorganized in the Strange Situation at 12-months. Dyads were part of a larger longitudinal study (*n* = 90). Adolescent mothers were recruited from two city hospitals.

● Mothers ranged from 15.9 to 19.9 years at infant birth (*M* = 18.4, *SD* = .99). Overall, 59% were single and 44% were on social assistance and had completed an average of 11 years of education. 47% reported a history of trauma and 63% met the cut-off for depression on the CES-D when their infants were 12-months of age.

MEASURES

Strange Situation (Ainsworth et al., 1978)
● Mother-infant dyads participated in the standard separation-reunion laboratory procedure at 12-months.

● Both organized (i.e., Secure, Avoidant, Resistant) and Disorganized attachment classifications (Main & Solomon, 1990) were assigned by trained coders. Excellent interrater reliability was attained (89%).

● All Disorganized dyads also were assigned an organized classification (i.e., Secure, Avoidant, Resistant).

● Overall scores and Individual scores for behavioral indices of Disorganization (Main & Solomon, 1990) could range from 1-9 and were entered into SPSS for all dyads classified as Disorganized.

RESULTS

Description of the Nature of this Sample

● The **average score** for Disorganization assigned was 7.28 (**Note:** scores of 5-9 lead to a Disorganized classification).

● All Disorganized dyads also were assigned a **secondary, organized classification** (See Figure 1). Proportions were comparable to those in previous studies (van IJzendoorn, Schuengel, & Bakermans-Kranenburg, 1999).

Figure 1. Proportions of Secondary Classifications Assigned to Disorganized Dyads at 12-months.

D/Resistant 38% | D/Secure 39% | D/Avoidant 23%
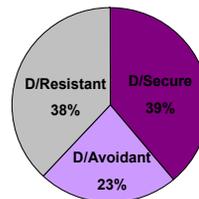
Relative Frequencies of the Behavioral Indices of Disorganization

● The overall frequencies for the different indices of Disorganized behavior (1-7) were variable (see Figure 2).

● **Simultaneous Contradictory (II)** behaviors and **Stereotypic (IV)** behaviors were the *most* common

● **Sequential Contradictory (I)** behaviors and **Freezing/Stilling (V)** behaviors were the *least* common behaviours.

● No single dimension of behavior was displayed by all dyads.

Figure 2. Relative Frequencies for Indices of Disorganized Behavior Displayed by Infants in the Strange Situation (n=57)
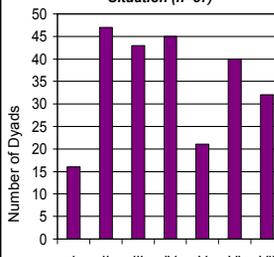
Indices of Disorganized Behavior by Secondary Classification

● Scores for behaviors under each heading (1-7) were *aggregated* as dependent variables.
● Infants assigned different secondary classifications displayed different expressions of Disorganized behavior in the Strange Situation (*F* (14, 98) = 2.14, *p*<.05; see Figure 3).

Figure 3. Means for Disorganized Behavior by Secondary Classification.
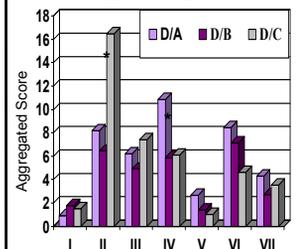
● Among infants assigned different secondary classifications, different behavioral indices led to their primary Disorganized classification.
● The overall score for Disorganization (1-9) correlated significantly with the *highest* score assigned under the following heading:

● **D/Secure: Undirected/ Misdirected (III)** behavior, r=.80, p<.01

● **D/Avoidant: Sequential Contradictory (I)** behavior, r=.45, p<.05, and **Simultaneous Contradictory (II)** behavior, r=.55, p<.01.

● **D/Resistant: Sequential Contradictory (I)** behavior, r=.51, p<.05.

CONCLUSIONS

● There was variability in the relative frequency of different Indices of Disorganization; dimension **II** and **IV** were the **most** common, whereas dimension **I** and **V** were the **least** common behaviors.

● Different profiles of Disorganized behaviors emerged for dyads receiving different secondary classifications.

● The results of this study provide further insight into the expressions of Disorganization in the Strange Situation.

● Future research should examine whether this heterogeneity within Disorganized relationships is associated with different antecedents and consequences.