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### Publication Date

2021

Peer reviewed|Thesis/dissertation

UNIVERSITY OF CALIFORNIA  
RIVERSIDE

Pathways of Dissociation Across Childhood:  
Caregiver History of Childhood Maltreatment and Parenting Processes

A Dissertation submitted in partial satisfaction  
of the requirements for the degree of

Doctor of Philosophy

in

Psychology

by

Linnea B. Linde

June 2021

Dissertation Committee:

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2021

The Dissertation of Linnea B. Linde is approved:

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Committee Chairperson

University of California, Riverside

For my son, Ami, who is always my motivation.

## ABSTRACT OF THE DISSERTATION

Pathways of Dissociation Across Childhood:  
Caregiver History of Childhood Maltreatment and Parenting Processes

by

Linnea B. Linde

Doctor of Philosophy, Graduate Program in Psychology  
University of California, Riverside, June 2021  
Dr. Tuppert M. Yates, Chairperson

Dissociative processes in children and adolescents entail alterations in memory, identity, and perception that reflect and/or precipitate disconnects across biological, emotional, cognitive, and behavioral systems. Children of maltreatment survivors are at heightened risk for various forms of psychopathology, including problematic dissociation. However, given that most parents who were maltreated as children do *not* go on to maltreat their own children, these intergenerational effects may be mediated by more subtle parenting processes that thwart children's emergent capacities for self-regulation and integration, such as caregivers' reduced ability to reflect on child needs and signals and insensitive caregiving practices characterized by hostility, intrusiveness, and low support.

Drawing on five data waves with a diverse sample of 250 maternal caregiver-child dyads (50% female children, 88.8% nonwhite, 36.7% poverty), this investigation examined intergenerational effects of caregiver history of maltreatment on children's

dissociation trajectories from early childhood through the transition to adolescence. Further, I evaluated explanatory simple and sequential mediation paths wherein I hypothesized that the severity of a caregiver's history of maltreatment would predict higher levels of child dissociation at age 6 and slower declines in dissociation from ages 6 to 12 via less caregiver reflectiveness and more insensitive caregiving. Further exploratory analyses tested these pathways separately for girls and boys.

A factor of curves (FOCUS) model provided a multivariate representation of children's dissociation starting values and change over time as reported by teachers, caregivers, and examiners at ages 6, 8, 10 and 12. In line with study hypotheses, insensitive caregiving in the wake of maltreatment emerged as an initiating factor for children's dissociation. However, contrary to hypotheses, a history of maltreatment was positively associated with caregiver reflectiveness. In turn, reflectiveness predicted less insensitive caregiving and a resilient pattern wherein children's dissociation scores began relatively low and remained more stable across childhood as compared to children with less reflective and more insensitive caregivers. This investigation has important implications for future research and applied efforts to mitigate intergenerational maltreatment effects and promote children's resilience to the development of pathological dissociation.

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## **Pathways of Dissociation Across Childhood:**

### **Caregiver History of Childhood Maltreatment and Parenting Processes**

Dissociation is a phenomenon of long-standing interest in the psychological sciences, one that is often (mis)characterized as a unilaterally pathological deviation from normative functioning. However, a developmental psychopathology perspective (Carlson et al., 2009; Sroufe & Rutter, 1984) holds that dissociative processes range along a continuum of severity from short, often situation-dependent, normative episodes (e.g., day-dreaming), to prolonged or frequent episodes that interfere with individual functioning, to profound disturbances in the self and disintegration across biological, emotional, cognitive, and behavioral systems (e.g., fugue states; American Psychiatric Association, 2013; Putnam, 1991). Pathological dissociation may manifest as disturbances of affect regulation (e.g., depression, mood swings, feelings of isolation), memory dysfunction (e.g., psychogenic amnesia, fugue), identity disruptions (e.g., splitting, fragmentation), autohypnotic phenomena (e.g., trances, time distortions, psychogenic numbing), revivification of traumatic experience (e.g., flashbacks, hallucinations), and behavioral disturbances (e.g., inattention, poor impulse control, self-harm; Hornstein & Putnam, 1992).

Although the majority of research on dissociation has centered on studies of adults (Lipschitz et al., 1996; Saxe et al., 2002; Zanarini et al., 2000) and, to a lesser degree, adolescents (Dutra et al., 2009), this investigation sought to understand the etiology and course of dissociation across childhood. Traditional etiologic models posit that dissociation is primarily a defensive response to severe trauma (e.g., chronic

maltreatment, combat), which, while potentially adaptive during an overwhelming event (i.e., peritraumatic dissociation; Lensvelt-Mulders et al., 2008), may negatively impact later functioning if dissociative tendencies become entrenched. Early-occurring and chronic maltreatment experiences are thought to be especially salient predictors of pathological dissociation in adulthood (Byun et al., 2016; Hebert et al., 2020; Macfie et al., 2001). However, this pattern may reflect the tendency for research on the etiology of dissociation to rely on adults' retrospective self-reports of trauma. In fact, the only two prospective studies of dissociation from infancy to young adulthood challenge the assumption that dissociation stems from trauma alone (Dutra et al., 2009; Ogawa et al., 1997).

Guided by the integrative framework of developmental psychopathology (Sroufe & Rutter, 1984) and the tenets of an organizational perspective on development (Cicchetti et al., 1990; Sroufe, 1990), this investigation employed latent growth curve analyses to document the expression of dissociative regulatory processes from childhood to early adolescence (i.e., ages 6 to 12). Building on prior research evidence that children of maltreatment survivors are at higher risk for emotional and behavioral dysregulation and psychopathology (Linde-Krieger & Yates, 2018; Plant et al., 2018), even despite low rates of intergenerational maltreatment perpetration (Leve et al., 2015), I evaluated whether and how a caregiver's own history of childhood maltreatment victimization may influence the onset and development of children's dissociation. Thus, I sought to broaden the previously narrow emphasis on abject maltreatment to evaluate multiple caregiver-child relational mechanisms (i.e., caregiver reflectiveness and insensitive caregiving

behavior) as putative mediators of predicted pathways from caregiver history of maltreatment toward the initiation and/or growth of atypical dissociative trajectories in the next generation. Finally, I evaluated an exploratory moderation model given empirical evidence that child gender may qualify caregiving effects on development (Kerr et al., 2004; Zimmer-Gembeck et al., 2013).

### **A Developmental Psychopathology Perspective on Dissociation**

The integrative paradigm of developmental psychopathology provides a valuable framework for integrating diverse theoretical accounts of dissociative processes (e.g., Cicchetti & Dawson, 2002; Linde-Krieger et al., in press; Sameroff, 2000; Sroufe & Rutter, 1984). Specifically, developmental psychopathology encourages process-level analyses of experiences that probabilistically initiate maladaptation, modify the expression of disorder, and account for the maintenance or desistance of maladaptive pathways and patterns over time (see Carlson & Ruiz, 2016; Cicchetti, & Tucker, 1994; Yates et al., 2011). Likewise, this integrative framework encourages attention to multiple-levels-of-analysis in recognition that all adaptive processes (including dissociation) encompass both internal and external influences on biological and psychological transformations and reorganizations over time (Cicchetti & Dawson, 2002).

The organizational perspective on development incorporates core principles of developmental psychopathology within a theoretical model that yields testable hypotheses about the nature of both typical and atypical development (Labella & Cicchetti, 2017; Sroufe, 2009). In this view, development encompasses a series of

qualitative reorganizations whereby earlier patterns of adaptation provide a framework for, and are transformed by, later adaptations. At all ages, the organizational perspective defines adaptation with respect to how the quality of integration among domains of functioning support or thwart the individual's negotiation of salient developmental issues (Cicchetti & Dawson, 2002). Positive adaptation reflects the integration of biological, emotional, cognitive, and behavioral capacities in a way that promotes the flexible negotiation of current and future developmental issues, whereas maladaptation reflects developmental deviations from typical patterns of adaptation that compromise or constrain development (Carlson et al., 2009; Cicchetti & Toth, 2016; Sroufe, 2009). In this way, development is cumulative, and successive adaptations represent the combined influence of contemporaneous experience and development up to that point (i.e., history; Bowlby, 1973; Sroufe, 2005).

The coherence of individual development (Sroufe, 1979) reflects probabilistic, rather than deterministic, relations among successive adaptations as individuals participate in the construction of their own development by interpreting and selecting experiences that are consistent with their developmental history (Carlson et al., 2004; Sroufe, 2009). Thus, a single developmental starting point may yield divergent outcomes (i.e., multifinality), while different patterns of early adaptation may converge on a single developmental endpoint (i.e., equifinality; Cicchetti & Rogosch, 1996). This *process* view of development encourages consideration of both mediating and moderating influences on adaptive pathways. Moreover, an organizational perspective emphasizes *patterns* of adaptation, rather than continuities in manifest discrete behaviors over time

(Sroufe, 2009); developmental coherence occurs at the level of adaptive meaning and function (Sameroff & Chandler, 1975; Wichstrøm et al., 2017), and successive organizations build on one another within and across time, including across generations.

In a developmental psychopathology framework, dissociation, like all psychopathology, represents a problematic elaboration of otherwise adaptive capabilities (Yates et al., 2011). As in adults, dissociative processes in children and adolescents include alterations in memory, identity, and perception that reflect and/or precipitate disconnects across biological, emotional, cognitive and behavioral systems (Putnam, 1997). However, childhood dissociative processes may be a natural expression of typical childhood cognitive structures and regulatory strategies prior to the child's transition to new levels of integrative organization (Carlson et al., 2009; Cole et al., 1996; Fischer & Ayoub, 1994). Indeed, some degree of dissociation, or experiential fractionation, is expected in early childhood (e.g., fantasy proneness, hypnotizability; Fischer & Ayoub, 1994; Putnam, 2000). The young child's mind is naturally fractionated prior to developing the ability to process and integrate complex or contradictory experiences (e.g., early compartmentalization of positive versus negative views of self and other, or of good versus bad experiences; Harter, 1998; Putnam, 1991). Fischer and colleagues (e.g., Fischer & Ayoub, 1994; Fischer & Pipp, 1984) refer to children's natural tendency toward fractionation in advance of subsequent integration as "passive" dissociation, whereas "active" dissociation is a (consciously or unconsciously) motivated systemic response to dysregulating or traumatic experience. Active dissociation processes hijack

the child's natural proclivity for compartmentalizing affect and experience in ways that stymie, rather than promote, subsequent integration (Carlson et al., 2009).

Given that proto-dissociative behaviors are believed to be highest in early childhood and decline across middle childhood as children achieve increasing levels of organization and integration (Ogawa et al., 1997), maladaptive dissociative expressions in later development may reflect the absence of a typical decline in dissociative tendencies and/or an atypical increase in dissociative processes (Carlson et al., 2009). Moreover, whereas dissociative behaviors may be natural (and prevalent) in early childhood, the significance and complexity of dissociation as an indicator of psychopathology likely increases with age and more advanced modes of thought (Putnam, 1997; Wieland, 2011). Benefitting from adaptive dissociation early on, typical development and self-organization progress towards greater flexibility, complexity, and integration across diverse aspects of experience (Sroufe, 1996). In pathological dissociation, however, development progresses toward greater complexity without complementary integration (Carlson et al., 2009). Thus, the overarching goal of this investigation was to identify factors that may instantiate or perpetuate problematic dissociative pathways.

### **Trauma and Dissociation**

Chronic and severe trauma in early development may disrupt emergent integrations across biological, cognitive, emotional, and behavioral systems in ways that consolidate normative dissociative tendencies in early childhood into pathological dissociative processes that endure over time, particularly if traumatic events are ongoing



(Carlson et al., 2009). Empirical support for an association between trauma and dissociation includes three types of evidence. First, cross-sectional studies reveal concurrent relations between trauma and elevated dissociation scores within childhood (Byun et al., 2016; Hebert et al., 2020; Macfie et al., 2001) and adulthood (Boelen, 2015; McDonald et al., 2013). Moreover, consistent with a dual risk or diathesis stress model of psychopathology (Coyne & Downey, 1991), a history of childhood maltreatment, particularly sexual abuse, appears to increase dissociative propensities following later trauma (Dancu et al., 1996).

Second, as noted earlier, research points to retrospective associations between childhood maltreatment and adult dissociation. These studies suggest that the relation between maltreatment and dissociation extends over time with evident links between dissociation and childhood sexual abuse, physical abuse, and neglect in both nonclinical (e.g., Schimmenti, 2018; Selvi et al., 2012; Vonderlin et al., 2018) and clinical (e.g., Frewen et al., 2014; Kefeli et al., 2018; Zanarini et al., 2000) samples. Retrospective studies further suggest that the effect of maltreatment on later dissociation may be cumulative. For example, co-occurring child sexual abuse and physical abuse predicts higher dissociation scores in adulthood than either form of maltreatment in isolation (Lipschitz et al., 1996; Draijer & Langeland, 1999).

Finally, a handful of prospective studies have traced pathways from childhood etiologic factors to the development of pathological dissociation (Carlson, 1998; Dutra et al., 2009; Haltigan & Roisman, 2015; Putnam et al., 1995; Ogawa et al., 1997; Smeekens et al., 2009). Although some studies have found that rates of childhood dissociation

increase following maltreatment (Putnam et al., 1995), other longitudinal research challenges the prevailing belief that dissociation is primarily a response to severe interpersonal trauma in childhood (Dutra et al., 2009). Indeed, prospective research suggests that not all survivors of early maltreatment evidence problematic dissociation in later development, and not all individuals who dissociate, including pathological levels of dissociation that impair functioning, experienced maltreatment during childhood (Ogawa et al., 1997).

Taken together, these findings illuminate the need for ongoing research to elucidate factors and processes that influence childhood levels of dissociation and their growth over time. In particular, findings point to the need to consider factors beyond abject trauma that may disrupt normative developmental trajectories of dissociation. Thus, this prospective investigation evaluated relational factors that extend beyond the narrow continuum of child maltreatment to identify (and ultimately modify) conditions that initiate atypical dissociative pathways as potentially distinct from those that maintain or exacerbate the course of pathological dissociation over time.

### **An Intergenerational Approach to the Study of Childhood Dissociation**

A developmental psychopathology perspective emphasizes the importance of understanding adaptation as a function of current circumstance and developmental history (e.g., Bowlby, 1969; Sroufe, 2009). Indeed, development is cumulative both within and across generations. In recent years, research has focused on processes by which caregivers' own childhood experiences may carry across generations to influence their children's adaptive outcomes. A well-established literature points to intergenerational

trauma effects (Bowers & Yehuda, 2016), with children of maltreatment survivors facing heightened risk for various forms of psychopathology, including problematic dissociation (Chu & DePrince, 2006; Hulette et al., 2011a). Moreover, evidence suggests that these continuities remain even when parents do *not* perpetuate the cycle of maltreatment across generations (Meulewaeter et al., 2019; Sangalang & Vang, 2017).

Although research documents positive associations between a history of trauma and dissociative symptomatology in both survivors of trauma and their offspring, less is known about *how* the effects of maltreatment may carry across generations to influence adaptation among survivors' children. Recent work showing higher rates of emotional and behavioral problems among the children of maltreated caregivers (Linde-Krieger & Yates, 2021; Plant et al., 2018), despite relatively low rates of intergenerational abuse perpetration (Leve et al., 2015), point to the likely influence of more subtle caregiving disruptions on these patterns. Thus, I considered both proximal/intragenerational and distal/intergenerational etiologic contributors to childhood dissociation. Moreover, I evaluated the mediating effects of caregiver-child relationship factors beyond intergenerational patterns of maltreatment to elucidate specific mechanisms by which a caregiver's history of maltreatment may influence the expression and pattern of children's dissociative symptomatology over time.

***Caregiver History of Maltreatment and Children's Dissociation: Parenting Processes as Mediating Mechanisms***

Modest continuity in abuse perpetration across generations suggests that influences of childhood maltreatment on adaptation in the second generation are likely

mediated by more subtle relational stressors. Although most studies linking caregiver history of maltreatment with risk for psychopathology in the next generation have not investigated mechanisms that may underlie this association (c.f., Hock et al., 2020; Noll et al., 2009), theory suggests caregivers struggling with their own histories of trauma may evidence compromised support for their children at multiple levels, including their ability to de-center and reflect on the child's needs and signals (Scheeringa & Zeanah, 2001) and, by extension, to orient their behaviors to the child's needs accordingly (Grienenberger et al., 2005).

The organizational perspective on development places the origins of the self and self-regulation within early biological, emotional, cognitive, and behavioral experiences of co-regulation in the primary caregiving relationship (e.g., emotional attunement, distress modulation; Carlson et al., 2009; Labella & Cicchetti et al., 2017; Sroufe, 1996). Responsive caregiving enables young children to maintain organization in the context of internal arousal and/or external threat, which supports their emergent confidence that their emotions (both positive and negative) can be understood and managed (Bowlby, 1969/1982; Denham et al., 2015; Lieberman, 2017). A caregiver who experienced reasonably supportive and sensitive caregiving during their own childhood (i.e., "good enough" parenting; George & Solomon, 1999; Winnicott, 1958) is likely to develop the capacity to reflect on their own mental states and those of others, including the mental states of their own child in the future (Sharp & Fonagy, 2008). Indeed, a child who develops in the context of a caregiver who holds the child's mind *in mind* develops into an adult who can recognize their young child as a separate, yet dependent, individual with

their own thoughts, motivations, and needs (Fonagy et al., 2002; Slade et al., 2020; Suchman et al., 2013). This reflective stance promotes caregivers' accurate interpretations of child behaviors, sensitive responses to child cues, and capacities to create a positive, supportive emotional climate in the parent-child relationship (Camoirano, 2017; Slade et al., 2020).

In contrast, when a child's emotions repeatedly fail to achieve their purpose, when they are persistently activated without resolution, or when their expression is blocked or punished, emotions may become segregated from important relationships and experiences (Fischer & Ayoub, 1994). A child who was exposed to frightening and confusing experiences of maltreatment and who lacked sensitive scaffolding provided by a reflective caregiver may develop defensive blocks against acknowledging their own tender needs in ways that hinder their later reflective processing and sensitive parenting of their own child (Berthelot et al., 2015; Fonagy, 1993). Therefore, this investigation evaluated pathways from a caregiver's own history of childhood maltreatment to child dissociation through both caregiver reflectiveness and insensitive caregiving.

**Caregiver Reflectiveness.** The capacity for reflection about one's self and others has garnered attention in developmental and clinical literatures as a mechanism through which caregiver developmental history may influence child adaptation. Reflectiveness has been described using a variety of terms including reflective functioning and mentalization (e.g., Fonagy & Target, 2005; Sharp & Fonagy, 2008), mind mindedness (e.g., Meins et al., 2002), and insightfulness (e.g., Koren-Karie et al., 2002). Reflectiveness refers to an individual's capacity to richly and accurately reflect on their

own and others' inner states in a non-defensive manner. By extension, reflective processing allows an individual to engage emotional experience of varying valences and intensities and to make meaning of feelings and experiences without becoming overwhelmed.

Reflectiveness can be coded from narratives about attachment relationships and captures the degree to which the narrator demonstrates both cognitive capacities (e.g., perspective-taking, psychological insight) and emotional skills (e.g., the capacity to hold, regulate, and experience diverse emotions; Sharp & Fonagy, 2008; Slade, 2005). Reflectiveness in caregivers' narratives about their child and the caregiver-child relationship may be indicated by the caregiver's provision of an elaborate and believable depiction of the child and the caregiver-child relationship, the caregiver's capacity to describe their child and the relationship in a complex, multidimensional, and multicontextual manner, and the caregiver's level of insightfulness about the inner world of the child and reasons for the child's behaviors or their interactions.

When a caregiver holds non-defensive representations of their child as an individual with distinct yet comprehensible feelings, desires, and intentions, the caregiver is likely to interpret the child's emotional experience accurately, and reflect or re-present this experience in ways that promote the child's understanding of their own and others' mental and emotional lives (Slade, 2005). Repeated interpersonal experiences and exchanges with reflective caregivers support the child's capacity and willingness to engage and integrate their own internal experiences, rather than dissociate from them (Fonagy & Target, 1997). As such, a caregiver's capacity for reflection about the child

and the parent-child relationship is believed to encourage children's emergent self-regulation and integration across biological, emotional, cognitive, and behavioral systems (Sharp & Fonagy, 2008). Conversely, when the child's inner experiences are denied, misrepresented, or distorted by caregivers, affect and cognition remain unintegrated in the child's mind (Beebe, 2010).

Attachment theory and preliminary evidence suggest that a caregiver's capacity for reflectiveness may be negatively related to child dissociation. For example, in a study of mentalization and dissociation in the context of child sexual abuse, Ensink and colleagues (2017) found that caregiver reflection supported children's integrative processing of experience, such that both maternal and child reflective functioning protected against child dissociation. Additional research suggests that maltreatment survivors with low levels of reflectiveness also evidence lower levels of sensitive and responsive caregiving when parenting the next generation (Easterbrooks et al., 2017), which is consistent with numerous studies documenting positive relations between parental reflectiveness and sensitive caregiving (Borelli et al., 2012; Grienenberger et al., 2005; Huth-Bocks et al., 2014; Stacks et al., 2014).

Taken together, prior studies point to the likely explanatory role of caregiver reflectiveness for understanding pathways from a caregiver's history of child maltreatment to adaptive regulation (and pathways of dissociation) in the next generation. In addition to the potential for direct effects of caregiver reflectiveness on child adaptation and dissociation (Ensink et al., 2017), positive associations between reflectiveness and caregiving quality in both clinical and non-clinical samples (Borelli et

al., 2012; Grienberger et al., 2005; Huth-Bocks et al., 2014; Stacks et al., 2014) suggest a sequential pathway whereby caregiver reflectiveness may influence the sensitivity of caregiving practices in ways that further influence children's own capacity for integration across biological, emotional, cognitive, and behavioral systems (Sharp & Fonagy, 2008). Thus, this investigation evaluated both simple and sequential mediation models wherein I hypothesized that caregiver history of maltreatment would negatively influence caregiver reflectiveness in ways that contributed to the initial level and growth of children's dissociative symptomatology over time both directly (i.e., simple mediation) and indirectly by undermining sensitive caregiving (i.e., sequential mediation).

**Caregiver Insensitivity.** Experiences in the early caregiving environment may support, thwart, or distort children's emergent regulatory capacities, such that receipt of sensitive, responsive care promotes adaptive functioning, whereas inadequate or insensitive care instantiates maladaptation (Bowlby, 1973). Thus, repeated experiences of contradictory or overwhelming emotional arousal in childhood, particularly in the absence of a supportive caregiving relationship, may potentiate normative dissociative propensities into rigid patterns of pathological dissociation. Indeed, research suggests that these non-abusive disturbances in the parent-child relationship may lead to elevated levels of dissociation in later development (Dutra et al., 2009). Retrospective cross-sectional investigations exploring the role of family environmental factors in the development of dissociation suggest that rejecting and emotionally neglectful parenting (Schimmenti, 2017), low parental warmth and support (Modestin et al., 2002), and poor



parent-child relationship quality (Maaranen et al., 2004) are associated with later dissociation.

Longitudinal studies further suggest that subtle caregiving insensitivities may overwhelm a child's abilities and/or neglect their needs in ways that disrupt the expected developmental progression toward greater integration amidst declining dissociative tendencies (Dutra et al., 2009; Lyons-Ruth, 2003). In particular, prospective investigations of attachment have examined the role of caregiver-infant relationship quality in pathways toward dissociation. In a seminal study, Ogawa and colleagues (1997) found that disorganized attachment *and* psychological unavailability of the caregiver prior to age two were the strongest independent predictors of elevated dissociation in late adolescence. Of note, psychological unavailability of the caregiver held more predictive power (accounting for 19% of the variance in dissociation scores at age 19) than disorganized attachment (accounting for 6% of the variance), and physical and sexual abuse did not add significant predictive power to the model. Moreover, as a testament to the probabilistic, rather than deterministic, patterns of adaptation over time predicted by developmental psychopathology and organizational principles, Ogawa and colleagues (1997) found that some infants who were *not* classified as disorganized nevertheless developed maladaptive dissociation in late adolescence. This finding is consistent with subsequent studies yielding mixed relations between attachment disorganization and maladaptive dissociation in later development (Haltigan & Roisman, 2015; Smeekens et al., 2009).

In a second longitudinal study of attachment and later dissociation, Dutra and colleagues (2009) found that the quality of mother-infant interaction in the first 18 months of life accounted for half the variance in dissociation scores at age 19. Although disrupted mother-infant communication predicted elevated dissociative symptoms in late adolescence, neither childhood maltreatment nor infant disorganized attachment independently predicted later dissociation. It is particularly noteworthy that Dutra and colleagues (2009) found “quieter” caregiving disruptions, such as a lack of positive maternal affective involvement, disrupted mother-child communication, and flat maternal affect, which is a construct similar to the psychological unavailability noted by Ogawa et al. (1997), predicted late adolescent dissociation scores.

In line with extant longitudinal evidence, this investigation evaluated the mediating effect of insensitive caregiving on expected relations between caregiver’s own history of maltreatment and children’s dissociative symptomatology (i.e., simple mediation), as well as between caregiver’s reflectiveness and child dissociation (i.e., sequential mediation). Insensitive caregiving may take several forms. First, hostile and punitive, though not necessarily abusive, caregiving is related to children’s altered stress physiology (Sturge-Apple et al., 2012), poor behavioral regulation (Chang et al., 2003), and psychopathology (Deater-Deckard et al., 2012; Wang & Kenny, 2014). Second, experiences of intrusive care, in which the caregiver misreads or ignores the child’s cues in a way that communicates a lack of respect for the child as an individual, can undermine the child’s emergent capacities for self-regulation and integration (Carlson et al., 1995; Mortensen & Barnett, 2019; Rudd et al., 2017). Third, caregiving characterized

by low warmth and support has been studied extensively and may instantiate and/or exacerbate children's developmental vulnerabilities within or across time (Braungart-Rieker et al., 2010; Rothenberg et al., 2020).

### ***Caregiver History of Maltreatment and Children's Dissociation: Moderation by Child Gender***

Individual child factors, including gender, may qualify associations between a history of maltreatment and later parenting processes (Linde-Krieger & Yates, 2018; Sroufe et al., 1985), as well as between caregiving experiences and child psychopathology (Kerr et al., 2004; Zimmer-Gembeck et al., 2013). Caregivers differ in how they perceive and relate to sons versus daughters (Raley & Bianchi, 2006), and a caregiver's own history of maltreatment may be triggered by a variety of child factors, including gender (Lyons-Ruth et al., 2004). The literature on child sexual abuse (CSA) provides the strongest evidence for the moderating effect of child gender on relations between a caregiver's own maltreatment and later parenting processes. For example, some evidence suggests that mothers with a history of CSA engage in more role confusion and have greater perceived helplessness when parenting sons as compared daughters (Linde-Krieger & Yates, 2018; Sroufe et al., 1985), but express greater hostility toward daughters as compared to sons (Cross et al., 2016). Although literature on the influence of child gender on parenting processes in the wake of other forms of childhood maltreatment, such as child physical abuse (CPA), child emotional abuse (CEA), and child neglect (CN), is scarce, some preliminary evidence suggests that sons

may be more vulnerable than daughters to the intergenerational effects of caregiver early adversity (Garon-Bissonnette et al., 2021; Letourneau et al., 2019).

Evidence evaluating the influence of child gender on caregiver reflectiveness and child adaptation is limited. In a rare study of caregiver reflective functioning, caregiving behavior, and child gender, León and colleagues (2018) found that adoptive parents displayed greater reflective functioning and more sensitive caregiving when parenting daughters versus sons. Other evidence suggests that daughters may experience worse developmental outcomes than sons in the context of poor caregiver reflectiveness (Garon-Bissonnette et al., 2021). Although scant research has evaluated gender-specific influences of caregiver reflectiveness on child adaptation, several studies point to differential caregiving effects on the development of daughters versus sons. As compared to daughters, some studies show that sons are at greater risk for psychopathology in the context of low parental support (Kerr et al., 2004), high parental hostility (Gordis et al., 2001), overprotective parenting (Kiel et al., 2015), and high psychological control (McFadyen-Ketchum et al., 1996). Similarly, the influence of caregiving insensitivity on children's psychopathology, especially externalizing psychopathology, may be stronger for sons than daughters (Zimmer-Gembeck et al., 2013), though other evidence points to greater psychopathology among daughters in the context of high parental hostility and low parental support (Burnette et al., 2012; Krug et al., 2016).

With regard to dissociation, most studies suggest dissociative psychopathology is more common in women and girls (Putnam et al., 1996, but see Seedat et al., 2003). Further, some data suggest that girls may be at higher risk for dissociation than boys

following maltreatment (Hulette et al., 2011b; Macfie et al., 2001). However, research has not yet examined the moderating influence of child gender on relations between parenting processes and child dissociation. Thus, this investigation explored the potential moderating effects of child gender on pathways from a) caregiver's history of maltreatment to caregiver reflectiveness and insensitive caregiving when parenting the next generation, and b) caregiver reflectiveness and insensitive caregiving to children's trajectories of dissociation.

### **The Current Study**

A developmental psychopathology perspective on dissociation encourages nuanced investigations of dissociative growth across time to document typical and atypical trajectories of dissociation and to elucidate factors that initiate, maintain, and/or modify atypical dissociative processes. This investigation sought to advance our understanding of the etiology of dissociative psychopathology by examining intergenerational effects of caregiver maltreatment on trajectories of children's dissociation across childhood and the transition to adolescence. Although previous longitudinal research has examined caregiver-*infant* relationship qualities and later dissociation (Dutra et al., 2009; Ogawa et al., 1997), this investigation offers unique insights into the effects of caregiving beyond the period of infancy on the development of dissociative symptomatology. Specifically, I tested simple and sequential indirect pathways from severity of caregiver's own maltreatment to children's initial levels (i.e., intercept) and trajectories (i.e., slope) of dissociation from ages 6 through 12 via parenting processes, including caregiver reflectiveness and insensitive caregiving

behavior, using conditional process analyses within a structural equation modeling (SEM) framework.

First, although associations between early maltreatment and dissociation are well-documented (see Gershuny & Thayer, 1999 for review), less is known about whether caregivers' own history of maltreatment may influence dissociative symptomatology in the next generation. Using a measure of maltreatment severity that captured both the frequency and intensity of multiple forms of maltreatment, I evaluated the prospective contribution of caregiver's severity of maltreatment to latent growth curves of children's dissociative symptomatology as reported by multiple informants (i.e., teachers, caregivers, and examiners) from childhood through the transition to adolescence. I hypothesized that children's dissociative symptoms would decrease from ages 6 through 12 (i.e., significant intraindividual change), but that there would also be significant interindividual differences in the intercept and slope parameters of such trajectories. Specifically, I hypothesized that greater severity of caregiver's own maltreatment would be associated with higher initial levels (i.e., intercept) and slower declines (i.e., slope) in children's dissociative symptoms from ages 6 to 12.

Second, theory and empirical evidence suggest that a history of child maltreatment influences the content and flexibility of internal working models of attachment relationships within and across generations (Hesse & Main, 1999; George & Solomon, 2011), including a caregiver's capacity for reflection about the child and the caregiver-child relationship (Scheeringa & Zeanah, 2001). While some studies suggest that caregiver reflectiveness may buffer negative intergenerational maltreatment effects

(Fonagy et al., 1994), most available evidence points to a negative association between caregiver maltreatment history and later capacity for reflection about the child and the parent-child relationship (Easterbrooks et al., 2017; Scheeringa & Zeanah, 2001). Further, only one empirical study, to my knowledge, has examined the association between caregiver reflectiveness and children's dissociation, with results indicating a significant negative relation (Ensink et al., 2017). Therefore, I tested a simple mediation pathway in which I hypothesized that caregiver severity of maltreatment would be associated with lower reflectiveness when parenting the next generation, which, in turn, would predict higher initial levels and slower declines in dissociation across middle childhood.

Third, some research suggests that caregivers with a history of maltreatment during their own childhoods may be at heightened risk for engaging in insensitive, though not overtly abusive, caregiving behaviors toward the next generation (Linde-Krieger & Yates, 2021). Although longitudinal evidence suggests that "quiet" caregiving insensitivities during infancy are associated with later pathological dissociation (Dutra et al., 2009), research has not examined pathways from caregiver's own history of maltreatment to children's trajectories of dissociation during middle childhood through caregiving practices. Therefore, I tested a simple mediation pathway from caregiver's own severity of maltreatment to observed insensitive, though not overtly abusive, caregiving to growth parameters of children's dissociation. I hypothesized that greater severity of caregiver's own maltreatment would predict more insensitive caregiving

behavior when parenting the next generation, which, in turn, would predict higher initial levels and slower declines in children's dissociation across middle childhood.

Fourth, given substantial evidence that the capacity to mentalize about one's child promotes sensitive caregiving behavior (Borelli et al., 2012; Grienberger et al., 2005; Huth-Bocks et al., 2014; Stacks et al., 2014), I evaluated a sequential mediation pathway from caregiver maltreatment history to initial levels and change over time in children's dissociative symptoms via caregiver reflectiveness and insensitive caregiving behavior. I hypothesized that greater severity of caregiver history of maltreatment would predict less caregiver reflectiveness regarding their own child, which, in turn, would contribute to more insensitive caregiving behavior that would, ultimately, contribute to higher dissociation intercept and slower declines in children's dissociation from ages 6 through 12. Importantly, both simple and sequential mediation models controlled for caregiver psychopathology, children's prior exposure to maltreatment, and child ethnicity-race, given prior evidence that both parental mental illness (Lewis et al., 2020) and child trauma exposure (Byun et al., 2016; Hebert et al., 2020; Macfie et al., 2001) are associated with problematic dissociation, as well as suggestive evidence that rates of dissociation may differ across ethnic and racial groups (Douglas, 2009; Seedat et al., 2003).

Finally, research suggests that child gender may qualify associations of caregiver's own history of maltreatment with later caregiver reflectiveness and caregiving behaviors (Linde-Krieger & Yates, 2018; Sroufe et al., 1985), as well as of caregiver's reflectiveness and caregiving behaviors with child psychopathology (Kerr et al., 2004;



Zimmer-Gembeck et al., 2013). However, the extant literature on child gender effects does not present a clear pattern of results, and no studies have explored child gender as a moderator of associations among caregiver maltreatment history, parenting processes, and child dissociation. Therefore, in an exploratory multigroup analysis, I tested child gender as moderator of the proposed mediation models.

## Method

### Participants

Participants were drawn from an ongoing longitudinal study of child development among 250 preschoolers and their female caregivers (50% female children;  $M_{age} = 49.04$  months,  $SD = 2.95$ ). The children were 46% Latinx, 18% Black, 11.2% white, and 24.8% multiracial. The sample was representative of the southern California community from which it was recruited (U.S. Census Bureau, 2019). Caregivers in the parenting role were biological mothers (91.4%), foster/adoptive mothers (3.6%), and grandmothers or other female kin (5%). The majority of caregivers were married (61.6%) or in a committed relationship (18.8%). See Table 1 for additional sample demographics. Of the 250 dyads who completed the wave 1 assessment when the children were 4 years old ( $M_{age} = 49$  months,  $SD = 2.82$ ), 233 (93.2%) completed one or more follow-up assessments at ages 6 ( $M_{age} = 73.3$  months;  $SD = 2.5$ ;  $N = 215$ ); 8 ( $M_{age} = 97.6$  months,  $SD = 3.21$ ;  $N = 214$ ); 10 ( $M_{age} = 115.65$  months,  $SD = 3.74$ ;  $N = 213$ ); or 12 ( $M_{age} = 146.94$  months,  $SD = 4.23$ ;  $N = 205$ ). There were no significant differences on any study variables between dyads who returned for follow-up and those who did not.

## **Procedures**

Children and their primary caregivers were recruited to participate in “a study of children's learning and development” via flyers posted in community-based childcare centers. Potential participants were screened by phone to ensure that the child was a) between 3.9 and 4.6 years of age at the time of the wave 1 assessment, b) proficient in English, and c) not diagnosed with a developmental disability or delay. At each data wave, dyads completed a three-hour laboratory assessment that consisted of measures with the child, the parent, and the parent and child interacting. Parents were compensated with \$25/hour of assessment, and children received a small gift after each visit. Informed consent and assent were obtained at each laboratory visit from the child’s legal guardian and the child (beginning at age 8), respectively.

## **Measures**

**Caregiver’s History of Maltreatment.** When children were 4 years old, caregivers provided behaviorally specific information regarding their own experiences of child maltreatment during a verbal administration of the Early Trauma Inventory (Bremner et al., 2007). In the context of this structured interview, parents answered a series of increasingly specific questions regarding their experiences of CSA, CPA, CEA, and CN prior to age 17. Maltreatment characteristics were coded by two independent raters who then reached consensus in accord with widely-used criteria for evaluating child maltreatment (McGee et al., 1995). Coders rated the severity of each type of maltreatment based on its intensity and frequency across four levels, including 0 (*no occurrence*), 1 (*mild occurrence*; i.e., low/moderate intensity and low frequency), 2

(*moderate occurrence*; i.e., high intensity and low frequency or low intensity and high frequency), and 3 (*severe occurrence*; i.e., high intensity and high frequency). Severity scores for CSA ( $ICC = .97$ ), CPA ( $ICC = .90$ ), CEA ( $ICC = .88$ ), and CN ( $ICC = .91$ ) indicated a latent construct of caregiver maltreatment severity. Correlations among the severity scores for all maltreatment types were statistically significant and ranged from  $r = .21$  to  $r = .43$ .

**Caregiver Reflectiveness.** At the start of the age 4 assessment, caregivers provided a five-minute speech sample (FMSS; Magaña-Amato, 1993) in response to the prompt, “*I’d like to hear your thoughts and feelings about your child, in your own words and without my interrupting with any questions or comments. When I ask you to begin, I’d like you to speak for 5 minutes, telling me what kind of a person your child is and how the two of you get along together.*” The FMSS is well-validated across diverse samples in developmental and adult psychiatric literatures (Malla et al., 1991; Sher-Censor, 2015).

FMSS narratives were audio-recorded and transcribed verbatim for coding. Transcripts of caregiver FMSS narratives were coded using the FMSS Coherence Coding Scales (Sher-Censor & Yates, 2012), which were adapted from the Insightfulness Assessment (Koren-Karie & Oppenheim, 2004). Four doctoral-level coders who were naïve to other information about the family were trained to reliability by Dr. Sher-Censor, and disagreements between coders were resolved through discussion until consensus was reached. Three narrative scales tapping elaboration, complexity, and insightfulness coded on 7-point scales from low (1) to high (7) formed a latent factor capturing the caregiver’s reflectiveness about the child and the self-in-relationship with the child. *Elaboration*

assessed the extent to which caregiver narratives were rich in detail and provided a believable depiction of the child and the caregiver-child relationship ( $ICC = .69$ ). *Complexity* referred to the caregiver's capacity to describe the child and their relationship in a multidimensional and multicontextual manner free from defense. A complex narrative provided a balance of positive and negative descriptions of child and the parent-child relationship that were supported by examples ( $ICC = .69$ ). *Insightfulness* captured the caregiver's ability to understand the inner world of the child, to reflect on descriptions of the child and their relationship, and to speculate about reasons for the child's behaviors or their interactions ( $ICC = .80$ ). Correlations among elaboration, complexity, and insightfulness scores ranged from  $r = .25$  to  $r = .38$ .

**Insensitive Caregiving.** When children were 6 years old, caregiver's hostile, intrusive, and supportive caregiving behaviors were rated during a series of semi-structured teaching tasks adapted from Block and Block (1980), which included sorting, building, listing, and game tasks that required varying levels of caregiver support and guidance. Independent coders who were naïve to all other information about the family evaluated caregiving quality during each task using 7-point scales from low (*1*) to high (*7*; Carlson et al., 1995; Egeland, 1982). Coders were trained to reliability by Dr. Tuppert Yates who was instructed by Drs. Byron Egeland and Alan Sroufe, the original authors of this coding protocol. Coders included six doctoral students and six advanced undergraduate or post-baccalaureate research assistants. Each interaction was coded by a group of 3-6 coders, and coding disagreements were resolved in weekly consensus meetings with all team members.

Consensus scores were averaged across tasks to index three facets of insensitive caregiving. *Intrusiveness* assessed the extent to which the caregiver lacked respect for the child as an individual and failed to recognize the child's efforts to gain autonomy with higher scores connoting greater levels of intrusiveness ( $ICC = 0.78$ ). *Hostility* was indicated by the caregiver's expression of anger, discounting, or rejection of the child with higher scores reflecting greater hostility ( $ICC = 0.83$ ). *Support* captured the extent to which the caregiver provided a secure base for the child and remained attentive to the child's needs for the duration of each task. Support was reverse scored so that a score of 7 indicated low support and a score of 1 indicated high support ( $ICC = 0.74$ ). Average scores for caregiver intrusiveness, hostility, and low support identified a latent insensitive caregiving factor. Correlations among caregiver intrusiveness, hostility, and low support ranged from  $r = .44$  to  $r = .59$ .

**Children's Dissociative Symptomatology.** Children's dissociation was indicated by a multi-informant second-order latent dissociation construct indicated by reports on Achenbach's Teacher Report Form (TRF), Child Behavior Checklist (CBCL), and Test Observation Form (TOF) to capture teacher, caregiver, and observer reports, respectively, at ages 6, 8, 10, and 12 (Achenbach, 1991; McConaughy & Achenbach, 2004). As in prior research (Ogawa et al., 1997; Smeekens et al., 2009), items reflecting dissociative symptoms (e.g., sudden changes in mood or feelings; confused or seems to be in a fog) were composited from each scale based on their similarity to items on the Child Dissociative Checklist (Putnam et al., 1993). For the TRF and CBCL, items were rated 0 (*not true*), 1 (*somewhat or sometimes true*), or 2 (*very or often true*; TRF 12 items,

average  $\alpha = .83$ ; CBCL 11 items, average  $\alpha = .74$ ). For the TOF, items were rated 0 (*no occurrence*), 1 (*very slight or ambiguous occurrence*), 2 (*definite occurrence with mild to moderate intensity/frequency*), or 3 (*definite occurrence with severe intensity, high frequency*); TOF 8 items, average  $\alpha = .65$ ).

**Children's Prior Maltreatment.** Children's early maltreatment was assessed at age 4 based on caregiver reports of the child's lifetime history using the Early Trauma Inventory (Bremner et al., 2007). As described earlier, two independent coders rated the severity of each maltreatment type using criteria set forth by McGee and colleagues (1995). A composite of CSA ( $ICC = 1.00$ ), CPA ( $ICC = .98$ ), CEA ( $ICC = .96$ ), and CN ( $ICC = .98$ ) was included in these analyses.

**Caregiver Psychopathology.** The Symptom Checklist-90-Revised (SCL-90-R; Derogatis, 1990) evaluated caregiver's psychopathology during the week preceding the wave 1 interview. The SCL-90-R is a 90-item self-report measure designed to assess current levels of psychological symptoms in community and clinical samples. Each item describes a psychological symptom (e.g., crying easily, trouble concentrating), which is rated on a five-point scale from 0 (*having caused no discomfort*) to 4 (*having caused extreme discomfort*) during the previous week. The Global Severity Index reflects the average score across all items spanning nine primary syndromes (i.e., somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, and psychoticism). At wave 1, seventy of the ninety items were administered in the current sample due to time constraints. Consistent with prior studies (Derogatis & Savitz, 2000), this abbreviated SCL-90-R, which excluded items

from the psychoticism subscale, evidenced strong reliability in the current sample ( $\alpha = .96$ ). All analyses controlled for caregiver's Global Severity Index  $t$ -scores, which reflect both the number of symptoms and intensity of perceived distress.

### **Data Preparation and Analysis**

Following preliminary descriptive and bivariate analyses, study hypotheses were evaluated within an SEM framework (Kline, 2015), which allowed for the construction of latent variables based on multiple indicators of study constructs (i.e., caregiver history of maltreatment, caregiver reflectiveness, insensitive caregiving, children's dissociation). Latent growth models (LGMs) and SEMs were fitted using the lavaan package (Rosseel, 2012) in the statistical software R 4.0.5 (R Core Team, 2020). Data for all 250 participants who completed one or more assessments were retained in analyses.

As is common in longitudinal studies, data were missing due to attrition, administration errors, incomplete assessments, participant non-response, or recording problems. At wave 1, reports of caregiver CSA and CPA were missing for one caregiver due to participant nonresponse, and narrative FMSS data were missing for two caregivers due to administration errors. At wave 2, observations of insensitive caregiving behavior were missing for 37 caregivers (14.8%) because the family completed a partial assessment ( $n = 1$ ), did not complete the time point ( $n = 35$ ), or there was a recording error ( $n = 1$ ). Regarding children's dissociation scores, caregiver reports of dissociation were missing for 35 (14%) to 56 (22.4%) participants across data waves because the family completed a partial assessment ( $n = 0$ –11 across waves) or did not complete the data wave ( $n = 35$ –46 across waves). Examiner reports of children's dissociation were

missing for 38 (15.2%) to 54 (21.6%) participants across data waves because the family completed a partial assessment ( $n = 1-9$  across waves), did not complete the data wave ( $n = 35-46$  across waves), or the examiner did not complete the TOF ( $n = 1-3$  across waves). Across data waves, teacher reports of dissociation scores were missing for 65 (30.7%) to 105 (52.2%) eligible children (i.e., children in school, family completed data wave) as a result of caregiver refusal to collect school data ( $n = 0-3$  across waves), inability to locate the teacher ( $n = 1-15$  across waves), incomplete data returned ( $n = 0-10$  across waves), or teacher non-response/passive refusal ( $n = 44-95$  across waves). The Full Information Maximum Likelihood (FIML) method of estimation accounted for missing data as supported by Little's (1988) MCAR test,  $\chi^2(3624) = 3622.77, p = .50$ . Additionally, data were examined to evaluate distributional assumptions for parametric statistics prior to model building (Afifi et al., 2007). All analyses employed a robust variant of the Maximum Likelihood estimator in lavaan to account for non-normality in manifest variables (Yuan & Bentler, 2000).

**Latent Growth Modeling.** To model change in children's dissociation over time, a second-order multivariate factor of curves model (FOCUS; McArdle, 1988) was fitted to teacher, caregiver, and examiner reports of children's dissociation at ages 6, 8, 10, and 12. The FOCUS model uses data from repeated measures of the same individuals to model first-order intercept and growth factors for different measured variables as dependent on common second-order intercept and slope factors. The first level of a FOCUS model consists of a series of univariate LGMs that characterize the independent developmental trajectories of each first-order measure. In this case, separate univariate



LGMs of teacher, caregiver, and examiner reports of children's dissociation across ages 6 through 12 formed the first level of the FOCUS model. The second level of a FOCUS model consists of second-order intercept and slope factors indicated by the first-order intercepts and slopes, respectively, to assess whether a second-order factor structure drives relations among the first-order constructs. In this model, the second-order intercept factor explains covariation among first-order latent intercepts, whereas the second-order slope factor explains covariation among first-order slopes, or rates of change, in each first-order LGM. In the current study, the second-order dissociation intercept represented shared variance among teacher, caregiver, and examiner reports of children's dissociation at the initial time point (i.e., age 6), and the second-order slope factor represented the shared growth pattern among teacher, caregiver, and examiner reports of children's dissociation (i.e., whether informants' reports of children's dissociation were changing over time in a similar way).

In the case of multi-informant data across multiple time points, second-order LGMs, such as the FOCUS model, offer several methodological benefits over modeling univariate LGMs from composite scores. First, second-order LGMs support the evaluation of complex patterns of multivariate change while avoiding a composite score approach that incorporates the observed variables' measurement errors (Geiser & Lockhart, 2012). Second, in a FOCUS model, observed score variance is partitioned into reliable second-order common factor variance, reliable growth construct variance, and random residual variance. Finally, the FOCUS model offers greater power to detect individual differences in change (von Oerzen et al., 2010) and a more parsimonious

representation of the data when goodness-of-fit indices for the second-order model approach those of the first-order univariate LGMs (Marsh, 1985).

To fit a FOCUS model from multiple first-order measures several conditions must be met. As with all LGM approaches, fitting a FOCUS model requires continuous measures collected across repeated occasions to assess intraindividual change and interindividual differences. When fitting a FOCUS model, each first-order construct may be measured on a different scale and/or with different items, although repeated measures of the same construct should be identical at each time point. Additionally, univariate LGMs must demonstrate sufficient variability in first-order growth factors (i.e., latent intercepts and slopes) and there must be covariation among first-order growth factors to warrant a multivariate representation of the data (Isiordia et al., 2017).

In the current study, univariate LGMs of teacher, caregiver, and examiner reports of children's dissociation were specified prior to fitting a multivariate FOCUS model. A series of univariate LGMs, including a no change model, a linear change model, and a quadratic change model, were tested to determine the most appropriate representation of the latent trajectory for each informant. Latent intercepts were fixed at the first measurement time (i.e., age 6), and factor loadings of the latent intercept for each univariate LGM were set to 1. Slope loadings determined the shape of change across sequentially tested models: a) no change,  $\beta_t = [0, 0, 0, 0]$ ; b) linear change  $\beta_t = [0, 1, 2, 3]$ ; and c) quadratic change,  $\beta_t = [0, 1, 4, 9]$ . For each univariate LGM, factor means,  $\mu_0$  and  $\mu_s$ , and variances,  $\sigma^2_0$  and  $\sigma^2_s$ , for the latent intercept and slope, as well as the intercept-slope covariance,  $\sigma^2_{0s}$ , were estimated from the data. Standard fit indices

evaluated model fit (e.g., RMSEA  $\leq$  0.07, SRMR  $\leq$  0.08, CFI  $\geq$  0.90; Hooper et al., 2008; Kline, 2015), and the likelihood ratio chi-square difference test ( $\Delta\chi^2$ ; Sattora, 2000) was used to compare the fit of nested univariate LGMs. The best fitting univariate LGMs for teacher, caregiver, and examiner reports of children's dissociation were included in the multivariate FOCUS model.

Next, a FOCUS model was fit to the data in which first-order growth factors for teacher, caregiver, and examiner reports of children's dissociation specified two second-order factors representing a common dissociation slope and intercept. As in prior research (Isordia et al., 2017), covariances among the latent intercepts and slopes were fixed to 0, and the reference variable method was used to scale the second-order dissociation intercept and slope factors (Bollen & Curran, 2006). With respect to factor loadings connecting first-order growth parameters to the second-order dissociation slope and intercept factors, teacher-reported latent intercept and slope loadings were fixed to 1 (i.e., set as the reference variable), and caregiver- and examiner-reported latent intercepts and slopes were fixed to equality (Duncan & Duncan, 1996; McArdle, 1988). Parameters estimated from this unconditional FOCUS model included a second-order common intercept mean  $\mu_{f0}$  and variance  $\sigma^2_{f0}$ , a second-order common slope mean  $\mu_{fs}$  and variance  $\sigma^2_{fs}$ , and the slope-intercept covariance  $\sigma_{f0fs}$ .

**Structural Model.** A fully latent SEM model evaluated the direct and indirect effects of caregiver maltreatment severity on second-order latent growth parameters of children's dissociation. First, the measurement part of the model was specified as a five-factor confirmatory factor analysis (CFA) with manifest variables indicating latent factors

of caregiver severity of maltreatment, caregiver reflectiveness, and insensitive caregiving. The second-order common factors of children's dissociation intercept and slope indicated by teacher, caregiver, and examiner univariate LGM parameters were also included in the measurement model.

Second, the SEM evaluated a) the simple indirect effects from caregiver maltreatment severity to intercept and slope of children's dissociation through caregiver reflectiveness, b) the simple indirect effects from caregiver maltreatment severity to intercept and slope of children's dissociation through insensitive caregiving, c) the sequential indirect effects from caregiver maltreatment severity to intercept and slope of children's dissociation through caregiver reflectiveness and insensitive caregiving, and d) direct effects from caregiver maltreatment severity to intercept and slope of children's dissociation. Tests of indirect effects were evaluated across 1,000 bootstrap samples with estimates of test statistics using 95% bias-corrected confidence intervals. Finally, a multigroup analysis tested the moderating effect of child gender on pathways from caregiver maltreatment severity to second-order common intercept and slope factors of children's dissociation.

## **Results**

### **Descriptive Statistics**

Caregiver history of maltreatment was prominent in this sample of female caregivers with 39.2% reporting a history of CSA, 36.9% reporting a history of CPA, 34.0% reporting a history of CEA, and 44.0% reporting a history of CN. Within each subtype, a majority of the maltreated caregivers described moderately severe

maltreatment experiences (i.e., 60.2%, 60.2%, 58.8%, and 50.9% for CSA, CPA, CEA, and CN, respectively). Rates of child dissociative symptoms varied across time and informants with 54.9% to 63.5% of children showing one or more dissociative symptoms on teacher reports, 64.2% to 74.6% of children showing one or more dissociative symptoms on caregiver reports, and 51.5% to 60.8% of children showing one or more dissociative symptoms on examiner reports. On average, teachers reported higher rates of dissociation in boys than girls across time. Average caregiver and examiner reports of children's dissociation were similar for boys and girls.

### **Bivariate Relations**

Table 2 depicts bivariate relations among all study variables. Caregiver maltreatment severity was positively associated across subtypes (i.e., CSA, CPA, CEA, and CN). Caregiver CPA and CN severity were positively associated with FMSS insightfulness. There were several significant correlations among caregiver maltreatment subtypes and children's dissociation scores across informants and over time. Caregiver CPA severity was positively related to caregiver reports of children's dissociation at age 12. Caregiver CN severity was positively related to teacher reports of children's dissociation at age 8 and to caregiver reports of children's dissociation at ages 6 and 8. Caregiver CSA severity was positively related to teacher reports of children's dissociation at age 10, but negatively related to examiner reports of dissociation at age 8. Caregiver CEA was positively related to caregiver reports of children's dissociation at age 8.

Caregiver's FMSS elaboration, complexity, and insightfulness scores were positively correlated. FMSS elaboration was negatively associated with observed low caregiving support, and positively associated with caregiver reports of dissociation at age 12. FMSS complexity was negatively associated with teacher reports of dissociation at age 10. Observed facets of insensitive caregiving (i.e., caregiver hostility, intrusiveness, and low support) were also positively correlated. There were several significant positive associations between insensitive caregiving and children's dissociation symptoms. Regarding teacher reports of dissociation, caregiver hostility was positively associated with dissociation at ages 6, 10, and 12, and low support was positively associated with dissociation at ages 6 and 8. All three facets of insensitive caregiving were positively related to examiner reports of dissociation at age 6.

Children's dissociation scores showed positive associations within and across time. Notably, there was moderate stability in all informants' reports of child dissociation over time, even though ratings were provided by *different* teachers and examiners at each time point. Finally, regarding covariates, children's exposure to prior maltreatment was positively associated with caregiver's own CSA severity, CEA severity, and psychopathology. Children's prior maltreatment was also positively associated with caregiver and examiner reports of children's dissociation at age 6. Caregiver psychopathology was positively associated with all caregiver maltreatment subtypes, as well as with teacher reports of children's dissociation at age 8 and caregiver reports of children's dissociation at all time points.

## Univariate LGMs

Univariate LGMs determined the best fitting trajectories of teacher, caregiver, and examiner reports of children's dissociation across ages 6 through 12. For teacher reports of children's dissociation, the linear growth model (RMSEA [95% CI] = .032 [.000, .104], SRMR = .060, CFI = .991) fit the data well and showed significant improvement in fit over the no change model (RMSEA [95% CI] = .085 [.040, .131], SRMR = .121, CFI = .903,  $\Delta\chi^2(3) = 14.448, p < .01$ ). The quadratic growth model also demonstrated strong fit (RMSEA [95% CI] = .001 [.000, .082], SRMR = .002, CFI = 1.00). However, the chi-square difference test did not reveal a statistically significant improvement in model fit over the linear model,  $\Delta\chi^2(4) = 6.124, p = .19$ . Therefore, the more parsimonious linear model was retained. Results for the linear model revealed statistically significant mean dissociation scores at the initial age 6 measurement ( $\mu_0 = .274, p < .01$ ), which varied across children ( $\sigma^2_0 = .084, p < .01$ ). Further, there was a statistically significant change in teacher-reported dissociation across time ( $\mu_s = -.012, p = .05$ ), which also varied across children ( $\sigma^2_s = .002, p = .03$ ). These findings indicate that, at the group level, there was a significant decline (negative linear slope) in teacher-reported dissociative symptoms across middle childhood, with significant variation in children's initial levels at age 6 (i.e., intercept) and in their developmental pathways (i.e., slope) from ages 6 to 12.

Univariate growth models of caregiver-reported dissociation revealed that a linear growth pattern (RMSEA [95% CI] = .050 [.000, .126], SRMR = .037, CFI = .992) fit the data better than a no change model (RMSEA [95% CI] = .105 [.065, .148], SRMR = .062, CFI = .941,  $\Delta\chi^2(3) = 21.325, p < .01$ ). Again, a quadratic growth pattern fit the data well

(RMSEA [95% CI] = .129 [.000 .276], SRMR = .024, CFI = .990), but the chi-square difference test did not reveal a statistical difference between the linear and quadratic models,  $\Delta\chi^2(4) = 3.319, p = .51$ . Therefore, the simpler linear LGM was retained. Mean dissociation scores at the initial age 6 measurement were significantly different from zero ( $\mu_0 = .197, p < .01$ ) and showed significant variability across children ( $\sigma^2_0 = .036, p < .01$ ). However, change in caregiver-reported dissociation across time did not reach statistical significance ( $\mu_s = .006, p = .09$ ), although slope variance was significant ( $\sigma^2_s = .001, p < .01$ ). A non-significant slope mean suggests that, at the group level, caregiver reports of children's dissociation did not change across ages 6 to 12. However, significant slope variability combined with a significant improvement in fit from a no change to a linear change model suggests that some caregiver-reported dissociation scores increased, while others decreased, across ages 6 to 12.

Regarding examiner reports of children's dissociation, a no change univariate model did not provide adequate fit to the data overall (RMSEA [95% CI] = .085 [.042 .130], SRMR = .082, CFI = .878). The linear change model displayed significantly improved model fit (RMSEA [95% CI] = .054 [.000 .116], SRMR = .047, CFI = .969,  $\Delta\chi^2(3) = 12.897, p < .01$ ). The quadratic change model provided good fit to the data as well (RMSEA [95% CI] = .001 [.000 .145], SRMR = .009, CFI = 1.00), but did not significantly improve model fit over the linear LGM,  $\Delta\chi^2(4) = 7.898, p = .09$ . As with teacher and caregiver reports of dissociation, the linear LGM was retained as the best fitting model of examiner-reported dissociation. Results showed statistically significant mean dissociation scores at the initial age 6 measurement ( $\mu_0 = .238, p < .01$ ), which



varied across children ( $\sigma^2_0 = .050, p < .01$ ), and overall change in dissociation was negative ( $\mu_s = -.020, p = .01$ ) and varied across children ( $\sigma^2_s = .005, p = .01$ ). Again, these univariate findings reveal there was a significant decline (negative linear slope) in children's dissociation from ages 6 to 12, significant variation in children's initial levels at age 6, and significant variation in their developmental pathways of dissociation across middle childhood.

### **Multivariate LGM**

Given significant latent intercept and slope estimates in the univariate linear LGMs of teacher and examiner reports of children's dissociation, and significant within-person and between-person variation in all informants' reports of children's dissociation, a multivariate FOCUS model was fit to the data (see Figure 1). First, covariation among first-order latent growth factors was modeled (see Table 3). This associative LGM fit the data well (RMSEA [95% CI] = .001 [.000, .041], SRMR = .055, CFI = 1.00), which suggested that a multivariate representation of children's dissociation was tenable. There was positive and statistically significant covariation among the latent intercepts of all three first-order LGMs. Further, slope covariation was positive and significant among teacher and caregiver reports of children's dissociation, and among caregiver and examiner reports of children's dissociation. The intercept of caregiver-reported dissociation showed significant negative covariation with the slopes of teacher-reported and examiner-reported dissociation. The covariance estimates of the teacher-reported dissociation intercept and of the caregiver-reported and examiner-reported dissociation slopes were negative, but did not reach statistical significance. Similarly, the covariance

between the examiner-reported dissociation intercept and teacher-reported dissociation slope was negative but not significant. Finally, covariation of teacher-reported and examiner-reported dissociation slopes was not significant.

Next, associations among the first-order growth factors were modeled as second-order common intercept and slope factors in the unconditional FOCUS model (See Table 4). This model had good fit to the data overall (RMSEA [95% CI] = .031 [.000, .051], SRMR = .079, CFI = .976), which approximated the fits of the univariate LGMs and the multivariate associative LGM. Good fit in the FOCUS model indicated that a higher-order factor structure of children's dissociation was a reasonable representation of common intercept at age 6 and change in teacher, caregiver, and examiner reports of children's dissociation across ages 6 through 12. The factor loadings of the second-order latent intercept factor for teacher, caregiver, and examiner reports of children's dissociation were statistically significant, as were the factor loadings of the second order latent slope factor, which revealed that the first-order intercepts and slopes significantly contributed to the second-order factors. Additionally, all standardized factor loadings were above 0.5, indicating that all first-order intercepts adequately measured the common second-order dissociation intercept, and all first-order slopes adequately measured the common second-order dissociation slope.

Results revealed a statistically significant second-order dissociation intercept mean ( $\mu_{i0} = .208, p < .001$ ), as well as a negative and statistically significant common second-order dissociation slope ( $\mu_{fs} = -.007, p < .01$ ). Additionally, second-order intercept variance ( $\sigma^2_{i0} = .059, p < .001$ ) and slope variance ( $\sigma^2_{f0} = .001, p < .05$ ) were statistically

significant. These results suggest that there was a significant average initial level in children's dissociation at age 6 (i.e., the intercept was significantly different from zero), as well as decreasing change over time that was common among all three informants' reports of children's dissociation. Significant second-order intercept and slope variance suggested that there were individual differences both in children's starting levels of dissociation at age 6 and slope from ages 6 through 12. There was also significant negative covariation between the common second-order slope and intercept ( $\sigma_{\text{FOFs}} = -.005$ ,  $p < .01$ ), meaning that children who had higher scores on the common dissociation factor at the initial measurement tended to have lower, or more negative, rates of change in dissociation over time. Said another way, children who started with higher levels of dissociation at age 6 had dissociation scores that decreased more quickly from ages 6 through 12.

### **Structural Regression Model**

Given strong model fit and significant slope and intercept variability in the unconditional FOCUS model, an SEM evaluating predictors and mediators of second-order intercept and slope of children's dissociation was fit to the data. A preliminary measurement model analyzed a five-factor CFA (i.e., latent factors of caregiver maltreatment severity, caregiver reflectiveness, insensitive caregiving, and second-order intercept and slope of children's dissociation). Fit for the five-factor CFA was acceptable (RMSEA [95% CI] = .037 [.024, .048], SRMR = .072, CFI = .940). All factor loadings in the five-factor CFA were statistically significant ( $ps \leq .001$ ) and adequately measured the latent factors (i.e.,  $\lambda_s > .30$ ; see Figure 2).

Table 5 depicts results of the structural regression model evaluating indirect and direct effects from caregiver maltreatment severity to common second-order intercept and slope factors of child dissociation through caregiver reflectiveness and insensitive caregiving. All regression paths controlled for caregiver psychopathology, children's prior experiences of child maltreatment, and child ethnicity-race. Figure 2 presents standardized path coefficients for the hypothesized mediation model. Lavaan converged normally after 205 iterations, and model fit was acceptable (RMSEA [95% CI] = .040 [.028, .050], SRMR = .074, CFI = .925).

Higher severity of caregiver's own history of maltreatment during childhood was positively associated with caregiver reflectiveness. Caregiver reflectiveness was negatively associated with insensitive caregiving, but was not significantly associated with either second-order intercept or slope factors of children's dissociation. Therefore, the simple indirect effects from caregiver maltreatment severity to children's second-order dissociation intercept and slope through caregiver reflectiveness were not significant (B [95% CI] = .011 [-.021, .043],  $p = .51$ , and B [95% CI] = -.003 [-.009, .003],  $p = .33$ , respectively).

Higher caregiver maltreatment severity was also positively associated with insensitive caregiving toward the next generation. In turn, insensitive caregiving was positively associated with the second-order intercept factor of children's dissociation, and negatively associated with the second-order slope factor of children's dissociation. Indirect effects for both pathways were significant, indicating that higher caregiver maltreatment severity predicted more insensitive caregiving toward the next generation,

which, in turn, predicted higher starting levels of children's dissociation at age 6 (B [95% CI] = .032 [.014, .007],  $p < .05$ ) and lower slope values across ages 6 through 12 (B [95% CI] = -.006 [-.011, -.001],  $p < .05$ ). In other words, higher insensitive caregiving behavior predicted both higher initial levels of child dissociation at age 6 and faster declines in dissociation from ages 6 through 12.

The indirect effect to the second-order intercept was in line with study hypotheses; however, the pathway from caregiver maltreatment severity to insensitive caregiving to lower slope values (i.e., faster declines) of children's dissociation over time was unexpected and required further exploration, which was accomplished through data visualization and post hoc analysis. Figure 3A depicts mean level trajectories of children's dissociation scores averaged across raters at above and below average levels of insensitive caregiving. Though these trajectories are not exact representations of the second-order latent intercept and slope values from the full FOCUS model, they provide a descriptive representation of average starting levels, change over time, and ending levels of children's dissociation. Descriptively, above average insensitive caregiving appeared to instantiate a pathway of child dissociation with higher starting levels at age 6 and steeper declines from ages 6 through 12. However, examination of trajectory ending values (i.e., average dissociation at age 12) suggested that children exposed to insensitive caregiving at age 6 remained higher on average on dissociation at age 12 than children with more sensitive caregivers such that the steeper negative slope did not correct for their high start values. In further support of this interpretation, a post hoc test revealed that insensitive caregiving predicted higher levels of early adolescent dissociation when

the intercept was set to child age 12 (i.e., trajectory ending values) in the unconditional FOCUS model described above. The second-order latent intercept factor was then regressed on the latent insensitive caregiving factor. This analysis revealed a positive and statistically significant association ( $\beta = .202, p < .05$ ), meaning that children exposed to higher caregiving insensitivity at age 6 continued to have higher dissociation scores at age 12.

Tests of sequential mediation revealed significant indirect effects of caregiver maltreatment severity on the second-order latent intercept and slope factors of children's dissociation through caregiver reflectiveness and insensitive caregiving behavior. Higher caregiver maltreatment severity predicted higher levels of caregiver reflectiveness, which, in turn, predicted lower levels of insensitive caregiving, and, ultimately, lower starting levels ( $B [95\% CI] = -.015 [-.029, -.001], p < .05$ ) and slower decreases in children's dissociation across ages 6 through 12 ( $B [95\% CI] = .003 [.001, .005], p < .05$ ). Although relations between caregiver reflectiveness and insensitive caregiving, and between insensitive caregiving and children's starting levels of dissociation (i.e., second-order intercept) were in expected directions, the relation of caregiver insensitivity and higher slope values of dissociation (i.e., slower declines) required further examination. Figure 3B offers a descriptive visualization of the sequential indirect effects. Among caregivers who experienced maltreatment in their own childhoods, mean trajectories of child dissociation scores averaged across raters showed that above average reflectiveness supported less insensitive caregiving, and, ultimately, lower starting levels of child dissociation at age 6, and lower dissociation scores across ages 6 to 12 than those of

children whose parents were less reflective and more insensitive. In other words, caregivers who experienced greater severity of maltreatment in their own childhoods were more likely to be reflective about their child and the caregiver-child relationship, and, in turn, tended to engage in fewer insensitive caregiving behaviors. This instantiated a developmental pathway in which their children had relatively lower, but more stable, dissociation scores across middle childhood than the children of less reflective, more insensitive caregivers.

Regarding direct effects, caregiver maltreatment severity was not significantly associated with the second-order latent intercept factor of children's dissociation ( $B$  [95% CI] = -.036 [-.106, .033],  $p = .31$ ), but remained significantly and positively associated with the second-order latent slope factor of children's dissociation even after accounting for the indirect pathways ( $B$  [95% CI] = .014 [.001, .028],  $p < .05$ ). This suggests that, although caregiver maltreatment severity did not significantly predict where children initiated their dissociation trajectories at age 6 after accounting for the other paths in the model, children of caregivers who experienced greater maltreatment during their own childhoods showed slower decreases in their dissociation scores over time. Again, this effect is presented descriptively in Figure 3C as mean level trajectories of dissociation averaged across raters. Of note, despite the appearance of a curvilinear pattern in the average mean trajectories of children's dissociation, quadratic change models did not evidence improved fit over linear models for teacher, caregiver, or examiner reports of children's dissociation.

### **Moderation by Child Gender**

Next, a multigroup analysis was performed to test whether the structural model differed across male and female children. The full structural model was tested on both groups simultaneously with regression paths allowed to vary freely between groups. Due to the complexity of the model and reduced sample size in each group, this model did not fit the data well (RMSEA [95% CI] = .071 [.062, .080], SRMR = .110, CFI = .808). The model was then tested with regression paths constrained to equality across groups, which revealed similarly poor model fit (RMSEA [95% CI] = .070 [.060, .079], SRMR = .112, CFI = .808). A chi-square difference test revealed that the unconstrained and constrained models were not statistically significantly different,  $\Delta\chi^2(16) = 16.55, p = .42$ , meaning that, in this sample, child gender did not moderate associations among caregiver maltreatment severity, caregiver reflectiveness, insensitive caregiving behavior, and children's trajectories of dissociation.

### **Discussion**

A developmental approach to the study of dissociation recognizes dissociation as a normative expression of early childhood regulation that may or may not develop over time in ways that compromise future adaptation (Carlson et al., 2009). This investigation drew on the integrative framework of developmental psychopathology and principles of an organizational perspective on development to provide a novel evaluation of the etiology and course of dissociation across childhood by identifying conditions that initiate and/or modify atypical dissociative pathways over time. Specifically, I examined intergenerational effects of caregivers' own history of maltreatment on trajectories of



children's dissociation from early childhood through the transition to adolescence. Most research examining the effects of trauma across generations has focused on intergenerational patterns of abuse perpetration (Berzenski & Yates, In press). This investigation provided an important extension of this literature by evaluating the mediating effects of caregiver reflectiveness and "quiet" caregiving insensitivities that, while not outright maltreatment, compromise children's emergent capacity for self-regulation and influence trajectories of problematic dissociation in the next generation.

A series of univariate LGMs identified the best fitting trajectories of children's dissociation as reported by teachers, caregivers, and examiners, culminating in the first multivariate representation of changes in children's dissociation across middle childhood. This multivariate FOCUS model (McArdle, 1988) provided good fit to the data, which supported the tenability of a second-order factor structure of children's dissociation. Consistent with prior theory (Putnam, 1997) and preliminary evidence (Linde-Krieger et al., In press; Ogawa et al, 1997), findings revealed that children's dissociative tendencies declined across middle childhood. However, there were significant differences both in where children began (i.e., the second-order intercept of dissociative symptoms at age 6) and how they changed over time (i.e., the second-order slope of dissociative symptoms from ages 6 to 12).

The structural model predicting children's second-order trajectories of dissociation captured the potential for interrelated etiologic factors to influence initial levels and patterns of change over time in children's dissociative symptomatology. Both caregiver reflectiveness and insensitive caregiving emerged as mechanisms by which

caregiver history of maltreatment influenced children's pathways of dissociation in the next generation. Whereas the indirect effect from caregiver maltreatment severity to children's dissociation via insensitive parenting attained significance, the simple mediation through caregiver reflectiveness was not significant. However, there was a sequential indirect effect from caregiver maltreatment severity to dissociative symptoms in the next generation via caregiver reflectiveness and its subsequent influence on insensitive caregiving practices.

Caregivers' own experiences of childhood maltreatment were positively related to both caregiver reflectiveness and insensitive caregiving behavior when parenting the next generation. Contrary to hypotheses, however, the severity of caregivers' own maltreatment during childhood predicted *more* reflectiveness about their child and the caregiver-child relationship. While most studies point to negative intergenerational maltreatment effects on caregiver reflectiveness (Easterbrooks et al., 2017; Scheeringa & Zeanah, 2001), some evidence suggests that individuals who were maltreated during childhood display greater capacities for empathy, perspective taking, and reflectiveness (Greenberg et al., 2018; Rnic et al., 2018), as well as more attuned and sensitive caregiving toward the next generation (Cross, 2001; Wright et al., 2012). Although caregiver reflectiveness did not influence children's initial levels of dissociation or change over time directly, greater reflectiveness was significantly related to lower insensitive caregiving and, by extension, less problematic dissociative pathways over time.

Consistent with prior evidence that “quiet” caregiving insensitivities influence later dissociation (Dutra et al., 2009), insensitive caregiving behavior emerged as a significant mechanism by which caregiver maltreatment history instantiated potentially problematic dissociative pathways. Attachment theory holds that caregivers’ own experiences of childhood vulnerability and lack of protection can be internalized in ways that undermine attuned and sensitive caregiving toward the next generation (Bowlby, 1973; Hesse & Main, 1999). In turn, insensitive caregiving practices may thwart children’s emergent capacities for integration and regulation (Linde-Krieger et al., In press; Modestin et al., 2002; Schimmenti, 2017), which was supported in this study by the significant and positive effect of insensitive caregiving on child dissociation at age 6 (i.e., positive prediction to the second-order intercept).

Additionally, there was a significant indirect effect from caregiver maltreatment severity to unexpectedly faster declines in children’s dissociation over time (i.e., negative prediction to the second-order slope) through insensitive caregiving behavior. A post-hoc examination of this effect revealed that insensitive caregiving at age 6 continued to predict higher levels of early adolescent dissociation in the FOCUS model when the second-order intercept was set to child age 12 (i.e., trajectory ending values). Thus, although children of maltreated caregivers were more likely to experience insensitive caregiving and, as a result, showed higher rates of initial dissociation with faster declines across time, the negative slope effect did not correct for their problematic elevations in dissociation at age 6. Even by early adolescence, children of maltreated caregivers who

provided insensitive care did not show expected declines in dissociation on par with peers with more sensitive caregivers.

As noted earlier, in addition to simple mediation paths from caregiver maltreatment severity to children's dissociation intercept and slope through insensitive caregiving, a potential buffering path emerged from caregiver maltreatment severity to *more* caregiver reflectiveness, *less* insensitive caregiving, and *more* adaptive dissociative pathways in the next generation. Although the positive relation between caregiver maltreatment severity and caregiver reflectiveness was surprising, the sequential mediation findings are consistent with theoretical arguments that a caregiver's capacity to reflect on their own mental states and those of their child will support sensitive parenting (Camoirano, 2017; Fonagy et al., 1994), as well as with empirical data showing that parental reflectiveness is associated with less hostility and intrusiveness in observed caregiver-child interactions (Grienberger et al., 2005).

Mirroring the simple mediation through more insensitive caregiving, the sequential mediation effect through *less* insensitive caregiving predicted lower initial levels of dissociation at age 6, but more shallow declines in dissociation over time. Although the shallower rate of decline in dissociative symptoms over time was unexpected, descriptive trajectories of average child dissociation scores among children of maltreated caregivers who showed more reflectiveness and less insensitive caregiving revealed enduring benefits. By early adolescence, children of maltreated caregivers who were more reflective and less insensitive showed lower levels of dissociation than children of maltreated caregivers who were less reflective and more insensitive.

Although this investigation illustrated multiple significant indirect pathways from caregiver history of maltreatment to children's dissociative pathways, a significant direct effect remained. Specifically, results revealed a direct effect from caregiver's own severity of maltreatment to higher slope values (i.e., shallower declines) of children's dissociation, suggesting that as-yet-untested mediating mechanisms may be at play. Children's pathways of dissociation may be influenced by relational processes beyond maternal reflectiveness and insensitive caregiving behavior, such as the quality of children's relationships with fathers and other adult caregivers, as well as the quality of family relationships beyond the caregiver-child dyad (e.g., marital quality). Importantly, reflectiveness is one of several caregiver state of mind processes that may contribute to pathways of child dissociation. Additional state of mind processes, including caregiver helplessness, lack of resolution regarding traumatic experiences, and problematic representations of the caregiver-child relationship may contribute to pathways of child dissociation.

Finally, although some evidence suggests that caregiver reflectiveness (León et al., 2018), insensitive caregiving behavior (Cross et al., 2016; Sroufe et al., 1985), and children's dissociative outcomes (Putnam et al., 1996) may differ as a function of child gender, multigroup analyses in the current study revealed that pathways from caregiver maltreatment severity to children's trajectories of dissociation through caregiver reflectiveness and insensitive caregiving did not differ significantly between boys and girls. That said, fit indices were below acceptable standards for both the unconstrained and constrained multigroup models, which suggests that the moderation results in this

study should be interpreted with caution. The complexity of the structural model and the reduced sample size in each group likely limited the power to detect group differences by gender in the current investigation.

### **Strengths and Limitations**

The current study is the first empirical investigation to evaluate intergenerational effects of caregiver maltreatment on children's trajectories of dissociation from early childhood through the transition to adolescence. Drawing on a large and diverse sample of caregiver-child dyads, this study featured numerous strengths. First and foremost, the use of multiple informants on children's dissociation across data waves supported a multivariate FOCUS representation of starting levels and change over time in children's dissociation. Second, this investigation employed a narrative assessment of caregiver reflectiveness. Narrative measures are considered the gold standard to assess caregiver state of mind processes (Bretherton & Munholland, 2008) because they capture the flexibility with which the caregiver is able to tailor their attributional content about the child and the relationship to yield an expanded and nuanced representation beyond what may be observed in the laboratory or assessed via caregiver self-report (Crittenden, 1990; Hesse, 2008). Third, while most studies of caregiving effects on child development rely on caregiver reports of parenting behavior, this investigation employed observational measures of caregiving coded from recordings of semi-structured caregiver-child interactions in the laboratory. Observational measures of caregiving provide a window on real-time parent-child interaction, allow for reliable and consistent definitions of caregiving behaviors, and are less subject to bias than self-reports (Aspland & Gardner,

2003). Observations of caregiving are particularly important in the assessment of intergenerational maltreatment effects, as caregiver self-reports may be influenced by prior experiences of receiving care (Widom & Morris, 1997) and concurrent symptoms of psychopathology. Indeed, a fourth strength of this investigation derives from the inclusion of covariate measures of caregiver psychopathology and children's own maltreatment experiences in the full model. Finally, this study employed a fully latent SEM design, which reduces bias by incorporating measurement error in the estimated models. Despite these contributions, several limitations must be considered when evaluating the interpretations and implications of these findings.

First, the current analyses modeled a latent maltreatment construct consisting of CSA, CPA, CEA, and CN to assess caregiver history of child maltreatment. This global maltreatment construct offered a robust approach for evaluating caregiver maltreatment severity as an etiologic factor in children's developmental pathways of dissociation. However, combining maltreatment types precluded the examination of subtype-specific pathways and mechanisms underlying intergenerational maltreatment effects on parenting processes and child dissociation (Berzenski & Yates, In press). Relatedly, retrospective reporting of child maltreatment may be affected by false reporting (Fergusson et al., 2000), errors in recollection (DiLillo et al., 2006), and inconsistency in and/or inability to access traumatic memories (Widom & Morris, 1997). However, empirical studies support the convergent validity of retrospective self-reports of maltreatment with child welfare records using administrative data (Dube et al., 2004; Shaffer et al., 2008), and evidence suggests that false positive accounts of maltreatment are far less common than false

negative accounts wherein participants fail to report abuse that actually occurred (Hardt & Rutter, 2004). Future longitudinal research should assess whether intergenerational maltreatment effects on children's dissociation may differ by features of the caregiver's maltreatment experience (e.g., maltreatment type, identity of the perpetrator, age of onset) and, where possible, should include concurrent administrative data reports of caregiver maltreatment.

Second, although this investigation benefited from multi-informant reports of study constructs across several measurement occasions, data were missing at each wave for some participants, as is common in longitudinal studies. Missing data was most pronounced among teacher reports of children's dissociation, largely due to teachers not returning study materials (i.e., passive nonresponse). Rates of missing teacher-reported data in longitudinal studies are often high (e.g., > 40%; Boyle et al., 1993; Horton & Laird, 2001; Youngstrom et al., 2003), and teacher-reported child dissociation scores at age 12 in this study were particularly high due in part to disruptions in data collection caused by COVID-19 school closures. Simulation studies demonstrate that FIML adequately handles data missing at random or missing completely at random (Enders & Bandalos, 2001; Lee & Shi, 2021; Little et al., 2016), as was the case in this study. Further, recent work shows that FIML outperforms other methods of handling missing data under most conditions and can be adopted when there are high rates of missing data (i.e., > 50% missing; Xiao & Bulut, 2020). Nevertheless, the multivariate representation of children's dissociation and the findings obtained in the structural model should be confirmed in future replication studies.



Third, the average Chronbach's alpha level for examiner reports of children's dissociation across data waves was .65. This level of internal consistency, while somewhat low, was not unexpected for the TOF scale. Whereas teachers and caregivers have extensive knowledge of children in various settings, laboratory examiners view a limited sample of child behavior. Not every dissociative behavior would be expected to occur during a laboratory observation, and the endorsement of specific dissociative symptoms (e.g., explosive or unpredictable behavior, seems to be in a fog, sudden changes in mood or feelings) have considerable face validity as exemplars of dissociation when witnessed during an observational assessment.

Fourth, although the current analyses controlled for important covariates that are likely to influence children's dissociation, including caregiver psychopathology, children's prior experiences of maltreatment, and child ethnicity-race, the complexity of the model precluded controlling additional covariates or testing additional paths. As noted earlier, the significant direct effect of caregiver's own maltreatment severity on change in children's dissociation over time in the final model (i.e., partial mediation) implies that variance in the model remains to be explained. Future studies should evaluate the etiologic role of other family processes in children's trajectories of dissociation. For example, although this study was limited to the evaluation of parenting processes within female caregiver-child dyads, future research should consider the influence of children's relationships with fathers and other caregivers, as well as the quality of family relationships beyond the caregiver-child dyad (e.g., caregiver romantic relationship quality).

## **Implications and Future Directions**

This study is among the first to test whether experiences within the caregiving milieu beyond infancy contribute to the onset or course of atypical patterns of dissociation from childhood to early adolescence. As such, this work has important implications for future research and applied efforts to mitigate intergenerational maltreatment effects and the development of pathological dissociation. Findings highlight the advantage of adopting a pathways perspective that recognizes child (mal)adaptation as integrally connected to caregiver developmental history and resulting caregiver strengths and vulnerabilities. While previous research suggests that problematic dissociation may reflect the absence of a typical decline in early childhood dissociative tendencies or an atypical increase in dissociative processes (Carlson et al., 2009; Ogawa et al., 1997), findings from the current study point to a third possibility. Namely, that experiences of insensitive caregiving may lead to atypical elevations of dissociative symptoms in early development that fail to decline to normative levels over time. As noted earlier, a caregiver's own experiences of childhood vulnerability can be internalized in ways that undermine later caregiving (Bowlby, 1973; Hesse & Main, 1999). In turn, insensitive care may compromise children's beliefs in their own worth and efficacy, which stymies the flexible regulatory strategies and adaptive integration that such beliefs afford.

Importantly, the current findings also highlight the potential for caregiver strengths following a history of childhood maltreatment. A developmental psychopathology framework emphasizes the probabilistic nature of development, and

research shows that single risk factors are rarely associated with unilaterally negative outcomes (e.g., multifinality; Cicchetti & Rogosch, 1996). This study showed that childhood experiences of maltreatment can eventuate in varied intergenerational effects. Insensitive caregiving in the wake of maltreatment emerged as an initiating factor for children's dissociation, but, perhaps most notably, a history of maltreatment also engendered more caregiver reflectiveness, which eventuated in less insensitive caregiving behavior and, ultimately, more typical patterns of child dissociation across middle childhood. In line with some evidence that caregiver reflectiveness promotes positive parenting in caregivers with a history of maltreatment (Fonagy et al, 1994), the current findings contribute to the literature on resilience following maltreatment (Afifi & MacMillan, 2011; Domhardt et al., 2015; Ohashi et al., 2019). Perhaps due to their own experiences of vulnerability, survivors of childhood maltreatment may evidence enhanced capacities for empathy and theory of mind (Greenberg et al., 2018; Rnic et al., 2018), which enable them to provide *more* sensitive care to their own children. Indeed, experiences of maltreatment may fuel a caregiver's desire to break the intergenerational cycle of maltreatment while promoting increased attunement with their own child (Cross, 2001).

The ability to understand one's own and others' behavior in terms of underlying mental states and intentions is essential for the development and maintenance of effective affect regulation and supportive social relationships, including the parent-child relationship (Camoirano, 2017). Further research is needed to elucidate mechanisms that may explain when and for whom experiences of maltreatment result in greater

reflectiveness regarding the self, one's child, and the caregiver-child relationship. Indeed, mixed evidence regarding relations between caregiver history of maltreatment and reflectiveness (Ensink et al., 2015; Huth-Bocks et al., 2014; Schechter et al., 2008; Stacks et al., 2014) highlights the need to identify moderators of this association.

Caregiver reflectiveness following maltreatment may be influenced by a variety of factors including the presence of relationships with alternate caring adults during childhood, current parenting stress and romantic relationship quality, child characteristics, and access to therapeutic services that support processing one's maltreatment history. Recent empirical work points to caregivers' resolution of childhood trauma as a promotive factor for reflective functioning among mothers engaged in therapy (Koren-Karie & Getzler-Yosef, 2019). Indeed, the capacity for reflection regarding one's child and the caregiver-child relationship may be modified through intervention (Suchman et al., 2010). The current study underscores caregiver reflectiveness, and the sensitive parenting it engenders (Camoirano, 2017), as promising targets for therapeutic impact. Attachment- and mentalization-based therapies that focus on both caregiver reflectiveness and parenting behavior (e.g., *Minding the Baby*, Slade et al., 2020; *Mothering from the Inside Out*, Suchman et al., 2013) can support caregivers to develop flexible, multidimensional, and non-defensive representations of their child and the self-as-caregiver, and may be particularly effective for preventing and/or re-directing children's atypical trajectories of dissociation.

In addition to translational implications for practice, this study speaks to the need for conceptual and quantitative sophistication in future research evaluating

developmental trajectories of (mal)adaptation. In the current study, interpretation of slope values in isolation would have led to an incomplete and potentially inaccurate interpretation of the data. For example, insensitive caregiving negatively predicted second-order slope values, which suggested faster declines in children's dissociation from ages 6 through 12. However, a post hoc regression analysis and descriptive trajectories of mean dissociation scores across time revealed an incomplete regression-to-the-mean effect in which children exposed to early insensitive care indeed declined more quickly, but their levels of dissociation at age 12 (i.e., trajectory ending values) remained higher than those of children with less insensitive caregivers. This speaks to the importance of attending to starting levels, change over time, and ending levels in concert when interpreting LGMs and also suggests future directions for empirical research on pathways of dissociation across childhood and beyond.

Interestingly, descriptive findings suggested that, at the mean level, children's dissociation scores may show a curvilinear pattern, such that average dissociation scores decrease from ages 6 through 10 and may increase as children enter early adolescence. Future research is needed to further investigate inter- and intraindividual differences in trajectories of dissociation across the transition into adolescence to evaluate the possibility of nonlinear patterns of change. Additionally, growth mixture modeling may be useful for identifying qualitatively distinct dissociative pathways (e.g., whether some children's dissociative symptoms decrease across time while others' increase), as well as their etiology and developmental implications.

In sum, this study evaluated caregiver reflectiveness and non-abusive indicators of insensitive caregiving as modifiable mechanisms by which a caregiver's own history of childhood maltreatment may influence children's dissociative symptomatology in the next generation. Findings revealed that parenting processes beyond the period of infancy influence pathways of dissociation, and that conditions that initiate atypical dissociative processes may be distinct from those that influence their expression over time. Importantly, the current findings speak to the potential for caregiver resilience in the wake of childhood maltreatment and suggest that caregiver reflectiveness (and its contribution to caregiving practices) may be a crucial, yet understudied, protective factor in the etiology and course of problematic dissociation.

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**Table 1***Sample Demographics*

	%	N
Child sex		
Female	50%	125
Male	50%	125
Child ethnicity-race		
Latinx	46%	115
Black	18%	45
White	11.2%	28
Multiracial	24.8%	62
Caregiver ethnicity/race		
Latinx	55.6%	139
Black	19.2%	48
White	19.6%	49
Asian	1.6%	4
Other/Multiracial	4.0%	10
Caregiver relation to child		
Biological mother	91.2%	228
Foster/adoptive mother	3.6%	9
Grandmother/other kin	5.2%	13
Caregiver education		
Did not complete high school	19.8%	49
High School diploma or equivalent	17.3%	43
College or technical school	62.9%	157
Caregiver employment		
Employed	55.6%	139
Not employed	44.4%	111
Caregiver partner status		
Married	61.6%	154
Other committed relationship	18.8%	47
Single	19.6%	49
Poverty status		
Poverty (Income < 100% of the poverty line)	37.6%	94
Near Poverty (Income < 130% of the poverty line)	9.2%	23
No Poverty	53.2%	133



**Table 2**

*Correlations, Means, and Standard Deviations among Study Variables*

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
1. Caregiver psychopathology	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
2. Children's prior maltx	.234**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3. Caregiver CPA	.038	.038	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
4. Caregiver CSA	.211**	.238**	.298**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
5. Caregiver CEA	.282**	.163*	.405**	.208**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6. Caregiver CN	.268**	.097	.331**	.206**	.426**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
7. Elaboration	.058	.043	.104	.013	.060	.098	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
8. Complexity	-.039	-.076	.060	.020	.113	.076	.317**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
9. Insignificance	.067	-.042	.150*	.052	.118	.161*	.254**	.377**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
10. Hostility	.130	.104	.102	.121	.048	.086	.004	-.028	.003	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
11. Intrusiveness	-.044	.038	-.004	.006	.030	.023	-.112	-.060	-.159*	.435**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
12. Low Support	.043	.049	.074	.081	.086	.083	-.160*	-.093	-.133	.588**	.569**	---	---	---	---	---	---	---	---	---	---	---	---	---	---
13. TRF age 6	.104	.147	.111	-.062	-.029	.039	.027	-.110	-.016	.218**	.108	.227**	---	---	---	---	---	---	---	---	---	---	---	---	---
14. TRF age 8	.211*	.117	.099	.013	.092	.242**	-.110	-.099	-.129	.051	.120	.195*	.663**	---	---	---	---	---	---	---	---	---	---	---	---
15. TRF age 10	.013	.154	.113	.244*	-.094	.111	.129	-.283**	-.056	.321**	.168	.184	.722**	.547**	---	---	---	---	---	---	---	---	---	---	---
16. TRF age 12	-.001	.118	.078	.048	-.025	.109	-.007	-.096	-.011	.257*	.025	.099	.387**	.388**	.610**	---	---	---	---	---	---	---	---	---	---
17. CBCL age 6	.225**	.192**	.002	.037	.037	.165*	.067	-.038	.096	.119	.057	.091	.415**	.289**	.378**	.140	---	---	---	---	---	---	---	---	---
18. CBCL age 8	.371**	.122	.071	.042	.171*	.168*	-.033	-.110	.008	.108	.045	.085	.440**	.539**	.418**	.195	.708**	---	---	---	---	---	---	---	---
19. CBCL age 10	.147*	.081	.121	-.030	.087	.101	.020	-.092	.024	.069	-.018	.105	.377**	.425**	.242*	.540**	.639**	---	---	---	---	---	---	---	---
20. CBCL age 12	.382**	.101	.181*	.133	.136	.121	.155*	-.043	.054	.110	-.005	.077	.245**	.289**	.539**	.312**	.449**	.535**	.598**	---	---	---	---	---	---
21. TOF age 6	.017	.191**	-.034	.042	-.069	.058	.047	-.029	.002	.215**	.207**	.226**	.480**	.358**	.611**	.268**	.335**	.380**	.311**	.185*	---	---	---	---	---
22. TOF age 8	.035	.001	-.066	-.140*	-.019	.130	.067	-.021	-.004	.073	.081	.078	.303**	.324**	.418**	.345**	.260**	.269**	.228**	.159*	.378**	---	---	---	---
23. TOF age 10	.118	-.012	.115	.013	.028	.134	-.006	-.003	.124	-.060	.007	.030	.379**	.249**	.421**	.209*	.252**	.235**	.237**	.218**	.341**	.296**	---	---	
24. TOF age 12	.118	-.022	.075	-.080	.062	.119	.099	-.067	-.054	-.031	-.111	-.026	.321**	.351**	.289**	.209*	.047	.109	.159*	.139	.178*	.428**	.374**	---	
M	49.19	0.075	0.72	0.76	0.7	0.82	6.34	4.43	3.37	1.46	2.01	3.18	0.28	0.24	0.23	0.23	0.22	0.22	0.2	0.24	0.24	0.22	0.22	0.17	
SD	11.8	0.17	1.01	1.02	1.05	1.03	1.05	1.2	1.66	0.48	0.59	0.58	0.33	0.28	0.28	0.29	0.24	0.22	0.23	0.25	0.25	0.34	0.3	0.24	

Note. \* $p < .05$ , \*\* $p < .01$ .

Maltx = maltreatment; CPA = child physical abuse; CSA = child sexual abuse; CEA = child emotional abuse; CN = child neglect; TRF = Teacher Report Form (teacher reports of children's dissociation); CBCL = Child Behavior Checklist (caregiver reports of children's dissociation); TOF = Test Observation Form (examiner reports of children's dissociation).

**Table 3**

*Covariances among First-Order Latent Growth Parameters of Children's Dissociation from ages 6 through 12*

	1	2	3	4	5
1. TRF Intercept	1	---	---	---	---
2. TRF Slope	-.648*	1	---	---	---
3. CBCL Intercept	.578***	-.479**	1	---	---
4. CBCL Slope	-.257	.716**	-.463**	1	---
5. TOF Intercept	.690***	-.201	.610***	-.257	1
6. TOF Slope	-.234	-.050	-.493***	.377*	-.635**

*Note.* \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

TRF = Teacher Report Form (teacher reports of children's dissociation); CBCL = Child Behavior Checklist (caregiver reports of children's dissociation); TOF = Test Observation Form (examiner reports of children's dissociation).

**Table 4***Factor of Curves (FOCUS) Model Parameter Estimates and Fit Indices*

	Unstandardized Estimate	SE
<u>Factor loadings</u>		
$\lambda_{0\_TRF}$	1	–
$\lambda_{0\_CBCL}$	.640***	.147
$\lambda_{0\_TOF}$	.640***	.147
$\lambda_{S\_TRF}$	1	–
$\lambda_{S\_CBCL}$	.580***	.165
$\lambda_{S\_TOF}$	.580***	.165
<u>Means</u>		
Intercept	.208***	.017
Slope	-.007**	.002
<u>Variiances</u>		
Intercept	.059***	.012
Slope	.001*	.000
Covariance $\sigma_{f0fs}$ ( $\rho_{\sigma_{f0fs}}$ )	-.005** (-.593)	
<u>Fit indices</u>		
RMSEA (95% CI)	.031 (.000, .051)	
SRMR	.079	
CFI	.976	

Note. \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

TRF = Teacher Report Form (teacher reports of children's dissociation); CBCL = Child Behavior Checklist (caregiver reports of children's dissociation); TOF = Test Observation Form (examiner reports of children's dissociation).

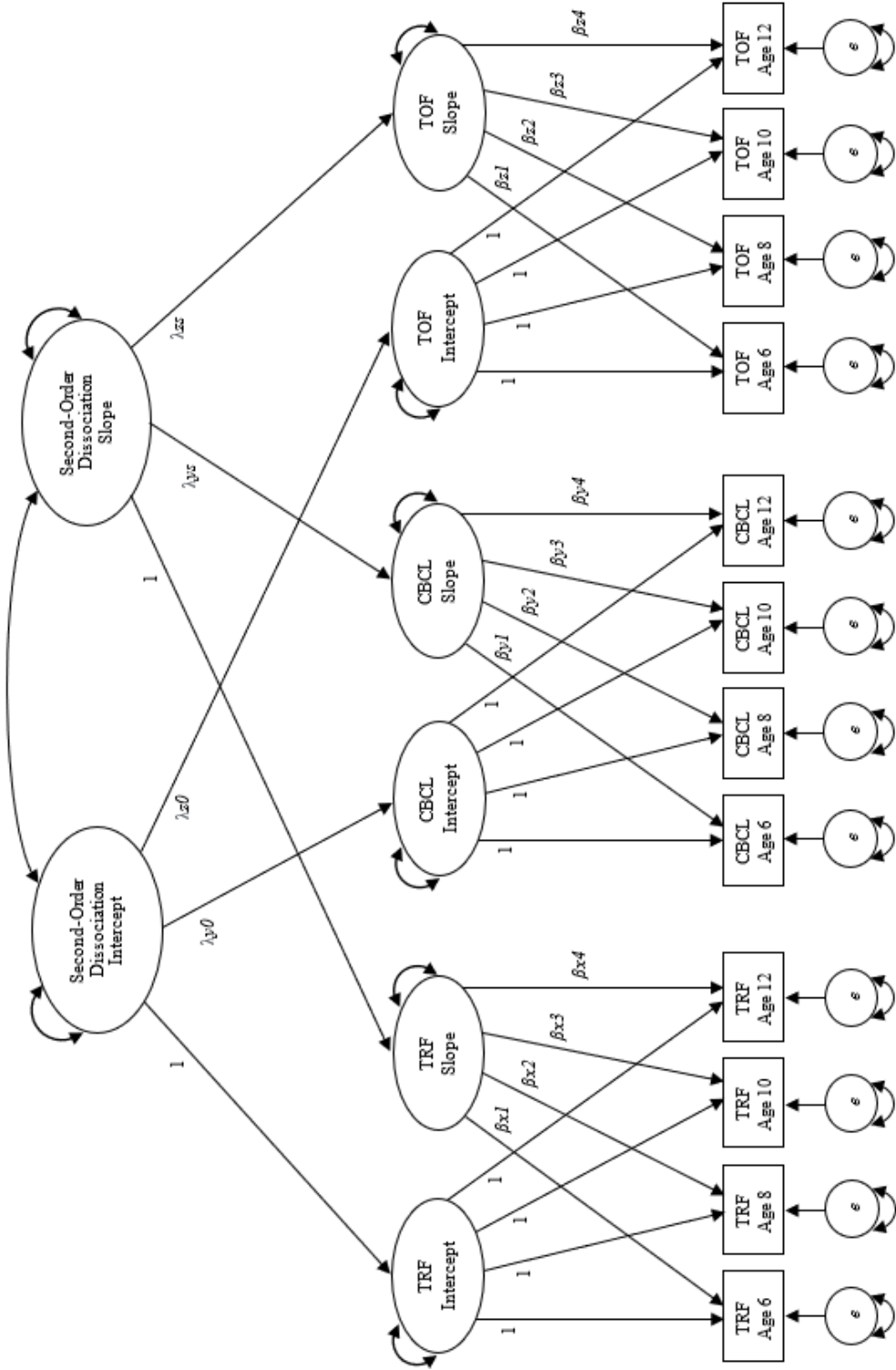
**Table 5**  
*Standardized Parameter Estimates for the Final SEM*

	$\beta$	<i>SE</i>	<i>p</i>	95% Bias-Corrected CI	
				LL	UL
<u>Caregiver reflectiveness on:</u>					
Caregiver maltreatment severity	.325	.118	.001	.153	.617
Caregiver psychopathology	-.060	.054	.483	-.144	.068
Children's prior maltreatment	-.104	.335	.209	-1.14	.250
Ethnicity-race	.010	.118	.900	-.217	.246
<u>Insensitive caregiving on:</u>					
Caregiver maltreatment severity	.252	.051	.003	.054	.256
Caregiver reflectiveness	-.355	.059	.002	-.301	-.068
Caregiver psychopathology	.022	.025	.775	-.042	.056
Children's prior maltreatment	.014	.222	.891	-.404	.465
Race/ethnicity	-.030	.057	.683	-.134	.088
<u>Second-order dissociation intercept on:</u>					
Caregiver maltreatment severity	-.102	.035	.305	-.106	.033
Caregiver reflectiveness	.095	.040	.471	-.049	.106
Insensitive caregiving	.359	.055	.001	.100	.315
Caregiver psychopathology	.173	.014	.024	.004	.061
Children's prior maltreatment	.171	.121	.068	-.016	.457
Race/ethnicity	-.110	.035	.162	-.117	.020
<u>Second-order dissociation slope on:</u>					
Caregiver maltreatment severity	.289	.007	.043	.001	.028
Caregiver reflectiveness	-.182	.007	.261	-.021	.006
Insensitive caregiving	-.473	.012	.001	-.061	-.015
Caregiver psychopathology	-.016	.002	.864	-.005	.004
Children's prior maltreatment	-.250	.018	.013	-.079	-.010
Race/ethnicity	.112	.006	.246	-.005	.019

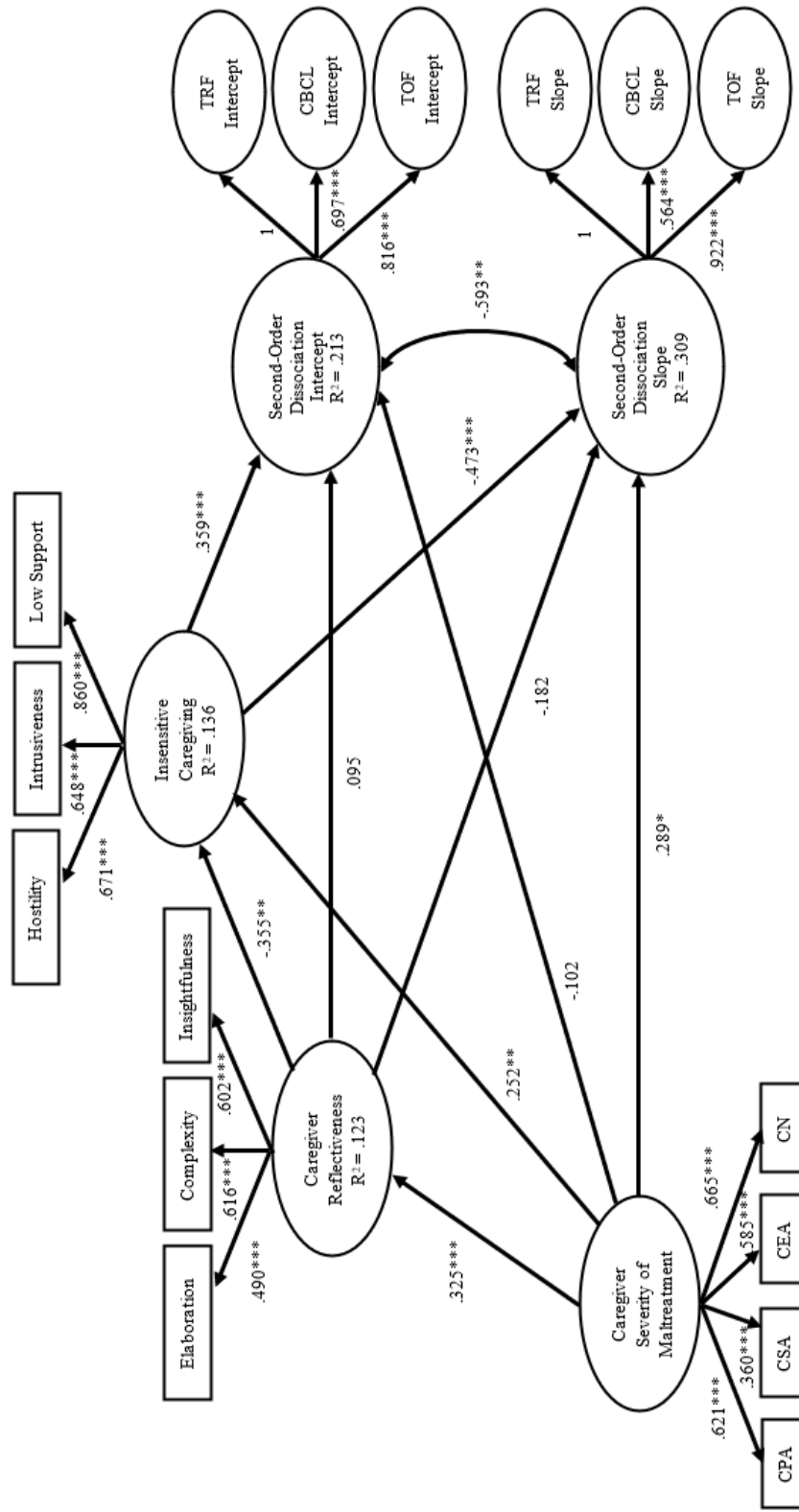
*Note.* CI = confidence interval; *LL* = lower limit; *UL* = upper limit.

Gender coded 0 (*male*) and 1 (*female*). Race/ethnicity coded 0 (*non-Latinx*) and 1 (*Latinx*).

**Figure 1**  
*Conceptual Path Diagram of the Unconditional Factor of Curves (FOCUS) Model*



**Figure 2**  
*Final SEM of Relations among the Severity of Caregiver History of Maltreatment, Caregiver Reflectiveness, Insecure Caregiving, and Second-Order Growth Parameters of Children's Dissociation from Ages 6 through 12*



Note. Standardized estimates reported. Covariates and error variances not shown for clarity. CPA = child physical abuse; CSA = child sexual abuse; CEA = child emotional abuse; CN = child neglect; TRF = Teacher Report Form; CBCL = Child Behavior Checklist (caregiver report); TOF = Test Observation Form (examiner report).

**Figure 3**

*Mean Trajectories of Children's Dissociation Averaged across Informants*

