

# An evaluation of the construct of earned security in adolescents: Evidence from an inpatient sample

Amanda Venta, MA  
Carla Sharp, PhD  
Yael Shmueli-Goetz, PhD  
Elizabeth Newlin, MD

*In adult attachment research, a group of individuals who convey secure attachments despite recalling difficult early caregiver relationships has been identified. The term earned security refers to individuals in this group, whereas continuous security refers to individuals who convey secure attachments and describe caring early relationships. Evidence on the validity of earned security in adults is mixed—with one longitudinal study showing that earned secure adults, despite contrary recollections, are actually more likely to have experienced positive caregiving than continuous secure adults. There is currently no evidence of earned security in adolescence, and exploring it in this age group may help shed light on the overall problem of the validity of this construct. Therefore, the broad aim of this study was to examine the construct of earned security in a group of inpatient adolescents. First, the authors aimed to identify a group of adolescents with secure attachments and memories of difficult caregiver relationships (i.e., proposed earned secure group) in a sample of 240 inpatient adolescents. Next, to explore external validity, the authors examined whether this group differed from others with regard to internalizing distress and emotion regulation. Findings indicated that a subset of secure adolescents recall difficult caregiving, as has been noted in adults, and that they differ from others with regard to emotion regulation. Despite this preliminary evidence*

---

Amanda Venta and Carla Sharp are at the University of Houston, Houston, Texas. Yael Shmueli-Goetz is at University College London. Elizabeth Newlin is at the Menninger Clinic.

This project was funded by the Child and Family Program of the Menninger Clinic. Correspondence may be sent to Carla Sharp, PhD, Department of Psychology, 126 Heyne Building, University of Houston, Houston, TX 77204; e-mail: [csharp2@central.uh.edu](mailto:csharp2@central.uh.edu) (Copyright © 2015 The Menninger Foundation)

*that earned security can be identified in adolescents, the authors conclude with a discussion of the caveats of applying this construct in adolescents as well as adults. (Bulletin of the Menninger Clinic, 79[1], 41–69)*

Adult attachment research has described a group of individuals who recall uncaring early attachment relationships but are able to describe these experiences in a coherent, objective, and open manner (like secure individuals). This attachment style is referred to as *earned security* (Pearson, Cohn, Cowan, & Cowan, 1994) and is differentiated from *continuous security*, which refers to individuals who convey coherent, secure attachments *and* convincingly describe balanced attachment relationships (Pearson et al., 1994). Earned security has been a construct of clinical interest because prior research has indicated that adults in this group, despite recalling negative early caregiving, are able to function interpersonally as well as continuous secure adults. For instance, Pearson and colleagues (1994) reported that adults with an earned secure classification demonstrated parenting styles that were comparable to those of adults in the continuous secure group—with both groups demonstrating significantly higher parental warmth and structure than an insecure comparison group. Similar findings were reported by Saunders, Jacobvitz, Zaccagnino, Beverung, and Hazen (2011), who found that both earned secure and continuous secure mothers were equally likely to have a securely attached infant (see also Phelps, Belsky, & Crnic, 1998). Furthermore, the marital functioning of individuals with an earned secure classification has been found to be no different from that of individuals with a continuous secure classification (Paley, Cox, Burchinal, & Payne, 1999).

Although these studies suggest that earned secure adults may possess some resilient qualities warranting further exploration, this area of research has been limited by controversy surrounding the validity of the construct of earned security. The validity of this construct has been heavily questioned for two main reasons. First, the terminology suggests a longitudinal change in attachment style—that is, earned security suggests that indi-

viduals have changed from insecure attachments in childhood to secure adult attachments, whereas the vast majority of existing research has made use of cross-sectional methods in which adults are administered an attachment interview and asked to retrospectively report on caregiving experiences. The collection of both measures at one time point and the retrospective definition of earned security preclude conclusions about longitudinal change. Second, in the sole longitudinal study of earned security, Roisman, Padrón, Sroufe, and Egeland (2002) used longitudinal data to show that earned secure adults were not more likely than continuous secure adults to have experienced negative parenting or insecure attachments during childhood. Rather, Roisman et al. (2002) reported that earned secure adults actually experienced above-average caregiving as children. These findings strongly call into question the notion that earned security reflects a shift in attachment from early insecurity to security, suggesting instead that earned security simply reflects a group of secure adults who report negative caregiving experiences.

A number of methods have been previously used to identify earned secure individuals—all based on the Adult Attachment Interview (AAI; George, Kaplan, & Main, 1985). First, Pearson and colleagues, in 1994, used the probable experience scales of the AAI (i.e., the loving, neglecting, and rejecting parent scales) to subdivide adults assigned to the secure category. The earned secure group was characterized by at least one parent low on the parent loving scale *and* at least one parent high on either the neglecting or rejecting parent scale. In this way, Pearson et al. (1994) sought to identify a group of adults who, despite recalling unloving caregiver experiences, conveyed secure attachments during the AAI. Several studies modified this procedure such that adults could be assigned to the earned secure group with *either* a low score on the parent loving scale *or* a high score on the negative parenting scale (e.g., Paley et al., 1999; Saunders et al., 2011). A more stringent method, put forth by Main, Goldwyn, and Hesse (2002), required that only individuals with *very* low loving scores for both parents should be classified as earned secure—although this approach is rarely used due to small numbers of adults meeting these criteria.

Notably, all existing studies of earned security have made use of the AAI for classification and are therefore limited to adult samples, with no research exploring earned security in adolescents. There are several reasons why adolescence is a particularly important developmental stage in which to explore earned security. First, adolescence is well documented as a developmental stage in which social reorientation takes place (Crone & Dahl, 2012; Nelson, Leibenluft, McClure, & Pine, 2005; van den Bos, 2013) and attachment relationships change shape (Kobak, Cassidy, Lyons-Ruth, & Ziv, 2006). Specifically, challenges to attachment security shift from physical separation to emotional rejection or abandonment (Kobak et al., 2006; Kobak, Cassidy, & Ziv, 2004), and attachment relationships are tested with the emergence of autonomy (Allen & Land, 1999). These social and attachment changes therefore mean that findings from adult studies of attachment cannot simply be assumed to be true among adolescents; rather, they should be used to inform research on this unique developmental stage. Second, unlike young children, adolescents have had time to make meaning of their early experiences and thus the potential to “revise” early internal working models of relationships, as is theoretically suggested in earned security. Indeed, researchers studying resilience for several decades have repeatedly found evidence that adolescence is a developmental stage during which a subset of individuals will demonstrate a capacity to rise above early adversity (e.g., Masten et al., 2004; Shiner & Masten, 2012). Thus, adolescence may be an early developmental stage during which earned security can be detected. Third, adolescence is characterized by greater cognitive flexibility than childhood—indicating that the simultaneous reporting of positive and negative caregiving experiences (as in earned security) may become increasingly possible in this age group.

Against this background, the first aim of the present study was to evaluate whether an earned secure group can be identified in adolescence by exploring whether a subset of secure adolescents report negative childhood experiences, as has been observed in adults. The present (cross-sectional) study cannot speak to the validity of earned security in adolescents without

longitudinal data; therefore, our aim was rather to explore in a preliminary way a concurrently defined group of earned secure adolescents, referring only to a subset of secure individuals who report uncaring experiences with no implications about longitudinal change. To that end, we made use of the Child Attachment Interview (CAI; Target, Fonagy, Shmueli-Goetz, Datta, & Schneider, 2007), an adaptation of the AAI developed to assess youths' mental representations of their attachment relationships through direct questioning about the qualities of their attachment figures as well as times of illness, loss, abuse, and separation. Like the AAI, the CAI is interview-based; requires training by certified coders in order to become reliable in assignment of attachment classifications; and uses dimensional scores on a series of subscales to inform assignment of classifications. However, unlike the AAI, the CAI currently does not have scales that reflect probable experiences of love, neglect, or rejection with caregivers, and therefore the procedure for identifying earned security in adults cannot be easily adapted to adolescents. In an attempt to measure probable experience, the care subscale of the Parental Bonding Inventory (PBI; Parker, Tupling, & Brown, 1979) was used alongside the CAI in the current study. Thus, the earned secure group was identified by a secure CAI classification with low scores on the PBI, which includes explicit probing for unloving, neglecting, and rejecting experiences. This study is the first to describe a procedure for identifying earned security in adolescents. As in the adult literature (e.g., Paley et al., 1999; Roisman, Fortuna, & Holland, 2006), it was expected that the earned secure group would not differ from the continuous secure group on any CAI subscales, with both groups showing higher levels of security and lower levels of insecurity than the insecure group.

Beyond describing a potential method to identify earned secure adolescents from combined scores of the CAI and the PBI, this study sought to explore the external validity of the earned secure group by characterizing this group on the basis of (1) internalizing distress and (2) emotion regulation. In previous research examining earned security in adults, it has been hypothesized that the tendency for some secure adults to recall uncaring

childhood experiences is explained by an internalizing distress-related recall bias that produces AAI narratives characterized by negative caregiving memories (rather than by actual suboptimal caregiving). This hypothesis is supported by higher rates of internalizing distress among earned secure adults (Pearson et al., 1994; Roisman et al., 2002) and, even more compellingly, by an experimental manipulation in which a sad mood induction prior to the AAI was linked to higher likelihood of an earned secure classification (Roisman et al., 2006). Indeed, studies attempting to address other empirical questions regarding earned security now routinely control for internalizing symptoms (e.g., Saunders et al., 2011) due to the strength of this finding.

As the first study to explore earned security in adolescents, the second aim of this study was to explore whether the earned secure group would differ from the continuous secure group with regard to internalizing symptoms, as a first method for examining the external validity of this construct in adolescents. As in adults, it was expected that the earned secure group would report higher internalizing distress. Given that rates of internalizing distress increase dramatically with puberty (e.g., Patton et al., 2008), this a useful group in which to examine the hypothesis that earned security reflects an internalizing distress recall bias.

Adult studies of earned security have also examined this construct in the context of emotion regulation and stress reactivity, concluding that earned secure and continuous secure adults are quite similar in these regards. Specifically, Phelps et al. (1998) showed that earned secure adults do not exhibit the same reactivity to parenting stress as insecure adults do and, rather, parent as well as continuous secure adults during those situations. Furthermore, the marital functioning of individuals with an earned secure classification has been found to be no different from that of individuals with a continuous secure classification (Paley et al., 1999). Specifically, wives with an earned secure classification are similar to wives with a continuous secure classification in that both are better able to manage affect during problem solving than insecure wives (Paley et al., 1999).

Given this context, the third aim of this study was to examine differences between continuous secure and earned secure adolescents with regard to emotion regulation, as a second method of exploring external validity. It was hypothesized that adolescents in the earned secure group would show emotion regulation abilities comparable to those in the continuous secure group and that both groups would be significantly higher than the insecure group. Positive findings would echo findings from previous research with adults.

In sum, the aims of the present study were threefold: (1) to determine whether a subset of secure adolescents report high levels of negative caregiving experiences (i.e., earned secure group) through the use of the CAI and the PBI; (2) to explore whether this group reported higher internalizing distress than the continuous secure group, as a first method of exploring external validity; and (3) to explore whether the earned secure group demonstrated emotion regulation abilities comparable to those of the continuous secure group and greater than those of the insecure group, as a second method of examining external validity. A sample of inpatient adolescents was examined in order to attain ample variability in attachment style and emotion regulation abilities as well as sufficient symptoms of internalizing distress. The present study represents the first attempt to examine earned security among adolescents or inpatients and is only the second, overall, to examine emotion regulation abilities alongside earned security.

## Methods

### *Participants*

A total of 284 adolescents between the ages of 12 and 17 were recruited from an inpatient unit that serves adolescents with severe psychiatric disorders. The present study adopted the following exclusion criteria: diagnosis of schizophrenia or another psychotic disorder, an autism spectrum diagnosis, or an IQ less than 70. Inclusion criteria included age between 12 and 17 and English fluency. As a result of the aforementioned exclusion cri-

teria, 44 adolescents were excluded from the sample, yielding a sample of 240 for subsequent analyses.

About three fifths (62.08%,  $n = 149$ ) of the sample was female, and the average age was 15.94 years ( $SD = 1.41$ ). The racial breakdown was as follows: 86.4% White, 4.3% Asian, 6.4% bi- or multiracial, and 3.0% Black, with 5.9% being Hispanic. The sample was generally of high socioeconomic status, with 67.7% of parents reporting an annual household income equal to or greater than \$100,000.

### *Procedures*

The average length of stay on the adolescent unit was approximately 1 month. At admission, parents were given the opportunity to consent for participation in this study and, if granted, adolescents were approached for assent. All assessments were conducted in private on the unit by doctoral psychology students and trained clinical research assistants. The CAI was videotaped and transcribed by trained research assistants. The tape and transcription were then used by a trained coder to assign each adolescent to an attachment classification. The coder was blind to diagnosis, reason for admission, and all other patient characteristics and was not the individual administering the interview.

### *Measures*

*Attachment classification.* To establish the three attachment-based groups relevant for the current study (earned secure, continuous secure, and insecure), we used the CAI (Target et al., 2007) and the PBI (Parker et al., 1979). The CAI is an interview-based measure that assesses attachment strategies by asking children and adolescents to describe and reflect on their attachment relationships with primary caregivers. The CAI focuses particularly on times when the adolescent is likely to call upon the attachment figure for support, understanding, and care during such times as illness, loss, and separation. In this study, the CAI was used to assign each adolescent to either a secure (which was later subdivided into continuous secure and earned secure)



or an insecure maternal attachment classification. In the present study, the insecure classification served as a comparison group, approximating the study design of Pearson et al. (1994), Roisman et al. (2002), Saunders et al. (2011), Phelps et al. (1998), and Roisman et al. (2006).

Interviews were rated on the basis of the following subscales: emotional openness, balance of positive and negative reference to attachment figures, use of examples, preoccupied anger, idealization, dismissal, resolution of conflicts, and overall coherence; these ratings then informed the categorical classification (i.e., secure or insecure). A factor analysis of the CAI conducted by Venta, Shmueli-Goetz, and Sharp (2014) indicates that, of these, emotional openness, balance, use of examples, (non)dismissal, resolution of conflicts, and overall coherence cluster together as general indicators of security, whereas preoccupied anger and idealization fall into second and third factors, respectively. The secure classification is characterized by high emotional openness, balance, use of examples, resolution of conflicts, and overall coherence as well as low scores on the idealization, dismissal, and preoccupied anger subscales. The insecure classification, on the other hand, is indicated by low scores on the scales indicative of attachment security and a high score on the preoccupied anger, dismissal, or idealizing scales. The psychometric properties of the CAI were evaluated in a sample of children in the initial publication (Shmueli-Goetz, Target, Fonagy, & Datta, 2008) and in a construct validity study undertaken with inpatient adolescents (Venta et al., 2014).

Coding the CAI requires 3 days of training and attainment of 85% agreement with the measure's authors in attachment classification on specified training cases. All CAIs in this study were completed in private, videotaped, transcribed, and coded by clinical research assistants or doctoral students who had completed training with the measure's authors.

The PBI (Parker et al., 1979) was used alongside the CAI to subdivide the secure group into earned secure and continuous secure. The PBI is a 25-item self-report measure that includes two scales measuring the respondent's perceived Care and Overprotection by his or her mother. Each item is rated on a 4-point

Likert scale (3 = *very like*, 0 = *very unlike*). The respondent is asked to remember interactions with his or her mother during childhood. Sample items include “spoke to me in a warm and friendly voice,” “seemed emotionally cold to me,” and “appeared to understand my problems and worries.” In this study, the PBI Care subscale was used to divide adolescents classified as secure on the CAI into either earned secure or continuous secure. This subscale was selected because it contains items relating to caregiver love like those on the aforementioned AAI loving scale. A cutoff score of 27 has been previously identified as dividing high care from low care mothers on the PBI Care subscale (Parker et al., 1979). Adolescents coded as secure on the CAI who had a PBI Care score exceeding 27 were assigned to the continuous secure group. Those with a PBI Care score below 27 were assigned to the earned secure group. This measure has previously demonstrated adequate internal consistency and retest reliability (Parker et al., 1979). In the present study, internal consistency, as captured by Cronbach’s alpha, was 0.70.

*Internalizing distress.* Three measures of internalizing distress were used in order to replicate analyses across two reporters (parent- and self-report) and three measures, one with a more specific focus on depression (The Beck Depression Inventory) and two in which items addressing internalizing problems are imbedded within a broad symptom checklist (Youth Self Report and Child Behavior Checklist).

The Beck Depression Inventory II (BDI-II; Beck, Steer, & Brown, 1996) is a 21-item self-report inventory assessing depressive symptoms. Each item is rated on a 0–3 scale. In addition to a total score, which ranges from 1 to 63, the BDI-II items can be divided into those that represent the cognitive symptoms of depression and those that represent the noncognitive symptoms of depression. Items on the Cognitive subscale include loss of pleasure, agitation, and loss of interest. Items on the Non-Cognitive subscale include pessimism, guilty feelings, self-dislike, and self-criticalness. The internal consistency, factor structure, and validity of the BDI-II have received support previously (Beck et al., 1996), and the measure has been used in adolescents (e.g., Grover et al., 2009) with a Cronbach’s alpha

value around 0.92. In this study, internal consistency, as measured by Cronbach's alpha, was 0.93 for all items, 0.89 for the Non-Cognitive subscale, and 0.88 for the Cognitive subscale.

Internalizing distress was also assessed using the Youth Self Report (YSR; Achenbach & Rescorla, 2001) and the Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2001). The YSR is a questionnaire for use with adolescents between the ages of 12 and 17. The measure contains 112 problem items, each scored on a 3-point scale (0 = *not true*, 1 = *somewhat or sometimes true*, or 2 = *very or often true*) and yields a number of subscales. The CBCL is the parent-report version of the YSR, containing the same number and types of items with the same response scale. In this study, the *DSM*-Oriented Affective Problems scales from both the YSR and the CBCL were used as additional measures of internalizing distress. Adolescents and their parents completed these measures on a computer and they were scored electronically. Therefore, item-level data are not available for internal consistency analyses.

*Difficulties in emotion regulation.* The Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004) is a self-report questionnaire that assesses emotion dysregulation. In the current study, it was used to compare groups on the basis of emotion regulation abilities. The DERS consists of 36 items that are scored on a 5-point Likert scale ranging from 1 [*almost never (0–10%)*] to 5 [*almost always (91–100%)*]. A higher score indicates greater emotion dysregulation. The measure contains six separate scales: nonacceptance of emotional responses (nonacceptance), difficulties engaging in goal directed behavior (goals), impulse control difficulties (impulse), lack of emotional awareness (awareness), limited access to emotion regulation strategies (strategies), and lack of emotional clarity (clarity). Psychometric evaluation of the DERS has revealed good internal consistency, construct and predictive validity, and test-retest reliability across 4 to 8 weeks in adults (Gratz & Roemer, 2004). The DERS has also been validated in adolescents (Perez, Venta, Garnaat & Sharp, 2012). In the present study, Cronbach's alphas for each subscale were as follows: nonacceptance, 0.91; goals, 0.89; impulse, 0.92; awareness, 0.86; strategies, 0.91; and clarity 0.85.

## Results

### *Exploration of an earned secure group*

The first aim of this study was to describe a procedure for exploring a group of adolescents who received a secure classification on the CAI, despite recalling and reporting uncaring childhood experiences (i.e., an earned secure group). Fifty-eight adolescents in this sample were rated as secure with regard to their mothers on the CAI ( $n = 182$  were classified as insecure). An established cutoff score of 27 (Parker et al., 1979) on the care subscale of the PBI was used to identify adolescents in the secure group who reported previous uncaring experiences with their mothers. Nineteen adolescents (32.75%) in the secure group reported maternal care below the cutoff on the PBI and were therefore assigned to the earned secure group. Adolescents in the secure group who did not report below cutoff maternal care were assigned to the continuous secure group. In sum, this procedure divided the whole sample into three groups: continuous secure ( $n = 39$ , 16.3%), earned secure ( $n = 19$ , 7.9%), and insecure ( $n = 182$ , 75.8%). These groups did not differ according to gender ( $\chi^2 = 0.01$ ,  $df = 2$ ,  $p = .99$ ) or age ( $F = 0.21$ ,  $df = 2$ ,  $p = .81$ ). Table 1 presents descriptive statistics by group for all main study variables.

It was also hypothesized that, as in the adult literature, the earned secure and continuous secure groups would not differ with regard to continuous indicators of security on the CAI but that both groups would differ from the insecure group. More specifically, the earned secure and continuous secure groups were expected to show comparable (high) levels of security (on the emotional openness, balance of descriptions, use of examples, resolution, and overall coherence subscales)—higher than subscale scores for the insecure group. With regard to indicators of insecurity (on the dismissal, idealizing, and preoccupied anger subscales), the earned secure and continuous secure groups were expected to show comparable (low) scores—lower than subscale scores for the insecure group.

Multivariate analyses of variance (MANOVAs) were used to compare means on each of these subscales across the earned se-

Table 1. Descriptive Statistics on All Key Study Variables

Variable	Earned Secure		Continuous Secure		Insecure		Total	
	M	SD	M	SD	M	SD	M	SD
Age	15.75	1.52	16.00	1.37	15.95	1.42	15.94	1.41
PBI Care	21.95	6.64	32.95	2.56	24.48	10.02	25.66	9.55
CAI Emotional Openness	6.55	1.55	6.53	1.26	3.61	1.30	4.32	1.81
CAI Balance of Descriptions	6.37	1.35	6.14	1.28	3.33	1.26	4.03	1.77
CAI Use of Examples	6.34	1.70	6.37	1.17	3.92	1.26	4.51	1.65
CAI Resolution of Conflict	5.74	1.58	5.69	1.30	3.13	1.20	3.76	1.67
CAI Overall Coherence	6.26	1.21	6.50	1.20	3.29	1.30	4.05	1.85
CAI Dismissal <sup>a</sup>	2.63	1.54	1.96	1.23	4.98	2.57	4.31	2.62
CAI Preoccupation <sup>a</sup>	1.90	1.09	1.08	0.27	2.94	2.51	2.55	2.31
CAI Idealizing <sup>a</sup>	1.37	0.60	2.08	1.13	2.74	2.27	2.07	0.13
BDI Total	26.06	14.59	21.14	13.18	25.30	13.91	24.66	13.88
BDI Cognitive	15.94	9.07	12.95	8.06	15.09	8.36	14.80	8.38
BDI Non-cognitive	10.11	6.04	8.19	5.76	10.21	6.68	9.86	6.50
YSR Affective Problems	69.05	11.45	69.15	11.01	69.34	11.40	69.28	11.30
CBCL Affective Problems	76.47	8.79	76.42	9.01	75.51	8.34	75.73	8.46

Note. <sup>a</sup>CAI subscale in which high scores indicate greater insecurity.

Table 2. Post-hoc Pairwise Tests Comparing Groups on CAI Continuous Indices of Security

CAI Subscale	Groups Compared	Mean Difference	SE	p Value
Emotional Openness	Earned secure	0.03	0.36	1.00
	Insecure	2.92*	0.31	< 0.001
Balance of Descriptions	Cont secure	2.89*	0.23	< 0.001
	Earned secure	0.23	0.35	0.89
	Insecure	3.04*	0.31	< 0.001
	Insecure	2.81*	0.22	< 0.001
Use of Examples	Cont secure	-0.03	0.35	1.00
	Earned secure	2.39*	0.30	< 0.001
	Insecure	2.42*	0.22	< 0.001
	Insecure	0.05	0.35	1.00
Resolution of Conflict	Cont secure	2.61*	0.30	< 0.001
	Earned secure	2.56*	0.22	< 0.001
	Insecure	-0.24	0.35	0.87
	Insecure	2.94*	0.31	< 0.001
Overall Coherence	Cont secure	3.18*	0.22	< 0.001
	Earned secure	0.67	0.40	0.24
	Insecure	-2.31*	0.40	< 0.001
	Insecure	-2.98*	0.27	< 0.001
Dismissal <sup>a,b</sup>	Cont secure	0.82*	0.25	0.01
	Earned secure	-1.06*	0.31	< 0.001
	Insecure	-1.87*	0.19	< 0.001
	Insecure	-0.71*	0.23	0.01
Preoccupation <sup>a,b</sup>	Cont secure	-1.38*	0.22	< 0.001
	Earned secure	-0.67*	0.25	0.02
	Insecure			
	Insecure			

Note. Unless otherwise noted, pairwise comparisons were made using Gabriel's test, which is appropriate when the homogeneity of variance assumption is not violated and sample sizes are unequal. <sup>a</sup>CAI subscale in which high scores indicate greater insecurity; <sup>b</sup>the Games-Howell test was used due to violation of the homogeneity of variance assumption.

cure, continuous secure, and insecure groups. Significant group differences were noted on all CAI subscales ( $p < .01$ ), indicating differences across groups on each of these subscales. Post-hoc pairwise comparisons for the emotional openness, use of examples, balance of descriptions, resolution, and overall coherence subscales were conducted using Gabriel's pairwise test because the homogeneity of variance assumption was not violated for these variables (Levene Statistics = .24–1.78 with no  $p < .05$ ) and because sample sizes were unequal. Pairwise comparisons for the dismissal, preoccupied anger, and idealization subscales were conducted using the Games-Howell test, appropriate when the homogeneity of variance assumption is violated (Levene Statistics = 16.29–38.27 with all  $p < .05$ ) and sample sizes are unequal. Results of these analyses are presented in Table 2.

As expected, the earned secure and continuous secure groups did not differ from one another on any indicator of security, with both groups scoring higher than the insecure group. With regard to indicators of insecurity (i.e., dismissal, preoccupied anger, and idealizing subscales), the hypothesis that the earned and continuous secure groups would be comparable was only partially supported. Specifically, the earned and continuous secure groups were comparable with regard to dismissal and both had significantly lower scores than the insecure group. With regard to preoccupied anger, the earned secure group was between the insecure and continuous secure groups and significantly different from both. With regard to idealizing, the earned secure group had significantly lower scores than both the insecure and continuous secure groups.

### *Describing the earned secure group in terms of internalizing distress*

The second aim of this study was to examine the external validity of the earned security classification by characterizing the earned secure group with regard to internalizing symptoms. It has been hypothesized that earned security is explained by a negative recall bias produced by internalizing distress and therefore it was expected that the earned secure group would demonstrate significantly higher internalizing symptoms than the con-

tinuous secure group. MAOVAs were used to compare group mean internalizing distress on the BDI Total, BDI Cognitive, and BDI Non-Cognitive subscales as well as on parent- and self-reported Affective Problems (CBCL and YSR). These results revealed no significant group differences in internalizing distress ( $F = 0.03\text{--}1.45$ ,  $df = 2$ ,  $p = .24\text{--}.97$ ), contrary to the hypothesis, although internalizing distress was very high overall.

### *Describing the earned secure group in terms of emotion regulation*

The third aim of this study was to examine group differences in emotion regulation as a second method of examining the external validity of the earned secure classification. We expected that adolescents in the earned secure and continuous secure groups would demonstrate comparable emotion regulation abilities that would be higher than those of insecure adolescents. Group means on each DERS subscale are presented in Table 3. MANOVAs revealed significant group differences only on the DERS Lack of Emotional Awareness subscale ( $F = 5.02$ ,  $df = 2$ ,  $p = .007$ ). Pairwise comparisons were conducted using Gabriel's pairwise test given that the homogeneity of variance assumption was not violated (Levene Statistics = .436–2.55 with no  $p < .05$ ) and sample sizes were unequal. Contrary to the initial hypothesis, post-hoc Gabriel's tests revealed that the earned secure group reported significantly higher lack of awareness than the continuous secure group (mean difference = 4.22,  $p = .026$ ). This mean difference corresponded to a medium effect size (Cohen's  $d = 0.77$ ). No significant differences were noted between the earned secure and insecure groups.

## Discussion

The existence of earned security as a distinct attachment category remains controversial, as does how best to define this group of individuals. Compelling evidence (Roisman et al., 2002) suggests that earned security does not reflect an actual shift from childhood insecurity to adult security and, moreover, that earned secure adults have actually experienced caregiving



*Table 3. Mean Differences in Emotion Regulation Abilities*

DERS Subscale	Group	Mean	SD
Nonacceptance of emotional responses	Cont secure	12.18	5.86
	Earned secure	13.68	6.68
	Insecure	15.06	6.98
Difficulties in goal-directed behavior	Cont secure	17.51	5.40
	Earned secure	18.89	4.82
	Insecure	18.42	4.97
Impulse control difficulties	Cont secure	15.62	6.67
	Earned secure	17.37	5.83
	Insecure	16.16	6.76
Lack of emotional awareness*	Cont secure	15.21	5.93
	Earned secure	19.42	4.90
	Insecure	18.09	5.74
Limited access to ER strategies	Cont secure	21.46	8.18
	Earned secure	24.63	8.57
	Insecure	23.96	8.88
Lack of emotional clarity	Cont secure	12.62	4.69
	Earned secure	14.95	4.61
	Insecure	14.14	5.15

\*Only subscale for which significant group differences were noted ( $F = 5.015, p = .007$ ).

of higher than average quality. Likewise, much of the previous research conducted on earned security has been cross-sectional in nature, precluding valid conclusions about the validity of this classification as a group that has overcome early negative caregiving.

The present study was an effort to explore the construct of earned security in adolescents with the expectation that exploring it in this age group may help shed light on the overall understanding of this construct. The present study therefore sought to describe a procedure for identifying an earned secure group and to explore the external validity of this classification by examining group differences in internalizing distress and emotion regulation. The specific aims of the study were threefold: (1) to describe a procedure for identifying a subset of adolescents classified as secure who have reported uncaring caregiving ex-

periences (i.e., earned secure group), (2) to explore whether this group reported higher internalizing distress than the continuous secure group, and (3) to determine whether the putative earned secure group demonstrated emotion regulation abilities comparable to those of the continuous secure group and greater than those of the secure group. Because the present study is cross-sectional in nature, it cannot speak to the validity of earned security as reflecting an attachment shift. However, the present study is unique in that it provides the first exploration of earned security in either adolescents or clinical samples.

First, the CAI and the PBI were used together to identify a putative earned secure group of adolescents. Specifically, the CAI was used to classify adolescents as secure or insecure and then the PBI Care subscale was used to divide the secure group into continuous secure (i.e., secure classification and high maternal care on the PBI) and earned secure (i.e., secure classification and low maternal care on the PBI). This procedure identified a group of adolescents who produced a secure CAI narrative despite recalling (above cutoff) uncaring childhood experiences with their mothers. The earned secure group made up approximately 8% of the total sample and approximately 33% of the secure group. Although the rate of a secure classification in this sample was lower than that reported in previous studies of healthy adults (as would be expected), the percentage of earned secure adolescents out of the overall secure classification was comparable to findings of previous adult studies. Indeed, approximate rates of earned security in previous studies are as follows: 25% in Saunders et al. (2011), 33% in Paley et al. (1999), and 37% in Phelps et al. (1998). Moreover, as in Phelps et al. (1998), the earned secure group in this sample did not differ from the continuous secure group with regard to CAI subscales indicative of security, such as coherence of the narrative and emotional openness. Indeed, as predicted, the continuous and earned secure groups demonstrated comparable levels of security, higher than the insecure group. Together, these findings suggest that the procedure outlined in the present study identified a group of adolescents comparable to adults identified as earned secure in previous studies.

Notably, the earned secure group did differ from the continuous secure group on some indicators of *insecurity*—namely, preoccupied anger and idealization. Specifically, the earned secure group showed more preoccupied anger than the continuous secure group and less preoccupied anger than the insecure group. In addition, the earned secure group showed lower idealizing than both insecure and continuous secure adolescents. Taken together, these findings create a picture of the earned secure group as one that demonstrates positive indices of security (e.g., coherence and emotional openness) to the same extent as the continuous secure group, while producing a more negatively valenced narrative overall (i.e., one that contains more preoccupied anger and less idealizing than would be expected of a secure adolescent). Although these findings were not hypothesized, they are actually quite consistent with the view of earned security as being explained by an internalizing distress-related recall bias. That is, the earned secure attachment interviews may be more negative due to a tendency to recall negative caregiving experiences. However, it is important to note that the earned secure group's scores on the preoccupied anger scale *were not* comparable to the scores of the insecure adolescents—that is, although this subscale was elevated compared to the continuous secure group, it did not reach a level that would warrant an insecure classification. This finding echoes a view espoused in recent adult studies of earned security—that earned security reflects a subgroup of secure adults who report negative caregiving experiences rather than a categorically distinct attachment classification.

Second, this study sought to explore external validity by examining whether earned security in the current sample could be differentiated from other attachment groups on the basis of internalizing symptoms. The broader goal of these analyses was to preliminarily examine whether an internalizing distress-related recall bias drives earned security by prompting the recall of uncaring maternal memories on the PBI, despite a secure CAI classification. In the present sample, internalizing distress in the earned secure group was very high, indicating that internalizing distress could account for the negative appraisals of early

caregiving. However, no differences between the continuous secure and earned secure groups were detected with regard to internalizing distress across three measures and two sources of report (parent- and self-report). This finding stands in contrast to those from several adult studies, which have demonstrated higher rates of internalizing distress among earned secure adults (Roisman et al., 2002) and higher likelihood of an earned secure classification following a sad mood induction (Roisman et al., 2006). Still, the lack of significant group differences does not negate the possibility that earned security reflects an internalizing distress recall bias. Rather, this discrepancy could be explained by the extremely high rate of internalizing distress in the present inpatient sample, as compared with the rate reported by Roisman et al. (2006), whose study involved a sample of healthy adults. Indeed, in the present study, mean parent- and self-reported internalizing symptoms across the whole sample were in the clinical range (as described by Achenbach & Rescorla, 2001), which is not surprising given the clinical nature of the sample. It is possible that the predominance of high internalizing distress in this sample may have obscured subtle differences between the earned and continuous secure groups found in other studies. Thus, replication in a nonclinical sample of adolescents is needed.

Analyses related to the third aim revealed significant differences between the earned and continuous secure groups with regard to emotion regulation, contrary to the prediction. Specifically, the earned secure group demonstrated significantly higher lack of emotional awareness than the continuous secure group. Moreover, lack of emotional awareness was higher in the earned secure group than in the insecure group (although not statistically significantly different). Items on this subscale include “I pay attention to how I feel,” “I am attentive to my feelings,” and “I care about what I am feeling.” This finding may indicate that part of what allows earned secure individuals to convey secure attachment representations (despite recalling uncaring childhood experiences) may be lack of attention to emotions that might otherwise be sufficiently preoccupying to result in an insecure classification. That is, for a subset of ado-

lescents, lack of emotional awareness appears to protect adolescents with negative *perceptions* of their early caregiving from experiencing (or displaying) the level of anger or preoccupation that would warrant an insecure classification. An important caveat is that the present study was not longitudinal and cannot establish the veracity of uncaring childhood experiences among the earned secure group. Indeed, there is evidence that recollections of uncaring childhood experiences are not consistent with objectively measured experiences in a longitudinal study (Roisman et al., 2002). Thus, this conclusion is limited to *perceptions* of low maternal care—that is, higher lack of emotional awareness is associated with the ability to convey a secure attachment representation despite *perceptions* of low maternal care. In this context, the fact that an interview-based and implicit measure of attachment security (the CAI) was used to determine attachment classification is a strength of the study; otherwise the associations reported here may all have been explained by shared method variance.

The question then arises as to why lack of emotional awareness is associated with a group of securely attached adolescents who are distinct in their recall of negative caregiving experiences. An answer may be found in the literature on effortful control, a temperamental trait with relations to broader executive functioning. There are three aspects to effortful control (Evans & Rothbart, 2007; Cain, De Panfilis, Meehan, & Clarkin, 2013): (1) inhibitory control (the ability to inhibit the urge to do something and instead favor a more appropriate action, known to mature in adolescence; Luna, Garver, Urban, Lazar, & Sweeney, 2004), (2) activation control (the ability to do something despite the urge to avoid it), and (3) effortful attention (the ability to focus attention). Although no research has explored relations between effortful control and attachment security, a recent study on the relation between effortful control and interpersonal behavior (Cain et al., 2013) showed that individuals high in effortful control, although experiencing some interpersonal problems, reported low interpersonal distress. Moreover, Cain and colleagues (2013) speculate that, in the presence of interpersonal difficulties, individuals high in effortful control shift

attention away from negative emotional states and therefore do not experience the same consequences (with regard to distress and maladjustment) as individuals low in effortful control. Several previous studies have identified relations between positive, reciprocal, and close parent-child relationships and greater executive control (e.g., Eisenberg et al., 2005; Kochanska & Kim, 2013; Kochanska & Knaack, 2003; Spinrad et al., 2012), suggesting that executive control may be a trait particularly associated with secure attachment. When extended to the present study, this notion suggests that individuals in the earned secure group may be high in effortful control because of secure attachments and therefore show a capacity to shift attention away from the negative emotional states typically associated with *perceived* low maternal care. That is, although earned secure adolescents may possess a tendency to recall negative caregiving experiences, their fundamentally secure attachment style allows sufficient effortful control to avoid becoming preoccupied with recollections of negative caregiving (which would produce an insecure/preoccupied classification). It should be noted that this is a speculative suggestion, given the absence of studies exploring effortful control in relation to attachment security and the absence of effortful control measures in the present study.

Of note, however, is that the high level of lack of emotional awareness in earned secure individuals does not produce a sufficiently high score on the Dismissing subscale to warrant an insecure/dismissing classification in the CAI. The Dismissing subscale of the CAI is intended to capture individuals who minimize the importance of attachment relationships by deliberately and systematically minimizing affect and vulnerability during the CAI (Target et al., 2007). One would then expect that individuals high in lack of emotional awareness would produce narratives in which the Dismissing subscale was elevated and the Emotional Openness subscale was suppressed. This was not the case in the current study, as evidenced by no significant group differences between the earned and continuous secure groups on either of these CAI subscales. An important question then remains: How are earned secure adolescents, who show high levels of lack of emotional awareness, able to convey secure at-

tachment representations without substantial elevation on the Dismissing subscale?

We suggest that perhaps mentalizing is an important construct for further examination in this regard. Mentalizing refers to the capacity to ascribe mental states to others and to acknowledge the relation between underlying mental states and behavior. Anomalous mentalizing has very recently been associated with poorer coherence in CAI narratives (Sharp et al., 2014) as well as with attachment insecurity (Venta & Sharp, 2015) among adolescents. Although these findings are usually placed in the context of developmental explanations—that secure attachment relationships contribute to the development of mentalizing ability—it is also possible that mentalizing ability (regardless of attachment classification) helps an interviewee to convey a secure attachment representation in the CAI. In other words, individuals who are able to flexibly and accurately detect what the interviewer is thinking may be able to provide “desirable” responses. In the CAI, many interview questions and prompts focus on eliciting a secure narrative—an adolescent is prompted to provide specific examples and speculate about the feelings of others. High Use of Examples and Emotional Openness scales are then used to make a secure classification. To that end, an adolescent who is sensitive to the interviewer’s mental states underlying these questions may successfully respond to these prompts and receive a secure classification as a result. This ability will not only help the adolescent to earn a secure classification on the CAI, but also is likely to generalize to other interpersonal situations in which the effects of difficult caregiving experiences can be transcended and packaged such that here-and-now interpersonal relationships are maintained and strengthened. This possibility remains an open area for future research, with only the two aforementioned studies (Sharp et al., 2014; Venta & Sharp, 2015) examining relations between attachment and mentalizing in adolescents. To our knowledge, no studies have examined whether mentalizing capacity explains, to some extent, the ability to convey a secure attachment representation.

In sum, the present study suggests that some secure adolescents display a tendency to recall and report low maternal care

while still providing a secure attachment representation during the CAI. Although this group, the earned secure group, produces a narrative that is rated somewhat higher in preoccupied anger and somewhat lower in idealizing than would be expected for secure adolescents, neither scale is sufficiently deviant to warrant an insecure classification. Moreover, the earned secure group looks more similar to the continuous secure group than to the insecure group across most measures of attachment security and emotion regulation. Still, the findings of this study suggest that adolescents with a secure attachment are heterogeneous, with some displaying both an elevated tendency to recall negative caregiving and toward lack of emotional awareness. Two important caveats to the interpretation of this finding are needed. First, we are not proposing that lack of emotional awareness should be considered an adaptive coping strategy for patients, but rather we seek to highlight the importance of the capacity of healthy individuals to appropriately avoid emotions when they may unbalance a delicate equilibrium in self-and-other functioning. With continued empirical investigation, this line of research may uncover other mechanisms, such as mentalizing capacity, that should be targeted in psychotherapy. Second, we are not proposing that the earned secure group identified in this study experienced actual uncaring experiences or former insecure attachments. However, examining heterogeneity of psychological variables within securely attached individuals is important for understanding significant mechanisms in the development of attachment security. It should be noted that the clinical importance of pursuing this line of research is not dependent upon determining whether the earned secure group examined in this study was actually ever securely attached.

As empirical investigation of this topic continues, perhaps a change of terminology is in order. Indeed, the terms *earned security* and *continuous security* suggest that the first group was formerly insecure and became secure whereas the second group was always secure. Roisman et al. (2002) showed that the group of interest in this study (i.e., individuals who recall low care but produce secure narratives) is not actually more likely to have been previously securely attached and, thus, perhaps describ-



ing this group as a negative-recall subtype of secure attachment is more appropriate. This semantic distinction would therefore allow continued research in this area without implicitly endorsing the empirically unfounded view that this group has actually shifted from an insecure attachment to a secure attachment. On the contrary, individuals in this negative-recall subtype are those who convey secure attachment representations despite a bias to *recall* low care from caregivers, with no implications about former attachment classifications.

In addition to the aforementioned constructs proposed for future research (i.e., mentalizing and effortful control), a replication of the findings reported here is needed, addressing some of its current limitations. First, analyses were based only upon maternal attachment classifications and maternal care. Maternal attachment was focused on in this study because of (1) prior research demonstrating important relations between maternal attachment and psychopathology for inpatient adolescents (Venta, Sharp, & Newlin, 2015); (2) concerns regarding the measurement of paternal attachment classification in the CAI (Venta et al., 2014); and (3) very high concordance between maternal and paternal attachment classification in previous studies (Venta et al., 2014). Still, this approach means that security was defined only on the basis of one caregiving relationship; future research should explore all relevant caregiving relationships. A second important limitation of this study is that the use of an inpatient sample, although valuable in attaining variability with regard to attachment classification, perceptions of care, and emotion regulation, prevents the study findings from being generalizable to healthy adolescents. Third, variables considered important in prior research with adults, such as time spent in therapy and support from alternate caregivers (Saunders et al., 2011) were not measured in this study. Fourth, the present study, while proposing a method for identifying earned security in adolescents, did not include analyses required to determine whether these adolescents form a group that is distinct from those with other attachment classifications (i.e., taxometric analyses), nor did it make use of a study design that could speak to longitudinal shifts in attachment style (as is theoretically suggested in earned

security). Therefore, the findings of this study cannot truly speak to the validity of earned security as a construct. Rather, they provide preliminary evidence of how this construct manifests in adolescents and speaks to heterogeneity within a group of securely attached adolescents.

Nonetheless, the findings of the present study are strengthened by the use of a psychometrically evaluated, interview-based measure of attachment security (i.e., the CAI) as well as multiple informants in the rating of internalizing distress and psychometrically sound measures of emotion regulation and care. Moreover, the present study describes, for the first time, a procedure and related assessments that can be used to identify a negative-recall subtype of attachment security (i.e., previously referred to as an earned secure group) in adolescence. As a result, this study makes possible additional research on this group of adolescents as well as future research on possibly related constructs, such as mentalizing and effortful control.

## References

- Achenbach, T. M., & Rescorla, L. A. (2001). *Manual for ASEBA school-age forms & profiles*. Burlington, VT: University of Vermont, Research Center for Children, Youth, & Families.
- Allen, J. P., & Land, D. (1999). Attachment in adolescence. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 319–335). New York, NY: Guilford Press.
- Beck, A. T., Steer, R. A., & Brown, G. K. (1996). *Manual for Beck Depression Inventory II (BDI-II)*. San Antonio, TX: Psychology Corporation.
- Cain, N. M., De Panfilis, C., Meehan, K. B., & Clarkin, J. F. (2013). Assessing interpersonal profiles associated with varying levels of effortful control. *Journal of Personality Assessment*, 95(6), 640–644. doi:10.1080/00223891.2013.821073
- Crone, E. A., & Dahl, R. E. (2012). Understanding adolescence as a period of social-affective engagement and goal flexibility. *Nature Reviews Neuroscience*, 13(9), 636–650. doi:10.1038/nrn3313
- Eisenberg, N., Zhou, Q., Spinrad, T. L., Valiente, C., Fabes, R. A., & Liew, J. (2005). Relations among positive parenting, children's effort-

- ful control, and externalizing problems: A three-wave longitudinal study. *Child Development*, 76(5), 1055–1071. doi:10.1111/j.1467-8624.2005.00897.x
- Evans, D. E., & Rothbart, M. K. (2007). Developing a model for adult temperament. *Journal of Research in Personality*, 41(4), 868–888. doi:10.1016/j.jrp.2006.11.002
- George, C., Kaplan, N., & Main, M. (1985). *Adult Attachment Interview protocol*. Unpublished manuscript, University of California at Berkeley.
- Gratz, K. L., & Roemer, L. (2004). Multidimensional assessment of emotion regulation and dysregulation: Development, factor structure, and initial validation of the Difficulties in Emotion Regulation Scale. *Journal of Psychopathology and Behavioral Assessment*, 26(1), 41–54. doi:10.1023/B:JOBA.0000007455.08539.94
- Grover, K. E., Green, K. L., Pettit, J. W., Monteith, L. L., Garza, M. J., & Venta, A. (2009). Problem solving moderates the effects of life event stress and chronic stress on suicidal behaviors in adolescence. *Journal of Clinical Psychology*, 65(12), 1281–1290. doi:10.1002/jclp.20632
- Kobak, R., Cassidy, J., Lyons-Ruth, K., & Ziv, Y. (2006). Attachment, stress, and psychopathology: A developmental pathways model. In D. Cicchetti & D. J. Cohen (Eds.), *Developmental psychopathology, Vol 1: Theory and method* (2nd ed., pp. 333–369). Hoboken, NJ: John Wiley & Sons.
- Kobak, R., Cassidy, J., & Ziv, Y. (2004). Attachment-related trauma and posttraumatic stress disorder: Implications for adult adaptation. In W. Rholes & J. A. Simpson (Eds.), *Adult attachment: Theory, research, and clinical implications* (pp. 388–407). New York, NY: Guilford Publications.
- Kochanska, G., & Kim, S. (2013). Difficult temperament moderates links between maternal responsiveness and children's compliance and behavior problems in low income families. *Journal of Child Psychology and Psychiatry*, 54(3), 323–332. doi:10.1111/jcpp.12002
- Kochanska, G., & Knaack, A. (2003). Effortful control as a personality characteristic of young children: Antecedents, correlates, and consequences. *Journal of Personality*, 71(6), 1087–1112. doi:10.1111/1467-6494.7106008
- Luna, B., Garver, K. E., Urban, T. A., Lazar, N. A., & Sweeney, J. A. (2004). Maturation of cognitive processes from late childhood to adulthood. *Child Development*, 75(5), 1357–1372. doi:10.1111/j.1467-8624.2004.00745.x
- Main, M., Goldwyn, R., & Hesse, E. (2002). *Adult attachment scoring and classification system*. Unpublished scoring manual, University of California at Berkeley.

- Masten, A. S., Burt, K. B., Roisman, G. I., Obradović, J., Long, J. D., & Tellegen, A. (2004). Resources and resilience in the transition to adulthood: Continuity and change. *Development and Psychopathology*, *16*(4), 1071–1094. doi:10.1017/S0954579404040143
- Nelson, E. E., Leibenluft, E., McClure, E., & Pine, D. S. (2005). The social re-orientation of adolescence: A neuroscience perspective on the process and its relation to psychopathology. *Psychological Medicine*, *35*(2), 163–174. doi:10.1017/S0033291704003915
- Paley, B., Cox, M. J., Burchinal, M. R., & Payne, C. C. (1999). Attachment and marital functioning: Comparison of spouses with continuous-secure, earned-secure, dismissing, and preoccupied attachment stances. *Journal of Family Psychology*, *13*(4), 580–597.
- Parker, G., Tupling, H., & Brown, L. B. (1979). A parental bonding instrument. *British Journal of Medical Psychology*, *52*(1), 1–10. doi:10.1111/j.2044-8341.1979.tb02487.x
- Patton, G. C., Olsson, C., Bond, L., Toumbourou, J. W., Carlin, J. B., Hemphill, S. A., & Catalano, R. F. (2008). Predicting female depression across puberty: A two-nation longitudinal study. *Journal of the American Academy of Child & Adolescent Psychiatry*, *47*(12), 1424–1432.
- Pearson, J. L., Cohn, D. A., Cowan, P. A., & Cowan, C. (1994). Earned and continuous-security in adult attachment: Relation to depressive symptomatology and parenting style. *Development and Psychopathology*, *6*(2), 359–373. doi:10.1017/S0954579400004636
- Perez, J., Venta, A., Garnaat, S., & Sharp, C. (2012). The Difficulties in Emotion Regulation Scale: Factor structure and association with nonsuicidal self-injury in adolescent inpatients. *Journal of Psychopathology and Behavioral Assessment*, *34*(3), 393–404. doi:10.1007/s10862-012-9292-7
- Phelps, J., Belsky, J., & Crnic, K. (1998). Earned security, daily stress, and parenting: A comparison of five alternative models. *Development and Psychopathology*, *10*(1), 21–38. doi:10.1017/S0954579498001515
- Roisman, G. I., Fortuna, K., & Holland, A. (2006). An experimental manipulation of retrospectively defined earned and continuous attachment security. *Child Development*, *77*(1), 59–71. doi:10.1111/j.1467-8624.2006.00856.x
- Roisman, G. I., Padrón, E., Sroufe, L., & Egeland, B. (2002). Earned-secure attachment status in retrospect and prospect. *Child Development*, *73*(4), 1204–1219. doi:10.1111/1467-8624.00467
- Saunders, R., Jacobvitz, D., Zaccagnino, M., Beverung, L. M., & Hazen, N. (2011). Pathways to earned-security: The role of alternative support figures. *Attachment & Human Development*, *13*(4), 403–420. doi:10.1080/14616734.2011.584405

- Sharp, C., Venta, A., Shramm, A., Vanwoerden, S., Ha, C., Newlin, E., & Fonagy, C. (2014). *First evidence for the link between attachment, social cognition, and borderline features in adolescents*. Manuscript submitted for publication.
- Shiner, R. L., & Masten, A. S. (2012). Childhood personality as a harbinger of competence and resilience in adulthood. *Development and Psychopathology, 24*(2), 507–528. doi:10.1017/S0954579412000120
- Shmueli-Goetz, Y., Target, M., Fonagy, P., & Datta, A. (2008). The Child Attachment Interview: A psychometric study of reliability and discriminant validity. *Developmental Psychology, 44*, 939–956. doi:10.1037/0012-1649.44.4.939
- Spinrad, T. L., Eisenberg, N., Silva, K. M., Eggum, N. D., Reiser, M., Edwards, A., . . . Gaertner, B. M. (2012). Longitudinal relations among maternal behaviors, effortful control and young children's committed compliance. *Developmental Psychology, 48*, 552–566.
- Target, M., Fonagy, P., Shmueli-Goetz, Y., Datta, A., & Schneider, T. (2007). *The Child Attachment Interview (CAI) protocol*. Unpublished manuscript, University College London.
- van den Bos, W. (2013). Neural mechanisms of social reorientation across adolescence. *Journal of Neuroscience, 33*(34), 13581–13582.
- Venta, A., & Sharp, C. (2015). *Social information processing explains the relation between insecure attachments and peer problems among inpatient adolescents*. Manuscript submitted for publication.
- Venta, A., Sharp, C., & Newlin, E. (2015). A descriptive study of symptom change as a function of attachment and emotion regulation in a naturalistic adolescent inpatient setting. *European Child & Adolescent Psychiatry, 24*(1), 95–104. doi:10.1007/s00787-014-0532-0
- Venta, A., Shmueli-Goetz, Y., & Sharp, C. (2014). Assessing attachment in adolescence: A psychometric study of the Child Attachment Interview. *Psychological Assessment, 26*, 238–255. doi:10.1037/a0034712

Copyright of Bulletin of the Menninger Clinic is the property of Guilford Publications Inc. and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.