

# Development and preliminary psychometric evaluation of the Tripartite Attachment Battery

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Mikulincer and Shaver's (2007) model of attachment-system functioning and dynamics in adulthood provided the impetus for developing three self-report measures assessing adult attachment characteristics. These scales are collectively referred to as the Tripartite Attachment Battery (TAB). The Secure Attachment Scale assesses attachment insecurity-security along a single dimension. This is the first self-report measure designed to directly assess attachment security in adults in this manner. The Organized Insecurity Scale includes subscales assessing two specific forms of insecurity: attachment anxiety and attachment avoidance. Unlike other popular measures of adult attachment assessing these constructs, it also includes items that capture secondary attachment strategies related to anxiety (i.e., hyperactivation) and avoidance (i.e., deactivation). The Disorganized Attachment Scale is based on an earlier self-report measure. It captures a more severe form of attachment insecurity characterised by fear, confusion about relationships, and distrust. The process of developing items for these measures is briefly described and an initial psychometric evaluation of each measure is presented. These evaluations were aimed at: (a) assessing the internal consistency of each scale or subscale, and (b) identifying poor items that may need to be removed or modified. A small convenience sample ( $N = 53$ ) was used. Each measure had a high level of internal consistency, with coefficient alphas ranging from .81 to .93. Recommendations regarding further revising and evaluating the measures included in the TAB are presented.

**Keywords:** attachment anxiety; attachment avoidance; disorganised attachment; secondary attachment strategies

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The current study reports on the development and initial evaluation of the Tripartite Attachment Battery (TAB). Attachment theory (Bowlby, 1969), the evolution of self-report measures of adult attachment, and limitations of the most commonly used measures of adult attachment are first briefly reviewed. Mikulincer and Shaver's (2007) model of attachment-system functioning and dynamics in adulthood is then presented. This model is used as a framework for developing three separate self-report measures of adult attachment that are collectively referred to as the TAB. The process used to develop items for the TAB is described and initial psychometric evaluations of its scales are presented.

Attachment Theory (Bowlby, 1969) is a theory of bonding and emotional regulation. In brief, it posits that early experiences with caregivers establish a set of enduring expectancies regarding one's capacity to respond to threats and the behaviour of social partners. Those who received consistent and sensitive care are thought to develop positive models of self and other. The presence of positive models of self and other is often referred to as attachment security. In contrast, attachment insecurity is thought to develop in response to care that is less consistent and/or sensitive or in response to the absence of care.

Since the mid-1980s, there has been great deal of research on individual differences in attachment security in adulthood. Initially, numerous self-report measures of attachment were used. The diversity of these measures made it difficult to identify relationships between attachment characteristics and other psychological phenomena that were consistent across different conceptualisations of attachment security and insecurity. This issue was largely addressed by Brennan et al., (1998). They conducted a factor analytic investigation of all the self-report measures of attachment available at the time. They obtained a two-factor solution in which most scales loaded on either a factor they labelled anxiety or on a factor they labelled avoidance. Based on these findings, they used the pool of items in existing measures to create the Experiences in Close Relationships Questionnaire (ECR). The ECR is a measure of attachment in intimate or romantic relationships and includes 18-item scales assessing anxiety and avoidance. The ECR and the revised version of it (ECR-R; Fraley et al., 2000) are by far the most frequently used self-report measures of adult attachment. Related to the widespread use of these measures, most of the recent research investigating individual differences in adult attachment characteristics over the past two decades has focused on the constructs of anxiety (i.e., self-doubts about worthiness and fears of rejection and abandonment) and avoidance (i.e., mistrust of others and discomfort in relationships).

There are three important limitations of the widely used ECR and ECR-R. First, they do not directly assess attachment security. Attachment security can be inferred from the absence of attachment anxiety and avoidance, but the presence of the experience of security is not directly captured by these measures. This is an important limitation because in many situations researchers have hypotheses about security or insecurity, rather than hypotheses about specific forms of insecurity captured by existing measures. Second, the items in the ECR and ECR-R were taken from older measures of attachment, so they are not well-suited to capturing more recent conceptualisations of anxiety and avoidance. Most notably, subsequent to the development of the items included in these measures, there has been far more attention to the concept of secondary attachment strategies. In brief, secondary attachment strategies are employed by those who are unable to achieve a sense of security with their attachment figures. Hyperactivation refers to insistent efforts to maintain proximity with attachment figures and receive love and support from them. This strategy is common of those high in attachment anxiety and involves vigilance to signs of attachment figure unavailability, clinging and controlling behaviours aimed at obtaining care and support from attachment figures, and exaggerated appraisals of threat (Mikulincer et al., 2003). Deactivation refers to an inhibition of support seeking in order to avoid frustration and distress caused by the unavailability of attachment figures. This strategy is commonly employed by those high in attachment avoidance and involves the avoidance of attachment needs (e.g., closeness, intimacy, and dependence), efforts to maximise physical and emotional distance from others, and the pursuit of self-reliance and independence (Mikulincer et al., 2003). Important components of

hyperactivation and deactivation are not captured by the ECR or ECR-R. For example, they do not include any items assessing the tendency to react strongly to negative events (i.e., heightened distress) and ineffective coping with distress (i.e., rumination and catastrophising) that are central to the concept of hyperactivation.

A final limitation of the all self-report measures of adult attachment is their susceptibility to one form of response bias. When participants are asked to agree or disagree with statements included in a self-report measure, some people tend to respond with agreement to the statements presented regardless of the content of the item. This is referred to as acquiescence bias (see Krosnick & Presser, 2010). Reverse-scored items are often included in order to reduce the impact of acquiescence bias. This strategy has been employed with measures of adult attachment, such as the ECR. However, this approach does not fully address the problem as it may simply result in those who acquiesce scoring closer to the middle point of a scale than they would have had it been possible to reduce their acquiescence. Items that ask participants to rate themselves along a continuous dimension (e.g., extremely bad to extremely good) are often easier to respond to accurately and have higher levels of reliability and validity (see Krosnick & Presser, 2010). This approach has not yet been used measures of adult attachment.

Mikulincer and Shaver's (2007) model of attachment-system functioning and dynamics integrates early theoretical writings (Ainsworth et al., 1978; Bowlby, 1969) and more recent research on adult attachment. It includes three sequential modules related to responses to the activation of the attachment system. In the first module, the model proposes that signs of threat will activate the attachment system and this activation leads to seeking proximity to an attachment figure. Related to this module, they suggest that those with more experiences involving attachment figure availability and the accompanying sense of security are more likely to appraise events as unthreatening. In the second module, the availability of the attachment figure is assessed. If the figure is available and responsive, the individual seeking proximity will experience a sense of security, reduced distress, and increased emotional well-being. If the attachment figure is not available or responsive, attachment insecurity and increased distress are experienced. In the third module, an assessment is made regarding the viability of further efforts at obtaining proximity and support. If this is seen as unviable, the secondary attachment strategy of deactivation is used. If further proximity seeking is seen as viable, the secondary attachment strategy of hyperactivation is used. It should be noted that the appraisals and decisions regarding the use of secondary attachment strategies may be largely unconscious and influenced by past experiences with attachment figures rather than by more objective assessments of the potential threat and specific relationship context. As noted earlier, those high in attachment avoidance tend to use deactivation and those high in attachment anxiety tend to use hyperactivation.

The third module of Mikulincer and Shaver's (2007) model suggests that individuals will select one of two secondary attachment strategies. They refer to these strategies as organised forms of insecurity. While not included in their model, they also note the possibility of disorganised attachment insecurity. They suggest that extremely insecure individuals may be unable to select one course of action and could instead chaotically vacillate between the two secondary strategies. They noted that such individuals have been referred to as fearful avoidant (see Simpson & Rholes, 2002; i.e., they want love and support and are also fearful of potential negative consequences of being close or reliant on others) and that this pattern is similar to the disorganised attachment pattern identified in child-parent interactions (see Main & Hess, 1990).

Mikulincer and Shaver (2007) noted that their model of attachment-system functioning and dynamics 'calls for multiple kinds of scales' (p. 99). This commentary was the impetus for developing the TAB. Mikulincer and Shaver (2007) raised the possibility of a unidimensional scale related to the second module in their model, which concerns 'perceived attachment figure availability' and 'sense of felt security'. They indicated that such a measure would be suitable for studies in which differentiating

between those with relatively low and high levels of security was the focus. To address this need, the Secure Attachment Scale was created. The third module in their model includes deactivation and hyperactivation. They referred to these forms of insecurity as organised or strategic. They suggested that scales assessing avoidance and anxiety, such as the ECR and ECR-R, could be used to assess these specific forms of attachment insecurity. However, as noted earlier, these measures include few items directly capturing deactivation or hyperactivation and they are vulnerable to acquiescence bias. To address these limitations, the Organized Insecurity Scale was created to assess anxiety and avoidance as well as the secondary attachment strategies associated with them. Mikulincer and Shaver (2007) described fearful avoidance or disorganised attachment as a particularly severe form of attachment insecurity. They suggested that the combination of high avoidance and anxiety might capture this severe form of insecurity. However, they also noted the possibility of a scale that directly assesses disorganised attachment (i.e., the chaotic and confused enactment of both secondary strategies) that might be able to distinguish between those with disorganised attachment strategies and those with organised forms of attachment insecurity (i.e., those with normal deactivating and hyperactivating tendencies). To address this need, the Disorganized Attachment Scale was developed. The process of developing the items for these new measures and a preliminary evaluation of them is the described below. This evaluation was aimed at: (a) assessing the internal consistency of each new attachment measure, and (b) identifying poor items that may need to be removed or modified. Descriptive statistics regarding these new measures are also reported.

## METHOD

### Item development

The initial impetus for the current Secure Attachment Scale was the concept of felt security included in the second module of Mikulincer and Shaver's (2007) model. The first step in creating items was to list the characteristics of attachment security included within this model. In order to obtain a rich description of secure attachment, several other sources were also reviewed. These included articles on 'secure-base scripts' (Mikulincer et al., 2009), attachment prototypes in clinical settings (Maunder & Hunter, 2012), and the potential advantages of attachment insecurity (Ein-Dor et al., 2010). Items capturing the characteristics noted in these sources were then written. For example, Mikulincer et al., (2009; p. 616) indicated that those high in attachment security would see themselves as 'valued, and able to elicit beneficial care from responsive relationship partners.' This prompted the creation of items regarding feeling valued and perceptions of the helpfulness of close others. This item generation process resulted in the creation of 32 items for the Secure Attachment Scale.

A similar process was used to generate items for the Organized Insecurity Scale. This measure was designed to include subscales that capture the separate constructs of anxiety and avoidance. One of the articles used in developing items for the security scale (Ein-Dor et al., 2010) was also used in developing descriptions of attachment anxiety and avoidance. Another article that focused on attachment and affect regulation (Mikulincer et al., 2003) was relied upon heavily for content related to the secondary attachment characteristics. Furthermore, the content of the ERC and ERC-R were also reviewed. The item generation process resulted in the creation of an Organized Insecurity Scale with 36 anxiety items and 23 avoidance items.

A measure of disorganised attachment for use with adults has already been developed (see Paetzold et al., 2015). The original measure had items based on a review of the literature on disorganised attachment in children and behaviours characteristic of disorganised attachment in the Strange Situation. Its items capture characteristics such as fear, confusion about relationships, and distrust. The item content of this nine-item scale served as the basis of the current Disorganized Attachment Scale. However, the wording was altered substantially in order to utilise a response format that would be less vulnerable to

an acquiescence response bias. For example, the initial Item 1 was a statement ('Fear is a common feeling in close relationships') that participants were asked to rate in terms of their agreement (e.g., *strongly disagree* to *strongly agree*), but in the current scale the item was a question ('How frequently do you experience fear in your close relationships?') that asked participants to rate themselves in terms of frequency (*never or not at all* to *very frequently*). Furthermore, some of the complex items were used to generate multiple items. For example, Item 2 was about romantic partners taking 'advantage of each other' and it was separated into an item about participants being taken advantage of by romantic partners and another item about taking advantage of romantic partners. The current version of the scale includes 12 items.

### Procedures and participants

Participants were recruited from the University of Saskatchewan's online bulletin as well as advertisements posted on Kijiji for several cities and towns within the same region. The study was open to individuals 18 years of age and older and was described as an online survey aimed at 'evaluating a new measure of relationship styles'. It was conducted using fluid surveys, an online platform for creating and administering surveys. The first 50 participants were eligible to receive a \$10 Visa gift card as an honorarium. The recruitment materials and the online survey were removed shortly after 50 participants had completed the survey. These procedures were reviewed and approved by the University of Saskatchewan's Research Ethics Board.

Based on recommendations and calculations regarding sample sizes for evaluating coefficient alphas (see Bujan et al., 2018), a large sample was not required. Given the number of items included in each measure (ranging 12 to 36) and a null hypothesis of coefficient alpha equals 0, a sample of 50 has excellent statistical power (i.e., .90) for evaluating measures with low levels of internal consistency (i.e., coefficient alpha = .50) and far exceeds that required for evaluating measures with a fair level of internal consistency (i.e., coefficient alpha = .70) or better.

A total of 53 individuals completed the study. The average age of the participants was 27.53 ( $SD = 8.68$ ) years. Majorities indicated that they were female (69.8%), white (77.4%), and spoke English as their first language (90.6%). Most participants had been involved in a dating relationship (88.5%) and most were currently in a relationship (80.0%). A slight majority were single and never married (51.1%), with the other participants indicating they were married (22.2%), in a common law relationship (24.4%), or divorced or separated (2.2%).

### Measures

Participants were asked a series of questions related to demographic variables used to describe the sample (e.g., age, race/ethnicity, sex, language, and relationship variables). They were then administered the TAB, which is comprised of the Secure Attachment Scale (32-items), the Organized Insecurity Scale (36-item Anxiety subscale and 23-item Avoidance subscale), and the Disorganized Attachment Scale (12-items).

Four features of the TAB scales and their administration should be noted. First, they were presented as separate measures with their own set of instructions. However, the instructions for each scale were very similar to each other. Second, items had response options tailored to the content of the item. For example, the Secure Attachment Scale item about success in 'calming yourself down when distressed' had response options that ranged from 'very unsuccessful' to 'very successful'. Third, the scales differed in terms of the number of response options available. The Secure Attachment Scale had three response options (very, moderately, and mildly) in the negative direction and the same three options in the positive direction. For this scale, there were no numbers associated with the response options presented

to participants. However, in scoring the measure, the numbers associated with the options ranged from 1 (very in the negative direction) to 6 (very in the positive direction). The Organized Insecurity Scale and the Disorganized Attachment Scale both used response options that ranged from 0 to 4, with higher ratings indicating stronger endorsement of the item. Each option had a description associated with it (e.g., 0 = not at all helpless). Fourth, participants were also provided with a 'question unclear' option for each item. They were instructed to use this option if the question was unclear or too confusing to answer. Those using this option were asked to explain what made that question difficult to understand. The specific instructions for each scale and their items are available from the author.

### Item and scale evaluation plan

All analyses were conducted with SPSS (version 24). The initial step in the evaluation of each scale was to examine its internal consistency level (i.e., Cronbach's alpha). Values below .70 were considered unacceptable, values between .70 and .79 were regarded as fair, values between .80 and .89 were considered good, and values of .90 and above were regarded as excellent (Cicchetti, 1994). The remaining steps of the evaluation focused on specific items. The first of these was to examine the item-total correlations (i.e., each item's correlation with the sum of the other items in the scale). This was done to identify obviously poor items, such as those negatively correlated with the other items in the scale. Second, potential changes in internal consistency associated with dropping specific items (e.g., Cronbach's alpha if item deleted) were investigated. Third, the number of 'question unclear' responses for each item was considered. The final step was examining participants' comments regarding these specific items. Modifications to the items (i.e., rewording) and scales (i.e., item removal) were considered on the basis of these different sources of information.

### Internal consistency results and suggested modifications

The 32-item Secure Attachment Scale had an internal consistency of .93 (95% C.I. = .90 to .96). All the item-total correlations were positive, but five of them (Items 12, 21, 25, 30, and 32) were under .30. There were seven items (6, 10, 12, 23, 25, 30, and 32) with an alpha-if-item-deleted value greater than the initial internal consistency level. These two sets of findings suggested the scale could be improved by deleting some or all of these seven items. However, given the early stage of evaluation, these findings were insufficient to warrant the deletion of these items at this point in the development of the measure.

The 'question unclear' option was used once for 6 different items of the Secure Attachment Scale. Comments were provided for only five of these items. Item 1 ('How happy are you with your close relationships?') received the most detailed response. It was noted that responses to this item would change over time, would be different for each relationship, or vary depending on which group of friends was considered. One participant noted that Item 5 ('When you try to deal with conflicts or disagreements with those you are close to, how satisfactory do you usually find the outcomes?') made the assumption that the participant deals with conflicts. This participant further reported generally avoiding conflicts and experiencing different levels of satisfaction depending on the conflict situation. Item 9 ('How sure are you that someone will be available and supportive when you need help?') received a Question Unclear response, but there was no comment for it. Item 16 ('When you turn to others in times of need, how helpful are they?') was noted as difficult because the answer would depend on who the participant turned to for help. One person reported difficulties with item 20 ('How worthy of support are you?') because it was unclear whether it was about the participant's perspective of him or herself or instead it was about the participant's perceptions of what others thought of him or her. One person commented that item 30 ('How safe do you see the world as?') was too broad to answer easily. All of the comments provided regarding these items highlighted potential difficulties with the items. However, given the vast majority of participants did not have difficulty responding to

them and the absence of clear evidence indicating they have extremely poor psychometric properties, it is recommended that all of the Secure Attachment Scale items be retained until the scale receives a more comprehensive evaluation.

The Organized Insecurity Scale includes a 36-item Anxiety subscale and a 23-item Avoidance subscale. The Anxiety subscale's internal consistency was .92 (95% C.I. = .88 – .95). Item 10 ('How vigilant are you to potential threats to your safety and well-being?') had a low and negative item-total correlation (i.e., -.01). Four other items (19, 20, 22, and 41) had item-total correlations less than .30. The deletion of these items and item 10 would have made very slight improvements to the internal consistency of the scale.

Six items (2, 8, 12, 28, 52, and 56) were rated as unclear or difficult to answer because they did not apply. These questions were about relationship partners, so they were likely rated as difficult to respond to by those without a partner or those with no past relationships. This highlights a potential difficulty of assessing attachment using items that refer to romantic partners. Item 45 ('To what extent do you want more emotional closeness with your romantic partners than they want with you?') also received one Question Unclear response. The comment for it stated that the participant and his or her partner have the same emotional closeness for each other. It should be noted that this situation could have been captured by this participant using the 'not at all option' for that particular question. Item 10 ('How vigilant are you to potential threats to your safety and well-being?') received two Question Unclear responses. One person indicated not knowing the meaning of 'vigilant' and the other person indicated difficulty understanding the type of threat referred to by the question. Given these difficulties and its poor psychometric properties noted earlier, this item was not used in scoring this subscale. It should be noted that this led to only a very slight improvement to the subscale's internal consistency (i.e., alpha changed from .920 to .921). One other change is suggested. Item 20 ('When you do not have support from others, how capable are you of coping with challenges on your own?') was a reverse scored item and was one of the items with a low correlation with the other items in the scale. In future administrations of the measure, it may be helpful to reword it in the opposite direction so that it more directly reflects attachment anxiety (i.e., 'capable' changed to 'incapable').

The internal consistency of the Avoidance subscale was .81 (95% C.I. = .73-.88). The reverse scored item 46 had a small negative item-total correlation (-.15). There were seven other items (16, 17, 36, 38, 50, 53, and 57) that had item-total correlations less than .30. In all of these cases, dropping the item would have only slightly increased the internal consistency of the scale.

The reverse scored avoidance item 9 ("How helpful is it for you to turn to your romantic partner in times of need?") received one Question Unclear response. The comment about it indicated the participant believed it did not apply. Similar to what was noted earlier, this likely reflects difficulty responding to a question about a romantic partner when either not having one or having little experience with one. Item 36 ("When faced with upsetting thoughts and memories, how likely is it that you would try to block them out or ignore them?") also received a Question Unclear response. The comment for it indicated the participant tries this approach, but that it does not always work. The participant asked whether the question was about trying to use this approach or the actual outcome of the approach.

Five modifications are suggested for the Avoidance subscale. As noted earlier, the reverse scored item 46 ('How enjoyable do you find activities that are new and challenging?') had a negative correlation with the total subscale score. This item was not used in scoring this measure. This change improved the scales internal consistency to .83 (95% C.I. = .75 – .89). In future administrations of the measure, it is suggested that the item's direction be changed to better capture the original intent underlying the item (i.e., 'How unenjoyable do you find activities that are new and challenging?'). Item 16 ('When you want help and it is not available, how frustrated do you get?') had a very low item-total correlation (i.e., .04).

Its focus on frustration in response to the absence of help may be more relevant to anxiety than to avoidance. Rewording it to capture the original idea related to experiencing frustration when having to rely on others is warranted ('How likely is it that relying on others will lead to frustration?'). Reverse scored item 50 ('How compassionate are you?'), with an item-total correlation of .10, seems to capture a characteristic of attachment security rather than attachment avoidance. It is suggested that it be changed to capture the idea of placing relatively less value on emotions ('How much do you value reason over emotion?'). As well, the reverse scored item 17 ('How reliant on others are you for comfort and reassurance?'), with a .14 item-total correlation, may be improved by rewording it to capture the ability to tolerate the absence of comfort and reassurance ('How easy is it for you to go without comfort and reassurance from others?'). The reverse scored item 38 ('How willing are you to recognise and admit your own weaknesses or short-comings?') also had a low item-total correlation (i.e., .23). This item could potentially be improved by making it a non-reversed scored item by changing the word 'willing' to 'unwilling'.

The internal consistency of the 12-item Disorganized Attachment Scale was .90 (95% C.I. = .85-.94). The item-total correlations were generally high and ranged from .43 to .79. The alpha-if-item-deleted values did not suggest the removal of any items. Six items of the Disorganized Attachment Scale (1, 5, 6, 7, 8, and 9) received the Question Unclear response once. The comments related to these responses suggested that items 1, 7, and 8 were not answered because they did not apply. As they all refer to close relationships or romantic partners, it may be that those without a romantic relationship or history of such relationships find these items difficult to answer. For Item 9 ('In comparison to your reactions to strangers, how much more fearful are you of romantic partners?'), one participant indicated this question was not answered because of uncertainty about what was feared. Item 5 ('How dangerous is it to trust romantic partners?') received a relatively lengthy comment. This participant asked whether the question was about physical or emotional danger. The participant also questioned whether it was about him or her trusting a romantic partner or instead about romantic partners trusting them. The comment for Item 6 ('How normal is it for you to have traumatic experiences with the people you are close to?') indicated that the participant did not answer it due to believing that it was inappropriate because he or she had not had a traumatic experience. It should be noted that the first option for responding to this question ('Not at all normal') could have captured this situation. However, it is possible that this individual may have interpreted the question as referring to traumatic experiences independent of those he or she is close to. In light of this, rewording the question is worth considering (e.g., changing 'with' to 'involving'). However, retaining the original item may be more desirable in order to maintain consistency between this measure and the wording of the original measure. In light of the psychometric properties of all of the unanswered items and low frequency of difficulty with the items, no changes are suggested regarding the Disorganized Attachment Scale.

### Scale descriptive statistics

Descriptive statistics for the scales of the TAB are reported in Table 1. These include the original 32-item Secure Attachment Scale and the 12-item Disorganized Attachment Scale, as well as the slightly modified subscales of the Organized Insecurity Scale described above (i.e., the 35-item Anxiety and 22-item Avoidance subscales). In all cases, scores on the measures represent the average score of all the items belonging to the measure.

Table 1  
 Descriptive Statistics for the Measures Included in the Tripartite Attachment Battery

Measure	<i>M</i>	<i>SD</i>	Minimum	Maximum	Moderate-to-High Score
Secure Attachment Questionnaire	4.79	.60	3.16	5.75	90.6%
Organized Insecurity Questionnaire					
Anxiety subscale	1.42	.51	.34	2.89	15.1%
Avoidance subscale	1.80	.45	1.09	3.09	28.3%
Disorganised Attachment Questionnaire	.86	.68	.00	2.92	5.7%

<sup>a</sup>This column reports the percentage of participants with scores that are > than the 'moderate' response option for each measure (i.e., 4 for the Secure Attachment Questionnaire and 2 for the other scales).

The descriptive statistics generally suggest that on average participants in this study experience some attachment security and low levels of attachment anxiety, attachment avoidance, and disorganized attachment. To further describe the attachment characteristics of the sample, categorical variables were created to indicate the presence of attachment security and the various forms of insecurity. Scores equal to, or greater than, the 'moderate' response option for each measure were used for this purpose. For example, those with a score of 4 or more on the Secure Attachment Scale were categorised as having secure attachment. A score of 2 or more was used for the measures reflecting attachment insecurity. As can be seen in Table 1, a large majority of participants were classified as having secure attachment. When considering the measures of attachment insecurity, in all cases a minority of participants were classified as having these forms of attachment insecurity. It should be noted that it was possible to be classified as secure based on responses to the Secure Attachment Scale and be classified as insecure based on scores on the other measures. However, this was rare (e.g., 12.5% of the 42 participants classified as secure were in the moderate to high attachment anxiety category).

## DISCUSSION

The TAB developed and evaluated in this research was inspired by Mikulincer and Shaver's (2007) call 'for multiple kinds of scales' (p. 99) relevant to specific modules within their model of attachment-system functioning. Each scale within the TAB included numerous items developed based on several descriptions of the relevant construct, so it is reasonable to expect that they all have good face and content validity. As well, a vast majority of participants did not find the item content difficult to understand, and each scale or subscale had a good or excellent level of internal consistency. Thus, these new scales are promising alternatives to commonly used attachment self-report measures that only assess attachment anxiety and avoidance, such as the ECR and ECR-R. However, small modifications to several items in the new measures may enhance their psychometric properties. These potential modifications were noted in the preceding section and will not be reiterated here. More importantly, additional research regarding the psychometric properties of the new measures is required.

The current study focused on Cronbach's alpha. While the findings were encouraging, this measure of internal consistency is only accurate when the items within a measure all assess the same construct. Factor analytic investigations of the scales and subscales within the TAB are required in order to determine whether they are unidimensional or multidimensional. Given that the Disorganized Attachment Scale was based on an earlier unidimensional measure (Paetzold et al., 2015), it is likely to be unidimensional as well. However, there are reasons to believe the other measures may be multidimensional. The Secure Attachment Scale was based on the construct of a 'sense of felt security' included within the second module of Mikulincer and Shaver (2007) model. However, items were also developed by examining other broader descriptions of attachment security not directly included in this model. For example, Maunder and Hunter (2012) noted that securely attached individuals tend to be

empathic and psychologically minded, so items were developed to reflect this conceptualisation of attachment security. These other features of attachment security might form a factor that is distinct from the items directly related to the second module of Mikulincer and Shaver's model. As well, the subscales of the Organized Insecurity Scale may also be multidimensional as they include items related to the main attachment dimensions (i.e., anxiety and avoidance) as well as items related to their associated secondary attachment strategies (i.e., hyperactivation and deactivation, respectively). Thus, this scale might include separate anxiety, avoidance, hyperactivation, and deactivation factors.

In addition to factor analytic investigations of the scale and subscales in the TAB, additional research is needed to evaluate their reliability (i.e., test-retest) and validity (i.e., construct, incremental, and predictive). Two additional issues should be noted. First, the TAB currently includes 101 items. This likely makes the TAB impractical for use in many clinical and research contexts. Additional research aimed at developing shorter versions of its scales and subscales is warranted. Second, the Disorganized Attachment Scale was included within the TAB because Mikulincer and Shaver (2007) suggested the need for a measure of disorganised attachment that could differentiate between those with disorganized attachment strategies and those with organised forms of attachment insecurity. In the current study, scores on the Disorganized Attachment Scale were very low, and only 5.7% of participants had a score on this measure that could be considered as falling above the 'moderate' range. In light of this, research with large clinical samples, which would be expected to have wider and higher ranges of responses to its items, may be required in order to determine whether the Disorganized Attachment Scale can identify individuals with disorganized forms of attachment insecurity. Nonetheless, the current preliminary findings indicate that it and the other self-report measures included within the TAB are a promising method of assessing individual differences in adult attachment characteristics. Additional psychometric evaluations of these measures are required before their use in clinical and research settings.

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