



Relationships between sensory processing style, adult attachment, and coping

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Abstract

Relationships between the four categories of sensory processing style (sensitivity, seeking, avoidance, and low registration), adult romantic attachment style, and coping style were examined. The following self-report measures were given to 133 participants: the Adolescent/Adult Sensory Profile, the COPE scale, and the Experiences in Close Relationships Scale. Results indicate that sensory sensitivity relates to relationship anxiety ($r = .212, p < .05$), and this relationship is partially mediated by a coping style of focusing on and venting emotions. Sensory avoidance is related to relationship avoidance ($r = .278, p < .05$). Low registration correlates with both relationship anxiety ($r = .248, p < .05$) and relationship avoidance ($r = .224, p < .05$), and the relationship between low registration and relationship anxiety is partially mediated by a coping style of denial and disengagement. Sensory seeking relates to secure attachment. Results are discussed in terms of how different sensory processing styles may affect our ability to cope and our relationship styles.

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1. Introduction

The processing of sensory information is perhaps the most basic psychological element underlying how individuals perceive and react to their environment. Sensation provides the only known

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form of communication between individual and environment, and evidence is growing that individuals process sensory information in different ways; specifically, some people are more sensitive to sensory information than others (Aron & Aron, 1997; Dunn, 2001).

Sensory processing style is related to the construct of behavioral inhibition (Carver & White, 1994; Gray, 1981), introversion (Eysenck, 1981; Eysenck, 1991), and shyness (Kagan, 1994). Moderate correlations between having a sensitive sensory processing style and introversion and emotionality have been found (Aron & Aron, 1997), indicating that having a sensitive sensory processing style is related, but not identical to these constructs. It has been proposed that introversion and emotionality are possible behavioral manifestations of an underlying sensitive sensory processing style and that an individual's sensory processing style may be a major factor in their personality development (Aron & Aron, 1997).

Recently, a four-factor model of sensory processing has gained increased popularity, particularly in the field of Occupational Therapy. This model, developed by Winnie Dunn, breaks down sensory processing style into four categories: sensory sensitivity, sensory avoidance, low registration, and sensory seeking (Dunn, 2001). Dunn theorizes sensory processing to be dependent on two primary factors: (1) a person's sensory threshold (e.g. how much stimulation is needed before a person responds) and (2) that individual's response strategy (i.e. active or passive). Having a high threshold (e.g. a great deal of sensory stimulation is needed before a person responds) and passively responding is classified as low registration (e.g. the individual notes that they do not respond to sensory information); while having a high threshold and actively responding is classified as sensory seeking (e.g. the individual reports seeking sensory stimulation). Having a low threshold and passively responding is classified as having sensory sensitivity (e.g. the individual reports feeling overwhelmed by sensory information), whereas having a low threshold and actively responding is classified as sensory avoidant (e.g. the individual reports actively avoiding potentially overwhelming sensory experiences) (Dunn, 2001). According to this model, sensory sensitivity should be related to sensory avoidance as both involve having low thresholds for sensory information. On the other hand, low registration should be related to sensory seeking as both involve having high thresholds for sensory information.

The Adolescent/Adult Sensory Profile was developed recently to measure these four types of sensory processing style in adult populations (Brown & Dunn, 2002) and the four dimensions have been validated using measures of skin conductance and habituation (Brown, Tollefson, Dunn, Cromwell, & Filion, 2001). Individuals receive a score in each domain and high scores in any one of the sensory domains indicates maladaptive processing of sensory information.

If sensory processing is a major contributing factor in the development of personality, relationships should exist between sensory processing style and other established personality variables. The goal of this investigation was to examine the relationship between the four factors of sensory processing style, attachment style, and coping style.

Attachment style has been understood as a generalization of internal working models stemming from early childhood experiences (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1982) that carry over into adult relationships. Research on adult romantic attachment initially identified three attachment classifications that correspond to infant attachment styles, namely Secure, Avoidant and Pre-occupied (Hazan & Shaver, 1987). Later, the category of Fearful-Avoidant was distinguished from Dismissive-Avoidant in order to differentiate people who avoided close relationships due to fear of rejection rather than due to lack of desire (Bartholomew & Horowitz,

1991). More recently, these constructs have been evaluated dimensionally, indicating that individuals can vary in the extent to which they are anxious and avoidant in their relationships with others (Brennan, Clark, & Shaver, 1998). Those with low avoidance and anxiety are classified secure; those with low avoidance and high anxiety are classified as pre-occupied; those with high avoidance and low anxiety are dismissive and those with high avoidance and anxiety are fearful.

Attachment style has generally been assumed to develop out of environmental experiences with caregivers and later attachment figures. Nevertheless, there has been recent suggestion that temperamental variables may influence attachment classification style (Fox, Kimmerly, & Schafer, 1995) and that there may be a genetic component (Neyer, 2002). Sensory processing style may be one temperamental component of attachment style. Avoidant personality disorder, which can be conceptualized as extreme anxiety in relationships and subsequent avoidance of relationships, has been specifically linked to sensory processing sensitivity (Meyer & Carver, 2000). Social phobia, also involving an avoidance of social relationships, has also been recently linked to sensory processing sensitivity (Neal, Edelman, & Glachan, 2002). Thus, there is reason to believe that attachment classification may be influenced by sensory processing style.

The relationship between attachment classification style and sensory processing style has yet to be empirically investigated. However, some hypotheses about these relationships can be made. People who avoid sensory stimuli may also be avoidant in their relationships with other people and thus be more likely to be fearful or pre-occupied. People who are overly sensitive to sensory stimuli may also feel emotional stimuli more deeply and thus be overly anxious and emotionally dependent in their relationship with others (e.g. more likely to be pre-occupied). People with low registration do not feel sensory stimuli as strongly as others and other people may find them aloof and unfeeling. Thus, they may score high on avoidant attachment and be more likely to be dismissing or fearful. Sensory seekers may seek relationship closeness in the same way they seek sensory stimuli and thus may be high on relationship anxiety and low on avoidance (e.g. they may be more pre-occupied). Individuals with secure attachment may have more regulated sensory processing systems and thus not be high scorers on any dimension of sensory processing.

Literature on both sensory processing and attachment provide some suggestion that coping style is involved in each of these constructs independently, and it is possible that coping style partially mediates relationships between the two. According to Dunn's model, both sensory avoidance and sensation seeking are active coping strategies used to deal with low and high thresholds respectively (Dunn, 2001). Low registration and sensory sensitivity may be related to more passive forms of coping. Although the coping literature and the attachment literature have generally developed independently, there has been some theoretical cross-fertilization. Avoidant attachment has been recently linked to a repressive style of coping (Vetere & Myers, 2002), indicating that people with reported low anxiety but high defensiveness tend to exhibit an avoidant attachment style. These individuals may avoid relationships as well as their own emotional status. Having an avoidant style of sensory processing can be considered a way of coping with overwhelming sensory experiences.

Thus, it is hypothesized that avoidance on the Sensory Profile will be related to dismissive or denying forms of coping, such as mental and behavioral disengagement, and that this coping style may partially mediate the relationship between sensory avoidance and avoidant attachment. Low registration, or reporting that one does not experience strong sensory stimulation, may be related to denying and dismissing styles as well. Individuals who report that they do not register or notice

sensory information may actually be denying their experience. On the other hand, sensory seeking may be related to more active forms of coping such as seeking support.

In contrast, a monitoring coping style has been linked to anxious–ambivalent attachment (Feeney, 1995) as well as general anxiety and lowered self-esteem (Feeney & Noller, 1990). People with a monitoring coping style generally seek out (rather than avoid) information about potentially threatening circumstances (Miller, 1989), tend to be more perceptive about their physical symptoms (Miller, Brody, & Summertown, 1988) and focus more on their emotions. Having greater sensory sensitivity may be related to the tendency to focus strongly on one's internal reactions, either because people who are more sensitive have stronger sensations that are more difficult to ignore or because focusing on internal stimuli heightens sensation. Thus, it is hypothesized that sensory sensitivity will be related to a coping style of focusing on internal emotional states and that this coping style may partially mediate the relationship between sensory sensitivity and relationship anxiety.

In summary, the goal of the current investigation was to (1) examine the relationships between Dunn's four factors of sensory processing (2) investigate the relationship between sensory processing and attachment style and (3) explore the possible mediation of coping style in the relationship between sensory processing and attachment.

2. Method

2.1. Participants

One hundred and thirty-three individuals participated in the study by filling out a series of questionnaires. This included Introduction to Psychology students who received partial fulfillment of a class requirement for participation, and members of the community who volunteered participation. Participants included males and females (male = 35.6%, female = 64.4%) between the ages of 18 and 71 ($M = 22.3$, $SD = 8.8$). Participants were either first (50.4%), second (17.3%), third (18%), or fourth-year (3%) undergraduate students, or were not current college students (10.5%).

2.2. Procedure

Participants attended one 45-min session held outside of class. Participants were told they would be taking part in a study designed to examine sensory systems and their relationship with other variables. They were told that all answers would be anonymous, and were asked to fill out the following measures.

2.3. Measures

The *Adolescent/Adult Sensory Profile* (AASP) (Brown & Dunn, 2002) is a 60-item self-report scale designed to measure sensory processing style. This scale measures sensory sensitivity (e.g., "I startle easily to unexpected or loud noises"), low registration (e.g. "I do not seem to notice when someone touches my arm or back"), sensory avoidant behaviors (e.g. "I stay away from noisy places"), and sensory seeking behaviors (e.g. "I seek out all kinds of movement activities").

Respondents were asked to record on a five-point scale ranging from “almost never” to “almost always” how often they respond to situations in the specified way.

The *COPE* scale (Carver, Scheier, & Weintraub, 1989) is designed to measure 12 categories of coping: Active coping, planning, seeking social support, seeking emotional support, suppression of competing activities, positive reinterpretation and growth, restraint coping, acceptance, focus on and venting of emotions, denial, mental disengagement and behavioral disengagement. The scale consists of 48 statements (e.g. “I restrain myself from doing anything too quickly”) with responses falling on a four-point scale ranging from “I usually do not do this at all” to “I usually do this a lot” according to how often the behavior occurs in response to a stressful situation.

The *Experiences in Close Relationships Scale* (ECR) (Brennan et al., 1998) measures adult attachment style in the context of romantic relationships. This self-report measure indicates levels of relationship anxiety and relationship avoidance. The 36-item scale asks respondents to rate how they generally feel in romantic relationships on a seven point scale ranging from “disagree strongly” to “agree strongly”. The items allow assessments of relationship avoidance (e.g. “I try to avoid getting very close to my partner”), and relationship anxiety (e.g. “I worry a fair bit about losing my partner”). Higher scores indicate greater relationship insecurity.

3. Results

3.1. Intercorrelations between sensory processing subscales

In order to investigate the internal validity of the four-factor model of sensory processing style, the intercorrelation of factors were examined. Positive relationships were found to exist between sensory sensitivity, low registration, and sensory avoidance (see Table 1). Sensory seeking also correlated with low registration.

3.2. Sensory processing and attachment

Correlations between the scales of AASP (sensitivity, avoidance, low registration, seeking) with relationship anxiety and relationship avoidance can be seen in Table 2.

Sensory sensitivity was positively related to relationship anxiety, but not to relationship avoidance, a pattern consistent with the pre-occupied classification. Sensory avoidance was positively

Table 1
Correlations between sensory processing styles

Sensory processing style	Over-sensitivity	Low registration	Sensory avoidant	Sensory seeking
Over-sensitivity	–	.431*	.395*	ns
Low registration	–	–	.192**	.179**
Sensory avoidant	–	–	–	ns
Sensory seeking	–	–	–	–

* $p < .05$.

** $p < .01$.

Table 2
Correlations with anxiety and relationship avoidance

Sensory processing style	Relationship anxiety	Relationship avoidant
Over-sensitivity	.212*	ns
Low registration	.248*	.224*
Sensory avoidant	ns	.278*
Sensory seeking	ns	ns

* $p < .05$.

correlated with relationship avoidance, but not to relationship anxiety, a pattern consistent with the dismissive type. Low registration was positively correlated with relationship anxiety and avoidance, a pattern that corresponds to the fearful type. Sensation seeking was not correlated to relationship anxiety or to relationship avoidance, a pattern corresponding to the secure type.

3.3. Possible mediation of coping style

The relationship between coping style, sensory processing style, and attachment style can be seen in Table 3. Coping styles not listed (such as active coping, planning, suppression of competing activities, and restraint coping) were not significantly correlated with attachment or sensory processing variables. It was hypothesized that sensory avoidance would be related to coping styles

Table 3
Correlations between coping, anxiety, sensory processing, and attachment

Coping style	Sensory sensitivity	Low registration	Sensory avoidant	Sensory seeking
Behavioral disengagement	ns	.197*	ns	ns
Mental disengagement	ns	.305**	ns	.219*
Denial	ns	.296**	ns	.185*
Focus on and venting emotions	.294**	ns	ns	.217*
Seeking emotional support	ns	ns	ns	.226**
Positive reinterpretation and growth	ns	ns	ns	.224**
Composite denial and disengaging	ns	.370**	ns	ns
	Relationship anxiety	Relationship avoidance		
Behavioral disengagement	.206*	ns		
Mental disengagement	.286**	ns		
Denial	ns	ns		
Focus on and venting emotions	.247**	ns		
Seeking emotional support	.304**	-.171*		
Positive reinterpretation and growth	ns	-.192*		
Composite denial and disengaging	.279**	ns		

* $p < .05$.

** $p < .01$.

of denial, mental disengagement and behavioral disengagement. In fact, sensory avoidance was not significantly related to any coping style. In contrast, low registration was positively correlated with denial, mental disengagement and behavioral disengagement.

In support of the hypothesis, sensory sensitivity was correlated with focusing on and venting of emotions. This was the only significant correlation between sensory sensitivity and coping mechanisms.

Sensory seeking was positively correlated with a variety of both adaptive and less adaptive coping mechanisms. It was correlated with seeking emotional support, positive reinterpretation and growth, focusing on and venting emotions, and denial and mental disengagement.

One goal of this investigation was to determine whether coping style partially mediated the relationship between sensory processing and attachment style. The four-step model for establishing mediation (Baron & Kenny, 1986) was utilized using multiple regressions. The first model tested was whether the coping style of focusing on and venting emotions would mediate the relationship between sensory sensitivity and relationship anxiety. The direct effect of sensory sensitivity on relationship anxiety was significant, $R = .212$, $p < .05$. Sensory sensitivity was related to the mediator, focusing on and venting emotions ($R = .294$, $p < .01$). Next, both the mediator (focusing on and venting emotions) and the initial variable (sensory sensitivity) were entered into a regression equation, predicting relationship anxiety ($R = .287$, $F(2, 130) = 5.84$, $p < .05$). The standardized coefficient (β) for focusing on and venting emotions remained significant ($\beta = .202$, $p < .05$). However, the β for sensory sensitivity was no longer statistically significant ($\beta = .153$, ns). Thus, the relationship between sensory sensitivity and relationship anxiety was partially mediated by a coping style involving focusing on and venting emotions (see Fig. 1). The Sobel test was used to calculate the effect of the mediational model (Sobel test statistic = 1.93, $p = .05$).

The second hypothesis was that a coping style involving mental disengagement, behavioral disengagement and denial would partially mediate the relationship between sensory avoidance and relationship avoidance. However, there was no significant relationship between sensory avoidance and denying or disengaging coping styles. Instead, these coping styles were related to low registration. As low registration was strongly related to all three coping styles, and as the original investigation of coping strategies found that these three styles fell on the same factor (Carver et al., 1989), a sum total of these three coping scales was calculated to simplify calculation. This composite coping style (denial and disengagement) was related to low registration ($R = .370$, $p < .001$). Interestingly, this coping style was related to anxiety on the ECR ($R = .270$, $p < .05$),

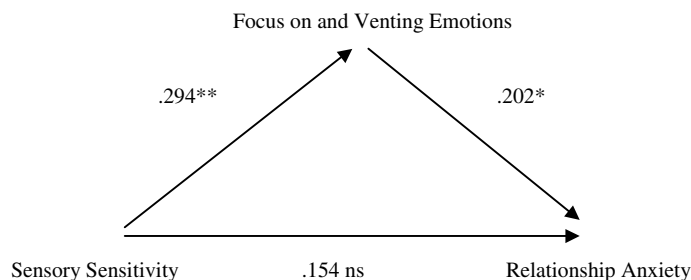


Fig. 1. Focus on and venting emotions as partial mediator between sensory sensitivity and relationship anxiety. Note: * $p < .05$; ** $p < .01$.

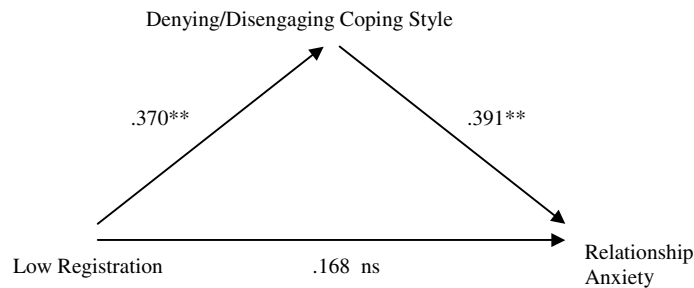


Fig. 2. Deny and disengaging coping style as partial mediator between low registration and relationship anxiety. *Note:* * $p < .05$, ** $p < .01$.

but not to avoidance on the ECR. Thus, a denying and disengaging coping style was not shown to mediate the relationship between low registration and avoidant attachment. However, it was possible to test how a denying and disengaging coping style mediated the relationship between low registration and relationship anxiety. When low registration and denial/disengagement were entered in a regression equation to predict relationship anxiety ($R = .319$, $F(2, 130) = 7.39$, $p < .01$), coping style remained significant ($\beta = .391$, $p < .01$), but low registration was no longer a significant predictor of relationship anxiety. Sobel test of mediation was significant (Sobel = 2.14, $p < .05$). Thus, low registration independently relates to relationship anxiety; additionally some of its effect on relationship anxiety is partially mediated through a denying and disengaging coping style (see Fig. 2).

4. Discussion

4.1. Intercorrelations between sensory processing styles

The correlations between the subscales of the AASP warrant further examination. Some of these relationships may be explained within Dunn's model but others appear to contradict it. Individuals classified as sensory sensitive or sensory avoidant theoretically both have a low threshold (Dunn, 2001), which is consistent with the positive correlation between these groups. Likewise, the relationship between low registration and sensory seeking may be explained because individuals in both groups theoretically have high thresholds. However, the correlation between sensory sensitivity and low registration was unexpected. According to Dunn's theory, sensory sensitivity and low registration, indicating low neurological threshold and high neurological threshold respectively, are opposite constructs and should be negatively correlated. This suggests that either the model is flawed, or that individuals can vary between having low and high neurological thresholds.

4.2. Sensory sensitivity

As predicted, sensory sensitivity was related to relationship anxiety. Additionally, this relationship was partially mediated by a coping style of focusing on and venting emotions. This finding is

consistent with past research that has linked avoidant personality disorder and social phobia, both psychological disorders involving anxiety over relationships, with sensory processing sensitivity (Meyer & Carver, 2000; Neal et al., 2002). The current research also suggests that a coping style involving the focus on and venting of emotions has some effect on the relationship between sensory sensitivity and relationship anxiety. This coping style is defined as the tendency to focus on the cause of emotional distress and to express that concern to others. Focusing on and venting emotions is presumed to be maladaptive, especially over long periods of time, because individuals who utilize this coping mechanism tend to be emotionally pre-occupied with the stressor, but do not act to reduce the source of stress (Carver et al., 1989). Individuals who are oversensitive emotionally and physiologically, but do not act to reduce stress, may be at greater risk of experiencing anxiety in relationships.

4.3. *Sensory avoidance*

The relationship between sensory avoidance and relationship avoidance supported the hypothesis that individuals who avoid sensory stimulation also tend to be avoidant in romantic relationships. Interestingly these constructs did not relate to any forms of coping, even though sensory avoidance is defined as an active response to an over-aroused system, constituting a coping mechanism in itself (Dunn, 2001). In this sense, the current findings do not support the theory that sensory avoidance is a means of coping with a low neurological threshold. On the other hand, sensory avoidant individuals may avoid all situations where coping is necessary. The same may be true in relationships, as relationship avoidance was negatively correlated with adaptive coping strategies, indicating increased relationship avoidance decreases the tendency to cope adaptively.

4.4. *Low registration*

Low registration did relate to relationship anxiety, as hypothesized, and was also found to relate to relationship avoidance. The relationship to both an avoidant and anxious attachment style corresponds to a fearful attachment classification. Low registration was found to relate to coping styles of denial, mental disengagement, and behavioral disengagement. These coping styles were found to partially mediate the relationship between low registration and relationship anxiety, but not between low registration and relationship avoidance. In other words, people who report they do not feel sensory stimulation tend to deny stressors, and to disengage both behaviorally and mentally from the stressor, which in turn has some effect on levels of relationship anxiety.

The correlation between low registration and sensory sensitivity, as stated earlier, counters Dunn's model of sensory processing, which suggests these involve opposite neurological threshold levels, and therefore should not co-occur in the same individual. One explanation for this co-occurrence is that the measure of low registration is identifying two distinctly different types of individuals. For some, low registration may be reflective of an under aroused system. However, for others it may be indicative of an extremely over-aroused system that compensates by shutting down and causing people to seem under-sensitive. Thus, these people may vacillate between feeling over and under sensitive to stimuli. This mechanism has been hypothesized to occur in individuals with autism (Gillingham, 2000).

The hypothesis that low registration (not noticing stimuli) may at times be a defense against an over sensitive processing system is consistent with the relationship between low registration and denying and disengaging forms of coping (Carver et al., 1989). Furthermore, this hypothesis may also partially explain the relationship between low registration and relationship anxiety. Over-sensitive individuals, who cope by denying and disengaging from stressors (and thus endorse “low registration” items), may tend to experience higher levels of relationship anxiety than those who truly have high thresholds. These hypotheses are speculative and warrant further research.

4.5. Sensory seeking

The hypothesis that sensory seeking would be related to relationship anxiety was not supported. Instead, seeking was found to be unrelated to both anxious and avoidant attachment, suggesting it relates to a secure attachment classification. Seeking correlated with a number of adaptive and maladaptive coping strategies, including seeking emotional support, positive reinterpretation and growth, focus on and venting emotions, and denial and mental disengagement. This supports the hypothesis that sensory seeking is a form of coping with an under-aroused system. Seeking did not correlate with sensory sensitivity or sensory avoidance, but is related to low registration. It appears that sensory seeking, as measured here, may not be a maladaptive style of sensory processing. This finding is consistent with other research that has examined stimulation seeking as a potentially adaptive trait. Seeking behavior, for example, may be associated with increased intelligence in children (Raine, Reynolds, Venables, & Mednick, 2002). Additionally, sensory seeking may be adaptive because seekers exert control over their circumstances, both in regard to sensory stimulation and in emotional relationships.

5. Conclusion

The present investigation has uncovered some intriguing relationships between sensory processing, attachment, and coping styles. Certain relationships, such as the unexpected correlations between low registration and sensory sensitivity opens up future avenues for exploration. Specifically, a careful investigation of the hypothesis that there may be two types of people who report being unresponsive to sensory stimulation is merited. Additionally, continued research on relationships between actual physiological sensitivity, reported sensory sensitivity, and emotional sensitivity is needed. All measures used in this study were self-report scales; yet, the relationship between self-report and physiological measurements is questionable. While the AASP was validated using skin conductance (Brown et al., 2001; Brown & Dunn, 2002), other studies have shown a lack of a positive relationship between self-report measures of sensitivity and physiological thresholds (Mailloux & Brener, 2002).

The relationships established in this study between sensory processing, adult attachment, and coping style raise important considerations. Sensory processing is becoming established as an individual difference variable, yet little is known about the role sensory processing plays in the course of personality development. Psychological research should aim to explore this construct more deeply. The construct of sensory processing could prove to be a valuable tool in assessing

the risk of the development of certain psychological disorders, and in enhancing our understanding of a wide variety of psychological traits.

References

- Ainsworth, M. D., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the strange situation*. Hillsdale, NJ: Erlbaum.
- Aron, E. N., & Aron, A. (1997). Sensory-processing sensitivity and its relation to introversion and emotionality. *Journal of Personality and Social Psychology*, *73*(2), 345–368.
- Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: conceptual, strategic and statistical considerations. *Journal of Personality and Social Psychology*, *51*(6), 1173–1182.
- Bartholomew, K., & Horowitz, L. (1991). Attachment styles among young adults: A test of a four category model. *Journal of Personality and Social Psychology*, *61*, 226–241.
- Bowlby, J. (1982). *Attachment and loss: Vol 4. Attachment*. New York: Basic Books.
- Brennan, C., Clark, C., & Shaver, P. (1998). Self-report measurement of attachment. In J. Simpson & S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 46–75). Guilford.
- Brown, C., & Dunn, W. (2002). *The adult sensory profile*. Sam Antonio, TX: Psychological Corporation.
- Brown, C., Tollefson, N., Dunn, W., Cromwell, R., & Fillion, D. (2001). The adult sensory profile: measuring patterns of sensory processing. *American Journal of Occupational Therapy*, *55*, 75–82.
- Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*, *56*, 267–283.
- Carver, C. S., & White, T. L. (1994). Behavioral inhibition, behavioral activation, and affective responses to impending reward and punishment: The BIS/BAS scales. *Journal of Personality and Social Psychology*, *67*(2), 319–333.
- Dunn, W. (2001). The sensations of everyday life: Empirical, theoretical, and pragmatic considerations. *The Journal of Occupational Therapy*, *55*, 608–620.
- Eysenck, H. J. (1981). *A model for personality*. New York: Springer-Verlag.
- Eysenck, H. J. (1991). Biological dimensions of personality. In L. A. Pervin (Ed.), *Handbook of personality* (pp. 244–276). New York: Guilford Press.
- Feeney, J. A. (1995). Adult attachment, coping style and health locus of control as predictors of health behavior. *Australian Journal of Psychology*, *47*(3), 171–177.
- Feeney & Noller (1990). Attachment style as a predictor of adult romantic relationships. *Journal of Personality and Social Psychology*, *58*, 187–215.
- Fox, N. A., Kimmerly, N. L., & Schafer, W. D. (1995). Of the way we were, adult memories about attachment experiences and their role in determining infant–parent relationships, a commentary on van Ijzendoorn. *Psychological Bulletin*, *117*, 404–410.
- Gillingham, G. (2000). *Autism: A new understanding*. Canada: Tacit Publishing.
- Gray, J. A. (1981). A critique of Eysenck's theory of personality. In H. J. Eysenck (Ed.), *A model for personality* (pp. 246–276). New York: Springer.
- Hazan, C., & Shaver, P. R. (1987). Romantic love conceptualized as an attachment process. *Journal of Personality and Social Psychology*, *52*, 511–524.
- Kagan, J. (1994). *Galen's prophecy: Temperament in human nature*. New York: Basic Books.
- Mailloux, J., & Brener, J. (2002). Somatosensory amplification and its relationship to heartbeat detection ability. *Psychosomatic Medicine*, *64*(2), 353–357.
- Meyer, B., & Carver, C. S. (2000). Negative childhood accounts, sensitivity, and pessimism: A study of avoidant personality disorder features in college students. *Journal of Personality Disorders*, *14*(3), 233–248.
- Miller, S. M. (1989). Cognitive informational styles in the process of coping with threat and frustration. *Advances in Behavioral Research and Therapy*, *11*, 223–234.
- Miller, S. M., Brody, D. S., & Summertown, J. (1988). Styles of coping with threat: Implications for health. *Journal of Personality and Social Psychology*, *54*, 142–148.

- Neal, J., Edelmann, R. J., & Glachan, M. (2002). Behavioral inhibition and symptoms of anxiety and depression: Is there a specific relationship with social phobia? *British Journal of Clinical Psychology, 41*, 361–374.
- Neyer, F. J. (2002). The dyadic interdependence of attachment security and dependency: A conceptual replication across older twin pairs and young couples. *Journal of Social & Personal Relationships, 19*(4), 483–503.
- Raine, A., Reynolds, C., Venables, P. H., & Mednick, S. A. (2002). Stimulation seeking and intelligence: A prospective longitudinal study. *Journal of Personality and Social Psychology, 82*(4), 663–674.
- Vetere, A., & Myers, L. B. (2002). Repressive coping style and adult romantic attachment style: Is there a relationship?. *Personality and Individual Differences, 32*, 799–807.