PRELIMINARY INVESTIGATION OF THE RELATIONSHIP BETWEEN EMOTION PROCESSING VARIABLES AND DIFFICULTIES IN AFFECT REGULATION WITH THE USE OF AFFECT REGULATION STRATEGIES

by

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A thesis submitted in conformity with the requirements for the degree of Master of Arts
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A preliminary measure of affect regulation strategies was developed from Parkinson and Totterdell’s (1999) provisional classification of deliberate strategies for improving negative affect. Four broad categories of strategies including Cognitive Engagement, Cognitive Diversion, Behavioural Engagement, and Behavioural Diversion were represented by the measure. Using this measure, relationships between self-reported use of affect regulation strategies and difficulties in emotion regulation and emotion processing variables were investigated. Participants included 186 adults. Participants completed a 20 minute online survey consisting of the measure of affect regulation strategies, the Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004), the Subjective Experience of Emotions Scale (SEE; Behr & Becker, 2002), and a demographic information questionnaire. Weak correlations were found for the majority of the difficulties in emotion regulation and emotion processing subscales and individuals’ self-reported use of affect regulation categories. Results also provide evidence of convergent and discriminant validity for the DERS and SEE.
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Finally, my heartfelt thanks to God, my parents, all of my family members and friends, and to the Newman community at the University of Toronto for enriching my life with love, friendship, laughter, and hope. I wish to dedicate this thesis to the memory of Marion Koch, my dearest friend, second mom, and closest confidant, who passed away just as this thesis was being completed. My goal is to take all that I have learned over the course of my studies and use it to selflessly, generously and joyfully serve those who are in need, just as Marion did.
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Introduction

Aspects of Affect Regulation

Definition of affect regulation and automatic versus controlled processes. People use a variety of techniques in their efforts to change their emotions and moods. For example, when feeling sad or depressed, a person may distract himself from his troubles by engaging in pleasurable, relaxing or attention-demanding activities, or alternately he might try to do something about the current situation in order to stop himself from feeling bad about what is happening (Parkinson & Totterdell, 1999). Another possibility is that he may brood for hours and subsequently become depressed.

Affect regulation includes any process directed at changing or maintaining moods or emotions whose operation depends on the monitoring of affective information (Parkinson, Totterdell, Briner, & Reynolds, 1996). Two basic varieties of affect regulation have been defined and distinguished by the explicitness of the control processes involved (Parkinson & Totterdell, 1999). The first, automatic or nonconscious affect regulation, occurs when values of affect related variables are registered by an individual without awareness and adjustments are made at a nonconscious level. For example, homeostatic processes may operate to maintain a dynamic equilibrium in variables that influence a person’s affect and overlearnt coping strategies or defense mechanisms may be automatically selected and deployed.

In the second type of affect regulation, controlled or conscious affect regulation, an individual exerts a deliberate and intentional influence on his moods and emotions using strategies which are implemented or terminated as a function of consciously monitored changes in affect (Parkinson & Totterdell, 1999). For the purposes of the present research, emphasis will be placed on the conscious, controlled, deliberate, and explicit aspects of affect
Nonetheless, it is important to note that in practice, most instances of affect regulation involve complex combinations of automatic and controlled affect regulation processes (Parkinson, Totterdell, Briner, & Reynolds, 1996). As well, the boundary between conscious and nonconscious affect regulation is not always clear. For example, helping another person can sometimes serve the function of alleviating one’s bad mood by making the helper feel better about him or herself. However, this does not mean that people help others with the explicit conscious intention of improving their mood, even though helping behaviours do fulfill that function. It is very possible that this kind of affect regulation would likely fail if people were fully aware that their helping was done for selfish rather than altruistic reasons. On the other hand, helping others does represent a form of affect regulation to the extent that it seems to depend upon a need for mood improvement and a lack of alternative options for meeting this need (Parkinson, Totterdell, Briner, & Reynolds, 1996).

**Deliberate upward versus downward regulation of affect.** The most common type of controlled affect regulation occurs when individuals try to improve their feelings and make themselves feel better. This process is known as the *upward* regulation of affect (Parkinson, Totterdell, Briner, & Reynolds, 1996). Although less commonly used, there may also be occasions when individuals deliberately worsen their affect through a process of *downward* regulation (Parrott, 1993). For example, people may try to stop themselves from getting too excited about an anticipated pleasant event; in order to ward off potential disappointment should the situation not turn out as well as expected. The aim of this research will be to focus on the deliberate upward regulation of affect, based on the assumption that people have the
capacity to provide relatively informed and accurate self-reports concerning this familiar and consciously monitored process (Vallacher & Wegner, 1987).

Specifically, this study will examine categories of affect regulation strategies that people use to improve their negative feelings, and it will investigate several variables which may be related to an individuals’ self-reported use of these categories of strategies. Before this can be accomplished, it is important to understand what effective affect regulation looks like, as well as, how difficulties in affect regulation affect behaviour. Next, a typology of affect regulation strategies which was developed by Parkinson and Totterdell (1999) will be presented in order to provide a framework for categorizing specific affect regulation strategies. Lastly, two groups of variables including difficulties in affect regulation and subjective experiencing of emotions will be introduced and hypotheses will be made as to whether these variables relate to individuals’ self-reported use of four broad categories of affect regulation strategies.

Relevant Theoretical Context

Effective Affect Regulation and Adaptive Functioning

Affect regulation processes are important because they enlist emotion to support adaptive, organized behavioural strategies (Thompson, 1994). Affect regulation consists of the extrinsic and intrinsic processes that are responsible for monitoring, evaluating and modifying emotional reactions, especially their intensive and temporal features in order to accomplish one’s goals (Thompson, 1994). There is a consensus among many researchers that affect regulation should equip individuals to respond flexibly to the demands of their environment (Bradley, 2000). Research demonstrates that affect regulation is relevant in the following areas, including the use of effective social strategies with peers, successful
cognitive performance in tasks involving delay, inhibition, or the pursuit of long-term goals, and the management of stressful experiences at home (Thompson, 1994).

Healthy, well-functioning individuals are described as typically being able to experience emotions at a tolerable level, able to synthesize both affective and cognitive components of experiencing\(^1\) in order to create reasonably accurate and relevant meanings; and they are able to use effective strategies to reduce or manage their experiencing when necessary, and have control over their behavioural responses (Wiser & Arnow, 2001). When the intensity or quality of emotional experiencing exceeds a tolerable level, coping strategies are used to diminish it. According to Wiser and Arnow (2001), taking an action that manages or reduces one’s intolerable emotional experiencing without causing harm to self or others is considered adaptive (Wiser & Arnow, 2001). Adaptive methods of emotion regulation include participating in an interesting or distracting activity, engaging in exercise, talking about the issue with a friend, listening to favorite music, or focusing on work.

The awareness of one’s emotional experience is seen as necessary for effective affect regulation and adaptive functioning (Paivio & Greenberg, 2001; Kennedy-Moore & Watson, 1999; Bradley, 2000; Gratz & Roemer, 2004). Emotional insight is a term used to describe one’s ability, through self-reflection, to recognize, accurately label, and understand one’s own emotional experience (Kennedy-Moore & Watson, 1999). Emotionally insightful people are vividly in touch with their inner experience, and they are able to interpret the subjective meaning of their emotional responses. These individuals generally know what they are feeling and why (Kennedy-Moore & Watson, 1999). It is believed that if individuals understand their feelings and the causes of those feelings, they will be better able to respond

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\(^1\) The experiencing construct refers to a particular state of affective engagement in which systems of meaning and belief associated with an individual’s affective experience are discovered, actively explored, and used to resolve personally meaningful issues in new ways (Wiser & Arnow, 2001).
adaptively to these feelings. Therefore, fostering emotional insight is a basic and central goal in psychotherapy (Kennedy-Moore & Watson, 1999). People who are able to understand and interpret their emotional experience have access to a rich and vital source of knowledge that can guide their thoughts and behaviours.

At an individual level, being aware of and accurately expressing one’s own emotional experience is a prerequisite to being able to draw upon it to guide one’s thoughts and actions (Mayer & Salovey, 1997). When people understand their emotional experience, they are in a better position to know how they need to respond to the demands of a situation. At an interpersonal level, emotional insight contributes to better relationships. When people understand their emotional experience they are able to communicate and develop intimacy with others (Buck, 1991). Overall, emotional insight is considered necessary to healthy human functioning. Understanding one’s own emotional experience in a meaningful way makes it possible to have self knowledge, to regulate one’s behaviour, and to develop relationships with others (Kennedy-Moore & Watson, 1999).

Another key element in processing emotion and having the ability to regulate affect effectively is symbolization. Symbolization involves labeling inner subjective states by expressing them in words (Kennedy-Moore & Watson, 1999). It allows people to translate their undeveloped, bodily felt sense into highly differentiated and meaningful feelings. An important outcome of symbolization is that it helps people to understand their feelings and to determine how they wish to act in particular situations (Kennedy-Moore & Watson, 1999). By processing their emotional experience, people become aware of their emotion-related action tendencies, and ultimately decide whether their action tendencies are appropriate and
necessary coping responses, or whether these action tendencies would not be productive responses in their particular situation (Kennedy-Moore & Watson, 1999).

Other specific ways for effectively regulating affect include seeking social support. A considerable amount of emotion regulation occurs through the interventions of others (Thompson, 1994). Adults turn to friends and family for advice when they are anxious, comfort when bereaved, and a cool head when angry, and young children demonstrate awareness of the benefits of eliciting nurturance from others when experiencing negative emotion (Thompson, 1994). As individuals get older emotion regulation becomes more planned and strategic. Friends are sought out for their support and understanding, and peers may be selected as confidants who have been especially sympathetic on previous occasions (Thompson, 1994).

Another way that emotion can be regulated is by redirecting the focus of one’s attention and by managing the intake of emotionally arousing information. For example, internal redirection of attention can include, thinking pleasant thoughts during a distressing or frightening experience or self-coaching that focuses on positive outcomes (Thompson, 1994). These internal attention management strategies provide a very effective means of regulating one’s own emotions because they can be used in situations where escape or avoidance of emotional arousing stimuli is difficult (Thompson, 1994). Behavioural distraction is another effective means for regulating one’s own emotions (Thompson, 1994). This may include doing something else that takes your mind off of the emotionally arousing experience, listening to music or engaging in a hobby. Lastly, by altering one’s interpretation or construal of emotionally arousing information, a person is able to effectively regulate
emotion (Thompson, 1994). This can be achieved by thinking rationally about the problem or by reappraising or assessing the problem differently.

**Emotion Dysregulation and Difficulties in Affect Regulation**

Although it is important to understand what constitutes effective and adaptive affect regulation, it is equally critical to be aware of the difficulties in regulating emotion. According to Cole, Michel and Teti (1994), emotion dysregulation occurs when a pattern of emotion regulation jeopardizes or impairs productive and appropriate functioning (e.g., to maintain relationships, to think clearly, to explore unfamiliar situations, to solve problems with a spouse or child, to get out of bed, to hold one’s job, to inhibit destructive impulses).

Difficulties in affect regulation are reflected in several ways. First, since research supports the notion that the more people are aware of and have a clear understanding of their emotional experience, the better they are able to cope with it (Kennedy-Moore & Watson, 1999); it is reasonable to infer that a lack of awareness and lack of understanding of one’s emotions will result in less effective ways of coping or regulating affect. In other words, people who are “tuned out” to their emotional experience are unable to draw upon their affective experience and use it to guide their behaviour in adaptive ways (Kennedy-Moore & Watson, 1999). When there is a problem, these individuals don’t realize it, so they can’t fix it. In order to fully understand one’s emotions, one must perceive them when they occur. Therefore, focusing attention on one’s emotional experience provides the opportunity to notice and reflect upon the experience, and ultimately to decide what to do to change it if it is negative (Kennedy-Moore & Watson, 1999). If individuals are not aware of their emotional experience they can be blindly driven by their emotions.
A second difficulty in experiencing is experiencing a lack of emotional acceptance. Nonacceptance of emotional responses is defined by experiencing nonaccepting reactions to one’s distress and by having negative secondary responses to one’s negative emotions (Gratz & Roemer, 2004). Since some conceptualizations of emotion regulation emphasize the importance of accepting and valuing emotional responses, research has suggested that the tendency to experience negative emotions in response to one’s own emotional reactions is maladaptive and associated with greater difficulties in emotion regulation (Cole, Michel, & Teti, 1994). For example, depressed persons experience distress that is followed by distress about their distress, such as feelings of self-criticism or guilt about being unhappy (Cole, Michel, & Teti, 1994).

Experiencing lack of emotions is a third factor that reflects a difficulty in affect regulation. For some individuals, their perceptions of negative feelings are perceived not only as unpleasant, but also as unbearable and highly threatening to their sense of selves (Kennedy-Moore & Watson, 1999). In order to protect themselves from these emotions, these individuals experience cognitive deconstruction in which they attempt to escape or limit self-awareness (Kennedy-Moore & Watson, 1999). Although their emotions may be available, they struggle to keep them out of awareness by refusing to engage in meaningful thought that might foster emotional insight. Sometimes, cognitive efforts at deconstruction are insufficient to reduce negative feelings to a tolerable level; therefore, individuals may resort to physical strategies such as consuming excessive alcohol or binge eating in order to bolster their efforts to avoid emotional awareness (Kennedy-Moore & Watson, 1999). Passivity is also a consequence of deconstruction. Because they reject emotional insight,
individuals who attempt to limit awareness of their emotions cannot engage in active efforts to solve their problems (Kennedy-Moore & Watson, 1999).

A fourth factor that is considered a difficulty in affect regulation is impulse control difficulties or lack of self-control. Just as being cut off from one’s emotions impairs functioning, the opposite extreme of being completely dominated by one’s emotions is also maladaptive (Kennedy-Moore & Watson, 1999). For some people, experiencing high levels of emotional arousal lead them to feel so overwhelmed by their feelings that they can’t organize their thoughts, can’t communicate clearly, can’t process new information, and can’t consider another person’s point of view. In these cases, individuals’ behaviour tends to be impulsive and extreme (Kennedy-Moore & Watson, 1999).

In addition to defining what effective and adaptive affect regulation is and how difficulties in affect regulation manifest themselves, the field of research in affect regulation has focused on classifying specific strategies that individuals use to improve unpleasant feelings.

*A Typology of Deliberate Upward Affect Regulation Strategies*

One of the most comprehensive typologies of strategies that characterizes the manner in which individuals deliberately try to improve their unpleasant negative affect was developed by Parkinson and Totterdell (1999). The research study involved two separate stages. In the first stage of research, a comprehensive list of strategies that people reported using to improve their affective state during everyday transactions was collected. This corpus of self-reported upward affect regulation strategies was collected in three separate studies; and in conjunction with an examination of existing literature on related topics. In the first study, undergraduate psychology students were asked to provide an open-ended description
of the strategy used on the most recent occasion when they had deliberately tried to improve their unpleasant mood or emotions. In addition to these retrospective reports, participants were also asked to say what strategy they most commonly used when they wanted to improve their feelings, and what technique they believed was most effective for this purpose. Finally, all participants were given a “take-away” diary sheet on which they were asked to report what strategy they used on the next subsequent instance of deliberate affect regulation.

The second study used a non-student adult sample and interview methodology. Participants were asked to tell the interviewer about all the different ways in which they tried to improve their moods and emotions, and to rank order them according to which they preferred to use. Each interviewee listed at least three affect regulation strategies.

The third study involved more in-depth investigation of how people deliberately improved their affect using diaries and group discussions. A non-student adult sample with no psychological background was used. Each of the participants completed pencil-and-paper diaries every day for a week in which they reported the most salient change in their mood experienced during the previous 24 hours, and described anything they had done either to cause this change or to correct it. After completing their diaries, participants took part in separate supervised discussions during which they talked about their use of affect regulation strategies. Both sessions were tape recorded for subsequent analysis.

The list of affect regulation strategies collected from these three studies was supplemented with additional self-report data supplied by Swinkels and Guiliano (1995) who had asked undergraduate students to “list some of the specific strategies you use to cheer yourself up when things are not going well and you are feeling down” as part of a study of mood awareness. Parkinson and Totterdell (1999) also surveyed the literature on affect
regulation, antidepressive activities, and coping for any additional self-reported affect-regulation strategies that were not already included in their corpus.

Parkinson and Totterdell (1999) developed a provisional classification system based on the strategies collected from the various data sources. Four categories of affect regulation were identified including avoidance, distraction, confrontation, and acceptance. In a final questionnaire study, undergraduate students were given the definitions of these four categories of affect regulation and they were asked to report strategies belonging to each category.

Next, using all of the reported strategies collected from the sources mentioned above, Parkinson and Totterdell (1999) independently categorized the strategies starting with broadly defined groupings and working downward. By discussing their agreements and disagreements, they were able to develop a series of revised classifications. Lastly, through a process of iterative subcategorization they deleted highly similar items which left a core corpus of 162 relatively distinct affect regulation strategies.

According to Parkinson and Totterdell’s (1999) resulting classification, the higher level distinctions between categories included:

1. Implementation medium: Some strategies were implemented at the cognitive level and others at a behavioural level. This distinction was based on whether the attempt to improve affect was conducted by thinking or by doing something.

2. Strategic intention: The second basic distinction was based on whether strategies were intended as ways of avoiding or addressing the problem or related affect. Diversion strategies involved redirecting cognition or action away from the current concern, whereas engagement strategies involved sustained attention to, or work on, the problem or affect.
3. Substitution of activity: Among diversion strategies, some were described as avoidant, whereas others involved actively thinking about or doing something else in order to divert attention from concern.

4. Content of substituted activity: Distraction-oriented thoughts and actions were further distinguished according to whether they were directly pleasurable or relaxing, or whether they intended to produce more indirect affective benefits, by leading to mastery, occupying attention, or expending energy.

5. Passivity: Among engagement strategies, some involved actively addressing concerns or feelings, whereas others implied a more passive acceptance of what was occurring.

6. Resource deployment focus: Within the engagement category, some strategies were situation-directed (i.e., they addressed the situation surrounding the unpleasant feelings), whereas others were affect-directed (i.e., they addressed the feelings themselves).

The second stage of Parkinson and Totterdell’s (1999) research was designed to discover what distinctions participants unfamiliar with the affect regulation literature would use when categorizing the corpus of strategies. A sample of 24 non-student adults participated in a card-sort task in which they were given the complete set of 162 strategies and were instructed to put the strategies with similar meanings together until all cards had been sorted into categories.

To analyze how closely the participants’ distinctions conformed to those specified by Parkinson and Totterdell’s preliminary classification, a similarity matrix based on numbers of participants who categorized strategies together in shared groups was constructed. Semantic similarity was scored on the basis of how many participants put the two cards into the same
category. This procedure produced a 162 X 162 similarity matrix with values ranging from 0 to 24. To estimate the reliability of the obtained similarity data, the cophenetic correlation was computed between matrices constructed separately for odd and even numbered participants. The resulting unadjusted coefficient was .60 which suggested that the analyzed matrix based on twice this number of participants is acceptably robust.

Next, the level of correspondence between the participants’ combined similarity matrix and Parkinson and Totterdell’s preliminary classification was analyzed. A new similarity matrix based on the proposed top-level cognitive-behavioural distinction was constructed. Similarity between strategies that participants placed into the same proposed category (both cognitive or both behavioural) was scored as 1 and similarity between strategies participants placed into different categories was scored as 0. The resulting matrix was correlated with the matrix for the entire participant group based on all the distinctions used in the card sort task. The correlation between these matrices was reliable and positive ($r_{cs} = .30$). Using a similar procedure, a similarity matrix was also constructed to assess support for the proposed engagement/diversion distinction. It was then correlated with the matrix for the entire participant group based on all the distinctions used in the card sort task. The correlation between these matrices was also found to be reliable and positive ($r_{cs} = .27$).

A final matrix was constructed to determine whether the combination of the cognitive/ behavioural and engagement/diversion distinctions resulted in increased correspondence with the participant group matrix. Two unweighted criteria for similarity were coded based on whether strategies were classified by Parkinson and Totterdell as cognitive or behavioural and as involving engagement or diversion. The correlation between the resulting similarity matrix and the similarity matrix derived from the participants’
combined sortings was positive and reliable ($r_{cs} = .45$). This correlation was significantly higher than the correlation between the participants’ combined matrix and the cognitive/behavioural matrix [$t(159) = 3.39$, $P < .01$] and the engagement/diversion matrix [$t(159) = 2.46$, $P < .05$]. These findings showed significant correspondence between the cognitive/behavioural and engagement/diversion distinctions that Parkinson and Totterdell proposed in their preliminary classification and those used by participants in the card sort task.

In order to further determine the structure of the classification of affect regulation strategies elicited from the participant group, the similarity matrix was subjected to hierarchical cluster analysis using an average linkage method. This analysis procedure makes a series of binary combinations of individual strategies or groups of strategies which maximize both within-category similarity and between-category differences until all strategies are included under a single cluster. The analysis produced an organized arrangement of clusters of increasing inclusiveness or abstraction. The distinctions between categories specified in this arrangement corresponded to those that were most commonly used by participants in the card sort task. Labels provided by participants during the card sort task for categories that were found to correspond to the clusters were used to define the clusters. Parkinson and Totterdell’s preliminary classification also contributed to the interpretation of cluster meanings when the obtained clusters overlapped with their proposed categories.

Parkinson and Totterdell’s (1999) typology of affect regulation strategies is presented in Table 1.
Table 1

*Typology of Affect Regulation Strategies*

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<tr>
<td>Disengagement</td>
<td>Avoid thinking about the problem</td>
<td>Avoid problematic situation</td>
</tr>
<tr>
<td><strong>Distraction</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pleasure or Relaxation</td>
<td>Think about something pleasant</td>
<td>Do something pleasant</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reallocate Resources</td>
<td>Think about something that occupies attention</td>
<td>Perform a demanding activity</td>
</tr>
<tr>
<td><strong>ENGAGEMENT</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reappraise</td>
<td>Think about how to solve the problem</td>
<td>Vent feelings</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Seek help or comfort from others</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Take action to solve problem</td>
</tr>
</tbody>
</table>

According to this typology, classification of affect regulation strategies is based on the following dimensions: (1) cognitive/behavioural and (2) diversion/engagement. The distinction between cognitive and behavioural affect regulation strategies depends on whether a person’s attempt to improve affect is conducted by thinking (cognitive) or by doing something (behavioural). The second basic distinction includes diversion strategies by which the person redirects his or her cognition or action away from the present concern by way of disengagement or distraction (using pleasure or relaxation or by reallocating one’s resources). Engagement strategies, on the other hand, involve sustained attention to the problem or the associated affect by way of rationalization, reappraisal, seeking social support, venting feelings, or taking action to solve the problem.
Research Utility of Parkinson and Totterdell’s Typology of Affect Regulation Strategies

Parkinson and Totterdell’s (1999) intention for constructing this provisional classification system is so it can facilitate principled comparison between different kinds of affect regulation. One of their classification system’s main advantages is that it specifies categories that reflect everyday people’s spontaneous understandings of affect regulation. This means that it provides a solid basis for studies which ask participants to provide self-reports of frequency of use or relative effectiveness of different types of affect regulation strategies (Parkinson & Totterdell, 1996). According to Parkinson and Totterdell (1999), implementation of their classification system should enable further refinements in the operationalizing, measurement, and conceptualization of affect regulation.

Individual Differences in Affect Regulation

Although Parkinson and Totterdell’s (1999) typology is useful in distinguishing among the different types of categories that affect regulation strategies can fall into, more needs to be known about the factors that may influence a person’s choice of affect regulation strategy. Presently in the literature, one study has examined the paths between personality, current mood, its evaluation, and emotional regulation (Kokkonen & Pulkkinen, 2001a); and another has investigated extraversion and neuroticism as antecedents of emotion regulation and dysregulation (Kokkonen & Pulkkinen, 2001b). Other studies have investigated gender differences in choosing a strategy to change a bad mood (Thayer, Newman, & McClain, 1994); mood awareness for predicting self-reported attempts at mood regulation (Swinkels & Guiliano, 1995); and a final study developed a scale to measure people’s generalized negative mood regulation expectancies (NMR) which refers to the extent to which people believe their negative moods are controllable (Catanzaro & Mearns, 1990).
Two groups of factors which have not received much attention in the literature on individual differences in affect regulation and coping include (a) difficulties in emotion regulation and (b) emotion processing variables that include how a person experiences, values, and cognitively processes emotions.

**Conceptualization of Difficulties in Emotion Regulation and Its Measurement**

Gratz and Roemer (2004) conceptualize affect regulation as involving not just the modulation of emotional arousal, but also the awareness, understanding, and acceptance of emotions, and the ability to act in desired ways regardless of one’s emotional state. Based on this conceptualization, they developed the Difficulties in Emotion Regulation Scale (DERS) that consists of items reflecting difficulties within the following dimensions of emotion regulation: (a) awareness and understanding of emotions; (b) acceptance of emotions; (c) the ability to engage in goal-directed behaviour, when experiencing negative emotions; and (d) access to emotion regulation strategies perceived as effective. This final dimension reflects an attempt to measure the flexible use of situationally appropriate strategies to modulate emotional responses.

Six factors constitute the DERS, and they reflect the multidimensional aspects of emotion regulation on which the scale was based. The first factor, Nonacceptance of Emotional Responses is composed of items reflecting a tendency to have negative secondary emotional responses to one’s negative emotions, or nonaccepting reactions to one’s distress. The second factor is Difficulties Engaging in Goal-Directed Behaviour. It is composed of items reflecting difficulties concentrating and accomplishing tasks when experiencing negative emotions. Factor three, Impulse Control Difficulties is composed primarily of items reflecting difficulties remaining in control of one’s behaviour when experiencing negative
emotions. The fourth factor labeled Lack of Emotional Awareness consists of items reflecting the tendency to attend to and acknowledge emotions. When these items are appropriately reverse scored, this factor reflects an inattention to, and lack of awareness of, emotional responses. The fifth factor is Limited Access to Emotion Regulation Strategies. It consists of items reflecting the belief that there is little that can be done to regulate emotions effectively, once an individual is upset. The sixth factor is Lack of Emotional Clarity. It is composed of items reflecting the extent to which individuals know and are clear about the emotions they are experiencing. Research using the DERS has yet to examine the types of affect regulation strategies that individuals who experience affect regulation difficulties use when attempting to improve their unpleasant feelings.

*Emotional Processing and Its Measurement*

Another area of research that is needed is on the use of specific affect regulation strategies among individuals who differ in terms of their emotional processing, experiencing and valuing of emotions. Michael Behr and Martina Becker (2002) have developed a multidimensional measure, the Subjective Experience of Emotions Scale (SEE) that is designed to measure multiple dimensions of emotional processing based on constructs central to Rogers’ view of personality change.

Rogers (1961) believed that emotions play an adaptive role in decision-making and effective functioning. In his work with clients, he observed that becoming aware of, exploring and valuing emotional experience facilitated the integration of experiences into the self concept, and improved overall functioning (Rogers, 1965). He developed his theory of personality change based on his observations of how clients referred to and symbolized their feelings, and reorganized their sense of self during therapy to achieve change. He believed
that individuals are capable of choosing, directing, and changing their subjective experiencing to achieve congruence. Roger’s considered congruence, which is defined as the absence of discrepancy between a person’s self-concept and his or her subjective experiencing, as essential for adaptive functioning (Watson & Lilova, in press).

In therapy, Rogers’ goal was to facilitate clients’ symbolization of their emotional experience in order that they could integrate it into their self concept, and use their emotions to evaluate experiences. The change process involves heightening awareness of denied experiences, shifting from rigid evaluations introjected from others, to increased organismic valuing of experience, and more differentiated perceptions of people and events accompanied by a reformulated sense of self. It is hoped that clients will come to see their perceptions as hypothetical so that what appears to be permanent is viewed as changeable, allowing more possibilities to be discovered (Watson & Lilova, in press).

The SEE is a brief self-report measure that includes multiple components of the subjective process of experiencing emotion. It is a multidimensional scale intended to measure whether individuals experience, value, regulate, and cognitively process emotions. Grounded in person-centered theory, it captures essential facets of emotional intelligence, and incorporates other aspects of emotional processing including symbolization, emotion regulation, and awareness of bodily sensations (Watson & Lilova, in press).

The SEE’s underlying theoretical constructs are found to be best represented by seven factors. The first factor labeled Symbolization by Bodily Experience describes individuals who perceive their bodily experiences and bring them into immediate contact with a mental meaning. Symbolizing an experience means, a person gains a mental representation of an experience within the self-structure that makes sense to them within this structure and can be
considered as belonging to the self (Behr & Becker, 2002). Items that define this scale refer to bodily sensations that indicate mental states and feelings which are anchors for intuition. The second factor is Experiencing Overwhelming Emotions. This factor describes individuals who suffer from an overload of emotions and thoughts, and wish they had less. The items that represent this factor devalue the experiences of many feelings. Symbolization by Imagination is the third factor. This factor represents a positive regard for imaginative processes, which help one to understand oneself, one’s emotions, and for coping processes. Items reflect the notion that fantasies and dreams are useful for understanding and coping with mental problems. The strategies within this category reflect an emphasis on inner mental processes. The fourth factor labeled Lack of Self-Control is defined by items that describe individuals who have to sustain emotional impulses which they find difficult hiding from others. The fifth factor is labeled Experiencing Congruence. Its items express a positive regard and acceptance of one’s own feelings. The sixth factor Experiencing Lack of Emotions is comprised of items that describe individuals being empty of emotions, cut off from their body and regretting this. The seventh factor, Regulation of Emotions consists of items that reflect an individual’s ability to regulate their own moods.

Rationale

Since a measure of affect regulation strategies derived from Parkinson and Totterdell’s (1999) classification system has not yet been developed, the purpose of this study will be to develop a preliminary instrument to measure individuals’ self-reported use of affect regulation strategies and to explore its properties. This measure will include specific strategies that represent Parkinson and Totterdell’s (1999) proposed categories of affect
regulation strategies including Cognitive Engagement, Cognitive Diversion, Behavioural Engagement, and Behavioural Diversion.

In addition, the literature on affect regulation and coping has not demonstrated whether individuals self-reported use of affect regulation strategies are related to specific difficulties in emotion regulation and to emotion processing variables. As well, research has not yet assessed the conceptual similarity and differences between the DERS and SEE. Therefore, the present study has two additional purposes (a) to use the newly developed measure of affect regulation strategies to investigate whether difficulties in emotion regulation, as measured by the DERS, and whether emotion processing variables, as measured by the SEE, are related to individuals’ self-reported use of categories affect regulation strategies and (b) to provide evidence of convergent and divergent validity for the DERS and SEE subscales.

Hypotheses

Using the DERS we will investigate whether difficulties in emotion regulation are related to individuals’ self-reported use of categories of affect regulation strategies. It is hypothesized that:


    b) Individuals who score high on Difficulties Engaging in Goal-Directed Behaviour and Impulse Control Difficulties will report using Behavioural Diversion strategies more.
Using the SEE we will investigate whether individuals’ subjective experience and processing of emotion are related to their self-reported use of categories of affect regulation strategies. It is hypothesized that:

2. a) Individuals who score high on Symbolization by Bodily Experience, Experiencing Congruence and Regulation of Emotions will report using Cognitive and Behavioural Engagement strategies more.

b) Individuals who score high on Experiencing Overwhelming Emotions and Lack of Self-Control individuals will report using Behavioural Diversion strategies more.

c) Individuals who score high on Symbolization by Imagination will report using Cognitive Diversion and/or Cognitive Engagement strategies more.

d) Individuals who score high on Experiencing Lack of Emotions will report using Cognitive and Behavioural Diversion strategies more.

Using the DERS and the SEE we will examine the convergent and divergent validity of both measures. It is hypothesized that:

1. The Nonacceptance of Emotional Responses scale of the DERS will correlate negatively with the Experiencing Congruence Scale of the SEE.

2. The Difficulties Engaging in Goal-Directed Behavior scale of the DERS will correlate positively with the Experiencing Overwhelming Emotions scale of the SEE.

3. The Impulse Control Difficulties scale of the DERS will correlate positively with the Experiencing Overwhelming Emotions and Lack of Self-Control scales of the SEE.

4. The Lack of Emotional Awareness scale of the DERS will correlate positively with the Experiencing Lack of Emotions scale of the SEE.
5. The Limited Access to Emotion Regulation Strategies scale of the DERS will correlate negatively with the Regulation of Emotions scale of the SEE.

6. The Lack of Emotional Clarity scale of the DERS will correlate positively with the Experiencing Lack of Emotions scale of the SEE and it will correlate negatively with the Symbolization by Bodily Experience and Symbolization by Imagination scales of the SEE.

Method

Participants

Two hundred fifty individuals accessed the online survey. This participant sample was divided into two groups. The first group \((n = 186)\) consisted of individuals who responded to all survey items but four or fewer. The second group \((n = 64)\) consisted of individuals who did not respond to five or more items on the survey (twenty-nine of these individuals did not respond to any of the survey items). Before the second group of individuals could be excluded from the study, it needed to be determined whether those individuals differed significantly from the first participant group on the following demographic characteristics: gender, age, education, job category, race, or country of residence. T-test analyses were conducted for the continuous demographic variable and cross tabulation was used to analyze the categorical demographic variables. It was found that individuals who did not respond to five or more items on the survey were not significantly different on any of the demographic variables from those individuals who omitted up to four items. Therefore, individuals who had five or more missing items on the survey were excluded from the participant sample without losing generalizability of the results.
One hundred eighty-six participants were included in the final participant sample. Of these participants, 80% were female and 19% were male. One participant did not indicate gender. Participants ranged in age from 19 to 67 years with a mean age of 34.99 years ($SD = 11.16$). One hundred seventy-four participants provided information about their race. Table 2 presents information about the racial background of the sample. The majority of participants in the sample (77.4%) identified themselves as Caucasian.

Table 2

<table>
<thead>
<tr>
<th>Race</th>
<th>N</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caucasian</td>
<td>144</td>
<td>77.4%</td>
</tr>
<tr>
<td>South Asian</td>
<td>9</td>
<td>4.8%</td>
</tr>
<tr>
<td>East Asian</td>
<td>7</td>
<td>3.8%</td>
</tr>
<tr>
<td>West Asian</td>
<td>3</td>
<td>1.6%</td>
</tr>
<tr>
<td>Black</td>
<td>2</td>
<td>1.1%</td>
</tr>
<tr>
<td>Southeast Asian</td>
<td>2</td>
<td>1.1%</td>
</tr>
<tr>
<td>Aboriginal</td>
<td>2</td>
<td>1.1%</td>
</tr>
<tr>
<td>Latin American</td>
<td>1</td>
<td>0.5%</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>2.2%</td>
</tr>
</tbody>
</table>

Table 3 presents participants’ highest level of education completed at the time of the survey. The majority of participants reported having completed a bachelor’s degree (38%) and a master’s degree (33%).
Table 3  

*Highest Level of Education Completed by Participants*

<table>
<thead>
<tr>
<th>Level of Education Completed</th>
<th>N</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor’s degree</td>
<td>71</td>
<td>38%</td>
</tr>
<tr>
<td>Master’s degree</td>
<td>62</td>
<td>33%</td>
</tr>
<tr>
<td>College diploma</td>
<td>22</td>
<td>12%</td>
</tr>
<tr>
<td>High School diploma</td>
<td>19</td>
<td>10%</td>
</tr>
<tr>
<td>Professional degree (e.g., MD)</td>
<td>8</td>
<td>4%</td>
</tr>
<tr>
<td>PhD</td>
<td>4</td>
<td>2%</td>
</tr>
</tbody>
</table>

The majority of participants were employed (56%), while the rest were students (35%), unemployed (5%), and retired (3%). One participant did not provide a response for employment status. The majority of the participant sample (98%) resided in Canada, and the remaining participants resided in the United States of America (n = 2) and the Netherlands (n = 1).

**Measures**

Measures that were used for this research study are presented in Appendix A.

*Preliminary Measure of Affect Regulation Strategies.* Two researchers who were familiar with the literature on affect regulation and coping reviewed Parkinson and Totterdell’s (1999) classification of affect regulation strategies and Thayer, Newman, and McClain’s (1994) research on self-regulation strategies for changing a bad mood, raising energy, and reducing tension. They selected 51 affect regulation strategies primarily from a comprehensive list of strategies derived from Parkinson and Totterdell’s (1999) research.
study. The 51 items represented Parkinson and Totterdell’s four broad categories of affect regulation strategies. The four broad categories and their corresponding affect regulation strategies included:

1. Cognitive Engagement: Affect regulation strategies representative of this category reflected a person’s attempt to improve his or her negative feelings by thinking about ways of addressing or sustaining one’s attention to the current problem or associated affect. Examples of this type of strategy include “Thinking about how to solve the problem,” “Reappraising or assessing the problem differently,” and “Thinking rationally about the problem.” Eight items were selected to represent this category.

2. Cognitive Diversion: Affect regulation strategies included in this category reflected a person’s attempt to improve negative affect by redirecting thoughts away from the present concern by way of disengagement or distraction. Three subcategories were used to organize the cognitive diversion strategies. The first subcategory was disengagement which included strategies that a person uses to cognitively detach him or herself from the problem or associated affect. Sample strategies include “Trying to put it out of my mind,” “Mentally switching off,” and “Not thinking about the problem.” Five strategies were selected to represent this subcategory. The second subcategory was distraction using pleasant or relaxing thoughts. This subcategory included strategies in which a person uses pleasant or relaxing thoughts in order to divert attention away from the present concern. Sample items include “Fantasizing about pleasant things,” “Thinking relaxing thoughts,” and “Thinking of happy memories.” Four items were selected to represent this subcategory. The third subcategory was distraction by reallocating resources (or using active/constructive...
thoughts). This subcategory included strategies in which a person uses active or constructive thoughts in order to divert attention away from the present concern. Examples include “Thinking about work,” “Thinking of other places I could be,” and “Thinking of something else.” Four items were selected to represent this subcategory.

3. Behavioural Engagement: Affect regulation strategies representative of this category involved taking action to address the present concern or negative affect. Examples of this type of strategy include “Trying to solve the problem,” “Seeking practical advice,” and “Letting my feelings out (cry, scream).” Seven items were selected to represent this category.

4. Behavioural Diversion: Affect regulation strategies included in this category reflected a person’s attempt to improve negative feelings by redirecting action away from the present concern or unpleasant affect through disengagement or distraction. Four subcategories were used to organize the behavioural diversion strategies. The first subcategory was disengagement which included strategies that a person uses to remove him or herself from the problem or associated affect. Sample items include “Removing myself from the problematic situation,” “Avoiding the person that caused the unpleasant negative feelings,” and “Spending some time alone.” Five items were selected to represent this subcategory. The second subcategory was distraction with pleasant or relaxing activities. This subcategory included strategies in which a person performs pleasant or relaxing activities in order to divert attention away from the present concern. Some strategies include “Taking a bath,” “Listening to music,” “Doing the things that I enjoy.” Seven items were selected to represent this subcategory. The third subcategory was distraction by reallocating resources (or with
active/constructive activities). This subcategory included strategies in which a person performs active or constructive activities in order to divert attention away from the present concern. Sample items include “Exercising,” “Doing something useful,” and “Keeping busy.” Six items were selected to represent this subcategory. The fourth subcategory was distraction by activities which may be harmful to self. This subcategory was created by the researchers for the present study using Thayer, Newman, and McClain’s (1994) research and subsequent findings on strategies used to self-regulate bad moods. These strategies also corresponded to some of the strategies listed in Parkinson and Totterdell’s (1999) classification of affect regulation strategies. Sample items include “Using drugs other than alcohol, cigarettes, or caffeine,” “Drinking alcohol,” and “Having sex.” Five items were selected to represent this subcategory.

The initial sets of affect regulation strategies for each of the four broad categories and their related subcategories are presented in Appendix A.

Affect regulation strategies included in this preliminary measure were listed under the following headings: I disengage by (which included 10 cognitive and behavioural diversion-disengagement strategies), I distract by (which included 26 cognitive and behavioural diversion-distraction strategies), and I take action by (which included 15 cognitive and behavioural engagement strategies). Affect regulation strategies were presented in random order under these three headings. As well, under each of the three headings an additional item, “Other”, was included.

A 5-point scale was used to measure the type of affect regulation strategies a person uses to improve his or her negative feelings. Responses include False, False to Some Extent,
Neither True nor False, True to Some Extent, and True. This measure requires that the participants report how true it is for them to use each strategy when attempting to improve their negative feelings.

Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004). The DERS is a 36-item self-report measure designed to assess clinically relevant difficulties in emotion regulation among adults. Participants are asked to indicate how often the items apply to themselves, with responses ranging from 1 to 5, where 1 is almost never (0-10%), 2 is sometimes (11-35%), 3 is about half the time (36-65%), 4 is most of the time (66-90%), and 5 is almost always (91-100%).

The six factors which constitute the DERS and examples of their respective items include: (a) Nonacceptance of Emotional Response including the items, “When I’m upset, I feel guilty for feeling that way,” “When I am upset, I feel like I am weak,” and “When I am upset, I become angry with myself for feeling that way;” (b) Difficulties Engaging in Goal-Directed Behaviour which includes the items, “When I am upset, I have difficulty concentrating,” “When I’m upset, I have difficulty getting work done,” and “When I am upset, I have difficulty thinking about anything else;” (c) Impulse Control Difficulties including the items, “When I’m upset, I have difficulty controlling my behaviours,” “When I’m upset, I become out of control,” and “I experience my emotions as overwhelming and out of control;” (d) Lack of Emotional Awareness with the sample items including, “I pay attention to how I feel” (reverse scored), “When I’m upset, I believe that my feelings are valid and important” (reverse scored), and “When I’m upset, I acknowledge my emotions;” (e) Limited Access to Emotion Regulation Strategies which includes the items, “When I’m upset, I believe that I’ll end up feeling depressed,” “When I’m upset, I believe that wallowing
in it is all I can do,” and “When I’m upset, I believe that I will remain that way for a long
time;” and (f) Lack of Emotional Clarity including the items, “I have difficulty making sense
out of my feelings,” “I have no idea how I am feeling,” and “I am confused about how I feel.” Higher scores on each of the scale’s factors indicate greater difficulties in emotion regulation.

The DERS has high internal consistency as demonstrated by Cronbach’s alpha (α = .93). All six of the DERS subscales (computed from the six factors comprising the scale) demonstrate adequate internal consistency, with Cronbach’s α > .80 for each subscale. Construct validity of the DERS is provided by correlations in the expected positive direction (.60, p < .01) for the Overall DERS score and a measure of experiential avoidance (Acceptance and Action Questionnaire; Hayes, Strosahl, Wilson, Bissett, Pistorello, Toarmino et al., in press); and in the expected negative direction (-.23, p < .01) with a measure of emotional expressivity (Emotional Expressivity Scale; Kring, Smith, & Neale, 1994). The overall DERS score was also found to significantly correlate in the expected negative direction with a measure of expectancies for the self-regulation of negative moods (Generalized Expectancy for Negative Mood Regulation Scale; Catanzaro & Mearns, 1990), -.69, p < .01. Predictive validity of the DERS is provided by positive correlations between the overall DERS scores and a measure of self harm (Deliberate Self-Harm Inventory; Gratz, 2001), .20, p < .01 (for women) and .26, p < .05 (for men); and a measure of intimate partner abuse (Abuse-Perpetration Inventory, Liask, Conklin, Hopper, Miller, Altschuler, & Smith, 2000), .34, p < .01 (for men). The DERS also has good test-retest reliability over a period of 4-8 weeks (ρr = .88, p < .01).
Subjective Experience of Emotions Scale (SEE; Behr & Becker, 2002). The SEE consists of 42 items rated on a 5-point fully anchored scale (False, False to some extent, Neither true nor false, True to some extent, and True). This measure was developed in Germany with the intention of providing scores on seven dimensions that indicate an individual’s ability to label and understand the personal significance of emotional experiences, and regulate that experience. The version of the SEE used in this research is the current English version that was translated from the original German measure.

The seven dimensions that comprise the SEE and their respective sample items include: (a) Symbolization by Bodily Experience including the items, “My body often reflects my feelings,” “When I make decisions I rely on my bodily feelings,” and “Feelings like rapid heart beat, stomachache, skin irritation can give me a good idea of what I want;” (b) Experiencing Overwhelming Emotions which includes the items, “I’ve got some emotions that I would rather not have,” “I’m so full of emotions that I can hardly stand it,” and “I’ve got a lot of feelings inside me, which I’d like to be rid of;” (c) Symbolization by Imagination including the items, “My dreams clarify my feelings,” “In order to cope with stress it often helps me to focus on my daydreams,” and “My daydreams give me clues as to my needs and wishes;” (d) Lack of Self-Control consisting of the items, “My self-control could be better,” “When things are bubbling up inside me, unfortunately people around me can tell at once,” and “Thank God I am good at coping with my emotions” (reverse scored); (e) Experiencing Congruence including the items, “I feel what I feel and that’s ok,” “All my emotions have the right to be just as they are,” and “I trust all my feelings;” (f) Experiencing Lack of Emotions whose sample items include, “I don’t often feel my inner world”, “I often wish that I were more aware of my emotions,” and “I don’t often notice what my body is telling me;” and (g)
Regulation of Emotions including the items, “I have ways of controlling my emotions,” “If I want to be in a better and livelier mood, I can easily bring that about,” and “Most of the time I know how to calm down when I’m het up.”

Validation studies have been reported on a German sample. For all seven scales, Behr and Becker (2002) report Cronbach’s Alpha between .80 and .85. For men reliability ranges between .76 and .87, and for women, reliability is between .79 and .85. The SEE also demonstrates convergent and divergent validity with conceptually similar and dissimilar measures including the NEO-Five Factor Inventory (NEO-FFI) (German version), the Private Self-Conscious Scale (German version), the Clarity of Feelings Subscale from the Trait Meta Mood Scale (TMMS), and the Freiburger Personlichkeits Inventar (FPI) Scales Lebenszufriedenheit [life satisfaction], Belastung [stress], and Somatisierung [psychosomatic reactions].

The SEE has also been validated by Watson and Lilova (in press) using a Canadian sample. Inter-scale reliability was found to be within acceptable range, and Cronbach’s Alpha is reported between .66 and .88 for all seven scales. Reliability for men ranges between .50 and .89, and between .70 and .88 for women. The overall reliability of the SEE is .70, and Cronbach’s Alpha is reported at .71 for women and .78 for men. There were no significant differences found between men and women’s experience of emotions, as well, no age effects were found. The average scores on each of the seven subscales were lower in the Canadian sample compared to those in the German sample.

Convergent and discriminant relationships were assessed with the SEE scales and other conceptually similar and dissimilar variables including personality (NEO-FFI), private self-consciousness (PSCS), satisfaction with life (SWLS), perceived stress (PSQ),
psychosomatic symptoms (PSC), and emotional intelligence (TMMS). Low to moderate correlations, ranging between .23 and .41, were found between Experiencing Congruence and Extaversion, Conscientiousness, Satisfaction with Life, and the Clarity subscale of the TMMS. Individuals who reported good regulation of emotion on the Regulation of Emotions scale also scored highly on Extraversion \( (r = -.37, p < .001) \), Satisfaction with Life \( (r = -.29, p < .001) \), and the Repair subscale of the TMMS \( (r = -.43, p < .001) \). Experiencing Overwhelming Emotions correlated highly with Neuroticism \( (r = .78, p < .001) \). The Lack of Self-Control scale was moderately related to Neuroticism \( (r = .34, p < .001) \), Stress \( (r = .37, p < .001) \), Psychosomatic Symptoms \( (r = .26, p < .001) \), and the Repair subscale of the emotional intelligence measure, the TMMS \( (r = -.35, p < .001) \). The Experiencing Lack of Emotions subscale is somewhat related to Neuroticism \( (r = .29, p < .001) \), and negatively related to Extraversion \( (r = -.26, p < .001) \), Private Self-Consciousness \( (r = -.24, p < .001) \), and the Clarity of Feelings subscale of the TMMS \( (r = -.22, p < .001) \). The Symbolization of Bodily Experience and Symbolization by Imagination subscales have low to moderate correlations with Openness to Experience \( (r = .21, p < .001 \) and \( r = .36, p < .001 \) respectively). As well, both of these scales correlate moderately with Private Self-Consciousness \( (r = .34, p < .001 \) and \( r = .37, p < .001 \) respectively). The findings involving these two scales indicate that they are related to an openness with respect to emotional processing, self-reflection and the valuing of inner processes.

Demographic Information Questionnaire. The demographic information questionnaire was designed to gather information regarding participants’ gender, age, race, highest level of education achieved, employment status, and country of residence.
Procedure

Data were collected for this study using an online survey that was created using a software product called Survey Monkey. Survey Monkey allows users to create and customize online surveys, collect responses, and download data into SPSS for statistical analysis. Data collection occurred over a two and a half month period, beginning in November 2008 and ending in January 2009. Participants were recruited using a variety of methods. The first method involved sending out emails to graduate students who were included on OISE of the University of Toronto’s departmental listservs. Departmental administrative assistants were asked to forward a participant recruitment email on behalf of the researcher to students on their listservs. The participant recruitment email briefly stated the purpose of the study, time commitment, eligibility criteria, and it included a link to the online survey. Second, the researcher visited several graduate level classes at OISE and provided students with a flyer that contained information about the study and included the website address for accessing the online survey. Third, flyers advertising the research study were posted in several public and student locations at the University of Toronto. The final method of recruitment was by word of mouth. All students and adults from the general public whom the researcher invited to participate in the study were encouraged to forward the online survey link to other individuals whom they thought might be interested in participating. In order to participate in the study, individuals had to be 18 years of age or older.

The online survey consisted of six major sections. The first section consisted of an informed consent agreement which explained the purpose of the study, eligibility criteria, the voluntary nature of participation, the procedure participants would be involved in, the time commitment required for participation, the potential risks and benefits of participation, and
how responses to the survey would be kept confidential and anonymous. After reading this information, potential participants were asked to indicate whether they agreed to participate in the study. Individuals who did not want to participate in the study were directed to the last section of the survey which thanked them for their time, provided them with a list of counselling resources, and instructed them on how to clear their computer’s browser history.

Individuals who agreed to participate in the study were directed to the second section of the survey where they completed the preliminary Measure of Affect Regulation Strategies. The third and fourth sections of the survey consisted of the Subjective Experience of Emotions Scale and Difficulties in Emotion Regulation Scale, respectively. Participants provided demographic information in the fifth section of the survey and they submitted their final responses in the sixth and final section of the survey.

Materials that were used to recruit participants, as well as, the informed consent agreement and appreciation page of the survey are presented in Appendix B and Appendix C, respectively.

Results

Internal Consistency Estimates of Reliability and Principal Components Analysis

In an effort to explore the properties and provide evidence of reliability for the preliminary Measure of Affect Regulation Strategies, internal consistency analyses were conducted for each of the predetermined categories of affect regulation strategies. The structure of categories for the affect regulation strategies is presented in Figure 1.

The responses to items in each of the categories were in the same metric and no score transformations were required. Cronbach’s alpha was computed for sets of items belonging to each of these categories in order to determine whether the items correlated positively with
one another. Cronbach’s alpha values were interpreted based on George and Mallery’s (2003) rules of thumb: “>_ .9 – Excellent, >.8 – Good, > .7 – Acceptable, >.6 – Questionable, >.5 – Poor, and < .5 – Unacceptable.”

In the case of the broad Behavioural Diversion category, Cronbach’s alpha was found to be questionable, poor or unacceptable for its four subcategories. As a result, principal component analyses were conducted to define dimensions underlying the broad Behavioural Diversion category and to determine what items should be included in this category. Principal component analyses were not conducted for the other three broad categories of affect regulation strategies which included Cognitive Engagement, Cognitive Diversion, and Behavioural Engagement. This decision was made because Cronbach’s alpha was found to be acceptable for the sets of items that made up these three categories, and the internal consistency analyses confirmed the predetermined structure of these three categories’ items.

The first broad category of affect regulation strategies, Cognitive Engagement, consisted of eight items including 40, 44, 45, 47, 49, 51, 52, and 53. Cronbach’s alpha (n = 181) for these eight items was .68. When item 44 “Ruminating or thinking about the problem over and over” was removed from this category, Cronbach’s alpha was .76 which suggested that the interrelatedness of items in this category was acceptable. As a result of this finding, the Cognitive Engagement category was represented by seven items.
Figure 1. Categories of affect regulation strategies.
Table 4 presents the affect regulation strategies that comprise the Cognitive Engagement category.

Table 4

*Cognitive Engagement Category of Affect Regulation Strategies*

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>Thinking about how to solve the problem</td>
</tr>
<tr>
<td>45</td>
<td>Putting feelings into perspective</td>
</tr>
<tr>
<td>47</td>
<td>Thinking rationally about the problem</td>
</tr>
<tr>
<td>49</td>
<td>Telling myself it is not the end of the world</td>
</tr>
<tr>
<td>51</td>
<td>Thinking positively</td>
</tr>
<tr>
<td>52</td>
<td>Reappraising or assessing the problem differently</td>
</tr>
<tr>
<td>53</td>
<td>Telling myself that the bad situation will pass</td>
</tr>
</tbody>
</table>

The second broad category of affect regulation strategies, Cognitive Diversion, consisted of three separate subcategories. Cronbach’s alpha was computed for each of the three separate Cognitive Diversion subcategories. The first subcategory, Cognitive Diversion – Disengagement, consisted of five items. These items included 2, 3, 6, 7, and 8. Cronbach’s alpha ($n = 181$) for these five items was .69 which was not considered an acceptable enough value to have these items form a subcategory of their own. The second subcategory, Cognitive Diversion - Distraction using pleasant or relaxing thoughts, consisted of four items including 12, 17, 25, and 28. Cronbach’s alpha ($n = 185$) for this set of items was .71, and was therefore considered acceptable. Lastly, the third subcategory named Cognitive Diversion - Distraction by reallocating resources (using active/constructive thoughts), also consisted of four items. They included items 15, 20, 23, and 27. Cronbach’s alpha ($n = 182$)
was .47, and was considered unacceptable for these four items. As was the case with the first subcategory of Cognitive Diversion strategies, these four items did not positively correlate enough with one another to form a separate subcategory.

To determine whether the items from all three separate Cognitive Diversion subcategories (Cognitive Diversion – Disengagement, Cognitive Diversion - Distraction using pleasant or relaxing thoughts, Cognitive Diversion - Distraction by reallocating resources) were more positively correlated with one another, Cronbach’s alpha was computed for the total number of Cognitive Diversion items. Cronbach’s alpha ($n = 178$) for this set of 13 items was .72. Given that Cronbach’s alpha was found to be acceptable, the Cognitive Diversion category of affect regulation strategies was represented by these 13 items. A list of affect regulation strategies representing the Cognitive Diversion category is presented in Table 5.

Table 5

*Cognitive Diversion Category of Affect Regulation Strategies*

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Trying to put it out of my mind</td>
</tr>
<tr>
<td>3</td>
<td>Mentally switching off</td>
</tr>
<tr>
<td>6</td>
<td>Not thinking about the problem</td>
</tr>
<tr>
<td>7</td>
<td>Trying to think of nothing</td>
</tr>
<tr>
<td>8</td>
<td>Trying not to dwell on the problem</td>
</tr>
<tr>
<td>12</td>
<td>Fantasizing about pleasant things</td>
</tr>
<tr>
<td>15</td>
<td>Thinking about work</td>
</tr>
<tr>
<td>17</td>
<td>Thinking about things that make me happy</td>
</tr>
</tbody>
</table>
The third broad category of affect regulation strategies, Behavioural Engagement, consisted of seven items. These items included 39, 41, 42, 43, 46, 48, and 50. Cronbach’s alpha ($n = 181$) was .62 for this set of items. In an attempt to improve the interrelatedness among items for this category, the researcher omitted the following three items from the reliability analysis including 43 “Writing my feelings down (e.g., journaling),” 48 “Using humour (e.g., laugh)” and 50 “Letting my feelings out (e.g., cry, scream).” These three items had the lowest corrected item-total correlations out of all the items in the set (.30, .18, and .27 respectively). The four items that were retained included 39, 41, 42, and 46. The purpose of retaining these items is because they were considered to be more conceptually similar, in that they represented direct and practical action taken by an individual to address or solve the problem or negative affect. Cronbach’s alpha ($n = 185$) for these four items was found to be .72. As a result of this acceptable finding, the Behavioural Engagement category was represented by these four items. Table 6 presents a list of the affect regulation strategies that are included in the Behavioural Engagement category.
Table 6

**Behavioural Engagement Category of Affect Regulation Strategies**

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>39</td>
<td>Talking about the problem</td>
</tr>
<tr>
<td>41</td>
<td>Calling, talking to or being with someone (seek social support)</td>
</tr>
<tr>
<td>42</td>
<td>Seeking practical advice</td>
</tr>
<tr>
<td>46</td>
<td>Trying to solve the problem</td>
</tr>
</tbody>
</table>

The fourth broad category of affect regulation strategies, Behavioural Diversion, consisted of four separate subcategories. Cronbach’s alpha was computed for each of the four separate Behavioural Diversion subcategories. The first subcategory, Behavioural Diversion – Disengagement, consisted of five items. These items included 1, 4, 5, 9, and 10. Cronbach’s alpha ($n = 180$) was found to be poor at .50 for this set of items. When items 9 “Sleeping” and 10 “Spending some time alone” were omitted from the reliability analysis, Cronbach’s alpha ($n = 183$) only increased to .60. The results indicated that the remaining three items did not correlate strongly enough to form a subcategory on their own.

The second subcategory named Behavioural Diversion – Distraction using pleasant or relaxing activities, included the following seven items: 13, 21, 24, 31, 33, 34, and 37. Cronbach’s alpha ($n = 180$) for this set of items was .51. Items 21 “Taking a bath” and 24 “Meditating” were subsequently removed from the reliability analysis because they had the lowest corrected item-total correlation of .10 each, Cronbach’s alpha ($n = 183$) was recalculated for the remaining five items and was found to be .64. These results indicated that this set of items were not related strongly enough to form an independent subcategory.
The third subcategory named Behavioural Diversion - Distraction by reallocating resources (or with active/constructive activities) consisted of six items. They included 14, 18, 19, 22, 29, and 36. Cronbach’s alpha \((n = 182)\) for this set of items was .55. An examination of the subcategory’s items indicated that Cronbach’s alpha would not increase to an acceptable value, even if some items were removed from the analysis. As a result, these items were unable to form a subcategory of their own.

The fourth subcategory, Behavioural Diversion - Distraction by activities which may be harmful to self, consisted of five items. The items included 16, 26, 30, 32, and 35. Cronbach’s alpha \((n = 184)\) for this set of items was .39. An examination of the items revealed that Cronbach’s alpha would remain below the acceptable range of .70, even if some of the items were omitted. As a result of this finding, the combination of these items was unable to form an independent subcategory.

Since, internal consistency analyses of the four separate Behavioural Diversion subcategories (Behavioural Diversion – Disengagement, Behavioural Diversion – Distraction using pleasant or relaxing activities, Behavioural Diversion - Distraction by reallocating resources, and Behavioural Diversion - Distraction by activities which may be harmful to self) did not confirm the predetermined structure of items, exploratory factor analysis using principal component analysis was used to identify the number of components underlying the 23 items selected to represent the broad Behavioural Diversion category. Using principal component analyses, eight components were extracted based on the absolute magnitude of the eigenvalues of components \((\text{eigenvalue} > 1)\). These eight components accounted for 60.4% of the item variance (see Table 7 for the eigenvalues and percentage of variance accounted for by the eight components initially and upon extraction).
Table 7

*Eigenvalues and Percentages of Variance Accounted for by the Eight Components of the Behavioural Diversion Category*

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial eigenvalues</th>
<th>Extraction sums of squared loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% Variance</td>
</tr>
<tr>
<td>1</td>
<td>2.857</td>
<td>12.421</td>
</tr>
<tr>
<td>3</td>
<td>1.896</td>
<td>8.241</td>
</tr>
<tr>
<td>4</td>
<td>1.668</td>
<td>7.250</td>
</tr>
<tr>
<td>5</td>
<td>1.612</td>
<td>7.011</td>
</tr>
<tr>
<td>6</td>
<td>1.355</td>
<td>5.892</td>
</tr>
<tr>
<td>7</td>
<td>1.207</td>
<td>5.246</td>
</tr>
<tr>
<td>8</td>
<td>1.151</td>
<td>5.003</td>
</tr>
</tbody>
</table>

Next, the 8-component solution was rotated using Varimax with Kaiser Normalization. The rotated component matrix is shown in Table 8. This matrix shows component loadings between each of the items and the components. As presented in the table, each component has two to four items loaded primarily on it. Item 24 “Meditating” was the only item that did not have a component loading of greater than .30; therefore, it was not included in any of the eight components.

To further explore the component structure underlying all 23 items in the Behavioural Diversion category, principal component analysis was conducted a second time. This time, based on the predetermined conceptualization that four subcategories would constitute the broader Behavioural Diversion category, four components were specified to be extracted by principal component analysis. These four components accounted for 37.3% of the item variance.
Table 8

*Item Loadings for Behavioural Diversion Strategies Included in the 8-Component Matrix*

<table>
<thead>
<tr>
<th>Item #</th>
<th>Strategy</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>Not taking action to address the problem or negative feelings</td>
<td>.501</td>
</tr>
<tr>
<td>4</td>
<td>Removing myself from the problematic situation</td>
<td>.813</td>
</tr>
<tr>
<td>5</td>
<td>Avoiding the person that caused the unpleasant negative feelings</td>
<td>.784</td>
</tr>
<tr>
<td>9</td>
<td>Sleeping</td>
<td>.763</td>
</tr>
<tr>
<td>10</td>
<td>Spending some time alone</td>
<td>.735</td>
</tr>
<tr>
<td>13</td>
<td>Going for a walk</td>
<td>.794</td>
</tr>
<tr>
<td>21</td>
<td>Taking a bath</td>
<td>.772</td>
</tr>
<tr>
<td>24</td>
<td>Meditating</td>
<td>-.811</td>
</tr>
<tr>
<td>31</td>
<td>Doing the things that I enjoy</td>
<td>.665</td>
</tr>
<tr>
<td>33</td>
<td>Listening to music</td>
<td>.343</td>
</tr>
<tr>
<td>34</td>
<td>Engaging in a hobby</td>
<td>.628</td>
</tr>
<tr>
<td>37</td>
<td>Doing something relaxing</td>
<td>.700</td>
</tr>
<tr>
<td>14</td>
<td>Doing housework</td>
<td>-.385</td>
</tr>
<tr>
<td>18</td>
<td>Doing something to take my mind off the problem</td>
<td>.307</td>
</tr>
<tr>
<td>19</td>
<td>Exercising</td>
<td>.805</td>
</tr>
<tr>
<td>22</td>
<td>Keeping busy</td>
<td>.377</td>
</tr>
<tr>
<td>16</td>
<td>Having sex</td>
<td>.639</td>
</tr>
<tr>
<td>26</td>
<td>Drinking alcohol</td>
<td>.682</td>
</tr>
<tr>
<td>29</td>
<td>Doing something I’ve been putting off</td>
<td>.731</td>
</tr>
<tr>
<td>30</td>
<td>Using drugs other than alcohol, cigarettes, or caffeine</td>
<td>.439</td>
</tr>
<tr>
<td>32</td>
<td>Going shopping</td>
<td>.550</td>
</tr>
<tr>
<td>35</td>
<td>Eating something</td>
<td>.672</td>
</tr>
<tr>
<td>36</td>
<td>Doing something useful</td>
<td>.491</td>
</tr>
</tbody>
</table>

Note: Items loading on each component are in bold.
The 4-component solution was rotated using Varimax with Kaiser Normalization.

The rotated component matrix is shown in Table 9. This matrix shows component loadings between each of the items and the components. As presented in the table, each component has three to nine items loaded primarily on it.

Table 9

*Item Loadings for Behavioural Diversion Strategies Included in the 4-Component Matrix*

<table>
<thead>
<tr>
<th>Item #</th>
<th>Strategy</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>1</td>
<td>Not taking action to address the problem or negative feelings</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Removing myself from the problematic situation</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Avoiding the person that caused the unpleasant negative feelings</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Sleeping</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Spending some time alone</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Going for a walk</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Taking a bath</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Meditating</td>
<td>-.313</td>
</tr>
<tr>
<td>31</td>
<td>Doing the things that I enjoy</td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>Listening to music</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Engaging in a hobby</td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>Doing something relaxing</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Doing housework</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Doing something to take my mind off the problem</td>
<td>.525</td>
</tr>
<tr>
<td>19</td>
<td>Exercising</td>
<td></td>
</tr>
</tbody>
</table>
Reliability analyses were conducted for sets of items belonging to the four components. The results of the internal consistency analyses are reported in Table 10.

Table 10

Cronbach’s Alpha for Four Components of the Behavioural Diversion Category

<table>
<thead>
<tr>
<th>Component</th>
<th>Item Numbers</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>31, 33, 34, 37, 18, 29, 32, 35, 36</td>
<td>.688</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(n = 182)</td>
</tr>
<tr>
<td>2</td>
<td>1, 4, 5, 10</td>
<td>.518</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(n = 182)</td>
</tr>
<tr>
<td>3</td>
<td>13, 21, 24, 14, 19, 22</td>
<td>.494</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(n = 181)</td>
</tr>
<tr>
<td>4</td>
<td>16, 26, 30</td>
<td>.435</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(n = 184)</td>
</tr>
</tbody>
</table>

As can be seen from this table, only the first component had Cronbach’s alpha close to the acceptable value of .70. As a result, it was decided to have one component represent the Behavioural Diversion category. Principal component analysis was conducted with a 1-component solution to determine which items would contribute to the Behavioural Diversion category. This one component accounted for 12.42% of the item variance
The 1-component solution for Behavioural Diversion category is shown in Table 11. Cronbach’s alpha ($n = 181$) for this set of items was .71. As a result of this acceptable finding, the Behavioural Diversion category was represented by these 11 items.

Table 11

*Item Loadings for Behavioural Diversion Strategies Included in the Final Component Matrix*

<table>
<thead>
<tr>
<th>Item #</th>
<th>Strategy</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Not taking action to address the problem or negative feelings</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Removing myself from the problematic situation</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Avoiding the person that caused the unpleasant negative feelings</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Sleeping</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Spending some time alone</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Going for a walk</td>
<td>.429</td>
</tr>
<tr>
<td>21</td>
<td>Taking a bath</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Meditating</td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>Doing the things that I enjoy</td>
<td>.698</td>
</tr>
<tr>
<td>33</td>
<td>Listening to music</td>
<td>.501</td>
</tr>
<tr>
<td>34</td>
<td>Engaging in a hobby</td>
<td>.670</td>
</tr>
<tr>
<td>37</td>
<td>Doing something relaxing</td>
<td>.460</td>
</tr>
<tr>
<td>14</td>
<td>Doing housework</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Doing something to take my mind off the problem</td>
<td>.481</td>
</tr>
<tr>
<td>19</td>
<td>Exercising</td>
<td>.338</td>
</tr>
<tr>
<td>22</td>
<td>Keeping busy</td>
<td>.430</td>
</tr>
</tbody>
</table>
### Total Scores for Categories of Affect Regulation Strategies, the DERS, and the SEE

**Subscales**

Total scores were calculated for the complete sample of participants for each of the categories of affect regulation strategies including Cognitive Engagement, Cognitive Diversion, Behavioural Engagement, and Behavioural Diversion by computing the mean across the items measuring each category. Total scores were computed as well for each of the six DERS subscales including Nonacceptance of Emotional Responses, Difficulties Engaging in Goal-Directed Behaviour, Impulse Control Difficulties, Lack of Emotional Awareness, Limited Access to Emotion Regulation Strategies, and Lack of Emotional Clarity. DERS items 20, 24, 6, 2, 10, 17, 8, 34, 22, 7, and 1 were reversed scored as required by the scale. Total scores were also calculated for each of the seven SEE scales including Experiencing Congruence, Experiencing Overwhelming Emotions, Experiencing Lack of Emotions, Symbolization by Bodily Experience, Symbolization by Imagination, Regulation of Emotions, and Lack of Self-Control. As required by the SEE, several of its scales’ items were reversed scored including items 8, 9, 15, 24, and 40. The total scores which were computed as the average across the set of items provided the researcher with an interpretable number

<table>
<thead>
<tr>
<th></th>
<th>Having sex</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>26</td>
<td>Drinking alcohol</td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>Doing something I’ve been putting off</td>
<td>.389</td>
</tr>
<tr>
<td>30</td>
<td>Using drugs other than alcohol, cigarettes, or caffeine</td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>Going shopping</td>
<td>.386</td>
</tr>
<tr>
<td>35</td>
<td>Eating something</td>
<td></td>
</tr>
<tr>
<td>36</td>
<td>Doing something useful</td>
<td>.531</td>
</tr>
</tbody>
</table>

Total scores were calculated for the complete sample of participants for each of the categories of affect regulation strategies including Cognitive Engagement, Cognitive Diversion, Behavioural Engagement, and Behavioural Diversion by computing the mean across the items measuring each category. Total scores were computed as well for each of the six DERS subscales including Nonacceptance of Emotional Responses, Difficulties Engaging in Goal-Directed Behaviour, Impulse Control Difficulties, Lack of Emotional Awareness, Limited Access to Emotion Regulation Strategies, and Lack of Emotional Clarity. DERS items 20, 24, 6, 2, 10, 17, 8, 34, 22, 7, and 1 were reversed scored as required by the scale. Total scores were also calculated for each of the seven SEE scales including Experiencing Congruence, Experiencing Overwhelming Emotions, Experiencing Lack of Emotions, Symbolization by Bodily Experience, Symbolization by Imagination, Regulation of Emotions, and Lack of Self-Control. As required by the SEE, several of its scales’ items were reversed scored including items 8, 9, 15, 24, and 40. The total scores which were computed as the average across the set of items provided the researcher with an interpretable number
which was similar to the rating scales used on the Affect Regulation Strategies Measure, the DERS and the SEE. Total scores computed in this manner also ensured that scores could be compared across each of the four categories of affect regulation strategies, as well as, across the DERS and the SEE’s scales.

**Descriptive Statistics for Categories of Affect Regulation Strategies**

The mean and standard deviation for each of the four categories of affect regulation strategies including Cognitive Engagement, Cognitive Diversion, Behavioural Engagement, and Behavioural Diversion are presented in Table 12.

Table 12

**Mean Scores and Standard Deviations for Categories of Affect Regulation Strategies (N = 186)**

<table>
<thead>
<tr>
<th>Category of Affect Regulation Strategies</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive Engagement</td>
<td>3.98</td>
<td>.62</td>
</tr>
<tr>
<td>Cognitive Diversion</td>
<td>2.89</td>
<td>.62</td>
</tr>
<tr>
<td>Behavioural Engagement</td>
<td>4.28</td>
<td>.68</td>
</tr>
<tr>
<td>Behavioural Diversion</td>
<td>3.75</td>
<td>.59</td>
</tr>
</tbody>
</table>

As presented in this table, participants tended to report using Behavioural Engagement strategies more than the other three categories. They tended to report using Cognitive Diversion strategies the least.

**Relationships between the DERS and Self-Reported Use of Categories of Affect Regulation Strategies**

Pearson product-moment correlation coefficients were computed to assess whether six separate subscales of the Difficulties in Emotion Regulation Scale (DERS) were related to participants’ self-reported use of Cognitive Engagement, Cognitive Diversion,
Behavioural Engagement, and Behavioural Diversion categories of affect regulation strategies. These correlations are presented in Table 13.

Table 13

Correlations among DERS Subscales and Categories of Affect Regulation Strategies (N = 186)

<table>
<thead>
<tr>
<th>DERS Subscales</th>
<th>Cognitive Engagement</th>
<th>Cognitive Diversion</th>
<th>Behavioural Engagement</th>
<th>Behavioural Diversion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nonacceptance of Emotional Responses</td>
<td>.011</td>
<td>.214**</td>
<td>.009</td>
<td>.082</td>
</tr>
<tr>
<td>Difficulties Engaging in Goal-Directed Behaviour</td>
<td>-.248**</td>
<td>-.061</td>
<td>.055</td>
<td>-.186*</td>
</tr>
<tr>
<td>Impulse Control Difficulties</td>
<td>-.186*</td>
<td>.030</td>
<td>-.029</td>
<td>-.157*</td>
</tr>
<tr>
<td>Lack of Emotional Awareness</td>
<td>-.259**</td>
<td>.121</td>
<td>-.352**</td>
<td>-.071</td>
</tr>
<tr>
<td>Limited Access to Emotion Regulation Strategies</td>
<td>-.290**</td>
<td>-.037</td>
<td>-.035</td>
<td>-.288**</td>
</tr>
<tr>
<td>Lack of Emotional Clarity</td>
<td>-.168*</td>
<td>.225**</td>
<td>-.234**</td>
<td>.018</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

The first hypothesis predicted that participants who scored high on the Nonacceptance of Emotional Responses, Lack of Emotional Awareness, Limited Access to Emotion Regulation Strategies and Lack of Emotional Clarity subscales would report using Cognitive and Behavioural Diversion strategies more. Significant positive, yet weak correlations were found for the Nonacceptance of Emotional Responses ($r = .21, p < .01$) and Lack of Emotional Clarity ($r = .23, p < .01$) subscales and the Cognitive Diversion category of affect regulation strategies, such that participants who scored high on these two subscales tended to report using Cognitive Diversion strategies more. Contrary to the hypothesis, a negative and weak correlation was found between the Limited Access to Emotion Regulation
Strategies and the Behavioural Diversion category of affect regulation strategies \((r = -.23, p < .01)\).

In addition, it was found that participants who scored high on the Lack of Emotional Awareness, Limited Access to Emotion Regulation Strategies and Lack of Emotional Clarity subscales tended to use Cognitive Engagement strategies less; however, these relationships were weak. Significant negative, yet weak correlations were also found between participants who scored high on the Lack of Emotional Awareness and Lack of Emotional Clarity subscales and the Behavioural Engagement category of affect regulation strategies.

The second hypothesis predicted that participants who scored high on the Difficulties Engaging in Goal-Directed Behaviour and Impulse Control Difficulties subscales would report using Behavioural Diversion strategies more. The results did not support this prediction, rather it was found that participants who scored high on the Difficulties Engaging in Goal-Directed Behaviour and Impulse Control Difficulties subscales tended to use the Behavioural Diversion category of affect regulation strategies less, although these relationships were weak \((r = -0.19, p < .05\) and \(r = -0.16, p < .05\) respectively). In addition, significant negative yet weak correlations were found for the Difficulties Engaging in Goal-Directed Behaviour and Impulse Control Difficulties subscales and the Cognitive Engagement category.

**Relationships between the SEE and Self-Reported Use of Categories of Affect Regulation Strategies**

Pearson product-moment correlation coefficients were computed to assess whether seven separate scales of the Subjective Experience of Emotions Scale (SEE) were related to participants’ self-reported use of Cognitive Engagement, Cognitive Diversion, Behavioural
Engagement, and Behavioural Diversion categories of affect regulation strategies. Table 14 presents these correlations.

Table 14

*Correlations Among SEE Scales and Categories of Affect Regulation Strategies (N = 186)*

<table>
<thead>
<tr>
<th>SEE Scales</th>
<th>Cognitive Engagement</th>
<th>Cognitive Diversion</th>
<th>Behavioural Engagement</th>
<th>Behavioural Diversion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiencing Congruence</td>
<td>(0.266^{**})</td>
<td>-.063</td>
<td>.141</td>
<td>.037</td>
</tr>
<tr>
<td>Experiencing Overwhelming Emotions</td>
<td>-.213^{**}</td>
<td>.068</td>
<td>-.056</td>
<td>-.114</td>
</tr>
<tr>
<td>Experiencing Lack of Emotions</td>
<td>-.064</td>
<td>.115</td>
<td>-.209^{**}</td>
<td>-.024</td>
</tr>
<tr>
<td>Symbolization by Bodily Experience</td>
<td>.124</td>
<td>.097</td>
<td>.075</td>
<td>.001</td>
</tr>
<tr>
<td>Symbolization by Imagination</td>
<td>-.034</td>
<td>(0.276^{**})</td>
<td>-.081</td>
<td>-.028</td>
</tr>
<tr>
<td>Regulation of Emotions</td>
<td>(0.245^{**})</td>
<td>.160</td>
<td>-.053</td>
<td>.134</td>
</tr>
<tr>
<td>Lack of Self-Control</td>
<td>-.133</td>
<td>-.057</td>
<td>.045</td>
<td>-.071</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

The first hypothesis predicted that participants who scored high on the Symbolization by Bodily Experience, Experiencing Congruence and Regulation of Emotions scales would report using Cognitive and Behavioural Engagement strategies more. Significant positive, but weak correlations were found for the Experiencing Congruence and Regulation of Emotions scales and the Cognitive Engagement category of affect regulation strategies \(r = .27, p < .01\) and \(r = .25, p < .01\) respectively), such that participants who scored high on these two scales tended to use Cognitive Engagement strategies more. Neither of the Symbolization by Bodily Experience, Experiencing Congruence and Regulation of Emotions scales correlated significantly with the Behavioural Engagement category. Additional findings revealed that participants who scored high on the Regulation of Emotions scale also tended to use
Cognitive Diversion strategies more \( (r = .16, p < .01) \), although this relationship was very weak.

Second, it was predicted that participants who scored high on Experiencing Overwhelming Emotions and Lack of Self-Control would report using Behavioural Diversion strategies more. The results did not support this hypothesis. The only significant finding for these two scales and the categories of affect regulation strategies revealed a significant negative and weak correlation between the Experiencing Overwhelming Emotions scale and Cognitive Engagement category. It was found that individuals who scored high on Experiencing Overwhelming Emotions tended to use Cognitive Engagement strategies less \( (r = -.21, p < .01) \).

The third hypothesis predicted that participants who scored high on Symbolization by Imagination would report using cognitive diversion and/or cognitive engagement strategies more. The findings partially supported this prediction such that individuals who scored high on the Symbolization by Imagination scale tended to use the Cognitive Diversion category of affect regulation strategies more, although this relationship was weak \( (r = .28, p < .01) \).

The fourth hypothesis predicted that participants who scored high on Experiencing Lack of Emotions will report using cognitive and behavioural diversion strategies more. The results did not support this hypothesis; however, a significant negative and weak correlation was found between the Experiencing Lack of Emotions scale and Behavioural Engagement category of affect regulation strategies such that participants who scored high on Experiencing Lack of Emotions tended to use Behavioural Engagement strategies less \( (r = -.21, p < .01) \).
Convergent and Discriminant Validity of the DERS and SEE

Convergent and discriminant relationships were assessed between the six DERS subscales (Nonacceptance of Emotional Responses, Difficulties Engaging in Goal-Directed Behaviour, Impulse Control Difficulties, Lack of Emotional Awareness, Limited Access to Emotion Regulation Strategies, and Lack of Emotional Clarity) and the seven conceptually similar and different scales of the SEE (Experiencing Congruence, Experiencing Overwhelming Emotions, Experiencing Lack of Emotions, Symbolization by Bodily Experience, Symbolization by Imagination, Regulation of Emotions, and Lack of Self-Control). The Pearson product-moment correlation coefficient was computed to assess the relationships between the DERS subscales and SEE scales. Table 15 presents the correlations between these two scales.

The first hypothesis predicted that the Nonacceptance of Emotional Responses subscale of the DERS would correlate negatively with the Experiencing Congruence scale of the SEE. The results supported this hypothesis and revealed that the Nonacceptance of Emotional Responses subscale of the DERS correlated negatively and moderately with the Experiencing Congruence scale of the SEE ($r = -.46$, $p < .01$). Although no other predictions were made it was found that the Nonacceptance of Emotional Responses subscale of the DERS correlated positively and moderately with the Experiencing Overwhelming Emotions scale of the SEE ($r = .49$, $p < .01$), and it correlated negatively and moderately with the Regulation of Emotions scale of the SEE ($r = -.34$, $p < .01$).

The second hypothesis predicted that the Difficulties Engaging in Goal-Directed Behaviour subscale of the DERS would correlate positively with the Experiencing Overwhelming Emotions scale of the SEE. As predicted, the Difficulties Engaging in Goal-
Directed Behaviour subscale of the DERS correlated positively and moderately with the Experiencing Overwhelming Emotions scale of the SEE \( (r = .47, p < .01) \). Additional findings revealed that the Difficulties Engaging in Goal-Directed Behaviour scale correlated negatively and moderately with the Experiencing Congruence \( (r = -.33, p < .01) \) and Regulation of Emotions \( (r = -.48, p < .01) \) scales of the SEE; and it correlated positively and moderately with the Lack of Self-Control scale of the SEE \( (r = .37, p < .01) \).

The third hypothesis predicted that the Impulse Control Difficulties subscale of the DERS would correlate positively with the Experiencing Overwhelming Emotions and Lack of Self-Control scales from the SEE. The results supported this prediction such that the Impulse Control Difficulties subscale of the DERS correlated positively and moderately with the Experiencing Overwhelming Emotions \( (r = .60, p < .01) \) and Lack of Self-Control \( (r = .57, p < .01) \) scales from the SEE. No other predictions were made; however, it was found that the Impulse Control Difficulties subscale correlated negatively and moderately with the Experiencing Congruence \( (r = -.30, p < .01) \) and Regulation of Emotions \( (r = -.54, p < .01) \) scales of the SEE.

The fourth hypothesis predicted that the Lack of Emotional Awareness subscale of the DERS would correlate positively with the Experiencing Lack of Emotions scale of the SEE. As predicted the Lack of Emotional Awareness subscale of the DERS correlated positively and moderately with the Experiencing Lack of Emotions scale of the SEE \( (r = .49, p < .01) \). Additional findings revealed that the Lack of Emotional Awareness subscale correlated negatively and moderately with the Experiencing Congruence \( (r = -.51, p < .01) \) and Symbolization by Bodily Experience \( (r = -.30, p < .01) \) scales of the SEE.
Table 15

*Correlations between the DERS and SEE Scales (N = 186)*

<table>
<thead>
<tr>
<th>SEE Scales</th>
<th>Nonacceptance of Emotional Responses</th>
<th>Difficulties Engaging in Goal-Directed Behaviour</th>
<th>Impulse Control Difficulties</th>
<th>Lack of Emotional Awareness</th>
<th>Limited Access to Emotion Regulation Strategies</th>
<th>Lack of Emotional Clarity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experiencing Congruence</td>
<td>-.456**</td>
<td>-.333**</td>
<td>-.303**</td>
<td>-.508**</td>
<td>-.352**</td>
<td>-.476**</td>
</tr>
<tr>
<td>Experiencing Overwhelming Emotions</td>
<td>.489**</td>
<td>.470**</td>
<td>.595**</td>
<td>.066</td>
<td>.615**</td>
<td>.267**</td>
</tr>
<tr>
<td>Experiencing Lack of Emotions</td>
<td>.174*</td>
<td>.161*</td>
<td>.124</td>
<td>.492**</td>
<td>.086</td>
<td>.522**</td>
</tr>
<tr>
<td>Symbolization by Bodily Experience</td>
<td>.050</td>
<td>.049</td>
<td>.126</td>
<td>-.295**</td>
<td>.175*</td>
<td>-.136</td>
</tr>
<tr>
<td>Symbolization by Imagination</td>
<td>.154*</td>
<td>.162*</td>
<td>.175*</td>
<td>-.130</td>
<td>.291**</td>
<td>.069</td>
</tr>
<tr>
<td>Regulation of Emotions</td>
<td>-.342**</td>
<td>-.481**</td>
<td>-.541**</td>
<td>-.055</td>
<td>-.541**</td>
<td>-.243**</td>
</tr>
<tr>
<td>Lack of Self-Control</td>
<td>.178*</td>
<td>.371**</td>
<td>.566**</td>
<td>-.068</td>
<td>.408**</td>
<td>.146*</td>
</tr>
</tbody>
</table>

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).
The fifth hypothesis predicted that the Limited Access to Emotion Regulation Strategies subscale of the DERS would correlate negatively with the Regulation of Emotions scale of the SEE. The results confirmed this prediction, such that the Limited Access to Emotion Regulation Strategies subscale of the DERS correlated negatively and moderately with the Regulation of Emotions scale of the SEE ($r = -.54, p < .01$). Although no other predictions were made, the findings also revealed that the Limited Access to Emotion Regulation Strategies subscale of the DERS correlated positively and moderately with the Experiencing Overwhelming Emotions ($r = .62, p < .01$), and Lack of Self-Control ($r = .41, p < .01$) scale of the SEE. Its correlation was positive, but weak with the Symbolization by Imagination ($r = .29, p < .01$) scale of the SEE. As well, it correlated negatively and moderately with the Experiencing Congruence ($r = -.35, p < .01$) scale of the SEE.

The sixth hypothesis predicted that the Lack of Emotional Clarity subscale of the DERS would correlate positively with the Experiencing Lack of Emotions scale of the SEE, and it would correlate negatively with the Symbolization by Bodily Experience and Symbolization by Imagination scales of the SEE. The findings only supported the first part of this hypothesis, and they revealed that the Lack of Emotional Clarity subscale of the DERS correlated positively and moderately with the Experiencing Lack of Emotions scale of the SEE ($r = .52, p < .01$). Although no other predictions were made, additional findings revealed that the Lack of Emotional Clarity subscale of the DERS correlated negatively and moderately with the Experiencing Congruence ($r = -.48, p < .01$) scale, and its correlation was negative, yet weak with the Regulation of Emotions ($r = -.24, p < .01$) scale of the SEE. It was also found to correlate positively, although this correlation was weak, with the Experiencing Overwhelming Emotions ($r = .27, p < .01$) scale from the SEE.
Discussion

Summary of Results

The purpose of this study was: (a) to develop a preliminary instrument to measure individuals’ self-reported use of affect regulation strategies based on Parkinson and Totterdell’s (1999) provisional classification of deliberate strategies for improving negative affect; (b) to use this newly developed preliminary measure to investigate whether difficulties in emotion regulation, as measured by the Difficulties in Emotion Regulation Scale (DERS), and whether emotion processing variables, as measured by the Subjective Experience of Emotions Scale (SEE) were related to self-reported use of categories of affect regulation strategies; and (c) to provide evidence of convergent and divergent validity for the DERS and SEE subscales.

Internal consistency estimates of reliability and principal components analysis generally confirmed that the preliminary Measure of Affect Regulation Strategies represented four broad predetermined categories of affect regulation strategies initially proposed by Parkinson and Totterdell (1999) in their provisional classification. Thirty-five items of specific affect regulation strategies were included in this measure. These items represented the following broad categories of affect regulation strategies: (a) Cognitive Engagement (includes seven strategies that reflect a person’s attempt to improve his or her feelings by thinking about ways of addressing or sustaining one’s attention to the present problem or related affect), (b) Cognitive Diversion (includes 13 strategies that represent a person’s attempt to improve negative affect by redirecting thoughts away from the current problem by means of disengagement or distraction), (c) Behavioural Engagement (includes four strategies that involve taking action to address the present problem or negative affect), and (d)
Behavioural Diversion (includes 11 strategies that reflect a person’s attempt to improve negative feelings by redirecting one’s behaviour away from the present concern or unpleasant affect by way of distraction).

Pearson correlation coefficients revealed several significant but weak relationships between the Difficulties in Emotion Regulation subscales and self-reported use of each of the four categories of affect regulation strategies. The results indicated: (a) high scorers on the Nonacceptance of Emotional Responses subscale tended to use the Cognitive Diversion category of affect regulation strategies more; (b) high scorers on the Lack of Emotional Awareness and Lack of Emotional Clarity subscales tended to use Cognitive and Behavioural Engagement categories of affect regulation strategies less; as well, high scorers on the Lack of Emotional Clarity subscale tended to use the Cognitive Diversion category of strategies more; and (c) high scorers on the Limited Access to Emotion Regulation, Difficulties Engaging in Goal-Directed Behaviour, and Impulse Control Difficulties subscales tended to use the Cognitive Engagement and Behavioural Diversion categories of affect regulation strategies less.

Several significant correlations were also found among the Subjective Experience of Emotions scales and each of the four categories of affect regulation strategies. Although these correlations were statistically significant, they were weak. It was found that: (a) high scorers on the Experiencing Congruence scale tended to use the Cognitive Engagement category of affect regulation strategies more, (b) high scorers on the Regulation of Emotions scale tended to use the Cognitive Engagement and Cognitive Diversion categories of strategies more, (c) high scorers on the Symbolization by Imagination scale tended to use
Cognitive Diversion strategies more, and (d) high scorers on the Experiencing Overwhelming Emotions scale tended to use the Cognitive Engagement category of strategies less.

This study’s findings also provide evidence of convergent and divergent validity between the DERS and SEE subscales. The results reveal moderate correlations between these subscales in the directions that were predicted.

Implications of the Research

Development of the Preliminary Measure of Affect Regulation Strategies. A strength of this study is that it is the first to attempt to develop a self-report measure of affect regulation strategies based on Parkinson Totterdell’s (1999) classification of deliberate strategies for improving negative affect. One strength of this measure is its Cognitive Engagement category of affect regulation strategies. The Cognitive Engagement category had the highest Cronbach’s Alpha of all four broad categories of affect regulation strategies. The only strategy that did not fit in this category was “Ruminating or thinking about the problem over and over.” According to Nolen-Hoeksema (2000), individuals with a ruminative response style think repetitively and passively about their negative emotions. They focus on their symptoms of distress (“I feel so lousy,” “I just can’t concentrate”), and they worry about the meanings of their distress (“Will I ever get over this”). This suggests that unlike the other affect regulation strategies representative of the Cognitive Engagement category, rumination, although it indicates that a person’s attention is sustained to the problem or negative affect, is not an active attempt to improve the problem by thinking of ways to solve or address it or by thinking positively.

The second broad category of affect regulation strategies, Cognitive Diversion, was unable to retain its three separate subcategories of disengagement (i.e., cognitive detachment
from the problem or negative affect) and distraction strategies (i.e., uses thoughts that are either pleasant and relaxing or active and constructive, to redirect attention away from the problem or negative affect). The only subcategory in this set to have poor internal consistency of its items was Distraction by reallocating resources (using active/constructive thoughts). One possible reason for the low inter-item correlation in this subcategory is there were fewer items to select from, that represented the use of active/constructive thoughts, in the comprehensive list of strategies derived from Parkinson and Totterdell’s (1999) study. Another explanation for this finding is the strategies such as “Thinking of other places I could be”, “Thinking of something else”, and “Imagining I am someone else” may be considered to be pleasurable thoughts for an individual depending on the specific content of the thought itself. Therefore, these strategies might not represent the mastery-oriented nature or attention occupying focus that strategies belonging to the Distraction by reallocating resources should have, and they may be more appropriately categorized in the Distraction using pleasant or relaxing thoughts.

One of the strengths of the broad Cognitive Diversion category is when all items were combined in the reliability analysis, Cronbach’s alpha was strong enough to retain them all and not one of the Cognitive Diversion strategies selected for the Measure of Affect Regulation Strategies had to be omitted. At the same time, a limitation for the category of Cognitive Diversion strategies is that by combining a variety of both disengagement and distraction strategies into one category, we are unable to judge based on participants’ total scores for using this category whether they tend to use disengagement or distraction strategies more. Although both disengagement and distraction strategies belong to the Cognitive Diversion category, disengagement strategies tend to reflect a mental detachment
or avoidance of the problem or associated negative affect, whereas distraction strategies may be considered as temporary relief from thinking about the problem while focusing on pleasant or work-oriented thoughts. Although there is a conceptual distinction between these two types of cognitive diversion strategies, internal consistency estimates of reliability lend support to the idea that the difference between disengagement and distraction strategies is probably small.

A strength of the third broad category of affect regulation strategies, Behavioural Engagement, is that it is represented by items that involve direct and practical action that a person can take to address or solve the problem or negative feelings. According to Parkinson and Totterdell (1999) these strategies are also situation-directed in that they address the situation surrounding the unpleasant feelings (e.g., when “talking about the problem” a person might discuss the events or circumstances that lead up to the present concern or negative feelings). Of the three items that were omitted from this broad category, “writing my feelings down (e.g., journaling)” and “letting my feelings out (e.g., cry, shout)” are used to deal with one’s own affect and can be considered venting strategies. They might be considered as a “coming to terms with” and acceptance of one’s feelings, rather than as an attempt to directly improve the negative affect or situation that caused it. The third strategy to be omitted from the Behavioural Engagement category, “Using humour”, is in retrospect probably more likely to represent a pleasant activity performed with the purpose of bringing light to the issue that caused the negative feelings and to lessen the negative impact of the concern on the person.

The fourth and final broad category in the preliminary Measure of Affect Regulation Strategies, Behavioural Diversion had unacceptable or poor measures of internal consistency
for each of its four subcategories. Results from the exploratory principal components analysis that used four components to determine what items should be included on each, corresponded fairly well to the item composition that we had used to develop the four subcategories of Behavioural Diversion strategies. For example, the principal components analysis results revealed that from the Disengagement subcategory, the strategies “sleeping” and “spending some time alone” were the only two items to be omitted. For the Distraction by activities which may be harmful to self “eating something” and “going shopping” were not included in the subcategory. The omission of these two items may be because these two strategies in and of themselves are not considered to be harmful to a person unless they involve excessive or habitual eating or spending. The other strategies such as “having sex”, “drinking alcohol” and “using drugs other than alcohol, cigarettes, or caffeine” tend to reflect less effective and less adaptive responses to one’s negative feelings. Strategies that were included in the second and third component of our principal components analysis were a combination of items from our Distraction using pleasant thoughts and Distraction by reallocating resources (or with active/constructive activities) subcategories. Unfortunately, internal consistency estimates of reliability based on these new four components and their respective strategies were also poor which required us to abandon the four subcategory organization of the broad Behavioural Diversion category and to use instead a single category of strategies that used the two types of distraction, namely distraction using pleasant or relaxing activities and distraction by reallocating resources (active/constructive activities).

One potential explanation for the poor findings of internal consistency among items belonging to the separate subcategories of Behavioural Diversion is that the sample of participants used for this study is not representative of all adults. The participants who were
involved in the research were distinguished by higher levels of education, as well as by gender. The vast majority of participants were female which may have affected how items on the preliminary Measure of Affect Regulation Strategies were responded to. A study conducted by Thayer, Newman, and McClain (1994) examined strategies which individuals used to self-regulate bad moods. They found that men were much more likely to seek pleasurable activities and use distraction that may divert attention from the bad mood (e.g., engage in a hobby, listen to music, humour, avoid thing (person), control thoughts) than women. Men were also found to be more likely to use direct tension reduction strategies such as drugs, alcohol and sex than women. On the other hand, women tended to use passive mood management (e.g., watch TV; eat something; go shopping; rest, nap or sleep) and social support, ventilation, gratification strategies (e.g., talk to someone, engage in emotional activity, smoke, eat) more than men. These findings suggest that one of the most important individual difference variables to examine in studies on the use of affect regulation strategies is gender.

Although the preliminary Measure of Affect Regulation Strategies captures relatively well the specific strategies that represent Parkinson and Totterdell’s (1999) provisional categories of Cognitive Engagement, Cognitive Diversion, Behavioural Engagement, and Behavioural Diversion, a limitation of this measure is that it does not provide the individual with a specific context or situation to reflect on before reporting one’s use of affect regulation strategies. According to Lazarus and Folkman (1984), a major determinant of coping responses is the perception of the situation by the individual. Thompson (1994) has also suggested that it is necessary to consider the demands of the situation and goals of the individual when evaluating affect regulation because affect regulation can only be
understood and evaluated in a specific context. Since the preliminary Measure of Affect Regulation Strategies developed for this study does not provide a situational context for participants nor does it ask them to think of a time when they were experiencing an unpleasant emotion before reporting on strategy use, the results of this measure should be used to understand and evaluate the general tendencies or individuals’ preferred use of affect regulation strategies.

A couple of additional areas where improvements could be made to this measure include revising the rating scale for the preliminary Measure of Affect Regulation Strategies by changing it from a 5-point true or false scale to a more highly differentiated likelihood rating scale to measure use of strategies. Second, removal of the headings “I Disengage by”, “I Distract by”, and “I Take Action by” on the preliminary Measure of Affect Regulation Strategies is recommended in order that participants’ responses to strategies listed under these headings are not biased by their perception (either positive or negative) of the headings themselves.

Explanation of the relationship between the DERS and self-reported use of categories of affect regulation strategies. As part of the first hypothesis, we predicted that individuals who scored high on the Lack of Emotional Awareness and Lack of Emotional Clarity subscales would report using Cognitive and Behavioural Diversion categories of strategies more. Although some of the findings indicated that high scorers on these subscales tended to use Cognitive and Behavioural Engagement categories less, these results are not considered to be in direct opposition to our hypothesis. As argued by several researchers, awareness of one’s own emotional experience is necessary for effective affect regulation and adaptive functioning (Paivio & Greenberg, 2001; Kennedy-Moore & Watson, 1999; Bradley, 2000;
Gratz & Roemer, 2004). Therefore, if individuals understand their feelings and the causes of those feelings, they will be better able to respond adaptively to their feelings. A study by Swinkels and Giuliano (1995) found that individuals who were high mood labelers, that is individuals who were able to identify, categorize, or give a name to what they were feeling, tended to seek and be satisfied with social support, experience positive affect, have higher levels of self-esteem, be extraverted, be less socially anxious or neurotic, and express greater global life satisfaction than low mood labelers. In terms of the present study’s research, it seems reasonable to assume that individuals who lack emotional awareness and have difficulty making sense of their feelings are unable to draw on their affective experience and use it to guide their behaviour in adaptive ways (Kennedy-Moore & Watson, 1999). When confronted by a problem, these individuals may feel confused about their feelings or may not be attentive to their feelings, which may make it less likely for them to think of ways to solve the problem or take direct action to improve the situation which are some strategies representative of the Cognitive and Behavioural Engagement categories.

Our first hypothesis also predicted that individuals who score high on the Limited Access to Emotion Regulation Strategies subscale (i.e., individuals who believe that there is little that can be done to regulate their emotions effectively when they are upset) would tend to use Cognitive and Behavioural Diversion strategies more. Contrary to our prediction, these individuals tended to use Behavioural Diversion strategies less. One possible explanation for this finding is that in forming this hypothesis, it was specifically thought that high scorers on the Limited Access to Emotion Regulation Strategies would tend to use strategies included in the Behavioural Diversion’s Disengagement subcategory more (e.g., not taking action to address the problem or negative feelings, removing myself from the problematic situation).
This Disengagement subcategory was part of the initial preliminary Measure of Affect Regulation Strategies; however, following principal components analysis and the reliability analyses, all Disengagement strategies were excluded from our final Behavioural Diversion category. In addition to this explanation of the findings, it is also reasonable to think that individuals who believe there is nothing they can do to make themselves feel better when upset would be just as unlikely to use effective Distraction strategies representative of the Behavioural Diversion category (e.g., doing the things that I enjoy, engaging in a hobby, exercising), as they are to use Cognitive Engagement strategies (e.g., thinking about how to solve the problem, thinking positively, telling myself the bad situation will pass) which additional results in this study revealed.

Other findings which demonstrated that individuals, who had difficulty remaining in control of their behaviour when experiencing negative emotions (i.e., high scorers on the Impulse Control subscale) tended to use Behavioural Diversion strategies less, are in opposition to our hypothesis. Our hypothesis predicted that there would be a greater tendency for these individuals to use Behavioural Diversion strategies more. Again, the lack of consistency between our hypothesis and the results is probably a function of the omission of certain items from the initial Measure of Affect Regulation Strategies on which our hypotheses were based. Specifically, it was believed that individuals who have difficulty controlling their behaviour would be more likely to use a subcategory of strategies called Distraction Strategies which may be Harmful to Self (e.g., drink alcohol, have sex, use drugs other than alcohol, cigarettes, or caffeine) that belonged to the broad Behavioural Diversion category. Instead, we found that individuals who scored high on Impulse Control tended to use Cognitive Engagement strategies and Behavioural Diversion strategies (which included
pleasant or relaxing activities and active/constructive activities) less. It is possible to understand that individuals who feel out of control when upset would be less inclined to think rationally about the problem, reassess the problem differently, and put their feelings in perspective. This high level of emotional arousal which may lead them to feel overwhelmed by their feelings might also put them at a disadvantage for drawing on other effective strategies of emotion regulation including participating in an interesting or distracting activity, listening to favourite music, or engaging in exercise.

The last findings which did not support our hypotheses were for individuals who scored high on the Difficulties Engaging in Goal-Directed Behaviour subscale. Although it was hypothesized that these individuals would tend to report using Behavioural Diversion strategies more, the results revealed the opposite. Instead, these individuals tended to use Behavioural Diversion and Cognitive Engagement strategies less. In forming our hypothesis, we believed that individuals who have difficulty concentrating, focusing on other things, getting work done, and thinking about anything else when upset, would be more likely to use pleasant and relaxing activities in order to improve one’s negative feelings because these strategies do not require direct attention or action toward the problem. It is possible, however, that these individuals may consider pleasant and relaxing activities to be just as difficult to use to improve their unpleasant negative feelings as the cognitive engagement strategies because they may be completely occupied in thinking about and focusing on the problem. As a result, they may be more inclined to use passive strategies such as rumination, in which they think about the problem repetitively or for prolonged periods of time. This explanation can only be considered speculative since our preliminary Measure of Affect Regulation Strategies did not include rumination.
Explanation of the relationship between the SEE and self-reported use of categories of affect regulation strategies. Of the several significant relationships that were found between the SEE’s scales and the four categories of affect regulation strategies, five out of six involved the use (either more or less) of Cognitive Engagement and/or Cognitive Diversion strategies. The reason why high scorers on several of the SEE’s scales (e.g., Experiencing Congruence, Symbolization by Imagination, Regulation of Emotions) tend to use Cognitive strategies more might be related to the SEE itself and what it aims to measure. For example, the SEE’s goal is to examine an individual’s subjective process of experiencing emotion and by doing so, it measures whether the individual experiences, values, regulates, and cognitively processes emotions. The majority of items on the SEE appear to tap into a person’s perceptive and cognitive experience of their feelings, therefore it seems likely that high scores on the SEE’s scales would relate to Cognitive strategies.

Overall, the findings revealed that participants who expressed a positive regard and acceptance of their own feelings (as measured by the Experiencing Congruence scale), as well as those who demonstrate an ability to regulate their emotions (as measured by the Regulation of Emotions scale), had a tendency to use Cognitive Engagement strategies more. These participants tended to use strategies such as thinking about how to solve the problem, thinking rationally about the problem, putting feelings into perspective, thinking positively, and reappraising or assessing the problem differently. We had also expected to find that high scorers on the Symbolization by Bodily Experience scale would report using Cognitive and Behavioural Engagement strategies more. Unfortunately, our results did not reveal any significant relationship(s) between the Symbolization by Bodily Experience scale and any of the four categories of affect regulation strategies. The reason for this lack of finding might be
that the Symbolization by Bodily Experience scale measures, quite generally, a person’s bodily experience or felt sense and their ability to translate it into meaningful feelings and mental states which are anchors for intuition. Therefore, this highly subjective and physical process might need to have a particular context or situation to frame it before we can examine what strategies a person uses to regulate their affect.

We had hoped to find that participants who scored high on the Experiencing Overwhelming Emotions and Lack of Self-Control subscales would use Behavioural Diversion strategies more, specifically strategies that may be harmful to oneself (e.g., having sex, drinking alcohol, using drugs other than alcohol, cigarettes, or caffeine). Since, this subcategory of strategies was excluded from our final Measure of Affect Regulation Strategies, we were unable to provide support for this hypothesis. However, we did find that high scorers on Experiencing Overwhelming Emotions tended to use Cognitive Engagement strategies less. This finding supports the literature which states that individuals who perceive their emotions as not only unpleasant, but also as unbearable, attempt to protect themselves by struggling to keep their emotions out of awareness by refusing to engage in meaningful thought that might foster emotional insight (Kennedy-Moore & Watson, 1999). Their high levels of emotional arousal may lead them to feel so overwhelmed by their emotions that they can’t organize their thoughts or communicate clearly, and can’t process new information (Kennedy-Moore & Watson, 1999). Therefore, they may struggle with putting their strong and negative feelings into perspective, avoid thinking about solutions to the problem, and they may be less inclined to think positively about their current situation because they are so affected by their emotions.
Lastly, we hypothesized that high scorers on the Experiencing Lack of Emotions scale will report using Cognitive and Behavioural Diversion strategies more. The reasoning underlying our hypothesis was that individuals who experienced a lack of emotions (i.e., individuals who did not feel their inner world and who would have liked to experience more within themselves) would be less likely to be aware of and understand their emotions, and ultimately they would be less likely draw upon their affective experience and engage in active attempts to solve their problems and improve their negative feelings. To improve their negative feelings it was believed that these individuals would tend to use distraction strategies more which do not deal directly with the problem. Although Diversion strategies were not reportedly used more by individuals who scored high on the Experiencing Lack of Emotions scale, their tendency to use Behavioural Engagement strategies less (e.g., talk about the problem, seek social support, seek practical advice, try to solve the problem) nevertheless supports the rationale of our prediction.

Although this study provides some evidence of how emotional processing variables and difficulties in affect regulation relate to individuals’ use of affect regulation strategies, the values for all significant correlations were considered weak (e.g., significant correlations between the DERS and SEE scales and categories of affect regulation strategies were .35 and below). As a result, we cannot expect that meaningful relationships between the variables measured by the DERS and SEE and the use of four categories of affect regulation strategies would be found in the general population.

*Directions for Future Research*

One suggestion for future research is to continue work on the development of the Measure of Affect Regulation Strategies that this study has begun. Additional strategies and
subcategories should be considered for inclusion in the measure, in order that it best represents the categories of Cognitive Engagement, Cognitive Diversion, Behavioural Engagement, and Behavioural Diversion. At the same time, we realize that Parkinson and Totterdell’s (1999) provisional classification system of affect regulation strategies upon which our current Measure of Affect Regulation Strategies is based is one of many potential ways we can categorize and conceptualize deliberate strategies people use to improve their negative feelings. Therefore, it would be worthwhile for future studies to use the initial pool of affect regulation strategies selected for our preliminary Measure of Affect Regulation Strategies and investigate other ways these strategies relate to one another and group together.

Since the coping literature stresses the importance of evaluating emotion regulation in a specific context and to consider individuals’ perception of the situation and their goals, it is necessary for future research to present participants with common life scenarios or to ask them to identify for themselves situations that evoked negative feelings and have them report what affect regulation strategies they used. By doing so, we can investigate the influence that individual perception, type of problem, and severity of problem, just to name a few variables, have on the use of specific affect regulation strategies. Other variables that future studies can examine in relation to the use of affect regulation strategies are gender, educational attainment, and age. A final suggestion for future research is to examine individuals’ self-reported use of affect regulation strategies using the Measure of Affect Regulation Strategies across a variety of different populations, including individuals with depression and anxiety, victims of abuse, and other vulnerable or disadvantaged populations.

In summary, the present study provides a preliminary instrument for measuring affect regulation strategies which is representative of Parkinson and Totterdell’s (1999) provisional
classification of deliberate strategies for improving negative affect. Overall, the results of the study provide some new information on how emotional processing variables and difficulties in emotion regulation are related to the use of Cognitive Engagement, Cognitive Diversion, Behavioural Engagement, and Behavioural Diversion categories of affect regulation strategies.
References


Mahwah, NJ: Lawrence Erlbaum Associates.


Appendix A: Measures

Sets of Affect Regulation Strategies Included in the Preliminary Measure of Affect Regulation Strategies

**Cognitive Engagement Strategies**

40. Thinking about how to solve the problem.
44. Ruminating or thinking about the problem over and over.
45. Putting feelings into perspective.
47. Thinking rationally about the problem.
49. Telling myself it is not the end of the world.
51. Thinking positively.
52. Reappraising or assessing the problem differently.
53. Telling myself that the bad situation will pass.

**Cognitive Diversion Strategies**

1\(^{st}\) Subcategory – Disengagement
2. Trying to put it out of my mind.
7. Trying to think of nothing.
8. Trying not to dwell on the problem.

2\(^{nd}\) Subcategory – Distraction using pleasant or relaxing thoughts
12. Fantasizing about pleasant things.
17. Thinking about things that make me happy.
25. Thinking relaxing thoughts.
28. Thinking of happy memories.

3\(^{rd}\) Subcategory – Distraction by reallocating resources (using active/constructive thoughts)
15. Thinking about work.
20. Thinking of other places I could be.
23. Thinking of something else.
27. Imagining I am someone else.

**Behavioural Engagement Strategies**

39. Talking about the problem.
41. Calling, talking to or being with someone (seek social support).
42. Seeking practical advice.
43. Writing my feelings down (e.g., journaling).
46. Trying to solve the problem.
48. Using humour (e.g., laugh)
50. Letting my feelings out (e.g., cry, shout)

**Behavioural Diversion Strategies**

1st Subcategory - Disengagement
1. Not taking action to address the problem or negative feelings.
4. Removing myself from the problematic situation.
5. Avoiding the person that caused the unpleasant negative feelings.
9. Sleeping
10. Spending some time alone. (Withdrawal)

2nd Subcategory - Distraction using pleasant or relaxing activities
13. Going for a walk.
21. Taking a bath.
24. Meditating
31. Doing the things that I enjoy.
33. Listening to music.
34. Engaging in a hobby.
37. Doing something relaxing.

3rd Subcategory – Distraction by reallocating resources (or with active/constructive activities)
18. Doing something to take my mind off the problem.
19. Exercising
22. Keeping busy.
29. Doing something I’ve been putting off.
36. Doing something useful.

4th Subcategory – Distraction by activities which may be harmful to self
30. Using drugs other than alcohol, cigarettes, or caffeine.
32. Going shopping.
35. Eating something.
Preliminary Measure of Affect Regulation Strategies

Below is a list of strategies that people use to improve their negative feelings.

Please indicate how true it is for you to use each strategy when you try to improve your negative feelings.

There are no right or wrong answers. Please answer each item as honestly as possible.

<table>
<thead>
<tr>
<th>Please mark one of the five possibilities:</th>
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<tbody>
<tr>
<td>False</td>
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</tbody>
</table>

**I DISENGAGE** by:

1. Not taking action to address the problem or negative feelings
2. Trying to put it out of my mind
3. Mentally switching off
4. Removing myself from the problematic situation
5. Avoiding the person that caused the unpleasant negative feelings
6. Not thinking about the problem
7. Trying to think of nothing
8. Trying not to dwell on the problem
9. Sleeping
10. Spending some time alone
11. Other

**I DISTRACT** by:

12. Fantasizing about pleasant things
13. Going for a walk
14. Doing housework
15. Thinking about work
16. Having sex
17. Thinking about things that make me happy
18. Doing something to take my mind off the problem
19. Exercising
20. Thinking of other places I could be
21. Taking a bath
22. Keeping busy
23. Thinking of something else
24. Meditating
25. Thinking relaxing thoughts
26. Drinking alcohol
27. Imagining I am someone else
28. Thinking of happy memories
29. Doing something I’ve been putting off
30. Using drugs other than alcohol, cigarettes, or caffeine
31. Doing the things that I enjoy
32. Going shopping
33. Listening to music
34. Engaging in a hobby
35. Eating something
36. Doing something useful
37. Doing something relaxing
38. Other

**I TAKE ACTION** by:

39. Talking about the problem
40. Thinking about how to solve the problem
41. Calling, talking to or being with someone (seek social support)
42. Seeking practical advice
43. Writing my feelings down (e.g., journaling)
44. Ruminating or thinking about the problem over and over
45. Putting feelings into perspective
46. Trying to solve the problem
47. Thinking rationally about the problem
48. Using humour (e.g., laugh)
49. Telling myself it’s not the end of the world
50. Letting my feelings out (e.g., cry, scream)
51. Thinking positively
52. Reappraising or assessing the problem differently
53. Telling myself that the bad situation will pass
54. Other
Letter of Authorization for the Use of the Difficulties in Emotion Regulation Scale (DERS)

THE UNIVERSITY OF MISSISSIPPI MEDICAL CENTER
2500 North State Street
JACKSON, MISSISSIPPI 39216-4505

Kim L. Gratz, Ph.D.
Assistant Professor and Director, Personality Disorders Research
Department of Psychiatry and Human Behavior

April 21, 2009

Kimberly Recoskie
Master's of Arts Candidate
Counselling Psychology for Psychology Specialists
OISE of the University of Toronto

Dear Kimberly,

We published the DERS in its entirety in the *Journal of Psychopathology and Behavioral Assessment* so that it would be available free of charge to all researchers. Although I assume that the journal officially holds the copyright (as it was published there), you have my permission to use the measure. Specifically, I grant permission for you to use the Difficulties in Emotion Regulation Scale in your thesis, and for the National Library to make use of the thesis.

Sincerely,

Kim L. Gratz, PhD
Assistant Professor
Department of Psychiatry and Human Behavior
University of Mississippi Medical Center
2500 North State Street
Jackson, MS 39216
Office: (601) 815-6450
E-mail: KLGratz@aol.com
Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004)

Instructions: Please indicate how often the items apply to you. Write the number in the space provided, using the following rating scale:

<table>
<thead>
<tr>
<th>almost never</th>
<th>sometimes</th>
<th>about half the time</th>
<th>most of the time</th>
<th>almost always</th>
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<td>(0-10%)</td>
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<td>(66-90%)</td>
<td>(91-100%)</td>
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1. I am clear about my feelings. (reverse)
2. I pay attention to how I feel. (reverse)
3. I experience my emotions as overwhelming and out of control.
4. I have no idea how I am feeling.
5. I have difficulty making sense out of my feelings.
6. I am attentive to my feelings. (reverse)
7. I know exactly how I am feeling. (reverse)
8. I care about what I am feeling. (reverse)
9. I am confused about how I feel.
10. When I’m upset, I acknowledge my emotions. (reverse)
11. When I’m upset, I become angry with myself for feeling that way.
12. When I’m upset, I become embarrassed for feeling that way.
13. When I’m upset, I have difficulty getting work done.
14. When I’m upset, I become out of control.
15. When I’m upset, I believe that I will remain that way for a long time.
16. When I’m upset, I believe that I’ll end up feeling very depressed.
17. When I’m upset, I believe that my feelings are valid and important. (reverse)
18. When I’m upset, I have difficulty focusing on other things.
19. When I’m upset, I feel out of control.
20. When I’m upset, I can still get things done. (reverse)
21. When I’m upset, I feel ashamed with myself for feeling that way.
22. When I’m upset, I know that I can find a way to eventually feel better. (reverse)
23. When I’m upset, I feel like I am weak.
24. When I’m upset, I feel like I can remain in control of my behaviours. (reverse)
25. When I’m upset, I feel guilty for feeling that way.
26. When I’m upset, I have difficulty concentrating.
27. When I’m upset, I have difficulty controlling my behaviours.
28. When I’m upset, I believe that there is nothing I can do to make myself feel better.
29. When I’m upset, I become irritated with myself for feeling that way.
30. When I’m upset, I start to feel very bad about myself.
31. When I’m upset, I believe that wallowing in it is all I can do.
32. When I’m upset, I lose control over my behaviours.
33. When I’m upset, I have difficulty thinking about anything else.
34. When I’m upset, I take time to find out what I’m really feeling. (reverse)
35. When I’m upset, it takes me a long time to feel better.
36. When I’m upset, my emotions feel overwhelming.
Letter of Authorization for the Use of the Subjective Experience of Emotions Scale (SEE)

Pädagogische Hochschule Schwäbisch Gmünd
Prof. Dr. Michael Behr

Kimberly Recoskie
35 Constance Street
Toronto, Ontario Canada
M6R 1S3

17. May 2009

Dear Kimberly Recoskie,

I agree that you include our work:

"Subjective Experience of Emotions Scale (2002)" [published in J. Watson, R. Goldman, & M. Warner (Eds.), Client-centered and experiential psychotherapy in the 21st century: Advances in theory, research and practice (pp. 150-167)]

Into your masters thesis.

Best regards,

[Signature]

Prof. Dr. Michael Behr

Pädagogische Hochschule, Obersteringer Straße 200, 73525 Schwäbisch Gmünd
Subjective Experience of Emotions Scale (SEE; Behr & Becker, 2002)

On the following pages you will find statements about the perception and the handling of feelings. For each statement you can mark, how much this is true for you. There are no right or wrong answers – the important thing is what is true for you individually. Please do not try to find the answer that may make the best impression on others. Answer according to your personal state of mind. If any statement does not exactly fit you personally, please try to find as good an answer as possible.

Please mark one of the five possibilities:

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<tr>
<th></th>
<th>False</th>
<th>False to some extent</th>
<th>Neither true nor false</th>
<th>True to some extent</th>
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1 My dreams clarify my feelings
2 I have ways of controlling my emotions.
3 I’ve got some emotions that I would rather not have.
4 My body often reflects my feelings.
5 My self-control could be better.
6 My fantasies help me to cope with the past.
7 I trust all my feelings.
8 I notice signals in my body very quickly.
9 Thank God I am good at coping with my emotions.
10 My perception of the tensions and relaxations within me helps me to make decisions.
11 I wish I were not so affected by my emotions.
12 I don’t often feel my inner world.
13 In order to cope with stress it often helps me to focus on daydreams.
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<td>14</td>
<td>If I want to be in a better and livelier mood, I can easily bring that about.</td>
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<td>15</td>
<td>Even when things are bubbling up inside me I can pretend to be calm.</td>
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<td>16</td>
<td>I feel what I feel and that’s ok.</td>
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<td>17</td>
<td>I often wish that I were more aware of my emotions.</td>
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<td>18</td>
<td>I consider daydreams to be useful.</td>
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<td>My physical state usually corresponds to my mental state.</td>
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<td>I’m so full of emotions that I can often hardly stand it.</td>
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<td>21</td>
<td>Most of the time I know how to calm down when I’m het up.</td>
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<td>22</td>
<td>When I make decisions I rely on my bodily feelings.</td>
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<td>23</td>
<td>There’s no question for me, that I have a right to all my feelings.</td>
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<td>24</td>
<td>I’ve always got myself under control.</td>
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<td>25</td>
<td>Sometime my emotions bother me.</td>
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<td>26</td>
<td>My daydreams give me clues as to my needs and my wishes.</td>
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<td>27</td>
<td>Feelings like rapid heart beat, stomachache, skin irritation can give me a good idea of what I want.</td>
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<td>28</td>
<td>I wish I could switch off my thoughts sometimes.</td>
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<td>29</td>
<td>I would like to experience more within myself.</td>
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<td>30</td>
<td>I’m not ashamed of my emotions.</td>
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<td>31</td>
<td>I’ve got a lot of feelings inside me, which I’d like to be rid of.</td>
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<tr>
<td>32</td>
<td>When I feel unhappy in a situation I notice it - for example in my stomach, on my skin, in areas of tension</td>
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<tr>
<td>33</td>
<td>When things are bubbling up inside me, unfortunately people around me can tell at once.</td>
<td></td>
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<tr>
<td>34</td>
<td>All my emotions have the right to be just as they are.</td>
<td></td>
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<tr>
<td>35</td>
<td>I consider problems in my body to be an expression of mental uneasiness.</td>
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<tr>
<td>36</td>
<td>I don’t often notice what my body is telling me.</td>
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<tr>
<td>37</td>
<td>I get overwhelmed by my emotions too often.</td>
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<tr>
<td>38</td>
<td>Through my dreams I have a better understanding of my relationships with other people.</td>
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<tr>
<td>39</td>
<td>If I want to I can easily manipulate my emotions.</td>
<td></td>
<td></td>
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<tr>
<td>40</td>
<td>Normally other people can’t see what is going on inside me.</td>
<td></td>
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<td></td>
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<tr>
<td>41</td>
<td>My intuition has a lot to do with what is going on in my body.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>When feelings bubble up inside, I can always accept them immediately.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Demographic Information Questionnaire

1. What is your gender?
   a) Male
   b) Female

2. What is your age?

3. What is your highest level of education completed to date?
   a) Less than 9th grade
   b) Some high school
   c) High school diploma
   d) College diploma
   e) Bachelor’s degree
   f) Master’s degree
   g) PhD
   h) Professional degree (e.g., MD)

4. Are you currently:
   a) A Student
   b) Employed
   c) Unemployed
   d) Retired

5. People sometimes identify themselves by “race” and/or colour. If you wish, please check the box that applies to you:
   a) Black (e.g., African, African American, African Canadian, Caribbean)
   b) Caucasian (e.g., Eastern European, Northern European, British)
   c) East Asian (e.g., Chinese, Japanese, Korean, Polynesian)
   d) South Asian (e.g., Indian, Pakistani, Sri Lankan, Bangladeshi)
   e) Southeast Asian (e.g., Burmese, Cambodian, Filipino, Laotian, Malaysian, Thai, Vietnamese)
   f) West Asian (e.g., Arabian, Armenian, Iranian, Israeli, Lebanese, Palestinian, Syrian, Turkish)
   g) Latin American (e.g., Mexican, Indigenous Central and South American)
   h) Aboriginal (e.g., Inuit, Metis)
   i) Other, please specify: __________________

6. What country do you live in?
   a) Canada
   b) Other, please specify: ________________
Appendix B: Participant Recruitment Materials

Participant Recruitment Email

What types of strategies do you use to improve your unpleasant and negative feelings?

What is your understanding and experience of your emotions?

Hello,

My name is Kimberly Recoskie and I am a Master’s student in the Department of Adult Education and Counselling Psychology at the Ontario Institute for Studies in Education of the University of Toronto.

I am looking for research participants to take part in a study which I am conducting for my thesis. The study investigates the specific strategies people use to improve their unpleasant and negative feelings; as well, it examines individuals’ understanding and experience of their own emotions. The supervisor for my research is Dr. Jeanne Watson, Professor of the Counselling Psychology Program at OISE of the University of Toronto.

You must be 18 years of age or older to participate in the research. As a participant you will be asked to fill out and online survey which takes approximately 20 minutes to complete. Your participation is entirely voluntary and you may choose to withdraw from the study at any time.

There is no compensation for participating in this study. However, some people find participating in this type of research interesting because they get a chance to think about the ways they try to improve their unpleasant feelings.

If you are interesting in participating in this study, please click on the survey link below:

http://www.surveymonkey.com/s.aspx?sm=wQiMAOOHsj4a6M1_2fn8OEnw_3d_3d

Please do not hesitate to contact me at krecoskie@oise.utoronto.ca if you have any questions regarding this research.

Your time and participation are greatly appreciated.

Thank you,

Kimberly Recoskie
Master’s of Arts Candidate, Counselling Psychology for Psychology Specialists
OISE of the University of Toronto
Research participants are needed for a study investigating specific strategies individuals use to improve their unpleasant feelings and to explore individuals’ understanding and experience of their emotions.

Anyone who is 18 years of age or older is welcome to participate!

Participants simply fill out an online survey which takes only 20 minutes to complete

Survey website address:

http://www.surveymonkey.com/s.aspx?sm=wQiMAOOHsj4a6MI_2fn8OEnw_3d_3d

If you have any questions, please contact:
Kimberly Recoskie, M.A. Candidate
Counselling Psychology for Psychology Specialists, OISE/UT
krecoskie@oise.utoronto.ca  (416) 536-3859
RESEARCH PARTICIPANTS NEEDED

For a study investigating specific strategies individuals use to improve their unpleasant feelings and to explore individuals’ understanding and experience of their emotions.

ANYONE WHO IS 18 YEARS OF AGE OR OLDER CAN PARTICIPATE!

Participants simply fill out an online survey which takes approximately 20 minutes to complete

Survey website address:
http://www.surveymonkey.com/s.aspx?sm=wQiMAOOHsj4a6Ml_2fn8OEnw_3d_3d

If you have any questions, please contact:
Kimberly Recoskie, M.A. Candidate
Counselling Psychology for Psychology Specialists, OISE/UT
krecoskie@oise.utoronto.ca (416) 536-3859
Appendix C: Participant Forms

Informed Consent Agreement

Hello,

My name is Kimberly Recoskie and I am currently completing my Master’s degree in Counselling Psychology at the Ontario Institute for Studies in Education of the University of Toronto. As part of my degree requirement, I am conducting research for my thesis under the supervision of Dr. Jeanne Watson, Professor of the Counselling Psychology Program at OISE/UT.

WHAT IS THE PURPOSE OF THE STUDY?
The purpose of this study is to investigate specific strategies people use when trying to improve their unpleasant and negative feelings. I am also interested in examining factors that might influence a person’s choice of strategy. These factors include an individual’s understanding and experience of his or her own emotions.

WHO IS ELIGIBLE TO PARTICIPATE?
If you are 18 years of age or older you are eligible to participate in this study.

DO I HAVE TO PARTICIPATE?
Your participation in this research study is completely voluntary. Therefore, you do not have to participate and there will be no negative consequences should you decide not to participate. If you do decide to participate in the study, you are free to change your mind and withdraw from the study, at any time, without any negative consequences. You may do so, simply by exiting the survey. As well, you do not have to answer any question you do not want to answer. Please be aware that you will be provided with a participant code when completing the online survey. Please record your participant code. If you wish to withdraw your data from the study after you have completed the survey, please email the researcher your request along with your participant code.

WHAT WILL I BE ASKED TO DO?
If you agree to participate in this study, you will be asked to complete four short online questionnaires. One of the questionnaires will ask you to indicate how true it is for you to use specific strategies to improve your unpleasant feelings. The two other questionnaires will ask you questions regarding your understanding, awareness, acceptance, and regulation of your emotions. Lastly, you will be asked to respond to some demographic questions. At no time, will you be asked to provide your name. This is to ensure complete anonymity and confidentiality of your responses. To respond to the questions, you simply click on the answers that are appropriate to you. Participation in this study will take approximately 20 minutes to complete, once you have finished reading this information letter.

ARE THERE ANY RISKS OR BENEFITS TO PARTICIPATING?
There are no foreseeable risks associated with this study; however, you may experience feelings of discomfort when completing some of the questions on the survey. In the case that
any questions raise personal issues that you would like to discuss with a counsellor, a list of
counselling resources in the Toronto area are listed at the bottom of this letter, as well as on
the final page of the survey. If you live outside of the Toronto area, these services can refer
you to someone in your area.
Your participation in this study provides no direct benefits to you. You will not be
compensated for this study. However, some people find participating in this study interesting
because they have the opportunity to reflect on the types of strategies they use to improve
their unpleasant feelings, as well as, on their understanding of their own emotional
experiences. Your participation in this study will also help contribute to the growing field of
research on strategies individuals use to improve their negative feelings and the factors that
may influence a person’s choice of strategy.

HOW SAFE IS IT TO PARTICIPATE IN THIS STUDY ONLINE?
In order to ensure privacy and confidentiality while responding to the online survey, it is
recommended that you perform the following:

1) Complete the online survey in a private place.
2) If you are using Internet Explorer, erase your browser history after exiting the
survey by: Clicking on “Tools” (located on the internet toolbar), then “Internet
Options”, and select “Delete Browsing History.”
3) If you are using Firefox, erase your browser history after exiting the survey by:
Clicking on “Preferences, then “Privacy”, then “History”, and select “Clear Browsing
History.” On the same page click on “Cache” and select “Clear Cache Now.”

WHAT WILL HAPPEN TO THE INFORMATION AFTER I PARTICIPATE?
Once completed, the online questionnaires will be downloaded and printed. Once printed, all
records of your participation will be erased from the server. The printed questionnaires will
be coded with numbers, and they will be kept in a locked filing cabinet, in a locked research
office and will be accessible only to the primary investigator and my supervisor, Dr. Jeanne
Watson. The data collected for this research will be kept for 5 years and then they will be
destroyed. The information collected as part of this study may be used in future publications
and presentations. However, in order to maintain confidentiality, no names or other
identifying information will appear in any publication or presentation.

HOW CAN I LEARN ABOUT THE RESULTS OF THE STUDY?
You are entitled to a copy of this study’s results. Please email the primary investigator to
request this information and it will be emailed to you at the end of the study.

WHO CAN I CONTACT IF I HAVE QUESTIONS ABOUT THE RESEARCH?
You are more than welcome to contact the primary investigator or my supervisor, Dr. Jeanne
Watson, if you have any questions about this research. You are also welcome to contact the
Ethics Review Office at ethics.review@utoronto.ca or (416) 946-3273, if you have questions
about your rights as a participant.
LIST OF COUNSELLING RESOURCES

1. Counselling and Learning Skills Service (University of Toronto, St. George Campus)
   Koffler Student Services Centre, Room 111
   214 College Street
   Tel. (416) 978-7970
   www.calss.utoronto.ca

2. OISE/UT Counselling and Psychoeducational Clinic (University of Toronto, St. George Campus)
   OISE, 7th Floor, Room 296
   252 Bloor Street West
   Tel. (416) 978-0602
   http://clinic.oise.utoronto.ca

3. The Toronto Institute for Relational Psychotherapy
   1046 - 7 B Pleasant Boulevard
   Tel. (416) 465-2392
   http://www.tirp.ca/

4. Family Service Toronto
   355 Church Street
   Tel. (416) 595-9230
   http://www.familyservicetoronto.org/index.html

CONSENT
Below you are asked to indicate whether you have read the above information and agree to participate in this study (by clicking “I Consent”) or whether you do not agree to participate in the study (by clicking “I Do Not Consent”). Please print a copy of this information sheet for your personal reference.

☐ I Consent

☐ I Do Not Consent
Appreciation Page

You have completed the survey. Thank you for your participation. Before exiting the survey please click “Done” at the bottom of the page to submit your survey responses.

In the case that this survey raised personal issues that you would like to discuss with a counsellor, below is a list of counselling resources in the Toronto area. If you live outside of the Toronto area, these services can refer you to someone in your area.

Counselling and Learning Skills Service (University of Toronto, St. George Campus)
Koffler Student Services Centre, Room 111
214 College Street
Tel. (416) 978-7970
www.calss.utoronto.ca

OISE/UT Counselling and Psychoeducational Clinic (University of Toronto, St. George Campus)
OISE, 7th Floor, Room 296
252 Bloor Street West
Tel. (416) 978-0602
http://clinic.oise.utoronto.ca

The Toronto Institute for Relational Psychotherapy
1046 - 7 B Pleasant Boulevard
Tel. (416) 465-2392
http://www.tirp.ca/

Family Service Toronto
355 Church Street
Tel. (416) 595-9230
http://www.familyservicetoronto.org/index.html

If you are using a public computer and you are concerned about confidential web surfing, you can erase your browser history after exiting the survey by doing the following:

1) If you are using Internet Explorer, erase your browser history after exiting the survey by:
   Clicking on “Tools” (located on the internet toolbar), then “Internet Options”, and select
   “Delete Browsing History.”

2) If you are using Firefox, erase your browser history after exiting the survey by:
   Clicking on “Preferences, then “Privacy”, then “History”, and select “Clear Browsing History.” On the
   same page click on “Cache” and select “Clear Cache Now.”