

Université de Montréal

The Influence of Parental Socialization of Emotions on Emotional Experience in Adulthood:  
An Exploratory Study

par

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## Résumé

La régulation émotionnelle est une fonction psychobiologique dont le développement peut être altéré par divers facteurs environnementaux de l'enfance. Peu de recherches empiriques ont exploré les impacts à long-terme des pratiques parentales sur la vie émotionnelle. Cette étude a examiné la contribution de la socialisation parentale des émotions envers la vie émotionnelle adulte, telle que conceptualisée par : 1- les types d'émotions vécues quotidiennement (les émotions-traits) et 2- la relation des individus à ces émotions (l'alexithymie). Deux-cent-huit étudiants universitaires ont été interrogés à l'aide du Questionnaire sur la Socialisation des Émotions (QSE), qui évalue de façon rétrospective les souvenirs concernant cinq attitudes parentales envers l'expression des émotions: quatre de non-réceptivité (pauvreté de la communication émotionnelle, indifférence, hostilité et détresse) et une de réceptivité (la facilitation de l'articulation cognitive des émotions). L'Échelle d'Alexithymie de Toronto à 20 items (TAS-20) et l'Échelle des Émotions Différentielles IV (EED-IV) ont évalué la vie émotionnelle adulte. Un environnement caractérisé par des attitudes générales de non-réceptivité était fortement associé aux émotions-traits négatives et à l'alexithymie à l'âge adulte. La détresse et l'indifférence parentale pourraient jouer un rôle déterminant dans l'émergence d'une dysphorie à long-terme (des émotions négatives co-occurentes et indifférenciées). Les résultats suggèrent également l'existence de propriétés chevauchantes entre l'alexithymie et la dysphorie indifférenciée.

**Mots-clés :** Régulation émotionnelle, développement affectif, socialisation, attitudes parentales, émotions-traits, alexithymie, dysphorie.

## Abstract

Emotion regulation is a psychobiological function that may be disrupted by childhood environmental factors, but little empirical research has explored the long-term impacts of parenting behaviors on emotional life. This study examined the contribution of parental socialization of emotions on adult emotional life, as conceptualized by: 1- types of emotion that are experienced on a regular basis (trait emotions) and 2- one's relationship to these emotions (alexithymia). Two-hundred-and-eight university students were surveyed with the Emotion Socialization Questionnaire (QSE), which retrospectively assesses participants' recall of five parental attitudes toward emotional expression: four unreceptive (lack of emotional communication, indifference, hostility and distress) and one receptive (fostering cognitive articulation of emotions). The 20-item Toronto Alexithymia Scale (TAS-20) and the Differential Emotions Scale IV (DES-IV) assessed adult emotional life. An environment characterized by generally unsupportive attitudes was strongly associated with negative trait emotions and alexithymia in adulthood. Parental distress and indifference may possibly play a significant role in the emergence of long-term dysphoria (co-occurring, undifferentiated negative emotions). Results also suggest evidence of overlapping properties between alexithymia and undifferentiated dysphoria.

**Keywords:** Emotion regulation, emotional development, socialization, parental attitudes, trait emotions, alexithymia, dysphoria.

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## Liste des abréviations

DET : Théorie des Émotions Différentielles

DSM-5 : Manuel statistique et diagnostique des troubles mentaux, cinquième édition

PSE : Socialisation parentale des émotions

QSE : Questionnaire sur la Socialisation des Émotions

EED-IV : Échelle des Émotions Différentielles IV

TAS-20 : Échelle d'Alexithymie de Toronto à 20 item

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## Introduction

Current psychoanalytical theories view emotions as biologically based functions that may be hindered by poor parenting practices and/or traumatic events (Kooiman et al., 2004). The idea that emotional encounters with caregivers during childhood are the basis for adult emotional functioning is widely accepted, yet little is known about the specific processes by which this development takes place (J. Bowlby, 1977; Freud, 1940/1964; Izard, 1977).

It is well documented that, as young children develop, they learn, with the help of their parental figures, to progressively experience, identify and differentiate between emotions which were initially experienced strictly on a physical level. As caregivers gradually provide verbal cues and feedback on the child's expression of emotions, he or she becomes cognitively able to differentiate between physical and psychological experiences as well as between different feelings (Ebeling, 2001). To that effect, Panfilis, Rabbaglio, Rossi, Zita, and Maggini (2003) suggested that an impaired parent-child relationship in the stages of development when infants usually learn to be in touch with their physical sensations "leads to a disconnection between the physiological and subjective feeling component of emotion and to impairment in autonomous affect regulation" (p. 240). The parent-child relationship is a determinative factor in the emergence of the child's ability to connect physiological activation to a subjective emotional experience. Indeed, numerous authors have demonstrated that childhood adversities, such as inadequate parenting practices during significant emotional encounters, are directly linked to poor emotional, cognitive and social outcomes (Braver, Bumberry, Green, & Rawson, 1992; Cassidy, 1994; Ferguson & Dacey, 1997; McLaughlin, Greena, et al., 2010; McLaughlin, Kubzansky, et al., 2010). Empirical evidence has well established that a deficient

family environment has negative emotional consequences that outlast childhood. Still, a conceptual framework has yet to be formulated to determine with more specificity which characteristics of the childhood environment have a bearing on which aspects of adult emotional life. In this study, we suggest a theoretical framework composed of two aspects for exploring adult emotional life: the qualitative content of stable emotional experience (the “what”) and the nature of one’s relationship to this emotional experience (the “how”). These two facets will respectively be explored using the constructs of trait emotions and alexithymia.

### *Trait Emotions*

Izard’s Differential Emotions Theory (DET; 1977) suggests that there are eleven basic, universal human emotions called *discrete emotions*: interest, joy, surprise, sadness, anger, disgust, contempt, fear, shame, shyness, and guilt (Izard, Libero, Putnam, & Haynes, 1993). A clinically pertinent variable in the assessment of emotions was later added, self-hostility, which is a combination of anger, disgust and contempt directed toward the self. Although genetically programmed, the occurrence of discrete emotions, like other biopsychological systems, is subject to the influence of life experiences, such as the developmental environment (Abe & Izard, 1999; Izard, 1977, 1991).

There are two dominant approaches to the study and classification of emotions (Diener, Smith, & Fujita, 1995; Feldman, 1995; Larsen & Diener, 1992; Watson & Clark, 1997; Watson & Tellegen, 1985). First, the dimensional approach distinguishes between the basic subjective properties of emotions, which are classified as either positive (joy and interest) or negative (sadness, anger, disgust, contempt, fear, guilt, shyness, shame and self-hostility) in nature, with surprise considered as neutral (Izard et al., 1993; Machleit & Eroglu, 2000; Seidlitz, Lyness, Conwell, Duberstein, & Cox, 2001). The second approach, the discrete

emotions model, focuses on each emotion's unique motivational and experiential properties. It is assumed that, despite being ultimately correlated because of their overlapping properties, they have distinct qualitative properties which have different bearings on cognitive and behavioral processes (Watson & Clark, 1997). The two approaches are not mutually exclusive, but rather complementary, and should be used according to the level of precision with which one wishes to study emotions.

DET maintains that the experience of emotions remains continuous and stable over time. The subjective component of emotions is believed to remain constant, repetitively yielding the same quality of experience and the same types of actions and thoughts. Izard termed *state emotion* the process of experiencing an emotion during a limited period of time, as a result of specific stimuli in the environment. Along with his predecessors (Cattell & Scheier, 1961; Spielberger, 1966), he also suggested that there is a different emotional process which consists of experiencing a specific emotion at a high frequency in everyday life. This experience is referred to as a *trait emotion* and is believed to play an active part in the development of one's personality. When an individual repeatedly feels a specific emotion on a regular basis, it is considered a stable characteristic that is embedded in his or her personality (Izard, 1991). The frequency and the stability with which an emotion occurs, therefore, are ultimately linked to individual differences personality traits (Izard et al., 1993; Ricard-St-Aubin, Philippe, Beaulieu-Pelletier, & Lecours, 2010). An example would be the predominance of trait hostility in individuals with Type A personality, which is widely documented (Heft et al., 1998; Kuiper & Martin, 1989; Siegman, 1994). A number of longitudinal studies have supported the trait emotion theory by demonstrating the stability of emotional experience in both children and adults (Diener & Larsen, 1984; Epstein, 1980; Izard

et al., 1993; Tellegen, 1985), showing that it is possible to evaluate individuals' stable emotional experience by assessing their trait emotions.

It is still unknown which childhood factors have a bearing on the nature of the trait emotions that develop and prevail into adulthood. The role of attachment as a predictor of adult emotional experience was emphasized in Feeney's (1999) review of the literature: insecure attachment has been repeatedly associated with lower frequency and intensity of positive emotions, as well as higher frequency and intensity of negative emotions such as distress, fear, contempt and shame (Feeney & Noller, 1990). Inversely, securely attached persons have been shown to report less anxiety, self-hostility and depression, as well as more joy and interest (Magai, Distel, & Liker, 1995; Searle & Meara, 1999). However, findings are clear in demonstrating that the relationship between childhood socialization experiences and adult emotional experience is not fully mediated by attachment (Magai, Consedine, Gillespie, O'Neal, & Vilker, 2004). This may be because attachment is too wide a construct and that the relational underlying processes that play a role in the emergence of attachment have yet to be explored in relation to adult emotional life. In other words, being securely attached predicts more positive trait emotions and being insecurely attached predicts negative trait emotions, but which specific aspect of the parent-child interaction is at the root of such an association? The attachment measures do no account for such relational processes. At this point, research findings focusing on attachment style do not allow us to pinpoint which explicit underlying relational patterns affect long-term emotional life, which leads us to posit that a study of more specific aspects of the parent-child interaction is warranted. One valid starting point for such an exploration consists of parental attitudes toward the expression of emotions.

Additional research is needed to further elaborate on the nature of the relationship between childhood relational experiences and adult emotional experience, especially trait emotions. This is of considerable clinical importance since emotions have consistently been associated with psychopathology. Most psychological disorders in the current version of the DSM-5 include symptoms involving emotion disturbances (Kring, 2008). Whether disorders are characterized by excesses of emotion (e.g., phobia, obsessive-compulsive disorders, borderline personality disorder), deficits in emotion (e.g., antisocial personality disorder), mismatches between the expression and experience of emotion (e.g., schizophrenia), or deficits in social emotions (e.g., autism spectrum), it is clear that emotions play a large role in the subjective experience of psychopathology (Kring, 2010). An effort to better understand the developmental processes that impact the frequency with which specific emotions occur may lead to better treatment measures regarding psychopathology. Further research needs to assess with more specificity the interpersonal aspects of childhood environment that influence the development of various trait emotions, especially ones that are considered negative in nature.

### *Alexithymia*

Alexithymia is a concept originally proposed by Sifneos (1973) to identify certain patients' affective and cognitive deficits in regards to the expression of emotions. The alexithymia construct as of today is empirically defined by three main characteristics: (1) a difficulty identifying feelings; (2) a difficulty verbalizing feelings; and (3) an externally oriented cognitive style directed towards aspects outside of one's internal life. Individuals high on the alexithymia continuum have trouble identifying and regulating emotional states, frequently lacking words to describe what they are feeling. High levels of alexithymia have been consistently found among populations with various psychological conditions, such as

depression, anxiety disorders, eating disorders, psychosomatic disorders and post-traumatic stress-disorders (Taylor, Bagby, & Parker, 1997).

Although individuals with high levels of alexithymia may appear to feel very little, a large body of research has demonstrated the prevalence of negative emotionality, such as anxiety and depression, in individuals with alexithymia (Hendryx, Haviland, & Shaw, 1991; Honkalampi, Hintikka, Tanskanen, Lehtonen, & Viinamaki, 2000; Lee et al., 2010). A recent study by Lecours et al. (2011), in which subjects were exposed to a sadness-inducing situation, showed that alexithymia was related to increases in levels of general negative emotions (but not sadness), fear of emotions, and non-openness to emotions. In other words, alexithymia was not related to more intense sadness following the sadness-inducing experiment, but their reaction was one of dysphoric emotionality and negative attitudes toward emotions. This result suggests that an alexithymic functioning may be characterized by a high occurrence of combined, undifferentiated negative emotions. In fact, in alexithymia, the occurrence of a particular negative emotion seems to provoke the activation of more negative emotions, resulting in a general state of undifferentiated dysphoria. One hypothesized explanation for these individuals' difficulty identifying precisely what they are feeling is that they are overwhelmed by the experience of a combination of unpleasant emotions. These recent findings by Lecours et al. (2011), which emphasize the relationship between alexithymia and emotions, may indirectly reflect a difficulty surrounding negative emotions during these individuals' upbringing. In light of this hypothesis, it becomes imperative to better understand the childhood environment that is associated with alexithymia, especially in regard to parents' attitude toward the expression of emotion.

Whereas considerable efforts have focused on its prevalence in clinical populations, little work has been devoted to identifying the environmental factors that may influence alexithymia's occurrence. Inspired by attachment and mentalization theories (J Bowlby, 1977; Marty, 1991), psychoanalytical theorists have suggested that a dysfunctional family environment characterized by parental inconsistencies or indifference to children's emotional needs may set ground for the development of alexithymia (Berenbaum & James, 1994; Crittenden, 1995; Krystal, 1997; McDougall, 1982; Taylor, 1992). In fact, one of the robust predictors of alexithymia in adulthood consists of having been brought up in an environment in which children feel emotionally unsafe, or a family which has negative attitudes towards emotional expression, such as not allowing members to express feelings openly or sharing very little emotional information (Berenbaum & James, 1994; Yelsma, Hovestadt, Anderson, & Nilsson, 2000). These findings are in line with the theoretical work of numerous psychoanalysts, which has focused on the concept of alexithymia as a defense mechanism against intolerable mental contents. Indeed, since the primary manifestation of alexithymia consists of not being able to recognize and verbalize emotions, it has been suggested that such a symptom would prevent individuals from connecting with particularly difficult mental representations (Gabbard, 1990; Luborsky, 1996; McDougall, 1985; Thome, 1990; van der Kolk et al., 1996). In one of the more severe forms of alexithymia, individuals focus entirely on the physiological activation of emotion, without recognizing that there is a subjective feeling component to their experience. By keeping the emotional contents repressed or unconscious, severe alexithymia would operate as a primitive defense mechanism against emotional subjectivity, which was not well-received during childhood. This theory attests to a relationship between the childhood environment's non-receptivity to negative emotion and

alexithymia. However, further work needs to assess more systematically and specifically the particularities of such an association.

Research in the field of cognitive psychology has emphasized the parents' role in the children's development of the necessary cognitive skills to process their own emotions. Stack and Poulin-Dubois (1998) suggest that it is during infancy and early preschool years that children develop the ability to communicate, regulate and differentiate their own emotions. Ebeling (2001) argued that it is the parents' responsibility to show empathy and provide words for their children's inner states, allowing them to develop the cognitive skills that will allow them to distinguish bodily sensations from psychological experiences as well as to differentiate between different emotions. Gottman, Katz, and Hooven (1996) call these attitudes *emotion-coaching*, which includes an array of parental dispositions that facilitate emotional development: being sensitive to the child's emotion, using emotional expression as a teaching opportunity, teaching effective problem-solving skills, helping the child put words on what he is feeling and showing empathy. If caregivers fail at this task, it is likely that the child will not develop the proper cognitive tools to structure and process emotions (Ebeling, 2001). These studies show that there is a general consensus that an inadequate developmental environment, particularly in regards to parental figures' responses to emotional needs and expressions, are strongly related to some of the dominant characteristics of alexithymia.

These findings suggest that a receptive parental attitude towards the child's emotional experience not only contributes to the development of essential cognitive and emotional skills to process and regulate emotions, but also sets ground for the emergence of a child's positive attitude towards the experience and expression of emotions. Inversely, an unreceptive parental attitude tends to lead to the opposite consequences. However, the specific parental attitudes



that may have a bearing on the development of alexithymic traits, especially in the long-term, remain to be identified.

### *Parental Socialization of Emotions*

Parental socialization of emotions (PSE) refers to the different ways in which parents teach their children about emotions. It is believed to have an important effect on numerous aspects of a child's affective development, such as spontaneous expression, regulation, and understanding of emotions, as well as schemas about the self and how an individual feels about emotions in general (Eisenberg, Cumberland, & Spinrad, 1998). Other difficulties related to impaired PSE include child "emotional eating" (Topham et al., 2011), behavioral problems (Wilson, Havighurst, & Harley, 2012), poor social competence (Baker, Fenning, & Crnic, 2011) and greater internalizing problems (Engle & McElwain, 2011; Luebke, Kiel, & Buss, 2011). A good deal of early emotional development takes place within the parent-child relationship and the environment in which it occurs (Stack, Serbin, Enns, Ruttle, & Barrieau, 2010). It has been empirically demonstrated that the amount of information, the level of intensity and the types of emotions shared within families influence children's emotional expressions (Yelsma et al., 2000).

There are various ways in which PSE may influence the child's emotional skills development. One of them is how the parent reacts to his emotional display, especially with regards to negative emotions (Field, 1977). Parents may have a supportive or unsupportive attitude towards emotional expression. Children whose parents encourage emotional expression have a better understanding of their emotions, which leads to better abilities verbalizing feelings, understanding feedback on their emotions and establishing causal associations between events and emotions (Denham, Zoller, & Couchoud, 1994; Morris, Silk,

Steinberg, Myers, & Robinson, 2007). Parents who are unsupportive may in turn teach children to view emotions as negative or threatening. This leads them to ignore their negative feelings, such as sadness and anger, instead of trying to understand and properly express them (Morris et al., 2007).

The work of Eisenberg, Fabes, and Murphy (1996) has shown that unsupportive reactions to children's negative emotions consist of taking punitive measures following the expression of emotion, minimizing the emotional reaction, and showing distress. In another attempt to empirically identify types of socialization behaviors, Lecours, Philippe, and Descôteaux (2009) and Boucher, Lecours, Philippe, and Arseneault (2012), found five distinct reactions that parents have when children show emotion, consisting of four negative, and one positive, attitudes. The negative attitudes are of considerable interest clinically, because they have been repeatedly associated with poorer psychological outcomes. They include: distress (i.e. being unsettled or destabilized), hostility (i.e. punishing the child or being angry at him or her), indifference (i.e. not listening or reacting to the child) and poor emotional communication (i.e. not showing or talking about their own or their child's emotions). The latter has been empirically investigated by Eisenberg et al. (1998), who showed that parents' own emotional expressiveness impacts children's emotional expression by a simple process of imitation. A positive attitude has also been described by Lecours et al. (2009): the fostering of cognitive articulation (i.e. helping the child put words on emotions and understanding why he or she is feeling this way). Surprisingly, although these specific types of parental reactions are strongly associated with concepts relevant to the etiology of alexithymia, no previous research has explored this relationship, especially in adulthood. Since a large part of PSE takes place

through parent-child verbal interaction, it is to be expected that it would have a bearing on one's ability to verbalize their emotions, a major characteristic of alexithymia.

Although a large body of studies has focused on the impacts of PSE on children, little research has looked into the long-term effects of such practices. Links between PSE and the emergence of specific trait emotions have yet to be closely examined, especially in adult populations. Withholding of emotional expression in adulthood, which has not only been linked to PSE but could also be a direct outcome of it, is related to negative affectivity, such as psychological distress in the form of anxiety and depression (Krause, Mendelson, & Lynch, 2003). One of the only known studies to directly examine the relationship between PSE and adult affect found that parental rewarding behaviors (ie. reassuring and comforting the child during emotional displays) were related to positive adult emotions and inversely related to negative adult emotions (Magai et al., 2004). However, this study examined emotions as per the dimensional approach, considering only two broad categories of emotions (positive and negative). The other study that looked into the long-term effects of poor PSE found that it was closely linked with both emotional inhibition and psychological distress, highlighting the need for a more thorough investigation of these relationships (Krause et al., 2003).

A number of variables, which we would expect to be closely related to poor PSE, have been linked to anxiety and depression in adulthood: psychological and/or physical abuse, cohesion among various family members, parent psychopathology or substance abuse, loss of a parent, marital discord or divorce and traumatic events which may permanently alter one's emotional regulation skills (Hammen, Henry, & Daley, 2000; McLaughlin, Kubzansky, et al., 2010). We can posit that individuals who have experienced such adversities were most likely subjected to poor PSE, which could possibly be the common denominator among these

variables. Nevertheless, these findings say little about the subjective emotional experience of subjects who experience psychological symptoms like depression and anxiety: what specific emotions do they experience on a daily basis? Both the specific childhood factors that impact this long-term process and the subjective emotional experience of these individuals remain vague and need to be further assessed.

Because we know that emotions are at the core of the subjective experience of psychological symptoms, it is clinically important to better understand individuals' relationship to their emotions (i.e. what emotions they feel and how they feel them). Because the types of emotions that make up one's daily life (trait emotions) is expected to be closely related to the ability to recognize and express these emotions (alexithymia), these two interrelated variables will make up our conceptual framework for the exploration of adults' relationship to their emotions. Trait emotions will provide information on the qualitative nature of one's stable emotional experience, and the level of alexithymia will reveal how these emotions are initially addressed. Since the ability to identify emotions precedes the ability to regulate them (Salovey & Mayer, 1990), alexithymia appears to be an appropriate measure of one's raw reaction to emotion (as opposed to later stages of regulation). In light of the abovementioned studies, the literature suggests that the quality of the parent-child relationship, especially the level of the parents' receptivity toward the child's displays of emotion, could ultimately impact the child's long-term affective development. We can therefore posit that PSE should have a bearing on adults' relationship to their emotions, as conceptualized by trait emotions and alexithymia levels. Our aim is to establish a picture of how PSE affects: 1- what types of trait emotions have emerged and remained in adulthood; and 2- the nature of the relationship to these emotions, as indicated by levels of alexithymia. We hope to determine the

role of the five different types of empirically defined parental reactions to emotions (Boucher et al., 2012; Lecours et al., 2009).

### *Hypotheses*

Since this is an exploratory study, our hypotheses remain general. First, unsupportive reported PSE will be positively correlated with all negative trait emotions and inversely correlated with positive emotions in adulthood. More precisely, we anticipate that hostility, indifference, distress and lack of parental communication will be positively linked to the negative emotions and negatively linked to positive emotions. Fostering of cognitive articulation of emotions, the sole supportive attitude, will be positively linked to the positive emotions and negatively linked with the negative emotions. Second, unsupportive PSE will be positively linked to alexithymia levels in adulthood. The four unsupportive parental attitudes will be positively linked to alexithymia, whereas fostering of cognitive articulation will be negatively linked to alexithymia. Finally, the relationship between PSE and each of the three factors of alexithymia will be examined, as well as the influence of age and sex on alexithymia and trait emotions. These influences appear to be complex: previous research has established some sex differences in terms of the nature and intensity with which emotions are felt and reported (Fujita, Diener, & Sandvik, 1991; Stapley, 1989), as well as in alexithymia scores (higher scores for males) (Levant, Hall, Williams, & Hasan, 2009). There has been some evidence that adults report more negative emotions as they age (Charles & Carstensen, 2007), whereas findings regarding the association between age and alexithymia have been inconsistent (Kench & Irwin, 2000; Morrison & Pihl, 1989; Pasini, Delle Chiaie, Seripa, & Ciani, 1992). For these reasons, the variance of age and sex will be controlled for in all our analyses.

## Method

### *Participants*

Participants consist of 208 French-speaking students enrolled in a Canadian University. Both males and females were solicited to participate, the final sample consisting of 87% women with a mean age of 22.62 years. Participants were recruited in psychology courses and there were no exclusion criteria since the study is at an early stage of research. The size of the sample is large enough to detect a medium effect size at a  $p < .05$  level with .80 power (Cohen, 1992).

### *Measures*

*Questionnaire sur la Socialisation des Émotions* (QSE; Boucher et al., 2012; Lecours et al., 2009; see Appendix I). This nineteen-item self-report instrument assesses individuals' recall of five types of parental reactions to their emotional expressions as children ("During my childhood..."). The attitudes, with their corresponding alphas for this study's sample, are: indifference (4 items, e.g., "my parents weren't interested in how I reacted to important events";  $\alpha = .87$ ), distress (4 items, e.g., "my parents panicked when I would start to cry";  $\alpha = .75$ ), hostility (3 items, e.g., "my parents were angry at me when I would become angry";  $\alpha = .77$ ), parents' lack of emotional communication (4 items, e.g., "my parents didn't express their emotions much";  $\alpha = .85$ ) and fostering cognitive articulation of emotions (4 items, e.g., "my parents tried to understand why I was angry";  $\alpha = .86$ ). For generating a total score, this last subscale's items are reverse scored since they refer to supportive ways in which a parent may facilitate the child's understanding of his feeling. Items are measured on a 5-point Likert scale ranging from (1) *Never true* to (5) *Very often true*. The total score ranges from 20-95, a

high score reflecting unsupportive emotional socialization experiences in childhood as retrospectively assessed by participants. Scores for each subscale may also be obtained. Preliminary research has established the QSE's satisfactory psychometrical properties (Boucher et al., 2012; Lecours et al., 2009). Confirmatory factorial analyses showed the five-factor structure to be robust. Internal consistency has been demonstrated ( $\alpha = .92$ ) and correlations with other instruments measuring similar constructs (e.g. psychological adjustment and personality variables) have demonstrated its convergent validity.

*Échelle des Émotions Différentielles IV* (EED-IV; Izard et al., 1993; French version: Ricard-St-Aubin et al., 2010; See Appendix II). This thirty-six item self-report questionnaire was elaborated to assess individuals' trait emotions, i.e., their stable experience of the eleven discrete emotions in their daily life. A scale was also added for a twelfth clinically relevant emotion, namely self-hostility (or hostility inward). The questionnaire has been validated for use with both children and adults, as well as with clinical and non-clinical populations (Blumberg & Izard, 1986; Boyle, 1984; Carey, Finch, & Carey, 1991; Izard, 1972). Each of the 12 emotions is measured by three items, starting with "In your daily life, how often do you...". The measured emotions, with their corresponding alpha for this study's sample, are: interest (e.g., "feel alert, curious, kind of excited about something";  $\alpha = .67$ ), joy (e.g., "feel glad about something";  $\alpha = .83$ ), surprise (e.g., "feel amazed, like you can't believe what's happened, it was so unusual";  $\alpha = .68$ ), sadness (e.g., "feel unhappy, blue, downhearted";  $\alpha = .89$ ), anger (e.g., "feel mad at somebody";  $\alpha = .85$ ), disgust (e.g., "feel like things are so rotten they could make you sick";  $\alpha = .74$ ), contempt (e.g., "feel like you are better than somebody";  $\alpha = .74$ ), fear (e.g., "feel afraid, shaky, and jittery";  $\alpha = .85$ ), guilt (e.g., "feel like you did something wrong";  $\alpha = .86$ ), shame (e.g., "feel like people laugh at you";  $\alpha = .82$ ), shyness

(e.g., “feel shy, like you want to hide”;  $\alpha = .81$ ) and self-hostility (e.g., “feel you can’t stand yourself”;  $\alpha = .84$ ). Each item is measured on a Likert scale, ranging from (1) *Rarely or never* to (5) *Very often*. The mean score for each emotion is used to determine the importance of each emotion in relation to the others. A higher score reflects a more frequent and stable occurrence of the emotion in subjects’ daily life. Validity and reliability have been established for the French version used in this study (Ricard-St-Aubin et al., 2010). Test-retest reliability of the EED-IV over a six-month period was demonstrated and convergent and divergent validity were established through significant expected relationships with related constructs (psychological adjustment and personality variables). Confirmatory factorial analyses established the EED-IV’s 12 factor structure. Factor loadings for all of the items were high and satisfactory (ranging from .35 to .87).

*Twenty-Item Toronto Alexithymia Scale* (TAS-20; Bagby, Parker, & Taylor, 1994; French version: Loas, Fremeaux, & Marchand, 1995; See Appendix III). This self-report questionnaire assesses individuals’ levels of alexithymia. Its twenty items measure the three factors that conceptually define alexithymia: (F1) difficulty identifying feelings (e.g. “I am often confused about what emotion I am feeling”), (F2) difficulty describing feelings (e.g. “I am able to describe my feelings easily”) and (F3) externally-oriented thinking (e.g. “Looking for hidden meanings in movies or plays distracts from their enjoyment”). These three subscales include 7, 5 and 8 items respectively. Questions are rated on a 5-point Likert scale ranging from (1) *Strongly disagree* to (5) *Strongly agree*. Its robust psychometric properties have made the TAS-20 the most widely used instrument to measure alexithymia (Taylor & Bagby, 2004). Confirmatory factorial analyses of the French version have yielded a three-factor structure congruent with the three conceptual factors of alexithymia in both clinical and



non-clinical populations. The French TAS-20 has both good internal consistency ( $\alpha = .79$ ) and test-retest reliability over a one-week period ( $r = .70$ ) (Loas et al., 2001). Validation studies yielded satisfactory internal consistency for F1 ( $\alpha = .81$ ), F2 ( $\alpha = .75$ ) and F3 ( $\alpha = .70$ ) (Parker, Taylor, & Bagby, 2003). This sample's internal consistency was similar for total TAS-20 scores ( $\alpha = .80$ ), F1 ( $\alpha = .75$ ) and F2 ( $\alpha = .79$ ), but was poor for F3 ( $\alpha = .44$ ). Because of F3's poor reliability in this sample, and since it was not significantly correlated to our variables of interest, it was not included in our subsequent analyses. Expected significant relationships of the TAS-20 with various instruments measuring personality traits linked to the alexithymia construct have confirmed its convergent validity (e.g., negative relationship with the Psychological Mindedness Scale and the Need for Cognition Scale, positive relationship with neuroticism). The total score, ranging from 20-100, indicates the level of alexithymia. A higher total score reflects greater alexithymia, with the proposed cutoff score of  $\geq 61$  indicating a clinically significant level of alexithymia. Individual scores for each of the three subscales may be calculated as well. Because some authors have questioned the efficiency of self-report questionnaire to assess alexithymia (Leising, Grande, & Faber, 2009; Subic-Wrana, Bruder, Thomas, Lane, & Köhle, 2005), it has been suggested that the optimal measure would incorporate both the TAS-20 and an observer-rated measure (Taylor & Bagby, 2004). In a separate part of this study by Lecours et al. (2011), a trained and experienced clinician was asked to rate participants' alexithymia levels following a non-structured interview in which participants were subjected to a sadness-inducing situation. The observer's ratings were highly correlated with TAS-20 scores ( $r = .48, p < .001$ ), suggesting that the use of the latter for our analyses was adequate.

### *Procedure*

Students who accepted to participate in the study were sent an email containing a link directing them to a series of online questionnaires, which was the first part of a larger study by Lecours et al. (2011) in which participants were also subjected to a sadness-inducing situation in a second part. The goal of this larger study was to explore how alexithymia influences the regulation of sadness. Participants were exposed to a sadness-inducing situation (a sad movie scene) and then questioned about their subjective experience. For the present study, only three questionnaires from the first part of the study were used. Upon consent to the study's terms, it was requested that they respond to all questionnaires in one session, as spontaneously and as honestly as possible. Participants were entered in a draw of three prizes of 125 \$ for completing the questionnaires and were offered a 15 \$ remuneration for their contribution to the whole study (which included an interview).

## Results

### *Descriptive statistics*

Descriptive statistics and correlations between all experimental variables are presented in Table 1 (p. 34). The average total score for the QSE, on the scale of 20-95, was 49.46 (SD = 14.15), which is similar to a recent study with a college student sample by Boucher et al. (2012), whose mean QSE score was 48.61 (SD = 11.71). Of the 12 trait emotions measured on a scale of 1-5, joy and interest yielded the highest average scores, whereas disgust and fear had the lowest. The average TAS-20 score was 42.68 (SD=10.03) on the scale of 20-100, with scores ranging from 23-68. Based on the cutoff score of  $\geq 61$  proposed by Bagby, Parker, et al., (1994), 12 participants (5.77%) presented significant levels of alexithymia, 29 (13.94%)

would be considered “borderline alexithymics” (scores between 52-60) and the rest (80.29%) were considered not alexithymic ( $\leq 51$ ). These results are similar to those of Liang & West (2011), whose sample of female university students had TAS-20 scores ranging from 22-77, and to those of King & Mallinckrodt (2000), whose sample of American students consisted of 6% alexithymics and 18% borderline alexithymics.

### *PSE and Trait Emotions*

Congruent with our first hypothesis, total QSE scores were correlated negatively with both positive emotions and positively with all the negative emotions, confirming that an unsupportive parental socialization of emotions is associated with negative trait emotions and a lack of positive emotionality in adulthood. The highest correlations, of medium-to-large effect sizes, were with sadness, guilt and joy. As expected, all the individual unsupportive parental attitudes were negatively correlated with the two positive trait emotions and positively correlated with the nine negative trait emotions. Fostering of cognitive articulation, the sole supportive parental attitude, was positively correlated with the two positive emotions and negatively with the nine negative emotions. Among all the parental attitudes, indifference yielded the three highest associations, ranging from medium to near-large effect sizes, with sadness, guilt and joy. These results suggest that indifference bears the largest association to negative emotionality in adulthood and that fostering of cognitive articulation may prevent the emergence of negative trait emotions. However, all five attitudes had a considerable number of significant relationships with the 12 emotion traits (see Table 1).

We conducted multiple hierarchical regressions with every trait emotion to uncover each attitude’s unique contribution, except for surprise which is considered neutral and was not significantly related to QSE scores. The influence of possible confounding variables age

and sex was controlled in the first step before entering all parental attitudes in a second step. The final models presented in Table 2 (p. 0) show that the PSE factors entered simultaneously are significantly associated with the eleven tested emotions (ranging from 6% to 23%), while controlling for the effect of age and sex. Congruent with the strong correlations found, the largest contributions of PSE were toward sadness (22.6%), joy (19.2%) and guilt (17.8%), which ranged from near-large to large effect sizes. The relationship between QSE and joy being a negative one, it appears that unsupportive PSE may possibly contribute, to a certain degree, to less joy in adulthood.

Part correlations revealed an interesting pattern in which two of the parental attitudes, distress and indifference, seemed to account for most of the QSE's relationship to negative emotions. In fact, once all other attitudes were controlled for, squared part correlations revealed that distress uniquely accounted for a portion of seven emotions (3.4% of sadness, 3.2% of guilt, 3% of shame, 2.7% of fear, 2.5% of contempt, 2.3% of joy and 1.8% of self-hostility), whereas indifference accounted for five (3% of sadness, 2.9% of contempt, 2.4% of disgust, 2.3% of shyness and 1.7% of shame). Their unique contributions to a large amount of trait emotions, although modest, indicate that they bear the most robust association to negative emotionality in adulthood. As for fostering of cognitive articulation of emotions, its' unique association to positive emotionality was confirmed, as it predicted 2.3% of joy's variance.

Finally, sex was identified as a significant contributor to joy. Independent T-tests revealed that men significantly reported more joy ( $M = 3.82$ ;  $SD = 0.81$ ) than women ( $M = 3.49$ ;  $SD = 0.71$ );  $t(206) = -2.22$ ,  $p = 0.03$ . The effect size was near-large ( $d = 0.72$ ).

### *PSE and Alexithymia*

Total alexithymia scores, as well as F1 and F2, were significantly and positively related to PSE (see Table 1), with medium effect sizes. Lack of parental communication was the attitude most largely correlated with total alexithymia, F1 and F2.

In order to assess each parental attitude's independent contribution to alexithymia while controlling for the possible contributions of age and sex (step 1), three hierarchical regressions were conducted with the total TAS-20 scores as well as with F1 and F2 (step 2). The final models, shown in Table 3 (p. 1) confirmed that PSE is significantly associated to total alexithymia, F1 and F2. Our data shows that over and above the impact of age and sex, PSE is associated to alexithymia levels, especially in regard to the ability to identify and verbalize affective states in adulthood. Altogether, the five parental attitudes accounted for 10%, 13% and 8.8% of the variations in total alexithymia, F1 and F2 respectively, which represent medium effect sizes (Cohen, 1992).

Part correlations confirmed that lack of parental communication was the only attitude to have a significant unique contribution to total alexithymia. Taken individually, it predicts a modest 3.2% of alexithymia's variance, which is a small effect size ( $sr^2 = 0.03$ ,  $p < .01$ ). Age had a similar significant, yet minimal, association to alexithymia outcomes ( $sr^2 = 0.04$ ,  $p < .01$ ). Similar results were obtained for F1 scores, which were partly predicted by lack of parental communication ( $sr^2 = 0.04$ ,  $p < .01$ ) and age ( $sr^2 = 0.03$ ,  $p < .01$ ), but also by distress ( $sr^2 = 0.02$ ,  $p < .05$ ). Interestingly, F2 scores were also predicted by lack of parental communication ( $sr^2 = 0.02$ ,  $p < .05$ ) and age ( $sr^2 = 0.03$ ,  $p < .05$ ), but also by fostering of cognitive articulation ( $sr^2 = 0.02$ ,  $p < .05$ ). All effect sizes were small, suggesting that, when taken individually, these attitudes' influence on alexithymia and its first two factors is limited.

However, the strength of the predictive model including the combined attitudes reveals that a large portion of PSE's predictability is in fact shared by the overlapping properties of the different attitudes. Our results suggest that lack of parental communication has the largest specific or unique effect on global alexithymia, but that there is a distinct influence of distress on F1 and of fostering of cognitive articulation on F2.

### *Alexithymia and Trait Emotions*

For exploratory purposes, the relationship between alexithymia and trait emotions was briefly examined. Table 1 highlights alexithymia's already well-documented relationship with negative emotionality and with lack of positive emotionality. Indeed, the TAS-20 had significant correlations with all negative trait emotions, seven of which represented at least medium effect sizes (sadness, disgust, fear, shame, shyness, guilt and self-hostility). It was also inversely related to both positive trait emotions (interest and joy), with medium effect sizes. Although of high interest clinically, these relationships will have to be further analyzed in future research since they are not at the center of our study's exploration goals.

## Discussion

### *The Relationship Between PSE and Trait Emotions*

One of the goals of this study was to explore with more specificity aspects of the childhood environment that may have a bearing on adult emotionality. As expected, the results indicate that, as a whole, the five parental attitudes that conceptualize PSE were positively related to all negative trait emotions and negatively related to all positive trait emotions in adulthood. The fact that at least ten of the emotion contributions were of medium to near-large effect sizes indicates that a considerably wide range of trait emotions in adulthood are

associated to PSE. It also suggests that it is general negative emotionality, more so than any single negative emotion, that is robustly associated to poor PSE.

A thorough investigation of individual attitudes revealed that parental distress and indifference were the only two attitudes to have a unique contribution toward numerous trait emotions. In fact, they each had modest associations with seven and five emotions respectively, revealing that they may possibly have a bearing on qualitatively different negative emotions. The fact that their contribution was small, yet present across a considerable number of emotions, seems to indicate that there is a possibility they could account for the emergence of a stable emotional pattern in which a variety of negative emotions co-occur simultaneously. Indeed, distress had significant relations with sadness, guilt, shame, fear, contempt, self-hostility and joy, whereas indifference accounted for a portion of sadness, contempt, disgust, shyness and shame. This pattern could attest to the adult experience of an undifferentiated dysphoric state, whose emergence parental distress and indifference may possibly exert a considerable influence over.

This type of emotional pattern may also echo the abovementioned undifferentiated dysphoria that is hypothesized to characterize alexithymia (Lecours et al., 2011). The fact that distress was commonly associated to F1 (difficulty identifying feelings) and to seven negative trait emotions could support the idea that there are overlapping properties between undifferentiated dysphoria and alexithymia (Lecours et al., 2011). Nevertheless, our results show that unreceptive PSE, especially if characterized by distress, possibly plays a role in the emergence of co-occurring, undifferentiated negative emotions (dysphoria). Future research would allow for an exploration of whether alexithymia mediates the relationship between PSE and negative trait emotions.

The discrepancy between the predictive strength of the different models (Total PSE vs. the individual attitudes) suggests that it is PSE as a whole that has a more substantial association to adult emotional life. Indeed, only two parental attitudes yielded significant individual contributions, which were minimal, as opposed to total PSE which had considerably larger impacts on all emotions (ranging from 6%-23%). It is mostly the combination of all the parental attitudes that could play a part in the emergence of negative emotions, more so than any of the attitudes taken individually. We can assume that most of the variance is shared between the different parental attitudes. We can therefore posit that the combination of the individual attitudes constitutes a general parental approach which shapes the developmental environment and impacts the child's emotional development. When this approach is characterized by unreceptiveness to emotional expression, it could lead to the emergence of generalized dysphoria (the simultaneous experience of various negative emotions). One hypothesis about this process is that if the child's environment was generally unreceptive to negative emotions, experiencing a single negative emotion would constantly arouse other negative feelings. An example would be a child who feels ashamed and angry after being punished for crying (sadness) in front of his parents. The repetition of these simultaneous negative emotional experiences as a result of the family environment would eventually yield a stable emotional pattern. Inversely, an environment where emotional expression or dialogue was encouraged would allow children to feel like they could safely talk about or demonstrate their negative emotions without generating more negative emotions. Parental receptiveness to emotional experience would therefore serve the purpose of regulating and tuning down the negative emotions. Since PSE represents a relational process that is part of the wide attachment construct, this idea is congruent with aforementioned studies linking insecure



attachment types to the co-occurrence of various negative emotions (i.e. fear, contempt, disgust and shame; Feeney & Noller, 1990) as well as poor perceived PSE to psychological distress in adulthood (Krause et al., 2003). It also echoes recent findings which established a relationship between poor perceived PSE and adult depression in victims of child sexual abuse, which was mediated by alexithymia (Thomas, DiLillo, Walsh, & Polusny, 2011). The contribution of the present study is that it further refines the aspects of the child-parent relationship that may be at the root of such a developmental path characterized by negative emotionality. The relationships we found between the parental attitudes and emotions were nonetheless modest, indicating that there are also other associated etiologic aspects that contribute to the emergence of negative emotionality.

As for the individual attitudes, two possible hypotheses may emerge from the comparison of the different emotions linked to indifference and distress. The first is that distress is simply associated with a larger spectrum of negative emotions (seven) as opposed to indifference (five). The fact that distress, which is linked to more negative emotions, is also uniquely associated with F1 (difficulty identifying feelings), further reinforces the hypothesis of alexithymia as a generalized dysphoric state in which individuals experience numerous negative emotions in tandem without being able to differentiate them. The overwhelming sensation stemming from this co-occurrence of unpleasant emotions could explain the inability to identify precisely what they are feeling (F1). Although our results indicate that it is mostly PSE as a whole that would contribute to such a state in adulthood, perhaps distress has a particularly important impact due to the variety of negative emotions it is related to. The second hypothesis that we can posit is in regard to the qualitative differences between the emotions associated with the two attitudes. The emotions associated with distress appear to be

more internally-oriented and auto-reflexive than those associated to indifference, which tend to be more externally-oriented (directed at others). Emotions linked to distress, like shame, self-hostility and guilt seem to outline a constellation of painful, self-directed emotions. It is possible that distress could play a unique role in the emergence of painful emotions about the self, more so than indifference. Further research is needed to expand these findings.

Finally, our data suggests that there is a sex difference in the self-report of only one emotion, with men scoring higher on trait emotion joy. This result differs from previous reports suggesting that, although women feel and express positive and negative emotions more intensely, the sexes do not differ in reports of experienced emotions (Fujita et al., 1991; Kring & Gordon, 1998). Some findings have established that there are sex differences in the types of events associated with salient emotions, but it was not the case for joy in particular (Stapley, 1989). Kring and Gordon (1998) confirmed that the sex difference in emotional expression was modulated by family-of-origin expressiveness, which is in line with our hypotheses regarding the strong influence of the developmental environment on emotional abilities. In our study, however, men ( $M = 48.69$ ;  $SD = 14.1$ ) and women ( $M = 50.03$ ;  $SD = 14.17$ ) did not differ in their socialization experiences (total QSE score);  $t(206) = -0.45$ ,  $p = 0.65$ . In other words, given our findings' incongruence with the existing literature on the subjects, they need to be replicated before any further conclusions can be made regarding the association between trait emotion joy and sex.

### *The Relationship Between PSE and Alexithymia*

The second aim of this study was to determine whether and how much PSE was associated with alexithymia outcomes in adulthood. As expected, PSE as a whole is moderately related to adult alexithymia. These findings confirm our general hypothesis and

are compatible with the ensemble of the literature abovementioned, which stresses the importance of the parents' role in the development of emotional skills. Parental emotional communication was the only dimension to yield a unique contribution to alexithymia and was also significantly linked to F1 and F2. This relationship is supported by a number of empirical studies. Bronstein, Fitzgerald, Briones, Pieniadz, and D'Ari (1993) reported that parents' observed levels of emotional expression was highly correlated with their child's own level of emotionality, and Lumley, Mader, Gramzow, and Papineau (1996) showed that mothers' alexithymia levels were significantly related to those of their offspring. Moreover, Yelsma et al. (2000) established that children who reported having been brought up in emotionally unexpressive families were generally more alexithymic than those raised in expressive families. This result is also congruent with previous findings suggesting that children's emotional expression skills are developed by an imitation process based on how their parents approach and express emotions (Dunsmore & Halberstadt, 1997; Eisenberg et al., 1998). We can hypothesize that the child, having not had the opportunity to witness emotional expression by his parents, never learns how to do so adequately and perpetuates this behavior in his own adult life. Another possibility is that there is an underlying genetic factor responsible for this lack of emotional communication. Its unique contribution to alexithymia levels was nonetheless small. The discrepancy between the predictive strength of the overall model and the dimensions taken individually suggests that, once again, it is PSE as a whole that is more substantially related to alexithymia. This finding is congruent with previous studies which found that the general extent to which family members are allowed and encouraged to express feelings openly is strongly related to alexithymia in adulthood (Berenbaum & James, 1994; Ebeling, 2001; Kench & Irwin, 2000; Morris et al., 2007). Much like our hypothesis about

negative emotionality in adulthood, we can posit that it is the combination of negative parental attitudes that constitutes a general parental approach characterized by unreceptiveness to emotional expression. It is this broad unreceptiveness, rather than any specific parental attitude, that may play a part in the emergence of alexithymic tendencies in adulthood. Despite the fact that the QSE aims to cover a wide range of parental attitudes, the modest relationship we found nonetheless shows that it is not the only factor associated to alexithymia in adulthood. The influence of mediating variables between socialization and alexithymia is also to be considered.

Age was also identified as a significant negative correlate of alexithymia, revealing that older participants were less likely to be alexithymic. The relationship between age and alexithymia appears to be a complex one, as previous studies have yielded inconsistent conclusions about its nature (Kench & Irwin, 2000; Morrison & Pihl, 1989; Pasini et al., 1992). In samples with young adults and narrow age ranges, such as university students, alexithymia appears to decrease with age, which could be hypothesized to be the result of emotional maturity emerging during young adulthood (Kench & Irwin, 2000). Interestingly, studies that looked into large samples of wider age ranges (18-80 and 30-85+ years old; Lane, Sechrest, & Riedel, 1998; Mattilaa, Salminen, Nummia, & Joukamaa, 2006) found that alexithymia increased with age. This could reflect a difference in older individuals' emotion socialization experiences, suggesting that parental rearing styles have progressed in favor of younger individuals, who report less alexithymia. These hypotheses need to be further explored. Nevertheless, the effect that was found in our data was small and does not indicate that age is an important contributor to alexithymia.

Our study confirmed that the aspects of alexithymia that are related to PSE have more to do with the ability to recognize and verbalize emotions (F1 and F2) than with an inability to be internally oriented (F3). Interestingly, apart from having parental emotional communication and age as common correlates, these two factors also had distinct associations which yielded unique contributions: distress had a unique influence over F1, whereas fostering of cognitive articulation had a unique influence over F2. We can hypothesize that the difficulty identifying feelings that stems from parental distress may be the result of the child's adaptive reaction to this attitude. According to attachment theory, one of the child's most vital needs is to preserve proximity with its attachment figures (J. Bowlby, 1977; Cassidy, 1994). Thompson (1994) argued that, as part of an adaptive strategy, emotion regulation is constantly adjusted to fulfill this goal. We can posit that the parent's distressed reaction to the child's emotion results in a threat to the attachment relationship. Perceiving his emotion as the source of this threat, the child may deploy an array of defense mechanisms to prevent exploration, comprehension and regulation of the emotion, which he must instead quickly rid himself of. The emotion is better kept at distance, because the priority is to maintain a safe relationship to his parents. Previous findings have confirmed that the defense mechanisms most strongly associated to alexithymia are those that suppress or distance affects. Affect isolation, by separating affects from their representations, followed by splitting which most likely prevents the integration of one's identity in its most extreme affective facets, have the strongest relationship to alexithymia (Bordeleau, Lecours, Philippe, Briand-Malenfant, & Arseneault, 2010). As part of a larger study by Lecours et al. (2011), we also assessed defense mechanisms. Preliminary results show that affect suppression defenses such as distortion of reality (ex. denial) and splitting yielded the highest associations to distress. We can posit that such defense mechanisms tend to

be deployed as a reaction to parental distress and may contribute to alexithymia in adulthood, especially in regard to F1. Undifferentiated dysphoria, in which all mental efforts are deployed to prevent the exploration of each individual emotion, could result from such a mechanism. The lack of a unique relationship between F2 and distress suggests that this attitude is especially linked to developmental issues surrounding attachment, such as feeling safe enough to take interest in emotions without feeling too overwhelmed, rather than to an ability to communicate feelings.

As for the unique contribution of parents' fostering cognitive articulation toward F2, it is to be expected. It confirms the theoretical idea that parents who emphasize the understanding of emotions, by helping the child establish links between emotions and thoughts or external events, are more likely to have children who are better at verbalizing their affective states. The more the parent is comfortable with emotional talk and encourages the child to cognitively articulate his emotional processes, the more the child will himself be comfortable verbalizing his emotions.

### *The Relationship Between Alexithymia and Trait Emotions*

Our results replicated the existing literature's findings that alexithymia is highly related to negative emotions and to a lack of positive emotions. Alexithymia was significantly related to all negative emotions and inversely related to positive emotions. Similarly to parental distress, the most robust relationships we found were with auto-reflexive emotions such as shyness, guilt, shame and self-hostility.

Our results tend to support Lecours et al.'s (2011) hypothesis that a frequent co-occurrence of undifferentiated negative emotions may be a dominant characteristic of alexithymic functioning. This is congruent with numerous findings in the literature linking

alexithymia to negative emotions such as depression and anxiety (Taylor & Bagby, 2004), as well as poor attachment to negative emotions in the long-term (Feeney, 1999; Hammen et al., 2000). It also echoes the numerous correlations, of considerable effect size, that we found between alexithymia and negative trait emotions.

Future research should explore more thoroughly both these results in order to uncover whether: 1- alexithymia is in fact characterized by undifferentiated dysphoria, and 2 – whether this dysphoria is mostly made up of auto-reflexive, negative emotions directed at the self.

### *Limitations*

One potential limitation of this study concerns the measurement of PSE. The QSE being a retrospective measure, the results could reflect a retrospective reporting bias. We cannot disregard the possibility of various life events altering participants' childhood memories. Also, being alexithymic or having more negative trait emotions could have an influence on one's perception or recall of childhood events. Considering that it is impossible to evaluate how the QSE results compare to the events as they actually took place, this measure is limited. Since the only way to accurately measure this variable would be through an observational, longitudinal study, a self-report instrument revealing one's mental conception of one's upbringing is a valuable starting point for a first exploration of these relationships. As with all self-report retrospective measures, it allows us to gain some insight on the types of mental representations regarding childhood experiences that are associated with various psychological difficulties.

Further studies should investigate demographically different samples, such as clinical and non-clinical populations with broader age, occupation and alexithymia ranges. This study's results extend strictly to a population of fairly young university students, whose scores

ranged relatively low overall on the alexithymia continuum. It is also possible that the limited portion of individuals with clinical alexithymia in our sample attenuated the size of the associations that were found. This study has allowed for a first overview of the associations between these clinically important variables. We can posit that stronger associations would most likely be found in a strictly clinical sample and that further research is needed to investigate such associations. Another important aspect which is to be considered regarding the size of the associations found in our multiple regressions is the portion of prediction absorbed by the shared variance between the variables. Since we know that parental attitudes, especially negative ones, share some overlapping properties, we must not disregard that a considerable portion of alexithymia and of negative emotions is most definitely predicted by them.

Finally, this study relied entirely on self-report measures and its design was correlational. Caution is to be exercised when interpreting its results, since causation cannot be directly established. Furthermore, although no significant correlation was found between F3 and our variables of interest, no clear conclusion can be established about F3 at this point, given its poor reliability within our sample.

### Conclusion

Summarizing our findings, unsupportive PSE characterized by a developmental environment that is unreceptive to emotional expression, is considerably related to adult emotional life. More specifically, it could be a significant factor in the emergence of qualitatively different negative trait emotions and of alexithymia in adulthood, with distress and indifference having the largest specific associations with such a dysphoric state. Associations between distress and F1 (difficulty identifying emotions) lead us to posit that



parental reactions high in distress bring a particularly important stress on the parent-child relationship and that F1 could develop as a defense mechanism to prevent exploration of specific emotions. These results tend to reinforce recent research on alexithymia revealing that it possibly shares overlapping properties with undifferentiated dysphoria. Although it is the overall parental trend toward unreceptiveness that bears the strongest association with alexithymia, parental emotional communication appears to have a specific relation with the more verbal facets of alexithymia (F1 and F2). Interestingly, our data suggests that some attitudes have unique associations with different aspects of alexithymia: distress has a specific contribution to F1, whereas fostering cognitive articulation has a specific contribution to F2. These findings are nonetheless modest and suggest that PSE is not the only factor that is associated with the development of negative trait emotions and alexithymia. Further research is needed to establish a more exhaustive predictive model of adult emotional functioning and to determine whether alexithymia mediates the relationship between PSE and dysphoria.

Table 1 - Means, Standard Deviations and Correlations Between all Variables

|      | Mean  | SD    | QSE    | COM    | COG    | IND    | HOS    | DIS    | Int    | Joy    | Sur   | Sad   | Ang   | Disg  | Con   | Fea   | Sha   | Shy   | Gui   | Sfho  | Alex  | F1    | F2    | F3   |  |
|------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|--|
| QSE  | 49.46 | 14.15 |        |        |        |        |        |        |        |        |       |       |       |       |       |       |       |       |       |       |       |       |       |      |  |
| COM  | 2.79  | 1.01  | .79**  |        |        |        |        |        |        |        |       |       |       |       |       |       |       |       |       |       |       |       |       |      |  |
| COG  | 3.3   | 1.01  | -.83** | -.60** |        |        |        |        |        |        |       |       |       |       |       |       |       |       |       |       |       |       |       |      |  |
| IND  | 1.88  | .91   | .82**  | .55**  | -.74** |        |        |        |        |        |       |       |       |       |       |       |       |       |       |       |       |       |       |      |  |
| HOS  | 2.98  | .98   | .71**  | .43**  | -.38** | .40**  |        |        |        |        |       |       |       |       |       |       |       |       |       |       |       |       |       |      |  |
| DIS  | 2.00  | .76   | .63**  | .33**  | -.35** | .37**  | .45**  |        |        |        |       |       |       |       |       |       |       |       |       |       |       |       |       |      |  |
| Int  | 3.73  | .67   | -.20** | -.21** | .16*   | -.12   | -.14*  | -.11   |        |        |       |       |       |       |       |       |       |       |       |       |       |       |       |      |  |
| Joy  | 3.78  | .73   | -.41** | -.29** | .40**  | -.37** | -.20** | -.30** | .55**  |        |       |       |       |       |       |       |       |       |       |       |       |       |       |      |  |
| Sur  | 2.18  | .73   | .04    | -.04   | .00    | .03    | .04    | .16*   | .15*   | .07    |       |       |       |       |       |       |       |       |       |       |       |       |       |      |  |
| Sad  | 2.42  | .88   | .43**  | .27**  | -.38** | .41**  | .23**  | .34**  | -.33** | -.55** | .16*  |       |       |       |       |       |       |       |       |       |       |       |       |      |  |
| Ang  | 2.26  | .94   | .33**  | .22**  | -.30** | .31**  | .16*   | .24**  | -.10   | -.38** | .15*  | .63** |       |       |       |       |       |       |       |       |       |       |       |      |  |
| Disg | 1.59  | .55   | .25**  | .14*   | -.18*  | .25**  | .17*   | .23**  | -.22** | -.27** | .34** | .42** | .38** |       |       |       |       |       |       |       |       |       |       |      |  |
| Con  | 1.99  | .73   | .33**  | .18**  | -.22** | .32**  | .26**  | .30**  | -.10   | -.26** | .14*  | .30** | .46** | .34** |       |       |       |       |       |       |       |       |       |      |  |
| Fea  | 1.83  | .89   | .31**  | .29**  | -.27** | .28**  | .10    | .26**  | -.12   | -.33** | .19** | .63** | .53** | .45** | .22** |       |       |       |       |       |       |       |       |      |  |
| Sha  | 2.36  | .82   | .27**  | .19**  | -.11   | .21**  | .26**  | .28**  | -.18*  | -.18** | .26** | .39** | .35** | .47** | .31** | .41** |       |       |       |       |       |       |       |      |  |
| Shy  | 2.09  | .82   | .31**  | .27**  | -.24** | .31**  | .16*   | .18*   | -.23** | -.27** | .25** | .47** | .30** | .42** | .25** | .44** | .52** |       |       |       |       |       |       |      |  |
| Gui  | 2.15  | .81   | .42**  | .29**  | -.35** | .37**  | .25**  | .34**  | -.19** | -.33** | .21** | .65** | .57** | .42** | .44** | .53** | .48** | .51** |       |       |       |       |       |      |  |
| Sfho | 1.98  | .85   | .29**  | .22**  | -.25** | .29**  | .13    | .19**  | -.35** | -.46** | .02   | .70** | .58** | .41** | .23** | .52** | .46** | .49** | .66** |       |       |       |       |      |  |
| Alex | 42.68 | 10.03 | .24**  | .26**  | -.20** | .16*   | .13    | .15*   | -.33** | -.34** | .03   | .34** | .17*  | .29** | .18*  | .24** | .39** | .37** | .37** | .44** |       |       |       |      |  |
| F1   | 2.25  | .71   | .29**  | .30**  | -.22** | .22**  | .15*   | .22**  | -.26** | -.35** | .04   | .42** | .29** | .29** | .21** | .29** | .37** | .30** | .41** | .50** | .83** |       |       |      |  |
| F2   | 2.39  | .89   | .22**  | .23**  | -.22** | .13    | .15*   | .10    | -.29** | -.25** | .00   | .24** | .04   | .23** | .09   | .07   | .26** | .37** | .26** | .30** | .87** | .65** |       |      |  |
| F3   | 1.88  | .44   | -.01   | .03    | .01    | -.02   | -.04   | -.01   | -.21** | -.14*  | .02   | .07   | .02   | .11   | .09   | .17*  | .25** | .17*  | .14*  | .16*  | .56** | .14*  | .31** |      |  |
| Age  | 22.29 | 3.88  | .21**  | .21**  | -.28** | .26**  | -.06   | .08    | .08    | -.08   | -.09  | .03   | .20** | -.02  | .05   | .13   | -.10  | .07   | .12   | .10   | -.12  | -.08  | -.10  | -.10 |  |

Pearson *r*s: \* =  $p < .05$ ; \*\* =  $p < .01$ .

QSE = total QSE score; COM = lack of emotional communication; COG = fostering of cognitive articulation; IND = indifference; HOS = hostility; DIS = distress; Int = Interest; Joy = Joy; Sur = Surprise; Sad = Sadness; Ang = Anger; Disg = Disgust; Con = Contempt; Fea = Fear; Sha = Shame; Shy = Shyness; Gui = Guilt; Sfho = Self-hostility; Alex = total TAS-20 score; F1 = alex factor 1 score; F2 = alex factor 2 score; F3 = alex factor 3 score.

Table 2 -  $R^2$  and  $\Delta R^2$  for QSE Total and Significant Part-Correlations (sr) for Parental Attitudes After Controlling for Age and Sex in Multiple Regressions Predicting Trait Emotions

| Emotion | $R^2$         | $\Delta R^2$   | COM         | COG         | IND          | HOS  | DIS          | Age  | Sex          |
|---------|---------------|----------------|-------------|-------------|--------------|------|--------------|------|--------------|
| Int     | .021          | <b>.061*</b>   | <b>.14*</b> | .06         | .03          | -.03 | -.03         | .13  | -.13         |
| Joy     | <b>.029*</b>  | <b>.192***</b> | -.03        | <b>.15*</b> | -.09         | .03  | <b>-.15*</b> | .05  | <b>-.15*</b> |
| Sad     | .060          | <b>.226***</b> | .01         | -.09        | <b>.18**</b> | -.04 | <b>.18**</b> | -.10 | -.07         |
| Ang     | <b>.046**</b> | <b>.097**</b>  | .01         | -.06        | .11          | .00  | .12          | .11  | -.08         |
| Disg    | .002          | <b>.094**</b>  | -.01        | .02         | <b>.15*</b>  | .02  | .13          | -.08 | .05          |
| Con     | .006          | <b>.148***</b> | -.03        | .03         | <b>.17**</b> | .09  | <b>.16*</b>  | -.01 | .07          |
| Fea     | .028          | <b>.123***</b> | <b>.14*</b> | -.03        | .09          | -.12 | <b>.16*</b>  | .02  | -.11         |
| Sha     | .012          | <b>.132***</b> | .08         | .11         | <b>.13*</b>  | .09  | <b>.17**</b> | -.13 | .06          |
| Shy     | .006          | <b>.105***</b> | .11         | .02         | <b>.15*</b>  | -.01 | .05          | -.02 | -.03         |
| Gui     | .022          | <b>.178***</b> | .05         | -.06        | .12          | .01  | <b>.18**</b> | .02  | -.08         |
| Sfho    | .021          | <b>.088**</b>  | .06         | -.02        | .14          | -.04 | <b>.14*</b>  | .01  | -.11         |

Note. N = 208. \* =  $p < .05$ ; \*\* =  $p < .01$ ; \*\*\* =  $p < .001$ .

$R^2$  = R square (for age and sex);  $\Delta R^2$  = R square change for emotion; COM = lack of emotional communication; COG = fostering of cognitive articulation; IND = indifference; HOS = hostility; DIS = distress; Int = Interest; Joy = Joy; Sad = Sadness; Ang = Anger; Disg = Disgust; Con = Contempt; Fea = Fear; Sha = Shame; Shy = Shyness; Gui = Guilt; Sfho = Self-hostility.

Small effect-size:  $\Delta R^2 \approx .01$ ; Medium effect-size:  $\Delta R^2 \approx .09$ ; Large effect-size:  $\Delta R^2 \geq .25$ .

Table 3 - *Part-Correlations (sr) of Parental Attitudes After Controlling for Age and Sex in Multiple Regression Analyses Predicting Alexithymia, F1 and F2*

|      | $R^2$ | $\Delta R^2$   | COM          | COG          | IND  | HOS  | DIS         | Age           | Sex |
|------|-------|----------------|--------------|--------------|------|------|-------------|---------------|-----|
| Alex | .023  | <b>.100***</b> | <b>.18**</b> | -.08         | -.01 | -.05 | -.07        | <b>-.20**</b> | .09 |
| F1   | .009  | <b>.130***</b> | <b>.19**</b> | -.03         | .05  | -.06 | <b>.13*</b> | <b>-.17**</b> | .05 |
| F2   | .025  | <b>.088**</b>  | <b>.13*</b>  | <b>-.14*</b> | -.06 | .02  | .01         | <b>-.17*</b>  | .13 |

*Note.* N = 208. \* =  $p < .05$ ; \*\* =  $p < .01$ ; \*\*\* =  $p < .001$ .

$R^2$  = R square;  $\Delta R^2$  = R square change for alexithymia; Alex = total TAS-20 score; F1 = Factor 1; F2 = Factor 2; F3 not included since not related to QSE; COM = lack of emotional communication; COG = fostering of cognitive articulation; IND = indifference; HOS = hostility; DIS = distress.

Small effect-size:  $\Delta R^2 \approx .01$ ; Medium effect-size:  $\Delta R^2 \approx .09$ ; Large effect-size:  $\Delta R^2 \geq .25$ .

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## Annexe I : Questionnaire sur la socialisation des émotions

Les énoncés suivants portent sur vos expériences comme enfant dans votre propre famille. L'expression « mes parents » s'applique soit à l'un de vos parents, soit aux deux ou soit aux personnes qui s'occupaient de vous durant votre enfance. Répondez aux énoncés en vous servant de la feuille suivante. Cochez vrai même si la question ne concerne qu'un seul des parents.

| <i>Durant mon enfance, mes parents...</i>  | Jamais<br>vrai | Rare-<br>ment<br>vrai | Quelque<br>-fois<br>vrai | Souvent<br>vrai | Très<br>souvent<br>vrai |
|--|----------------|-----------------------|--------------------------|-----------------|-------------------------|
| 1. Étaient fâchés contre moi lorsque je me mettais en colère.                                      |                |                       |                          |                 |                         |
| 2. Ne me demandaient pas comment avait été ma journée à l'école.                                   |                |                       |                          |                 |                         |
| 3. Ne s'intéressaient pas à comment je réagissais aux événements importants.                       |                |                       |                          |                 |                         |
| 4. Étaient indifférents lorsque je vivais des émotions intenses.                                   |                |                       |                          |                 |                         |
| 5. Me punissaient lorsque je faisais une crise de colère.  |                |                       |                          |                 |                         |
| 6. Ne parlaient pas de leurs émotions.   |                |                       |                          |                 |                         |
| 7. Ne m'écoutaient pas lorsque je leur racontais quelque chose qui m'était arrivé dans la journée. |                |                       |                          |                 |                         |
| 8. Essayaient de comprendre pourquoi j'étais fâché.  |                |                       |                          |                 |                         |

Questionnaire sur la socialisation des émotions (continued)

| <i>Durant mon enfance, mes parents...</i>   | Jamais<br>vrai | Rare-<br>ment<br>vrai | Quelque<br>-fois<br>vrai | Souvent<br>vrai | Très<br>souvent<br>vrai |
|---|----------------|-----------------------|--------------------------|-----------------|-------------------------|
| 9. Exprimaient peu leurs émotions.  |                |                       |                          |                 |                         |
| 10. Me disaient ce qu'ils comprenaient de ma situation lorsque je vivais des émotions négatives.      |                |                       |                          |                 |                         |
| 11. Semblaient pouvoir deviner comment je me sentais.   |                |                       |                          |                 |                         |
| 12. Étaient visiblement déstabilisés lorsque je les confrontais.                                      |                |                       |                          |                 |                         |
| 13. Paniquaient lorsque je me mettais à pleurer.  |                |                       |                          |                 |                         |
| 14. Étaient habituellement assez peu démonstratifs.   |                |                       |                          |                 |                         |
| 15. Avaient l'air fâchés lorsque je leur faisais un reproche.   |                |                       |                          |                 |                         |
| 16. Montraient peu de signes non-verbaux de leurs émotions.   |                |                       |                          |                 |                         |
| 17. Semblaient désorientés devant mes états de tristesse.   |                |                       |                          |                 |                         |
| 18. Se rendaient compte que je mentais lorsque je disais que j'allais bien alors que ça n'allait pas. |                |                       |                          |                 |                         |
| 19. Semblaient avoir peur de ma colère.   |                |                       |                          |                 |                         |

## Annexe II : Échelle des émotions différentielles IV

Indiquez votre réponse en fonction de l'échelle ci-dessous pour chacun des énoncés suivants.

| Rarement ou jamais | Peu souvent | Quelques fois | Souvent | Très souvent |
|--------------------|-------------|---------------|---------|--------------|
| 1                  | 2           | 3             | 4       | 5            |

### Dans votre vie de tous les jours, à quelle fréquence...

1. Sentez-vous du regret, vous sentez-vous coupable pour quelque chose que vous avez fait? 1 2 3 4 5

2. Vous sentez-vous penaud(e) ou pris(e) en faute, comme si vous ne vouliez pas être vu(e)? 1 2 3 4 5

3. Vous sentez-vous content(e) de quelque chose? 1 2 3 4 5

4. Sentez-vous que quelque chose ne sent pas bon, vous laisse un mauvais goût dans la bouche? 1 2 3 4 5

5. Sentez-vous que vous ne pouvez pas vous endurer? 1 2 3 4 5

6. Vous sentez-vous gêné(e) lorsque quelqu'un vous voit faire une erreur? 1 2 3 4 5

7. Vous sentez-vous malheureux(se), avez-vous les bleus, avez-vous le moral bas? 1 2 3 4 5

8. Vous sentez-vous surpris(e), comme lorsque quelque chose d'inattendu arrive soudainement? 1 2 3 4 5

9. Sentez-vous que quelqu'un est médiocre, qu'il(elle) ne vaut pas cher? 1 2 3 4 5

10. Vous sentez-vous timide, comme si vous vouliez vous cacher? 1 2 3 4 5

11. Sentez-vous que ce que vous faites ou regardez est intéressant? 1 2 3 4 5

12. Êtes-vous apeuré(e), inquiet(e), comme si on pouvait vous faire du mal? 1 2 3 4 5

13. Vous sentez-vous en colère contre quelqu'un? 1 2 3 4 5

14. Vous sentez-vous en colère contre vous-même? 1 2 3 4 5

15. Vous sentez-vous heureux(se)? 1 2 3 4 5

16. Sentez-vous que quelqu'un est un(e) bon(ne) à rien? 1 2 3 4 5

17. Vous sentez-vous très intéressé(e) par ce que vous faites, absorbé(e) par votre tâche? 1 2 3 4 5

18. Vous sentez-vous stupéfait(e), comme si vous ne pouviez pas croire ce qui est arrivé, c'était tellement inhabituel? 1 2 3 4 5

19. Êtes-vous craintif(ve), vous sentez-vous comme si vous étiez en danger, très tendu(e)? 1 2 3 4 5

20. Avez-vous le goût de crier après quelqu'un ou de 1 2 3 4 5

|   |                            |                            |                            |                            |                            |
|---|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| frapper sur quelque chose?  | <input type="radio"/>      | <input type="radio"/>      | <input type="radio"/>      | <input type="radio"/>      | <input type="radio"/>      |
| 21. Vous sentez-vous triste et sombre, comme si vous alliez pleurer?                                      | 1<br><input type="radio"/> | 2<br><input type="radio"/> | 3<br><input type="radio"/> | 4<br><input type="radio"/> | 5<br><input type="radio"/> |
| 22. Vous sentez-vous comme si vous aviez fait quelque chose de mal?                                       | 1<br><input type="radio"/> | 2<br><input type="radio"/> | 3<br><input type="radio"/> | 4<br><input type="radio"/> | 5<br><input type="radio"/> |
| 23. Vous sentez-vous timide, embarrassé(e)?   | 1<br><input type="radio"/> | 2<br><input type="radio"/> | 3<br><input type="radio"/> | 4<br><input type="radio"/> | 5<br><input type="radio"/> |
| 24. Vous sentez-vous dégoûté(e), comme si quelque chose vous rendait malade?                              | 1<br><input type="radio"/> | 2<br><input type="radio"/> | 3<br><input type="radio"/> | 4<br><input type="radio"/> | 5<br><input type="radio"/> |
| 25. Vous sentez-vous joyeux(se), comme si tout allait bien, voyez-vous la vie en rose?                    | 1<br><input type="radio"/> | 2<br><input type="radio"/> | 3<br><input type="radio"/> | 4<br><input type="radio"/> | 5<br><input type="radio"/> |
| 26. Avez-vous l'impression que les gens se moquent de vous?   | 1<br><input type="radio"/> | 2<br><input type="radio"/> | 3<br><input type="radio"/> | 4<br><input type="radio"/> | 5<br><input type="radio"/> |
| 27. Avez-vous l'impression que les choses sont tellement pourries qu'elles pourraient vous rendre malade? | 1<br><input type="radio"/> | 2<br><input type="radio"/> | 3<br><input type="radio"/> | 4<br><input type="radio"/> | 5<br><input type="radio"/> |
| 28. Vous sentez-vous écoeuré de vous-même?  | 1<br><input type="radio"/> | 2<br><input type="radio"/> | 3<br><input type="radio"/> | 4<br><input type="radio"/> | 5<br><input type="radio"/> |
| 29. Vous sentez-vous comme si vous étiez meilleur(e) que quelqu'un d'autre?                               | 1<br><input type="radio"/> | 2<br><input type="radio"/> | 3<br><input type="radio"/> | 4<br><input type="radio"/> | 5<br><input type="radio"/> |
| 30. Sentez-vous que vous devriez être blâmé(e) de quelque chose?  | 1<br><input type="radio"/> | 2<br><input type="radio"/> | 3<br><input type="radio"/> | 4<br><input type="radio"/> | 5<br><input type="radio"/> |
| 31. Vous sentez-vous comme vous vous sentez lorsque quelque chose d'inattendu arrive?                     | 1<br><input type="radio"/> | 2<br><input type="radio"/> | 3<br><input type="radio"/> | 4<br><input type="radio"/> | 5<br><input type="radio"/> |

|  |                            |                            |                            |                            |                            |
|--|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| 32. Vous sentez-vous alerte, curieux(se), comme excité(e) pour quelque chose?                    | 1<br><input type="radio"/> | 2<br><input type="radio"/> | 3<br><input type="radio"/> | 4<br><input type="radio"/> | 5<br><input type="radio"/> |
| 33. Vous sentez-vous en colère, irrité(e), mécontent(e)?   | 1<br><input type="radio"/> | 2<br><input type="radio"/> | 3<br><input type="radio"/> | 4<br><input type="radio"/> | 5<br><input type="radio"/> |
| 34. Vous sentez-vous découragé(e), comme si vous n'y arriviez plus, comme si rien n'allait bien? | 1<br><input type="radio"/> | 2<br><input type="radio"/> | 3<br><input type="radio"/> | 4<br><input type="radio"/> | 5<br><input type="radio"/> |
| 35. Avez-vous peur, êtes-vous tremblant(e), nerveux(se)?   | 1<br><input type="radio"/> | 2<br><input type="radio"/> | 3<br><input type="radio"/> | 4<br><input type="radio"/> | 5<br><input type="radio"/> |
| 36. Avez-vous l'impression que les gens vous regardent toujours lorsque quelque chose va mal?    | 1<br><input type="radio"/> | 2<br><input type="radio"/> | 3<br><input type="radio"/> | 4<br><input type="radio"/> | 5<br><input type="radio"/> |



## Annexe III : Échelle d'Alexithymie de Toronto à 20 items

Sexe: M / F      Âge:      Date:      Code: \_\_\_\_\_

### TAS-20

**Instructions:** indiquez, en vous servant de la grille qui figure ci-dessous, à quel point vous êtes en accord ou en désaccord avec chacune des affirmations qui suivent. Il suffit d'encercler le chiffre qui correspond à votre choix. Ne donnez qu'une réponse pour chaque question.

Encerclez 1 si vous êtes totalement en désaccord  
 Encerclez 2 si vous êtes modérément en désaccord  
 Encerclez 3 si vous n'êtes ni en accord ni en désaccord  
 Encerclez 4 si vous êtes modérément en accord  
 Encerclez 5 si vous êtes totalement en accord

|  | totalement<br>en désaccord | modérément<br>en désaccord | ni en accord<br>ni en désaccord | modérément<br>en accord | totalement<br>en accord |
|--|----------------------------|----------------------------|---------------------------------|-------------------------|-------------------------|
| 1. Souvent, je ne vois pas très clair dans mes sentiments.   | 1                          | 2                          | 3                               | 4                       | 5                       |
| 2. J'ai du mal à trouver les mots qui correspondent bien à mes sentiments.   | 1                          | 2                          | 3                               | 4                       | 5                       |
| 3. J'éprouve des sensations physiques que les médecins eux-mêmes ne comprennent pas.                                 | 1                          | 2                          | 3                               | 4                       | 5                       |
| 4. J'arrive facilement à décrire mes sentiments.   | 1                          | 2                          | 3                               | 4                       | 5                       |
| 5. Je préfère analyser mes problèmes plutôt que de me contenter de les décrire.                                      | 1                          | 2                          | 3                               | 4                       | 5                       |
| 6. Quand je suis bouleversé(e), je ne sais pas si je suis triste, effrayé(e), ou en colère.                          | 1                          | 2                          | 3                               | 4                       | 5                       |
| 7. Je suis souvent intrigué(e) par des sensations au niveau de mon corps.  | 1                          | 2                          | 3                               | 4                       | 5                       |
| 8. Je préfère simplement laisser les choses se produire plutôt que de comprendre pourquoi elles sont arrivées ainsi. | 1                          | 2                          | 3                               | 4                       | 5                       |
| 9. J'ai des sentiments que je n'arrive pas tout à fait à identifier.   | 1                          | 2                          | 3                               | 4                       | 5                       |
| 10. Être en contact avec ses émotions est essentiel.   | 1                          | 2                          | 3                               | 4                       | 5                       |

## Twenty-Item Toronto Alexithymia Scale (TAS-20; continued)

|   | <i>totalément</i><br>en désaccord | <i>modérément</i><br>en désaccord | <i>ni en accord</i><br>ni en désaccord | <i>modérément</i><br>en accord | <i>totalément</i><br>en accord |
|---|-----------------------------------|-----------------------------------|--|--------------------------------|--------------------------------|
| 11. Je trouve difficile de décrire comment je me sens par rapport aux gens.                             | 1                                 | 2                                 | 3                                      | 4                              | 5                              |
| 12. On me dit de décrire davantage ce que je ressens.   | 1                                 | 2                                 | 3                                      | 4                              | 5                              |
| 13. Je ne sais pas ce qui se passe à l'intérieur de moi.  | 1                                 | 2                                 | 3                                      | 4                              | 5                              |
| 14. Bien souvent, je ne sais pas pourquoi je suis en colère.  | 1                                 | 2                                 | 3                                      | 4                              | 5                              |
| 15. Je préfère parler aux gens de leurs activités quotidiennes plutôt que de leurs sentiments.          | 1                                 | 2                                 | 3                                      | 4                              | 5                              |
| 16. Je préfère regarder des émissions "légères" et divertissantes plutôt que des drames psychologiques. | 1                                 | 2                                 | 3                                      | 4                              | 5                              |
| 17. Il m'est difficile de révéler mes sentiments intimes même à mes amis très proches.                  | 1                                 | 2                                 | 3                                      | 4                              | 5                              |
| 18. Je peux me sentir proche de quelqu'un même pendant les moments de silence.                          | 1                                 | 2                                 | 3                                      | 4                              | 5                              |
| 19. Je trouve utile d'analyser mes sentiments pour résoudre mes problèmes personnels.                   | 1                                 | 2                                 | 3                                      | 4                              | 5                              |
| 20. Rechercher le sens caché des films ou des pièces de théâtre réduit le plaisir qu'on en tire.        | 1                                 | 2                                 | 3                                      | 4                              | 5                              |