

Université de Montréal

**Gender Differences on Two Dimensions of Perfectionism among Gifted Children**

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## RÉSUMÉ

Des études récentes suggèrent que le perfectionnisme est un phénomène multidimensionnel avec des composantes néfastes, mais aussi des éléments positifs, au bien-être psychosocial. Une étude a été élaborée afin de comparer la prévalence de ces éléments chez les garçons et les filles surdoués. Quarante-neuf enfants âgés de 7 à 11 ans ont rapporté leurs attitudes perfectionnistes, appartenant à deux dimensions du phénomène : le perfectionnisme orienté vers soi et le perfectionnisme socialement prescrit. Contrairement à nos attentes, les résultats révèlent que la prévalence des deux dimensions de perfectionnisme ne diffère pas de manière significative entre les filles et les garçons surdoués. Une analyse des résultats et de leurs implications pour de futures recherches est offerte.

*Mots-clé* : perfectionnisme; genre; dimensions; douance; surdoués; enfants; bien-être; perfectionnisme orienté vers soi; perfectionnisme socialement prescrit

## ABSTRACT

Recent research suggests that some components of perfectionism can be detrimental to psychosocial well-being, but others can be positive to adjustment. The present investigation was designed to compare the prevalence of negative and positive components among gifted boys and girls. Two dimensions of perfectionism, Self-oriented and Socially-prescribed Perfectionism, were examined in a sample of 49 children between 7 and 11 years old. Contrary to our predictions, there was no significant difference in the prevalence of both dimensions between boys and girls. Implications for future studies are discussed.

*Keywords:* perfectionism; gender; dimensions; gifted; children; adjustment; maladjustment; self-oriented perfectionism; socially-prescribed perfectionism

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## LIST OF ABBREVIATIONS

AMPS	Adaptive and Maladaptive Perfectionism Scale
APS	Almost Perfect Scale
CAPS	Child and Adolescent Perfectionism Scale
MANOVA	Multivariate Analysis of Variance
MPS	Multidimensional Perfectionism Scale
OOP	Other-oriented Perfectionism
PANAS	Positive Affect and Negative Affect Scale
PNPS	Positive and Negative Perfectionism Scale
RIST	Reynolds Intellectual Screening Test
SOP	Self-oriented Perfectionism
SPP	Socially-prescribed Perfectionism
SSAT	Secondary School Admission Test
WISC	Weschler Intelligence Screening test for Children



## DEDICATION

This thesis is dedicated to my parents, José and Danielle, in recognition of the boundless dreams they harbored for their children, the countless sacrifices that they made and the limitless support that they provided to make these dreams come true.

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## INTRODUCTION

The following thesis will report a study done on gender differences in the dimensions of perfectionism among gifted children.

Children's mental health problems have been at the center of research for decades, due to their prevalence, and the negative effects they have on their development and subsequent well-being. According to the Canadian Mental Health Association (2013), today, 10 to 20% of Canadian youth are affected by a mental illness. Of all young adults affected by mental disorders, 70% claim that their symptoms began in childhood. The most common problems are depression and anxiety disorders. It is estimated that around 5% of boys and 12% of girls between 12 and 19 years old have experienced a major depressive episode, and the number of youth at risk of developing depression is of 3.2 million (Canadian Mental Health Association, 2013). Mental illness impacts children's emotional and psychosocial functioning, but also threatens their lives. Canada's youth suicide rate is the third highest in the industrialized world (Canadian Mental Health Association, 2013). Suicide is the leading cause of death among Canadian youth, following accidents.

Moreover, mental illnesses have a major impact on the Canadian economy in terms of productivity losses and health care costs. In 1993, the costs of mental illnesses were estimated to be around 7 billion dollars, but in 1996/1997, they were estimated to be approximately 14 billion dollars (Public Health Agency of Canada, 2002). The emergence of most mental illnesses occurs during childhood and adolescence. As a

result, youth are the most costly in mental health care. Today, mental disorders in youth are ranked as the second highest hospital care expenditure in Canada, exceeded only by injuries (Canadian Mental Health Association, 2013). Thus, there is an urge to prevent mental illnesses in our underage population for the well-being of citizens, but also for the well-being of the nation.

Research has shown that in addition to biological and environmental variables, patterns of thought and behaviour can influence maladjustment, the failure to cope with problems and social relationships, which in turn may facilitate the onset, course and outcome of mental illnesses in children (Public Health Agency of Canada, 2002). The tendency to set high standards, known as perfectionism, is one of these patterns of thoughts (Flett, Hewitt & De Rosa, 1996). The study of the phenomenon is striving and a unanimous definition of the concept has not been identified (Greenspon, 2000). Yet, regardless of the ongoing debate, over the last few years different aspects of perfectionism have been associated with negative symptoms such as negative mood, low confidence, shame, guilt, irrational beliefs, loneliness, shyness, low self-esteem, extrinsic academic motivation and maladjustment (Frost, Turquotte, Heimberg, Mattia, Holt & Hope, 1995; Flett, Hewitt & De Rosa, 1996; Fedewa, Burns & Gomez, 2005; Miquelon, Vallerand, Grouzet & Cardinal, 2005; Flett, Hewitt & Cheng, 2008). The dysfunctional attitudes and rigid thinking linked to the phenomenon render perfectionists vulnerable to emotional, anxiety and even eating or obsessive-compulsive disorders (Flett & Hewitt, 2002). Therefore, understanding the factors that influence the prevalence of these detrimental characteristics of perfectionism not only serves to help individuals avoid the

negative symptoms associated with the phenomenon, but also constitutes a way to prevent that they escalate into mental illness.

While risk factors have been identified for many variables that can influence maladjustment and mental illness; there is still little information as to the risk factors for detrimental perfectionistic traits (Flett & Hewitt, 2002). In an effort to solve this problem, the current thesis addresses the following research question: does gender influence the prevalence of maladaptive perfectionism among gifted children?

Gender seems to affect the onset of mental illnesses and of various cognitive processes in children. Boys, for instance, were found to have less self-satisfaction than pre-adolescent girls (Loeb & Jay, 1987). Girls have also been found to be more at risk for depression than boys (Boggiano & Barrett, 1992). However, gender differences in perfectionism represent a topic that has not attracted much attention. Few studies have reached conclusions regarding the role of gender in the phenomenon and the results have been contradictory; attributing higher rates of maladaptive perfectionism to boys (Parker & Mills, 1996) or finding no significant differences (Chan, 2009). Clearly, more research is needed to determine the role of gender in the phenomenon.

Most importantly, gifted children have been recurrently reported to be more perfectionists than their peers (Kornblum & Ainley, 2005; Rimm, 2007). While several studies suggest that the majority of gifted children may possess more positive than negative perfectionist characteristics (Parkers & Mills, 1996; Siegle & Schuler, 2000),

according to Rimm (2007), there are issues to consider before concluding that maladaptive perfectionism is not a problem for gifted youth. The first is that children with maladaptive perfectionism are often eliminated from gifted programming because of their underachievement problems. Perfectionism can interfere dramatically with motivation and performance. As a consequence, “maladaptive” gifted perfectionists are often assumed not to be gifted. Since a lot of studies recruit participants that attend gifted programs, they may unknowingly exclude the “maladaptive” gifted perfectionists from their samples. The second issue with concluding that “maladaptive” perfectionism is not a problem for gifted youth is that children with apparently “adaptive” perfectionistic tendencies are at risk of regressing to “maladaptive” perfectionism when curriculum becomes more challenging or when faced with greater competition (Rimm, 2007). Finally, as a result of a higher prevalence of perfectionists among gifted children, the number of gifted youth at risk of developing the negative symptoms associated with perfectionism is higher than the number of nongifted children. Thus, the search for risk factors of maladaptive perfectionism is particularly relevant to the gifted population.

The current thesis will compare the prevalence of perfectionistic traits in gifted girls and boys. In contrast to previous research on perfectionism, predominantly studying older children, adolescents and young adults, this thesis looks at younger children, between 7 and 11 years old. Prevention is more effective when factors involved in a phenomenon are identified early. By targeting a younger population, the author hopes to bring forth new knowledge to the field, and thus, to contribute to efforts to understand perfectionism and its relationship with maladjustment. Therefore, this project can

constitute a useful addition to the quest to optimise healthy development in youth and better comprehend gifted children.

The thesis is organized in three parts. Chapter one defines the concepts of perfectionism and giftedness, provides a review of the literature and identifies the problems raised by the literature, as well as the objective and the hypotheses of the study. Chapter two describes the methodology used to carry out the research and presents the results obtained. Chapter three offers a discussion of the results of the study as well as its implications for future research.

## CHAPTER ONE

### BACKGROUND

#### **Perfectionism**

Perfectionism: ‘disposition to regard anything short of perfection as unacceptable’ (“Perfectionism”, 2013a)

Perfectionism: ‘a personal standard, attitude, or philosophy that demands perfection and rejects anything less’ (“Perfectionism”, 2013b)

*‘Perfectionism is the striving for flawlessness’* (Hewitt & Flett, 1991, p.18)

**Conceptualizations of Perfectionism.** The first two citations above are laymen’s definitions of *perfectionism*, while the last one reflects how many researchers describe the term. Although all three seem to coincide, the first two definitions suggest that the phenomenon is inevitably maladaptive, because it involves the incapacity to accept oneself as imperfect, while the last definition only looks at the drive to achieve excellence (Greenspon, 2000). This apparently small difference is at the center of an ongoing debate regarding the significance of perfectionism.

If the phenomenon is indeed a drive to achieve excellence, it can be positive to well-being. Perfectionism can motivate people to put more effort into their daily activities in order to realize better results. Only an excess in perfectionism would



constitute a problem and leave people constantly dissatisfied with their performances (Flett & Hewitt, 2002). If, however, the phenomenon categorically involves the inability to bear mistakes, it can only be a threat to well-being. Individuals who are not capable of accepting themselves with their qualities and their flaws are bound to feel negative emotions and distress, and according to Greenspon (2000), most people who recognize themselves as perfectionists consider it a burden, not a strength.

As a consequence of the division that this debate created among researchers, there are key differences in the way perfectionism is conceptualized. These differences are reflected through the approaches taken to conceptualize the phenomenon. The ‘unidimensional camp’ focuses on the cognitive factors – irrational beliefs and dysfunctional attitudes – that characterize perfectionism, and recognizes only one type of perfectionism (Flett & Hewitt, 2002). Historically, this approach was predominant, as reflected by the substantial literature on perfectionism and eating disorders. Most studies used the six-item Perfectionism scale of the Eating Disorder Inventory.

Hamacheck (1978) first suggested that the perfectionism construct is multidimensional, and distinguished normal perfectionism, an important component of healthy achievement, from neurotic perfectionism, the unhealthy pursuit of perfection. After him, others have suggested that perfectionism was victim of a bias common to psychological research, the tendency to focus on negative aspects of a phenomenon to the expense of positive aspects, and have begun to make out “positive” and “negative”

elements of the construct, leading to the emergence of the ‘multidimensional camp’ (Rimm, 2007).

Terry-Short, Owens, Slade and Dewey (1995) identified two dimensions of perfectionism, based on Hamachek’s normal and neurotic dimensions. They described positive perfectionism as a drive for achieving excellence stemming from positive reinforcement and involving approaching stimuli. They defined negative perfectionism as a drive to achieve perfection coming from negative reinforcement and involving avoidance of negative outcomes. Chan (2009), however, viewed positive perfectionism as the realistic striving for excellence, and defined negative perfectionism as an inflexible strive for perfection and a preoccupation with avoiding mistakes.

The idea that the phenomenon of perfectionism is composed of a variety of features that must be explored separately appealed to many researchers in the field, even those who were unsure that some perfectionistic traits could be solely positive to adjustment. Rice and Preusser (2002), for example, recognized that perfectionism had several, distinct components, and divided the construct into four dimensions: Sensitivity To Mistakes, or the presence of negative emotion triggered by making mistakes; Need for Admiration, dimension including the craving for appreciation by others and the presence of narcissistic aspirations; Contingent Self-esteem, or feelings and self-evaluations based on task performance, and Compulsiveness; dimension including the preference for organization and an orientation towards tasks. They suggested that Sensitivity to Mistakes could be the dimension of perfectionism most detrimental to well-being and admitted that some perfectionistic traits or attitudes could be positive.

However, they considered that all dimensions were situated on a continuum, and could become potentially negative to adjustment (Rice & Preusser, 2002).

Research has suggested, for the last three decades, that there might be an interpersonal component to the self. This theory led some professionals to investigate the interindividual as well as the intraindividual processes of perfectionism (Hewitt & Flett, 1991). Frost, Marten, Lahart and Rosenblate (1990) identified four aspects of the construct coming from the self: High Personal Standards, Doubts About Actions (one's ability to perform a task), Concern Over Mistakes or the tendency to interpret mistakes as failures, and obsession over Organization, meticulousness and order. They also recognized two perfectionistic traits coming from the demand of others (i.e. parents): Perceived High Expectations, or the belief that parents expect very high performance from one, and Perceived Parental Criticism, or the feeling of being highly criticized and evaluated by parents.

Hewitt and Flett (1991) looked at whether perfectionistic traits are oriented towards the self or towards others, and whether they are attributed to the self or others. They identified three dimensions. The first dimension, Self-oriented Perfectionism (SOP), consists of setting high standards for the self, evaluating one's behaviour and censuring one's actions accordingly. They described it as an internal-motivation driven dimension, since it implies working to reach one's self-standards and avoiding failure. The second dimension, Socially-prescribed Perfectionism (SPP), is the belief that others may hold high standards for one, as well as evaluate and censure one's behaviour accordingly. Hewitt and Flett (1991) described it as a dimension driven by external

motivation and locus of control, since one feels pressured to meet the standards set by others and unable to avoid failure. Other-oriented Perfectionism (OOP) was the third dimension recognized by Hewitt and Flett. They defined it as the setting of high standards for others; characterized by expecting perfect performance from others, as well as evaluating and censuring others according to these expectations. This dimension was seldom studied, and will not be investigated in this thesis.

The lack of consensus regarding the definition and the nature of perfectionism is still very much present today. In order to decide whether to define the phenomenon as unidimensional or multidimensional for the present study, the author reviewed recent research on perfectionism and maladjustment among children.

**Perfectionism and Maladjustment.** In his book, Ramirez Basco (2000) argued that perfectionism is primarily linked to anxiety and obsessive personality disorders, but also linked to obsessive-compulsive disorders, eating disorders and major depression. Disorders stem from maladjustment, the failure to cope with psychological, social and/or emotional issues, and Ramirez Basco claimed that perfectionism has been associated with maladjustment throughout recent psychological literature. However, the literature suggests that perfectionism cannot be so easily related to maladjustment.

Indeed, Hewitt, Caelian, Flett, Sherry, Collins and Flynn (2002) found that Hewitt and Flett's dimensions of perfectionism were associated with different maladjustment problems for children and adolescents between 10 and 15 years old. They conducted their study with 114 students (45 boys and 69 girls) from three public schools,

including 47% in grades 5 and 6. The Child and Adolescent Perfectionism Scale was used to measure Self-oriented Perfectionism (SOP) and Socially-prescribed Perfectionism (SPP). The Children's Hassles Scale was administered to determine participants' level of social stress, the Children's Manifest Anxiety Scale Revised, to assess their level of anxiety, the Pediatric Anger Expression Scale, to measure four styles of anger expression, and the Children's Depression Inventory, the presence of childhood depression symptoms (Hewitt, Caelian, Flett, Sherry, Collins & Flynn, 2002). Results demonstrated that SOP is associated with depression and anxiety in children, while SPP is not only related to these two problems, but also to social stress, anger internalization and anger externalization, making it a much more detrimental dimension of perfectionism.

Rice, Kubal and Preusser (2004) investigated Rice and Preusser's four dimensions of perfectionism and their relationship with children's self-concept. They recruited 113 children (49 boys and 64 girls) between the ages of 9 and 11 ( $M = 10.35$ ) at a public primary school for the purpose of their study. The Adaptive and Maladaptive Perfectionism Scale was used to measure Sensitivity to Mistakes, Need for Admiration, Compulsiveness and Contingent Self-esteem in the participants, while the Piers-Harris Self-concept Scale was used to obtain the children's self-evaluations of their behavior, intellectual and school status, physical appearance, anxiety, popularity, happiness and satisfaction. Children who scored high in the dimension of Sensitivity to Mistakes reported low overall self-concept, high anxiety and low happiness and satisfaction. Those who reported high Contingent Self-esteem had higher overall self-concept than other participants, and those who scored high in Compulsiveness and Need for Admiration

reported high anxiety. While the dimensions of Sensitivity to Mistakes, Need for Admiration and Compulsiveness were associated with maladjustment in children, Contingent Self-esteem predicted positive self-concept (Rice, Kubal & Preusser, 2004). The authors concluded that not all components of perfectionism constitute a threat to child adjustment.

Al Sayed Tofaha and Ramon (2010) came to a similar conclusion after conducting an analogous study with Egyptian children. They administered the Adaptive and Maladaptive Perfectionism Scale and the Child and Adolescent Perfectionism Scale to 284 six-graders (no information on gender), in order to measure Rice and Preusser's and Hewitt and Flett's dimensions of perfectionism. The Self-Description Questionnaire I was used to assess the Academic (Reading, Mathematics, General School) Self-concept, the Non-academic (Physical ability, Physical appearance, Peer relations, Parent relations) Self-concept and the General Self-worth of participants. Children who scored high in Self-oriented Perfectionism (SOP) reported high General Self-worth and high Academic Self-concept. Those who reported high Socially-prescribed Perfectionism and high Sensitivity to Mistakes scored high in Academic Self-concept. Although these two dimensions were not significantly associated (negatively or positively) to Non-academic Self-concept and General Self-worth, the study suggested that SOP was more favorable to positive Overall Self-concept, since it was positively related to both Academic Self-concept and General Self-worth (Al Sayed Tofaha & Ramon, 2010).

Douilliez and Hénot (2011) conducted their study in order to assess the validity of a French version of the Child and Adolescent Perfectionism Scale to identify Hewitt and Flett's dimensions of perfectionism, and to investigate the relationship between the

dimensions and child depression and anxiety. They obtained a sample of 148 French students between 10 and 17 years old (73 boys and 72 girls) from three high schools and administered the French version of CAPS as well as the Almost Perfect Scale, the Child Depression Inventory and the Manifest Anxiety Scale. Socially-prescribed Perfectionism was associated with high scores of depression, while high global scores of perfectionism were linked to high scores of anxiety.

Marten Dibartolo and Pierotti Varner (2011) found further evidence for differentiation between the dimensions of perfectionism in an experimental study with 103 children of grades three to six (56 girls and 47 boys), recruited in one public elementary school. Participants were given objects and had to identify the uses of each of them. In a neutral condition, they were asked to identify “as many as possible”, in a low-goal condition, “at least 4 for each”, and in a high-goal condition, “at least 10”. The Child and Adolescent Perfectionism Scale was used to measure Hewitt and Flett’s dimensions of perfectionism. Children’s level of anxiety was evaluated ten times during the experiment through Subjective Units of Distress (children ratings of anxiety on a scale of 0 to 100). Participants were also asked to make pre-task predictions of how well they wanted to perform the exercise, and post-task evaluations of how satisfied they were with their performance. Results showed that socially-prescribed perfectionists displayed more anxiety in the face of the task and were more likely to declare that performing well was very important to them, than were self-oriented perfectionists. They also set higher standards for themselves prior to the task and evaluated their performance more harshly afterwards, independently of their actual performance (Marten Dibartolo & Pierotti Varner, 2011).

**Summary.** The literature on perfectionism and maladjustment suggests that the phenomenon is multidimensional. Regardless of the dimensions explored, some were repeatedly associated with positive influence on well-being, and will thus be referred to as “adaptive” perfectionism or “adaptive” perfectionistic traits, while others were found to be detrimental, and will thus be referred to as “maladaptive” perfectionism or “maladaptive” perfectionistic traits. Hewitt & Flett’s dimensions of perfectionism have recurrently been chosen for research; they appear in the majority of the studies presented. Socially-prescribed Perfectionism has often been linked to negative processes to adjustment, while Self-oriented Perfectionism has been related to positive or less-harmful processes. In addition, Flett and Hewitt (2002) have created a questionnaire solely for the assessment of their two dimensions of perfectionism among children and adolescents: the Child and Adolescent Perfectionism Scale. Other dimensions, such as those of Rice and Pruesser, studied in this section, required that the same measure used to explore the phenomenon in youth and in adults be used for children, which could potentially influence children’s answers. Due to the frequency of its use and the questionnaire created specifically for children, Hewitt & Flett’s Self-oriented and Socially-prescribed dimensions were selected to outline perfectionism in this study.



## **Gender**

**Gender and Child Development.** Gender differences can be identified in the pace and characteristics of human development from birth (Blakemore, Berenbaum & Liben, 2013). Actions requiring neuromotor skills such as toilet training are performed at a younger age by girls than boys. By the age of three years old, boys perform better in tasks involving physical strength than their counterparts. In terms of intelligence, Boys display better performance at school in exercises that require some specific intellectual skills (eg. spatial tasks and problem solving), and girls, in tasks that need other skills (eg. verbal fluency, writing ability, perceptual speed). As for moral development, young boys envision morality in terms of abstract principles, but young girls define morals on the basis of feelings and needs (Blakemore, Berenbaum & Liben, 2013).

Since gender has such a crucial role in child development, researchers have, for decades, investigated its influence in child maladjustment and mental health. Gender has recurrently been found to play an important role in the identification and the prevalence of maladjustment in children.

**Gender and Child Maladjustment.** Indeed, boys are more likely to be identified with maladjustment than girls, because they tend to attract more attention (Blakemore, Berenbaum & Liben, 2013). They are more likely to be diagnosed with mental retardation, autism and externalizing disorders such as conduct disorder, oppositional defiant disorder and attention deficit hyperactivity disorder than their counterparts. Girls, on the other side, are more likely to suffer from internalizing

problems such as anxiety, mood or eating disorders than boys (Blakemore, Berenbaum & Liben, 2013). For instance, looking at the relationship between gender, motivational orientation and depressive symptoms in a sample of 127 third-grade children (60 boys, 67 girls) from public elementary schools in Denver, Boggiano & Barrett (1992) found that girls tended to be more extrinsically motivated than boys, and also to report more depressive symptoms than boys.

Research also established that boys and girls do not react to life experiences in the same manner, and girls seem more vulnerable to their experiences than boys. In a study involving 242 mothers and 378 children between six and twelve years old among which 114 children (62 girls and 52 boys) had witnessed their mother being abused, Cummings, Pepler and Moore (1999) found that girls were rated as more maladjusted by their mothers than boys. Feiring, Taska and Lewis (1999) came to comparable findings in their study of 96 abused children (66 girls, 30 boys) between eight and eleven years old and 73 abused adolescents (55 girls, 18 boys) between twelve and fifteen years old. Adolescents reported more maladjustment than children, but regardless of age, girls reported lower self-esteem, more shame, more symptoms of depression and more impact of traumatic events than boys.

Moreover, boys and girls behave in different ways, which may make either gender more vulnerable to a particular psychological problem. Crick and Grotpeter (1995) studied aggression in a sample of 491 children from grade three to six (235 girls, 256 boys). Through peer assessments of relational aggression and social adjustment and

self-reports of loneliness, social anxiety, depression and peer relations, they found that girls were more likely to be implicated in relational (eg. social isolation) aggression, and boys, overt (i.e. physical or verbal) aggression. Relational aggression was associated with higher levels of depression, loneliness, rejection and isolation for the aggressor (Crick & Grotpeter, 1995). Thus, girls, by being more likely to be involved in relational aggression, are more vulnerable to social maladjustment and depression.

**Gender and Perfectionism.** Given that gender differences were identified in child maladjustment and some perfectionistic dimensions were also associated to the phenomenon, a few studies have explored the possible relationship between gender and perfectionism among children from regular classes.

In their study of perfectionism and self-concept with 113 children (49 boys, 64 girls) between nine and eleven years old, Rice, Kubal and Preusser (2004) found that Contingent Self-esteem was associated with high behavioral self-concept – self-evaluations of behavior at school and at home – for girls and low anxiety for boys. In addition, while Sensitivity to Mistakes was related to high anxiety for girls, it was correlated with low behavioral self-concept for boys. According to the authors, these results reflect the common theory stating that boys and girls react differently to negative emotions. Boys externalize them, but girls internalize them, which converts them into stress and anxiety (Rice, Kubal and Preusser, 2004). The study results reveal that gender influences the associations between perfectionism and negative psychological processes.

Gender also seems to play a role in the prevalence of perfectionism. In her review of literature on gender and perfectionism, Rimm (2007) reported that, in one of her previous studies involving 5,400 students from grade three to grade eight coming from regular and gifted classes, 13% of girls in third grade described themselves as perfectionistic. The number of female perfectionists increased with each grade, and by eighth grade, they made up 32% of all female participants. Fewer boys reported that they were perfectionists than girls at each grade, and while they were 11% in third grade, they were 17% by eighth grade, almost half the percentage of perfectionistic girls (Rimm, 2007).

In Douilliez and Hénot's (2011) study assessing the validity of a French version of the Child and Adolescent Perfectionism Scale to identify Hewitt and Flett's dimensions of perfectionism with a sample of pre-adolescents and teenagers, boys were found more likely to be perfectionists than girls. They also scored higher in *both* the self-oriented and the socially-prescribed dimensions than girls. The study suggested that there might also be gender differences in the prevalence of the dimensions of perfectionism.

**Summary.** The studies mentioned in this section came to the following conclusions: (1) gender plays a role in many psychosocial processes, (2) there are gender differences in the association of dimensions of perfectionism with positive or negative influences to adjustment, (2) there are gender differences in the prevalence of perfectionism. Yet there is still uncertainty as to whether there are gender differences in the prevalence of dimensions of perfectionism. Thus, the author has chosen to explore the influence of gender on the multidimensional phenomenon in the present study.

## **Gifted Children**

**Conceptualizing Giftedness.** A child is gifted when his intellectual skills, such as the ability to reason, to understand or to memorize, are equal to that of an individual older than him (Grand, 2011). According to Lubart (2006), the term “gifted children” tends to be used concurrently with others such as “high-ability children” or “high-potential children”, “talented children” and “intellectually premature” (“intellectuellement précoce”) children. However, these terms do not exactly mean the same thing.

Lubart (2006) argues that “gifted” children are those who are born with the gift of above-average intellect, and “high-potential” children are those who have inherent intellectual abilities to perform greatly. These two expressions imply that advanced intellectual skills are stable and permanent, since the gift can’t be taken away, and the potential is always there. “Intellectually premature” children can, at a given age, reason like older children do, but later in life come to reason like others of their age. They simply reached, in a particular moment, a mature level of intelligence earlier than their same-age peers. Thus, intellectually premature children’s intellectual skills are reflected through their performance at a given time, and consequently, their advanced abilities can be temporary; as a child grows up, he or she can lose prematurity. Similarly, the term “talented children” suggests that advanced reasoning can be temporary. Talented children are those who demonstrate ‘talent’ through their performances. If a child no longer performs greatly, he or she is no longer ‘talented’ (Lubart, 2006).

In sum, gifted children and high-ability children are associated with permanent high achievement *potential*, while intellectually premature children and talented children are associated with temporary high *achievement*. Because great performance does not always follow high ability and some bright children can underachieve, the number of high-potential or gifted children will always be considerably higher than the number of talented or intellectually premature children (Lubart, 2006).

There has yet to be a consensus in literature as to best term for the phenomenon. In this study, giftedness was defined as high intellectual potential, which is stable and does not rely exclusively on performance. However, to date, it seems like often all expressions – *gifted, talented, high-potential, intellectually premature* – are used interchangeably. Thus, the following review of literature takes into consideration all of these conceptual definitions of giftedness.

**Gifted Children and Maladjustment.** Many reasons were given to suggest that some gifted children have unique experiences that can increase their vulnerability to maladjustment. Tordjman (2005) argued that gifted children may suffer from asynchronous development, which occurs when there is incongruity between their intellectual development and their psychomotor, emotional and/or social development. Sometimes, gifted children even have a mismatch between some of their intellectual skills and others, such as verbal and analytical reasoning. These conflicts in their overall development can lead to considerable stress, anxiety and frustration as they come to feel too different from others, abnormal, misunderstood and neglected (Tordjman, 2005).

Grand (2011) suggested that some gifted children possess characteristics which may hinder adjustment. These children tend to be hypersensitive. Consequently, small issues can be seen as huge obstacles and perceptions of rejection or isolation can have more devastating consequences on their self-esteem and well-being than they would have in average children (Grand, 2011).

Perfectionism and high excitability can also trigger psychosocial problems, as well as gender and ethnicity (Pfeiffer & Stocking, 2000). Perfectionism, in children with high intellectual abilities, may be very detrimental to their well-being. They often are subject to more unrealistic expectations from parents and teachers than their peers, coupled with excessive praise (Pfeiffer & Stocking, 2000). As a consequence, these children can come to define themselves in terms of their skills and their performances, expect perfection and feel negative emotions in the face of failure. Due to high excitability, gifted children particularly need to be stimulated. Lack of interest can easily bring lack of motivation, boredom and underachievement (Pfeiffer & Stocking, 2000). Finally, gifted children face the stereotypes of the “gifted”, which often clash with the stereotypes of their gender or ethnic group, and trying to reconcile them can be stressful (Pfeiffer & Stocking, 2000).

Lastly, gifted children experience various daily stressors that others of their age do not go through (Pfeiffer & Stocking, 2000). Parents of gifted children can sometimes be overly involved in their lives, trying to make up for what they could not do in their youth through their offspring. Teachers, on the other hand, tend to be under-involved in gifted children’s lives, believing that “they’ll be just fine” (Pfeiffer & Stocking, 2000).

Dealing with parental pressure and teacher neglect can easily increase the level of daily anxiety of gifted children.

Despite exposure to the previously stated experiences and stressors in their daily life, research suggests that gifted children seem to be less vulnerable to maladjustment than nongifted children. Hoge and Renzulli (1993), for example, conducted a meta-analysis of 15 studies on self-concept and giftedness. Samples varied in size and ages, overall including youth from grade 2 to grade 12. Gifted children were found to score higher in academic and behavioral self-concept than regular children and just as regular children in other areas (ie. social, physical or global self-concept). The authors suggested, however, studying separately self-concept in elementary-school-aged children, since the relationship between giftedness and self-concept may vary with age (Hoge & Renzulli, 1993).

In another meta-analysis, this time of 9 studies on mental disorders among gifted and non-gifted samples of youth from grade 1 to grade 12, Martin, Burns and Schonlau (2010) faced confusing results. There seemed to be no difference between nongifted and gifted groups in the prevalence of depression or anxiety disorders. However, samples were considerably small, and if one study was taken out, results significantly changed, suggesting that gifted children were less likely to experience depression than their counterparts.

**Gifted children and Gender.** While there is no gender difference in the prevalence of giftedness in children, gender plays a role in academic standing of these



children (Tordjman, 2005). Gifted girls tend to have higher academic achievement than boys in a majority of subjects. According to Tordjman (2005) and Grand (2011), this tendency reflects gender differences in the vulnerability to maladjustment of gifted children. Gifted girls tend to be better adjusted than gifted boys, as seen in Loeb and Jay's (1987) study on self-concept among gifted children. They looked at locus of control, reported self-concept, self-satisfaction (evaluated on the basis of the discrepancy between actual and ideal selves), personality and behavior (reported by parents and teachers) in 125 students gifted from gifted elementary programs (60 boys, 65 girls) and 102 students (46 boys, 56 girls) from regular classes. Gifted girls reported higher self-concept and were more likely to report internal locus of control than nongifted girls, but gifted boys seemed less satisfied with themselves than nongifted boys (Loeb & Jay, 1987). For every gifted girl who goes into psychological consultation, three to four boys do (Tordjman, 2005). As girls are less likely to undergo distress, they can more easily achieve high performance at school than their counterparts.

**Gifted children and Perfectionism.** A number of studies looked at the prevalence of perfectionism among the gifted population. Ablard and Parker (1997) attempted to link parental achievement goals and perfectionism among academically talented sixth graders, selected based on their high performance on standardized tests. They measured Frost, Marten, Lahart and Rosenblate's dimensions of perfectionism in a sample of 127 children (56% male, 44% female) with the Multidimensional Perfectionism Scale. Only 27% of the talented students were nonperfectionists, while 73% consisted of perfectionists.

Parker (1997) conducted a study on Frost, Marten, Lahart and Rosenblate's dimensions of perfectionism in a sample of 820 (63% male, 37% female) sixth graders who had obtained high scores in standardized grade tests and the Secondary School Admission Test (SSAT). Out of all 820 participants, 32% were nonperfectionists (low in all dimensions of perfectionism), while 68% were perfectionists.

Kornblum and Ainley (2005) also noted that most of their sample of 612 gifted Australian students (438 boys and 173 girls) between 11 and 16 years old were perfectionists when they studied the phenomenon using their own measure of perfectionism, and Rimm (2007) came across similar findings in one of her previous studies involving 5,400 primary and middle-school students (details not provided). Twenty-two percent of students in gifted programs considered themselves perfectionists, compared to 16% of regular program students (Rimm, 2007).

Chan (2010) also investigated the prevalence of dimensions of perfectionism among 882 average students between seven and twelve years old (470 boys, 403 girls) and 340 gifted students of the same age group (193 boys, 127 girls). Participants were recruited in two primary schools. Some were nominated by teachers for their average abilities; others were part of advanced courses because of high IQ scores or consistent high achievement. They were given the Almost Perfect Scale Revised to measure Chan's dimensions of perfectionism. Results suggested that there are more perfectionists among gifted children than nongifted children.

Other studies have tried to identify which dimensions of perfectionism were positive or negative to adjustment among gifted youth. In his study of Frost, Marten,

Lahart and Rosenblate's dimensions of perfectionism in a sample of 820 (63% male, 37% female) talented sixth graders, Parker (1997) used the Multidimensional Perfectionism Scale to assess perfectionism, the Adjective Checklist for self-evaluations, the NEO Five Factor Inventory to measure personality, the Rosenberg Self-Esteem Scale for self-esteem, the Brief Symptom Inventory for maladjustment and a Parent Questionnaire on child adjustment. He found that those who reported low Concern over Mistakes, Perceived Parental Criticism and Doubt about Action, but moderate Personal Standards and high Organization were well-adjusted, or "adaptive" perfectionists. These perfectionists scored low in Neuroticism and high in Extraversion, Agreeableness and Conscientiousness. They also reported being sociable, predictable and goal-oriented. Those who scored high in all dimensions of perfectionism also scored high in Neuroticism and Openness and low in Agreeableness. They reported being anxious and disagreeable, and their parents were notably worried about their adjustment. Parker (1997) concluded that they were not well-adjusted, or "maladaptive" perfectionists.

Speirs Neumeister (2004) examined twelve gifted college students' attributions for their performances, and the relationship between their attributions and Hewitt and Flett's dimensions of perfectionism. The participants were chosen on the basis of their academic standing and their perfectionistic tendencies (6 were high self-oriented perfectionists while 6 were high socially-prescribed perfectionists), determined through the Multidimensional Perfectionism Scale, and underwent semi-structured interviews. Socially-prescribed perfectionists reported a tendency to minimize their successes while internalizing and overgeneralizing their failures. Self-oriented perfectionists, however, were more likely to be proud of their successes and internalize them, while making

situational attributions to failures. The study suggested, as others with younger participants, that some dimensions of perfectionism can be associated with processes detrimental to development, while others could be linked to positive features.

Stornelli, Flett and Hewitt (2009) looked at perfectionism, achievement and affect in a sample of 281 elementary school children (123 boys, 158 girls) between 9 and 14 years old (162 students from regular programs, 86 students from gifted programs and 33 students from fine arts programs). In order to measure Hewitt and Flett's dimensions of perfectionism, they used the Child and Adolescent Perfectionism Scale. The Harter Perceived Academic Competence Scale was chosen to assess perceived competence, the Positive Affect Negative Affect Scale (PANAS), to evaluate affect, and the Canadian Achievement Test to determine achievement. Self-oriented Perfectionism (SOP) and Socially-prescribed Perfectionism (SPP) were associated with math achievement for gifted children only. SOP was also linked to higher academic self-esteem for gifted children, but surprisingly unrelated to happiness, in any of the subsamples. SPP was related to less math achievement for fine arts students and sadness, fear and anxiety in all three subsamples.

Few studies came to conclusions regarding the prevalence of dimensions of perfectionism among gifted children. In Parker's (1997) study of Frost, Marten, Lahart and Rosenblate's dimensions of perfectionism in a sample of 820 (63% male, 37% female) talented sixth graders, most of the perfectionist participants (42% of the sample) were 'adaptive perfectionists'. Only 26% of the sample was made of 'maladaptive

perfectionists'. In his study, Chan (2010) also found that perfectionists tended to be more 'adaptive' perfectionists than 'maladaptive' perfectionists.

Similarly, few studies have explored gender differences in perfectionism among gifted youth. Parker and Mills (1996) conducted a study on Frost, Marten, Lahart and Rosenblate's dimensions of perfectionism among gifted sixth graders. They obtained a sample of 600 children (399 boys and 201 girls) through a greater sample of gifted children, participating in another study. These students had high academic standing and high scores in standardized tests. The Multidimensional Perfectionism Scale was used to measure perfectionism. Girls were found to be more concerned about Organization, while boys scored higher than girls in Concern over Mistakes, Doubt about Actions and High Parental Expectations. Specifically looking at the influence of variables such as birth order, age and gender on the dimensions of perfectionism of Frost, Marten, Lahart and Rosenblate in a sample of 391 gifted middle school students (164 boys and 223 girls), Siegle and Schuler (2000) also identified girls as likely to be more concerned about Organization, and boys, to report more beliefs of High Parental Expectations.

Chan (2007) studied Chan's dimensions of perfectionism in a Chinese sample of 317 gifted children (189 boys, 128 girls) between 7 and 18 years old (90% over 9 years old), recommended by their teachers on the basis of excellent academic standing. The Positive and Negative Perfectionism Scale (PNPS) was administered to all participants. Results showed that girls were more likely to report the Positive Perfectionism dimension of the phenomenon – in other words, to be “adaptive” perfectionists – than boys. However, no gender differences in perfectionistic dimensions were reported in his

following study (Chan, 2009). The study aimed to look at goal orientations and Chan's dimensions of perfectionism among gifted children. A sample of 315 (187 boys, 128 girls) children between 7 and 18 years old were selected to participate based on nominations by teachers, and the PNPS was also administered.

**Summary.** The presented section of literature review seems to make three suggestions. Firstly, perfectionism is more prevalent among the gifted than the nongifted population. Perfectionism is a phenomenon that concerns gifted children more than their nongifted peers, and thus, the influence of dimensions of perfectionism on maladjustment should be prioritized in the gifted population. Consequently, the present study explored the phenomenon in the gifted population.

Secondly, the literature suggested that the same dimensions associated to maladjustment in nongifted children are associated to maladjustment in gifted children. For example, Sensitivity to Mistakes or Socially-prescribed Perfectionism were found to be negative to child adjustment while Contingent Self-esteem or Self-oriented Perfectionism, were found to be positive, just as in the nongifted population. Thus, in the present study of Hewitt and Flett's dimensions of perfectionism among gifted children, SPP is considered a "maladaptive" dimension, while SOP is considered an "adaptive" dimension.

Literature also suggested that gifted children tend to be more "adaptive" perfectionists than "maladaptive" perfectionists, and that there might be gender differences in the prevalence of dimensions of perfectionism among gifted youth. It is

difficult, however, to draw conclusions regarding these statements, since there are gaps in research.

***Few and inconclusive research on gender and dimensions of perfectionism.***

Gender has been found through research to influence the development of skills in children as well as their behaviors, their vulnerability to life experiences and their subsequent maladjustment, which suggests that it may play a role in the type of perfectionistic beliefs that children will display. However, despite this possibility and the acknowledged importance of detecting the variables that may increase vulnerability to maladaptive perfectionistic traits, few studies looked at gender differences in the prevalence of dimensions of perfectionism in order to identify children who are more at risk of adopting maladaptive perfectionistic attitudes, and the results of these studies were not consistently congruent. Three concluded that girls were more likely to report dimensions of perfectionism positive to adjustment than boys, one, with a nongifted sample, found that boys scored higher than girls in all dimensions, and another, that there were no gender differences in the prevalence of dimensions. There is a need of further research to clarify the role of gender in the prevalence of dimensions of perfectionism in order to determine whether girls or boys are more likely to present maladaptive perfectionistic beliefs.

***Giftedness based on performance more than potential.*** Perfectionism and giftedness have been the subject of several studies but in most of them, participants were chosen on the basis of their high academic performance (as reflected through inclusion

into special programs, high performance in standardized tests or nomination by teachers). This selection process promotes the definition of giftedness in terms of performance rather than potential. However, many children with high potential underachieve due to problems of lack of motivation, pressure, etc. (Rimm, 2007). These children perform no better than their peers, if not worse than their classmates, and are not scouted by special programs (Rimm, 2007). Studies recruiting gifted participants on the basis of their performance alone, thus, fail to include such students in their samples. It can be argued that gifted children who succeed academically are more likely to be “adaptive” perfectionists and well-adjusted youth, but that this trend does not reflect the entire gifted population. Research not recruiting gifted children on the basis of performance *alone* must be completed in order to assess whether conclusions would be different from the ones dominating presently in the literature.

### **Objective of the study**

The current study was elaborated in order to address the issues reported in the preceding section. The primary objective was to compare the prevalence of dimensions of perfectionism in gifted boys and girls and determine whether there are gender differences in the presentation of “adaptive” and “maladaptive” dimensions of the phenomenon in the gifted population.

Participants were not to be selected on the basis of their academic achievement *alone*. They had to present at least one of the characteristics specific to gifted youth (see Chapter 2). Thus, even students who did not beat their classmates in school could



potentially participate in the study, given that they presented another or other trait(s)/behavior(s) of gifted children.

The study also addressed a lack of research involving younger children. Of all studies reviewed in this chapter, only four on dimensions of perfectionism were done with children of this age group. Similarly, the author could only find two studies on gender and dimensions of perfectionism including elementary school-aged children, and three studies on the dimensions of perfectionism and gifted children of this age group. Considerably more research has been focusing on adolescents and young adults, although early prevention is commonly known to be better for averting maladjustment. Therefore, the study was restricted exclusively to elementary school-aged children.

**Hypotheses.** Given that four out of the five studies that made conclusions regarding gender in dimensions of perfectionism reported that there are differences in the prevalence of “adaptive” and “maladaptive” dimensions between boys and girls, it was hypothesized that girls and boys would score differently on the “adaptive” and “maladaptive” dimensions. In three out of the five studies, adaptive perfectionistic traits were found to be more prevalent among girls than boys, while maladaptive perfectionistic traits were found to be more prevalent among boys. Thus, the author emitted the hypothesis that the “adaptive” dimension of Hewitt and Flett, SOP, would be more prevalent among girls, while the “maladaptive” dimension, SPP, would be more prevalent among boys.

## CHAPTER TWO

### METHODOLOGY & RESULTS

#### **Participants**

Fifty-four children were recruited through ads in a family magazine and on billboards in one elementary school, one language school, four public libraries and one restaurant (see Appendices A and B). In order to be eligible for participation in the study, they had to meet four criteria. First, they had to be elementary school children between seven and eleven years old. Since the objective was to investigate perfectionism in pre-teenage children, it was decided that twelve-year-olds would not be included in the study. Secondly, participants had to be fluent in English. Thirdly, parents had to identify *at least* one of following characteristics in their children:

- (1) Rapid learning ability
- (2) Advanced skills in speech, memory, and/or problem-solving
- (3) High maturity for their age
- (4) Wide range of interests and perseverance in those areas of interest
- (5) Consistent high academic achievement

These characteristics figured among others in a checklist elaborated by Silverman, Chitwood and Leigh Waters (1991) in order to help parents identify gifted children. In a subsequent study, they found that when given this checklist, parents successfully recognized giftedness in their children. After administering the Stanford-Binet Intelligence Scale, 60% of the children were determined to be gifted, and the others had

suffered or still suffered from health problems, notably ear infections, which suggested that perhaps they were gifted but disadvantaged or slightly handicapped. Silverman, Chitwood and Leigh Waters (1991) concluded that if aware of the characteristics of gifted children, parents could efficiently identify giftedness in their offspring. Thus, the judgement of parents was called upon in the current study to nominate gifted children.

Finally, in order to be eligible for the study, nominees had to obtain index scores of 110 or above in the Reynolds Intellectual Screening Test (RIST). The cut-off score was selected based on the recommendations of the authors. In their manual, the conceptualizers of the test suggest that for the purposes of RIAS/RIST interpretation, professionals seek to limit false negatives to a greater extent than false positives, and thus, consider any index score of 110 or higher (75th percentile rank) as indicative of potential giftedness.

Five of the fifty-four children recruited were excluded from the study due to scores below the minimum in the RIST. There were, ultimately, forty-nine participants in the study; 29 girls and 20 boys. Nineteen children were identified as Canadian or European (of Caucasian descent), thirteen were Asian, eight were Afro-Canadians, two were Hispanic and seven were of other cultural backgrounds (i.e. West Indian, Arabic, etc.). The mean age was of 8.61 years old. The average RIST index score was of 118.41, with the lowest score at 110 and the highest at 146. The mean RIST score for girls was of 120.28, while the mean for boys was of 115.70.

## Measures

**Reynolds Intellectual Screening Test (RIST).** This test was chosen to determine giftedness. It was created to offer a screening measure of general intelligence in order to identify individuals needing a comprehensive intellectual assessment (Reynolds & Kamphaus, 2003). While definite classification decisions cannot be made on the basis of RIST results alone, these composite scores are reliable indicators of potential giftedness or inversely, of risk for intellectual impairment. The RIST also requires very little time from those administering and those being administered the test (approximately 20 minutes). Thus, the measure can more easily maintain children's concentration and interest than longer IQ tests. Since it was both a reliable and a short measure of intellectual abilities, this test was chosen over more common measures such as the Wechsler Intelligence Scale for Children (WISC).

**Test administration.** The RIST consists of two subtests: *Guess What* (verbal intelligence) and *Odd-Item Out* (nonverbal intelligence). The first subtest measures vocabulary and the reasoning skills required for language development. For each item, examinees listen to a question that contains clues and must produce the right one-word response (eg. What is white, falls from the sky when it is cold and is often used to make a snowman?). The starting item varies according to the age of each examinee, and is called the basal level. Test items can only be repeated once, and examinees are given only one chance to answer. Every correct answer is given 1 point, and every incorrect answer, 0 point. Acceptable alternative responses – words that were not written as the

answers to items but are equivalent to the correct responses – are considered right answers. If an examinee corrects a response to a previous item, the correction is also made to the score of the item. Items that are not administered because they are below the basal level are all given 1 point. Three consecutive wrong answers determine the end of the subtest (Reynolds & Kamphaus, 2003).

The second subtest measures reasoning skills that require nonverbal ability. For each item, examinees are presented with several pictures or designs and must find the one that does not belong with the others. The starting item varies according to the age of each examinee. They are given two chances to find the right picture or design that is different from the others. Examinees are given 30 seconds to provide an answer on their first try, and 20 seconds on their second try. Every correct answer provided on a first try within the allocated amount of time is given 2 points. Every correct answer provided on a second try within the allocated amount of time is given 1 point. If examinees cannot provide an answer in 30 seconds on their first try or the answer is incorrect, they are given 0 point and are asked to try again. If they cannot provide an answer in 20 seconds on their second attempt or the answer is incorrect, they are given 0 point. If an examinee corrects a response to a previous item, the correction is also made to the score of the item. Items that are not administered because they are below the basal level are all given 1 point. Two consecutive wrong answers determine the end of the subtest (Reynolds & Kamphaus, 2003).

**Test scoring.** Total raw scores of both subtests are calculated by summing the item scores within each subtest. The maximum total raw score for the *Guess What* subtest is 62 points, and for the *Odd-item Out* subtest, 102 points. Subtest raw scores are then converted into age-adjusted *T* scores by referring to conversion tables of the subtest norms provided in the RIAS/RIST manual. In order to obtain a RIST index score, the sum of the two *T* scores obtained is computed, then the sum of *T* scores is converted into a RIST index score by referring to conversion tables for index norms in the manual.

**Interpretation of test results.** Intellectual strength refers to individual cognitive abilities that are better than the average person. Authors of the RIST argued that there is no consensus on how to interpret index scores of intellectual tests, because a universal definition of “average” is intangible. According to them, scores ranging from 90 to 109, or from 85 to 115 may be considered average. In order to facilitate interpretation of results and reduce chances of missing out individuals with intellectual difficulties or strengths, the authors provided the following clear instructions: “...they [administrators] should consider any index score of 89 or lower (25<sup>th</sup> percentile rank) or of 110 or higher (75<sup>th</sup> percentile rank) as indicative of potential functional impairments or strengths” (Reynolds & Kamphaus, 2003, p.50). Thus, in this study, participants who obtained index scores equal or above 110 were deemed potentially gifted.

**Test reliability.** The test was standardized in 2001 on a normative sample of 2,438 individuals between 3 and 94 years old (Elliot, 2004). Reliability and validity data for the RIST support its usefulness as a detector of intellectual ability. Median alpha

coefficient for this measurement tool is of .95 and test-retest reliability is of .84 (Dombrowski & Mrazik, 2008). In addition, the RIST is highly correlated with the WISC-III (.83).

**Child and Adolescent Perfectionism Scale (CAPS).** The CAPS was used to determine the incidence of Hewitt and Flett's dimensions of perfectionism (Appendix D). The questionnaire was created in 1997 by Hewitt and Flett purposely to assess perfectionistic attitudes in children and youth, and consists of 22 items scaled from 1 (strongly disagree) to 5 (strongly agree). Three items are reversed; the scores from 1 to 5 must be inverted to fully correspond to these items (eg. a score of 2 becomes a score of 4). Twelve items measure Self-oriented Perfectionism (eg. "I want to be the best at everything I do") and 10 items, Socially-prescribed Perfectionism (eg. "People around me expect me to be great at everything"). The questionnaire is accompanied with a socio-demographic information sheet that collects information about the examinee's age, gender, school grade, mother tongue, and ethnic background. The questionnaire is completed by children, while the socio-demographic sheet is completed by their parents.

In order to obtain total SOP and SPP scores from the questionnaire, responses are summed according to subscales. Thus, all scores for SOP are summed, and all scores for SPP are summed. The maximum score for SOP is 60, and the maximum score for SPP, 50. The total scores do not infer that a child is a Self-oriented perfectionist *or* a Socially-prescribed perfectionist, but reflect which attitudes the child embraces the most. The CAPS can also be used to compare levels of overall perfectionism between groups.

Overall perfectionism scores are obtained by calculating the sum of the total score of SOP and the total score of SPP. Overall perfectionism was not investigated in this study.

The CAPS has a minimum Grade 3 reading level and was initially tested on a clinical sample (Hewitt, Caelian, Flett, Sherry, Collins & Flynn, 2002). Reliability alpha coefficient is of .85 for the SOP subscale and .86 for the SPP (Douilliez & Hénot, 2011). Test-retest reliability is of .77 for the SOP and .66 for the SPP. The questionnaire is highly correlated with the Almost Perfect Scale ( $r = .56$ ;  $p < 0.001$ ), which measures perfectionism in older individuals.

## **Procedure**

As mentioned before, ads were published in a family magazine and posters were placed in schools, public libraries and a restaurant to recruit participants. They stated the purpose of the study and the main criteria for eligibility (see Appendices A & B). Interested parents were invited to call the researcher, who further explained the goals and procedures of the study. If parents were not certain of whether their children qualified for the study (21 of the 49 cases), the researcher inquired about the presence of any of the characteristics mentioned above. The parents were advised, at this stage of the process, that exact scores would not be shared with them, and that since the study aimed to investigate perfectionism among gifted children, only children scoring above a minimum (which was not shared with them) in the RIST would be included in the study. If parents agreed to all goals and procedures, the researcher set up a time to meet at least one parent



and the child. Appointments took place at the home of the participants, or occasionally, following a request of the parents, at the University of Montreal's EPC-BIO library, where a room was reserved for the purpose of the meeting.

The day of the appointment, the parent and the researcher went through the consent form together. The parent signed the document (see Appendix C) after all his or her questions had been answered and completed the demographic information sheet supplementary to the CAPS questionnaire. Then he or she was invited to leave the room, and the researcher started the screening test with the child. After the RIST, the researcher went over the instructions of the CAPS with the child, evaluated his or her understanding of the questionnaire through the first item, and had him or her complete the questionnaire. Two days after the appointment, parents were contacted again to (1) thank them, (2) remind them that detailed information about scores or inclusion/exclusion from the study could not be shared, (3) ensure that they had no further questions, and (4) remind them that they could always withdraw from the study. All participants and their guardian(s) were met only once and completed both the RIST and the CAPS. Following an appointment, RIST scores were calculated, and only the data of participants meeting the cut-off criteria was included in the study. As mentioned before, RIST scores were not shared with the participants and their children, and neither was information about inclusion or exclusion from the study. Data for the RIST was recorded into the measurement record forms, while data for the CAPS was directly written onto the questionnaire by the participants, and demographic information, on the corresponding sheet by parents.

## Analyses

Since the study counted with one independent variable (gender) of two categorical groups (boys and girl) and two continuous dependent variables, Socially-prescribed Perfectionism (SPP) and Self-oriented Perfectionism (SOP), measured through independent items, the principal analysis computed was a Multivariate Analysis of Variance (MANOVA). The data was analyzed through the SPSS software. The first step of data analysis was to produce descriptive statistics for the dependent variables. The second step was to verify the assumptions of the MANOVA – adequate sample size, no univariate or multivariate outliers, multivariate normality, equality of covariance and moderate multicollinearity. Finally, the MANOVA was performed in order to explore the potential relationship between gender and the dimensions of perfectionism.

**Results.** Table 1 summarizes descriptive statistics. A Pearson correlation was performed between SOP and SPP scores in order to test the MANOVA assumption that the dependent variables would be only correlated with each other in the moderate range (i.e., .20 - .60; Meyers, Gampst, & Guarino, 2006). SOP scores and SPP scores were moderately correlated,  $r(47) = .53$ ,  $p < .01$ , suggesting the appropriateness of a MANOVA. Moreover, the assumption of equality of covariance matrices was satisfied, Box's  $M = 2.38$ ,  $F = .75$ ,  $p = .52$ . Thus, the covariance matrices between the groups were presumed to be equal for the purposes of the MANOVA. While the sample size was relatively small, the MANOVA only requires that each group has more cases than the number of dependent variables explored in the study. There were two dependent

Table 1

*Descriptive Statistics by Gender*

Scores	Gender of participants	Mean	Minimum score	Maximum score	Standard Deviation
SOP	Male	36.20	20	49	7.22
	Female	36.03	14	52	9.10
	Total	36.10	14	52	8.31
SPP	Male	31.10	21	49	8.80
	Female	26.24	10	45	10.08
	Total	28.22	10	49	9.84

variables in the study, SOP and SPP. The total number of male participants was of 20, and of female participants, 29. Consequently, the sample size was deemed adequate for performing a MANOVA. Boxplots for SPP and SOP scores revealed no univariate outliers, and Mahalanobis distance for gender also failed to reveal multivariate outliers. Finally, the Shapiro-Wilks test was used to assess the distribution of both dependent variables for each gender. Given that for boys SOP scores  $p = .89$  and SPP scores  $p = .03$  ( $\alpha = .001$ ), and that for girls SOP scores  $p = .66$  and SPP scores  $p = .22$  ( $\alpha = .001$ ), it can be concluded that the data comes from normal distributions and the assumption for multivariate normality is satisfied. All assumptions were met; therefore a Multivariate Analysis of Variance (MANOVA) was conducted to test the hypothesis that gender (male, female) predicted SOP and/or SPP scores. The test yielded no significant main effect for gender (Wilks' Lambda = .92,  $F(2, 46) = 2.02$ ,  $p = .144$ ).

## CHAPTER THREE

### DISCUSSION

The current study sought to determine whether gifted boys or girls were more likely to present “adaptive” or “maladaptive” dimensions of perfectionism. The dimensions of the phenomenon explored were Hewitt and Flett’s Socially-prescribed Perfectionism and Self-oriented Perfectionism, associated, respectively, with adaptive and maladaptive features to child adjustment (Marten DiBartolo & Pierotti Varner, 2011). The hypothesis, based on previous research conclusions regarding gender and dimensions of perfectionism, was that there would be a difference in the prevalence of SPP and SOP among gifted children. The author hypothesized that the “adaptive” dimension of Hewitt and Flett, SOP, would be more prevalent among girls, while the “maladaptive” dimension, SPP, would be more prevalent among boys. There was, however, no significant difference between the scores of boys and girls for both dimensions of perfectionism on the CAPS questionnaire. In other words, no gender difference in the prevalence of SPP and SOP was identified.

This finding challenges the conclusions of the few studies on gender differences in dimensions of perfectionism, which suggested that boys and girls do not endorse perfectionistic characteristics the same way (Parker & Mills, 1996; Chan, 2007; Douillez & Henot, 2011), but supports the study done by Chan (2009) that had found no gender difference in the prevalence of positive and negative perfectionism. Implications, limitations, and suggestions for future research are elaborated next.

## **Implications**

**Dimensions of Perfectionism.** The current study put forth a novel perspective in the study of gender in perfectionism by exploring gender differences in Hewitt and Flett's dimensions of perfectionism. Of the few studies that investigated the relationship between gender and dimensions of perfectionism and suggested that boys and girls had different perfectionistic tendencies, only one (Douilliez & Hénot, 2011) looked at Hewitt and Flett's dimensions of perfectionism. Others explored Rice and Preusser's dimensions (Rice, Kubal & Preusser, 2004), Frost, Marten, Lahart and Rosenblate's dimensions (Parker & Mills, 1996; Parker, 1997; Siegle & Schuler, 2000) or Chan's dimensions (Chan, 2007; Chan, 2009; Chan, 2010).

Yet each set of dimensions rests on different constructs. Chan's Positive Perfectionism and Negative Perfectionism, for instance, are distinguished by the goal of perfectionistic traits: excellence as opposed to perfection. Rice and Preusser's dimensions or Frost, Marten, Lahart and Rosenblate's dimensions are based on the drives behind perfectionistic traits and the different types of traits. Hewitt and Flett's dimensions rely on the source of perfectionistic traits: the self (ie. SOP) or others (ie. SPP).

While each set of dimensions consist of a deconstruction of the same phenomenon, each set represents different concepts or characteristics of perfectionism. Therefore, the fact that gender differences were found in perfectionistic goals (Chan's dimensions) does not exclude the possibility that there are no gender differences in the source of perfectionism (Hewitt and Flett's dimensions) among gifted boys and girls.

One could argue that there are gender differences in some, but not all, dimensions of perfectionism, and these gender differences lay in concepts that are not represented by Hewitt and Flett's dimensions, but incorporated into other dimensions, which is why no gender differences were found in this study.

**Age.** The current study was performed with participants between seven and eleven years old. Previous studies on gender in dimensions of perfectionism typically had older participants. Parker and Mills (1996), Parker (1997) and Siegle and Schuler (2000) conducted their research on middle school students, while Chan (2007, 2009, 2010) and Douillez and Henot (2011) had samples with mainly adolescents.

Yet with age come many physical and psychological changes. Kline and Short (1991a) found that unlike boys (1991b), gifted adolescent girls developed more maladjustment problems as they grew older. Among other things, they were more likely to increasingly display a "maladaptive" type of perfectionism. The authors argued that perhaps the role of gender in the prevalence of perfectionistic traits positive and negative to adjustment fluctuated with age.

Thus, one could argue that while there is no gender differences in Hewitt & Flett's dimensions of perfectionism in younger gifted children, between seven and eleven years old, such differences arise as children grow into adolescence and adulthood. This theory could explain how significant differences in reports of boys and girls were found in previous studies with older participants, but not this study, conducted with younger children.

**Giftedness.** Previous studies on gender differences in dimensions of perfectionism selected participants on the basis of their attendance in gifted programs or their high academic performance alone. It is plausible that inclusion in a gifted program or high achievement increases perfectionistic strivings coming from the self, or inversely, the feeling of being pressured by others to be perfect. Thus, boys and girls attending such programs or performing exceptionally well at school could increasingly endorse attitudes and beliefs of different perfectionistic dimensions.

None of the children in the current study, however, attended gifted programs. These educational options are rare in the province of Quebec. In addition, some of them performed at school only as well as their nongifted peers. Perhaps not being labelled as “gifted” can influence the degree of Socially-prescribed and Self-oriented Perfectionism that gifted boys and girls report. Moreover, while it has been commonly suggested that high-achieving students might be performing better due to perfectionism, the relationship between high achievement and perfectionism could also go the opposite direction. Indeed, maybe the prevalence of dimensions of perfectionism increases as high performance increases, and gender differences in this prevalence as well. Perhaps gender differences were not statistically different in this study because, as opposed to other studies, participants were not always high achievers and did not attend special programs.



## **Significance for Practice**

Given the consistent conclusions in literature regarding positive and negative features in perfectionism, gender differences in dimensions of perfectionism would suggest that gifted boys or girls are more likely to present traits associated with maladjustment. For clinical practice and psychosocial intervention, such a finding would denote the need for gender-segregated work and care, with more attention given to the gender at higher risk.

The current study, however, suggests that there is no gender difference in dimensions of perfectionism. Accordingly, gifted girls and boys are at equal risk of presenting negative perfectionistic traits and becoming vulnerable to maladjustment. Therefore, regarding the phenomenon and its association with maladjustment, psychoeducation interventions or mental health professionals should concede the same attention to both boys and girls.

## **Strengths and Limitations of the Study**

This study was innovative in three major aspects. First, it focused on elementary school, pre-adolescent children. Most previous studies that had attempted to investigate the role of gender in the prevalence of dimensions of perfectionism had done so with adolescents, or a wide range of youth. Secondly, it attempted to include children who not only displayed high academic achievement, but also other characteristics of gifted children, in order to recruit children with intellectual potential as well those with high

intellectual performance. Finally, the dimensions of perfectionism explored were those of Hewitt and Flett, so far not systematically selected for studying gender differences in perfectionism. It is also worth mentioning that the author stumbled upon fortuitous findings suggesting that there might be ethnic differences in dimensions of perfectionism. Indeed, Asian boys and girls reported feeling more pressure from others to be perfect (scored higher in SPP) than their Caucasian peers. The study thus opened a new door for further exploration of factors influencing the phenomenon.

The project, however, relied on a small sample size. Forty-nine children participated in the study, and there were more female than male participants. A larger, more balanced sample should be recruited to confirm that there is no gender difference in the prevalence of SPP and SOP among elementary-school-aged gifted children.

### **Recommendations for Future Research**

As seen above, future research could be carried out with a larger sample to improve the scope of the current study. Moreover, the project gave rise to many suggestions, offering a wide range of research possibilities for the future. A longitudinal study could be undertaken to explore whether gender differences in dimensions of perfectionism arise as gifted children become adolescents. Research comparing the prevalence of dimensions of perfectionism in gifted children from regular classes and those from gifted programs could also be conducted to determine whether labelling or high performance influences children's scores. Studies exploring gender differences in

multiple dimensions of perfectionism simultaneously could determine whether gender influences the prevalence of some dimensions but not others. Finally, research could be conducted to establish whether there is a relationship between ethnic background and the dimensions of perfectionism among gifted children.

## CONCLUSION

Children's mental health problems represent an ongoing issue in Canada as well as the rest of the world. They are triggered by patterns of thought and behavior that instigate maladjustment. The current study was undertaken in order to explore gender differences in perfectionism, a phenomenon that includes a few of such patterns detrimental to child adjustment, among gifted elementary-school children. Since previous research had established that perfectionism coming from external pressures was detrimental to children well-being, this project was elaborated to compare the prevalence of this type of perfectionism, as well as perfectionism coming from the self, among elementary-school-aged boys and girls.

With results that contradict the few previous conclusions on the role of gender in the prevalence of dimensions of perfectionism and unpremeditated findings suggesting that ethnicity might be playing a role as well, this study underlies the need to further explore both variables in the phenomenon more thoroughly. Negative perfectionistic attitudes and beliefs have clearly been associated with maladjustment. It is crucial to determine the factors that predispose children to experience these perfectionistic traits in order to better prevent distress in youth and promote psychosocial well-being in future generations.

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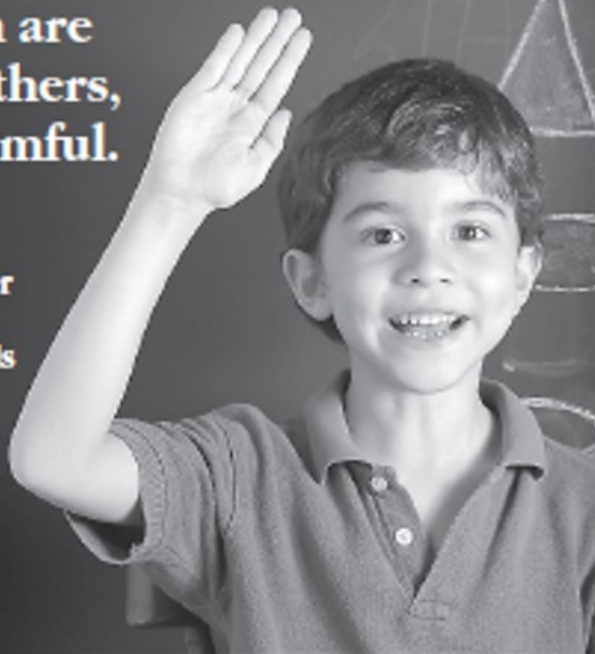
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# Study on gifted children ages 7 to 11

Research has shown that gifted children are more likely to be perfectionists, and that some attitudes towards perfectionism are adaptive, but others, potentially harmful.

I am a graduate student in psychology studying gender differences in gifted children's attitudes towards perfectionism, and I need your cooperation. It only takes about 40 minutes of your time. Your child will be asked to complete an I.Q. test and a short questionnaire.



To participate or for further information, contact Nella at:

Université   
de Montréal



APPENDIX C  
Consent Form



**Parent/Guardian Consent Form**  
**Research project:**  
**Gender Differences in Perfectionism among**  
**Gifted Children**

Researcher: Nella Darbouze-B., Masters' student, Department of Psychology, University of Montreal

Research supervisor: Catherine Ruth Solomon-Scherzer, Ph.D., Department of Psychology, University of Montreal

Mrs/Mr. \_\_\_\_\_

Thank you for your interest in our study. Before signing the consent form, it is important that you attentively read the following information and that you ask questions in order to fully understand what your participation involves.

**Information for Participants**

**PROJECT DESCRIPTION**

This study's purpose is to compare the attitudes of gifted girls and boys. Some gifted children feel burdened by the expectations that come with their special abilities, and the project will seek to find out if there are gender differences in the presence of this difficulty.

**PROCEDURE**

Your participation involves an at-home meeting of about half an hour, in which you will be invited to fill in a socio-demographic information sheet, and your child will complete an intellectual screening test and a questionnaire about his or her attitudes.

**CONFIDENTIALITY**

The researcher has taken different measures to ensure the greatest confidentiality. Each participant will be given a number. Only the researcher will have access to the list of participants and the numbers that would have been given to them. The information will remain in a drawer, carefully locked, in a closed office. No information that could possibly identify the participants will ever be published. Personal information will be preserved for seven years after the project before being destroyed. Only anonymous data will be kept after that date.

**ADVANTAGES AND INCONVENIENTS**

By participating in this research, you and your child would contribute to the understanding of gifted children and the developmental issues that concern them. It is possible that, while completing the screening test or the questionnaire, your child experience some feelings of anxiety. If that occurs, do not hesitate to speak to the researcher. If needed, she will refer you to appropriate resources.





APPENDIX D  
Socio-demographic sheet & Child and Adolescent Perfectionism Scale

# CAPS

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Thank you for taking part in this study. We would like some information about you. Please answer the following questions:

---

1. What language(s) do you speak at home?      2. Is your child a boy or a girl?

\_\_\_\_\_

BOY      GIRL

3. How old is your child?      4. What grade is s/he in right now?

\_\_\_\_\_ years old

\_\_\_\_\_ grade

5. How would you best describe his/her ethnicity?

Please choose one of the following:

\_\_\_\_\_ Canadian (European descent)

\_\_\_\_\_ African

\_\_\_\_\_ European

\_\_\_\_\_ African-Canadian

\_\_\_\_\_ Asian

\_\_\_\_\_ Hispanic

\_\_\_\_\_ Asian-Canadian

\_\_\_\_\_ Hispanic-Canadian

\_\_\_\_\_ Indian

\_\_\_\_\_ Other (please describe):

\_\_\_\_\_ Indian-Canadian

\_\_\_\_\_

\_\_\_\_\_ First Nations

# CAPS

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This is a chance to find out about yourself. It is not a test. There are no right answers and everyone will have different answers. Be sure that your answers show how you actually are. Please do not talk about your answers with anyone else. We will keep your answers private and not show them to anyone.

When you are ready to begin, please read each sentence below and pick your answer by circling a number from “1” to “5”. The five possible answers for each sentence are listed below:

- 1 = False—Not at all true of me
- 2 = Mostly False
- 3 = Neither True Nor False
- 4 = Mostly True
- 5 = Very True of me

For example, if you were given the sentence “I like to read comic books,” you would circle a “5” if this is very true of you. If you were given the sentence “I like to keep my room neat and tidy,” you would circle a “1” if this was false and not at all true of you. You are now ready to begin.

Please be sure to answer all of the sentences.

---

	<b>False</b>			<b>True</b>	
1. I try to be perfect in every thing I do. ....	1	2	3	4	5
2. I want to be the best at everything I do. ....	1	2	3	4	5
3. My parents don't always expect me to be perfect in everything I do. ....	1	2	3	4	5
4. I feel that I have to do my best all the time. ....	1	2	3	4	5
5. There are people in my life who expect me to be perfect. ....	1	2	3	4	5
6. I always try for the top score on a test. ....	1	2	3	4	5
7. It really bothers me if I don't do my best all the time. ....	1	2	3	4	5
8. My family expects me to be perfect. ....	1	2	3	4	5
9. I don't always try to be the best. ....	1	2	3	4	5
10. People expect more from me than I am able to give. ....	1	2	3	4	5
11. I get mad at myself when I make a mistake. ....	1	2	3	4	5

# CAPS

---

12. Other people think that I have failed if I do not do my very best  
all the time. .... 1 2 3 4 5
13. Other people always expect me to be perfect..... 1 2 3 4 5
14. I get upset if there is even one mistake in my work. .... 1 2 3 4 5
15. People around me expect me to be great at everything. .... 1 2 3 4 5
16. When I do something, it has to be perfect. .... 1 2 3 4 5
17. My teachers expect my work to be perfect. .... 1 2 3 4 5
18. I do not have to be the best at everything I do..... 1 2 3 4 5
19. I am always expected to do better than others. .... 1 2 3 4 5
20. Even when I pass, I feel that I have failed if I didn't get  
one of the highest marks in the class. .... 1 2 3 4 5
21. I feel that people ask too much of me..... 1 2 3 4 5
22. I can't stand to be less than perfect. .... 1 2 3 4 5
- 
-