

2018

# Moral identity development across middle childhood and adolescence

Sonia Sengsavang

Wilfrid Laurier University, seng9330@mylaurier.ca

Follow this and additional works at: <https://scholars.wlu.ca/etd>

---

## Recommended Citation

Sengsavang, Sonia, "Moral identity development across middle childhood and adolescence" (2018). *Theses and Dissertations (Comprehensive)*. 2085.

<https://scholars.wlu.ca/etd/2085>

This Dissertation is brought to you for free and open access by Scholars Commons @ Laurier. It has been accepted for inclusion in Theses and Dissertations (Comprehensive) by an authorized administrator of Scholars Commons @ Laurier. For more information, please contact [scholarscommons@wlu.ca](mailto:scholarscommons@wlu.ca).

Running head: MORAL IDENTITY DEVELOPMENT

MORAL IDENTITY DEVELOPMENT ACROSS MIDDLE CHILDHOOD AND  
ADOLESCENCE

by

Sonia Sengsavang

Bachelor of Arts, Carleton University, 2011

DISSERTATION

Submitted to the Department of Psychology  
in partial fulfillment of the requirements for  
Doctor of Philosophy in Development Psychology  
Wilfrid Laurier University

© Sonia Sengsavang 2018

### Abstract

In moral psychology, moral identity has been viewed as a central explanatory construct in moral development linking morality and action. However, less is known about its development across the lifespan. The present dissertation aimed to address the limitations of previous research by using the personological approach to better understand how the multifaceted construct of moral identity develops from the understudied period of middle childhood to adolescence. The dissertation is separated into three chapters that can be considered as three research topics framed within one study tapping into the different layers of moral identity (see Krettenauer & Hertz, 2015). All chapters were derived from the same sample of 190 participants (101 females,  $M=13.00$  years,  $SD=2.58$ ) from three age groups of approximately equal size: middle childhood (Grades 4-5;  $n=65$ ), early adolescence (Grades 7-8;  $n=68$ ), and mid-adolescence (Grades 10-11;  $n=57$ ).

The first chapter examined the self-importance and context-specificity of moral values (trait layer of moral identity). Age-related patterns were found on this layer of moral identity and parental support was a positive predictor of moral identity. The second chapter focused on moral identity motivation (characteristic adaptations layer of moral identity) and as expected, moral identity motivation varied by both age and social context, and was also predictive of moral behaviour. The third chapter focused on narrative accounts of past morally relevant behaviour (narrative layer of moral identity). Results revealed meaningful asymmetries in participants' experiences and interpretations of past (im)moral action that varied by age and context.

Overall, the present dissertation demonstrated the utility of the personological approach to moral identity development with each layer of moral identity manifesting differentially throughout the lifespan. Importantly, the dissertation provided evidence that moral identity development is context-dependent, begins to emerge in middle childhood perhaps as a social moral identity, and progresses to be more autonomous with age.

### **Acknowledgements**

This dissertation is the result of the efforts of many individuals who have supported and encouraged me throughout this journey. I am extremely grateful for the conversations and experiences over these last several years that have contributed to my personal, professional, and academic growth. It took a village to support me and now that I have successfully navigated this academic journey, I'd like to acknowledge those who have especially fostered my growth.

I would first like to thank my committee, Dr. Kim Roberts, Dr. Colleen Loomis, Dr. Carolyn Fitzgerald, and Dr. Charles Helwig for their influential support and helpful feedback throughout the dissertation process and for making the experience an enjoyable one. Thank you for especially encouraging me to further my perspective and interpretations about my research from multiple lenses. In particular, I would like to thank my advisor, Dr. Tobias Krettenauer, who has remarkably ensured my success and growth as a graduate student. Thank you for all your encouragement, for always believing in me, and for always allowing me to express my interests and thoughts. I know that this dissertation would not be what it was without your guidance.

To my mentors, Dr. Keith Adamson and Dr. Michael Pratt, who have continued to advance my professional and personal growth. Mike, thank you for introducing me to the value of narratives and storytelling, as well as for the endless kindness you've shown me since we first met and collaborated. Keith, thank you for being my greatest mentor and for shaping me to be a confident individual both professionally and personally. Your leadership and friendship is invaluable and it is a privilege to have you in my life.

To my Laurier friends and lab mates in the Morality, Self, and Emotions Lab (MSEL), thank you for your support and help over the years, especially to overcome the imposter syndrome we all felt and still sometimes experience. Thank you especially to Fanli, Joanna, Sam, and Jessy for making these years so enjoyable and conferences so memorable.

Finally, and most importantly, I would like to thank my incredible family and friends. My amazing parents, Bounnoy and Phonoy, as well as brothers, Andrew and Johnny, my soon-to-be in-laws, David and JoAnne, and sister, Elizabeth for always encouraging and instilling in me that I can do anything I put my mind to and to always follow my dreams and pursue my goals. To my fiancé, Charlie, thank you for being my advocate and my person since we were 17 years-old. Thank you for encouraging me to pursue my PhD and continuing to make my dreams come true. Thank you to the Sengsavang and Gilmer families, as well as my chosen family of friends for their unconditional love and support, and for especially keeping me sane and focused when I thought the end was never in sight. I could have never achieved this without you all and cannot imagine this experience and my life without you. Thank you!

## Table of Contents

<b>Abstract.....</b>	<b>i</b>
<b>Acknowledgements.....</b>	<b>iii</b>
<b>List of Tables.....</b>	<b>viii</b>
<b>List of Figures.....</b>	<b>x</b>
<b>Moral Identity Development Across Middle Childhood and Adolescence.....</b>	<b>1</b>
Moral Identity: What Is It?.....	2
The Personological Approach to Moral Identity Development: A Three-Layer Model .	6
Overview of The Present Dissertation Research.....	11
<b>CHAPTER I: The Self-Importance of Moral Values and Context-Specificity Across</b>	
<b>Middle Childhood and Adolescence.....</b>	<b>14</b>
Method.....	21
<i>Participants</i> .....	21
<i>Measures and Procedures</i> .....	22
Moral identity interview.....	23
Mean-level of moral identity.....	25
Cross-context differentiation of moral identity.....	25
Social desirability.....	26
Parent-child relationship quality.....	26
Results.....	28
<i>Mean-Level of Moral Identity and Age</i> .....	29
<i>Cross-Context Differentiation of Moral Identity and Age</i> .....	30

<i>Effects of Parent-Child Relationship Quality on Mean-Level of Moral Identity</i> .....	31
Discussion .....	31
<b>CHAPTER II: The Development of Moral Identity Motivation and its Links to</b>	
<b>Moral Behaviour and Parent-Child Relationship Quality</b> .....	<b>38</b>
Method .....	45
<i>Sample and Procedure</i> .....	45
<i>Moral Identity Interview</i> .....	46
Moral identity motivation.....	47
<i>Questionnaire Measures</i> .....	50
Moral behaviour.....	50
Parent-child relationship quality.....	51
Social desirability. ....	51
Results.....	51
<i>Moral Identity Motivation and Age</i> .....	52
<i>Effects of Parent-Child Relationship Quality</i> .....	55
<i>Moral Identity Motivation and Moral Behaviour</i> .....	56
Discussion .....	56
<b>CHAPTER III: Moral Identity Development through Reflections on Past (Im)Moral</b>	
<b>Experiences</b> .....	<b>64</b>
Method .....	69
<i>Sample, Measures and Procedures</i> .....	69
Social desirability. ....	70
<i>Coding and Reliability</i> .....	70



Types of harmful and helpful actions. ....	71
Types of reasons for harm or help. ....	71
Strength of self-event connection. ....	72
Results.....	75
<i>Types of Harmful and Helpful Actions</i> .....	76
<i>Reasons for Engaging in Harmful and Helpful Actions</i> .....	78
<i>Strength of Self-Event Connections</i> .....	80
Discussion .....	82
<i>Does Context Impact How Children and Adolescents Narrate and Understand Past     (Im)Moral Experiences?</i> .....	83
<i>Age-Related Changes in Narrative Accounts of Harmful and Helpful Actions</i> .....	87
<i>Limitations and Conclusions</i> .....	91
<b>CHAPTER IV: Relationships Between the Three Layers of Moral Identity.....</b>	<b>92</b>
<b>General Discussion and Conclusion.....</b>	<b>98</b>
Moving Towards a Comprehensive Theory of Moral Identity Development .....	102
Future Directions.....	108
Conclusion .....	111
<b>Appendix A: Social Desirability.....</b>	<b>114</b>
<b>Appendix B: Parent-Child Relationship Quality Questionnaire .....</b>	<b>115</b>
<b>Appendix C: Teacher-Report of Moral Behaviour .....</b>	<b>117</b>
<b>References.....</b>	<b>119</b>

### List of Tables

Table 1. Demographic Characteristics of the Sample Across Age Groups.....	141
Table 2. Results of Regression Analyses Predicting Mean-Level and Cross-Context Differentiation of Moral Identity by Age and Social Desirability Response Bias.....	142
Table 3. Demographic Characteristics of the Sample Across Age Groups.....	143
Table 4. Coding Categories for Moral Identity Motivation.....	144
Table 5. Means (and Standard Deviations and Ranges) for Moral Identity Motivation Category Groups Across Contexts.....	149
Table 6. Bivariate Correlations Between Moral Identity Motivation Category Groups Across Contexts.....	150
Table 7. Bivariate Correlations Between Study Variables and Demographic Characteristics.....	151
Table 8. Bivariate Correlations Between Study Variables.....	152
Table 9. Bivariate Correlations Between Motivation Coding Categories and Age (in years).....	153
Table 10. Moral Identity Motivation by Age Group and Social Contexts: Results of Mixed-Model MANOVA.....	154
Table 11. Means (and Standard Errors) for Moral Identity Motivation by Age Group.....	155
Table 12. Results of Regression Analyses Predicting Moral Identity Motivation by Parent-Child Relationship Quality and SES.....	156
Table 13. Results of Regression Analyses Predicting Moral Behaviour by Moral Identity	

Motivation, SES, and Gender.....	157
Table 14. Bivariate Correlations Between Study Variables and Demographic Characteristics with Means and Standard Deviations.....	158
Table 15. Means (and Standard Deviations) for Types of Harmful and Helpful Actions by Age Group.....	159
Table 16. Means (and Standard Deviations) for Types of Harmful and Helpful Actions Across Moral Contexts.....	160
Table 17. Means (and Standard Deviations) for Types of Harmful and Helpful Actions Across Social Contexts.....	161
Table 18. Overall Means (and Standard Deviations) for Reasons of Harmful and Helpful Actions.....	162
Table 19. Bivariate Correlations Between Key Variables of Each Layer of Moral Identity Controlling for Age (Zero-Order Correlations in Parentheses).....	163

**List of Figures**

Figure 1. Diagrams of the family (blue) and friends (green) contexts to represent varying degrees of self-importance of moral values wherein participants placed each moral value label in the circle that represents its level of importance to the self.....	165
Figure 2. External moral identity motivation category groups across social contexts by age group.....	166
Figure 3. Internal moral identity motivation category groups across social contexts by age group.....	167
Figure 4. Mean scores of reasons for engaging in harmful/helpful actions by social contexts.....	168
Figure 5. Self-event connection across social contexts and moral contexts by age group.....	169

### **Moral Identity Development Across Middle Childhood and Adolescence**

Morality is inherent in human interaction and one can expect morality to guide some of our actions at any point in development (Nucci, 2004). Generally, morality involves understanding others' needs, interests, and desires while relating them to one's own, as well as expecting the responses of others (e.g., disapproval) to one's own behaviour (Thompson, Meyer, & McGinley, 2006). There are, nonetheless, differing views of what morality entails, especially in terms of what makes an action "moral" rather than simply a conventional or personal issue. Both Elliot Turiel (1983) and Jonathan Haidt (2012) have proposed leading definitions that have been challenged. From Turiel's perspective, the moral domain entails actions that are harmful to others and are universally judged as wrong. Haidt, on the other hand, proposed five moral foundations – care, fairness, loyalty, authority, and sanctity – based on adaptive challenges humans have faced in their evolutionary history and triggered by emotions such as sympathy, anger, and disgust. Individuals and cultures seem to differ in the degree to which they endorse loyalty, authority, and sanctity as well-defined moral foundations (e.g., Graham, Haidt, & Nosek, 2009; Haidt, 2007, 2012). For example, Eastern participants showed stronger concerns for loyalty, sanctity and authority compared to Western participants (Haidt, 2007), while Liberals greatly endorse care and fairness whereas Conservatives endorse all five moral foundations more equally (Graham et al., 2009). Moreover, in a recent study, Jia, Krettenauer, & Li (in press), revealed that there are indeed culturally specific moral attributes for Western (i.e., Canadian) versus Eastern (i.e., Chinese) participants, but there are also shared moral attributes across both cultures. Morality has universal components such that regardless of political orientation and cultural

background, both caring for others and fairness are core moral foundations that lie at the center of the moral domain for all (Jia et al., in press; Schwartz & Bardi, 2001). Beyond defining morality itself, an important aim of research in moral psychology is to understand the relationship between morality and action.

In the beginning of the 20<sup>th</sup> century, Sigmund Freud's (1935) psychoanalytic theory greatly influenced the study of human development and proposed that morality, specifically moral values, are transmitted entirely from parents to their children and thus placed very little autonomy on children themselves. In the latter half of the 20<sup>th</sup> century, Lawrence Kohlberg (1976) introduced his stage theory of moral development, which placed emphasis on moral reasoning and moral judgment or rationality at the centre of moral development and functioning. His stage theory was highly influential and transformed the direction of the field to focus on moral reasoning as the predictor of moral behaviour. Over the years, there were numerous criticisms of Kohlberg's stage theory given evidence suggesting that moral reasoning alone is not a strong predictor of moral action (e.g., Blasi, 1983). Evidently, this led to new directions in moral development theory and research to understand how moral reasoning leads to moral action. In particular, Augusto Blasi (1983) introduced his self-model of moral functioning and argued that moral identity is a major factor in bridging the gap between moral judgment and action.

### **Moral Identity: What Is It?**

*Moral identity*, defined as "the degree to which being a moral person is important to an individual's identity" (Hardy & Carlo, 2011b, p. 212), has been a central explanatory construct in moral development for several decades linking morality and

action. The central premise of Blasi's (1983) model of moral functioning is that if an individual views moral values (e.g., honest, caring, fair) as fundamental to their sense of self then they would be considered to have a strong moral identity, which would then lead to moral behaviour. Recently, Hertz and Krettenauer (2016) conducted a meta-analysis to examine the relationship between moral identity and moral behaviour from over one hundred articles. They found a positive overall effect size suggesting that moral identity is indeed related to moral behaviour. The moral identity construct is arguably a key personality characteristic and a developmental construct subject to individual development as well as an important element of positive development and everyday moral functioning (e.g., Damon, 2004, 2006; Hardy & Carlo, 2005, 2011b). In fact, Lapsley and Lasky (2001) stated, "The formation of moral identity is the clear goal of both moral and identity development and these two developmental tracks are ideally conjoined in the moral personality" (p. 358). As such, over the last few decades, the construct has received considerable empirical interest with investigations on the construct and its development. However, reliable empirical evidence supporting moral identity development is limited (see Krettenauer & Hertz, 2015).

The surge in research on the moral identity construct began in the early 1980s when Blasi (1980, 1983, 1984) published a series of papers that sparked a new perspective in moral psychology. Blasi introduced the notion of moral self and identity at a time when cognitive aspects of moral development were dominating the field; his model posits the concept of moral identity as a bridge over the "moral judgment-action gap" and thus central to understanding moral development. More specifically, he argued that in order for moral judgment to lead to moral action, an individual's moral values

must be embedded into their sense of self and internalized as part of their moral identity (Blasi, 1983). Since then, hundreds of published articles have built on the work of Blasi and the field of moral psychology began to transition its focus from moral reasoning to the moral self in childhood and moral identity in adolescence and beyond. At the same time, scholars were also addressing a major limitation of Blasi's model: the lack of an empirical paradigm (Walker, 2014). In an overview chapter, Walker (2014) has characterized three major overarching approaches used in the moral psychology field to categorize the theoretical and empirical investigations of this construct: (1) *trait-based*, (2) *sociocognitive*, and (3) *personological* approaches.

The trait-based approach – or the “having” side of personality (Walker, 2014) – proposes that moral identity functions similar to personality traits. By having morally relevant traits or attributing moral values as important to one's sense of self, these traits and self-important values should appear consistent across situation and contexts overtime (Walker, 2014). The research from this approach has identified various moral traits that are characteristic of a moral identity in adolescence and adulthood, such as: being honest, caring, having integrity, and knowing what is wrong/right (e.g., Hardy, Walker, Olsen, Skalski, & Basinger, 2011; Reimer, DeWitt Goudelock, & Walker, 2009; Walker, 1999; Walker & Pitts, 1998). After identifying these moral traits, research has found that the self-importance of these moral traits is predictive of moral behaviour (e.g., Hardy, Walker, Gray, Ruchty, & Olsen, 2012).

In contrast, the sociocognitive approach to moral identity – the “doing” side of personality (Walker, 2014) – emerged in the early 2000s and view moral identity as malleable by situational factors that activate implicit and deliberative cognitive-affective



processes or sociocognitive schemas that guide self-regulation and behaviour (Lapsley & Narvaez, 2004). From this perspective, moral identity is the degree to which these “moral schemas” are readily accessible such that those who have higher levels of moral identity are more ready to efficiently respond to moral situations (Hardy, Krettenauer, & Hunt, in press). Thus, moral identity is presumed to be implicit and automatic. For example, Aquino, Freeman, Reed, Lim, and Felps (2009) demonstrated the combined influence of situational and dispositional factors on moral behaviour in a sample of undergraduate students. They found that cooperative behaviour over time was only evidenced in the moral priming condition (when moral identity was made salient) for those who already reported high levels of moral identity (based on the centrality or strength of moral identity). Therefore, this research supports the notion that situational context has a considerable impact on moral identity functioning.

Both the trait-based and sociocognitive accounts of moral identity do not place development at the forefront and heavily rely on a single layer of personality description (i.e., behavioural traits) (Walker, 2014) and commitment to a particular personality theory (Krettenauer & Hertz, 2015). The trait-based approach centres on temporal stability and cross-context consistency, whereas the sociocognitive approach focuses on malleability and situational-dependency. Moreover, these two accounts emphasize different understandings of what moral identity entails: character (trait-based) versus context (sociocognitive) (Walker, 2014). Evidently, a more integrative account is needed beyond trait-based and sociocognitive approaches to moral identity to include other aspects of personality (e.g., motivation, integrative life narratives) that are relevant to moral functioning as well as to better explain the systematic development of moral

identity over the lifespan. Recently, a more integrative framework – the personological approach – has been established that addresses the aforementioned limitations of trait-based and sociocognitive accounts of moral identity to go beyond behaviour traits and include the consideration of contexts, motivations, and life narratives (Walker, 2014). This approach references various aspects of personality that address important areas of moral identity development that perhaps were neglected in previous research (Krettenauer & Hertz, 2015; Walker, 2014).

### **The Personological Approach to Moral Identity Development: A Three-Layer Model**

The personological approach to moral identity proposes that there are different layers of moral identity that are equally important for describing a moral person (Krettenauer & Hertz, 2015; Walker, 2014). This approach utilizes McAdams' (2009) theory of personality, specifically his three-layer model of personality, as an integrative framework for the study of moral personality and development (Pratt & Hardy, 2014). These three layers are: (1) *dispositional traits*, (2) *characteristic adaptations*, and (3) *integrative life narratives*. At the first layer, moral identity can be reflected on the broadest and least contextualized layer of moral traits or moral values attributed as important to the self in general (e.g., being caring, honest, fair, trustworthy), which account for behavioural consistencies (Krettenauer & Hertz, 2015). At the layer of characteristic adaptations, moral identity can be reflected in motivational and social cognitive aspects of personality. More specifically, motivations and goal orientations that individuals uphold in various social contexts (e.g., being a caring parent), and thus may be more variable across time and context (Krettenauer & Hertz, 2015; Pratt & Hardy,

2014). At the third layer of integrative life narratives, moral identity can be reflected in the degree to which moral values, moral themes, and/or self-related insights are salient in individuals' narratives about their past moral achievements (moral behaviour) and moral failures (immoral behaviour). By studying moral identity from a personological approach with McAdams' framework, Krettenauer and Hertz (2015) suggest that moral identity is not limited to one dimension, but that different aspects of moral identity can be shown at each layer of personality, some of which may be more stable and trait-like, whereas others may be more context-dependent and changeable over time.

To date, there is little research on the development of these personality layers within the moral identity construct. Several studies have systematically investigated age-related changes in moral identity during the adolescent and emerging adulthood years with limited evidence despite models of moral identity development that consider this age period crucial for moral identity formation (for an overview, see Krettenauer & Hertz, 2015). A critical review of the moral identity literature by Krettenauer and Hertz (2015) revealed that the lack of empirical evidence for moral identity development might be due to the limited age range included in studies, as well as conceptual and measurement issues. In response to these limitations, Krettenauer and colleagues have developed a research program using more sophisticated methodology in a series of published articles.

First, Krettenauer, Murua, and Jia (2016) expanded the age range in their sample (14 to 65 years instead of only focusing on adolescents or adults) and also investigated the context-differentiation of moral identity. For general self-descriptions, individuals differentiate their self-descriptions depending on the social context and the social role assumed (Diehl & Hay, 2007). As such, at the trait layer of moral identity, Krettenauer et

al. (2016) aimed to examine both self-importance of moral values across social contexts, as well as cross-context differentiation given that morality is not limited to only one social context. They found age-related increases in the self-importance of moral values and that cross-context differentiation of the self-importance of moral values increased from adolescence to early adulthood, peaking at age 25 years then declining afterwards. In other words, as individuals age, they increasingly attribute moral values as important to the self; and during adolescence and emerging adulthood, individuals' self-importance of moral values become increasingly differentiated across contexts. Moreover, the self-importance of these moral values was positively related to personality traits of agreeableness, conscientiousness, and emotional stability.

Second, at the layer of characteristic adaptations of moral identity, Krettenauer and Victor (2017) examined age-related change in one's moral motivation for the self-importance of moral values (i.e., moral identity motivation), while also considering context-specificity. They argued that self-importance of moral values (layer one of moral identity) need to be differentiated from moral identity motivation (layer two of moral identity) given that an individuals' reason or motive for the importance of a particular moral value may vary. For example, people may agree that being honest is a self-important moral value, but one person may think it is important for self-interested reasons (i.e., leaving a good impression on others) while another person believes it is important for fairness reasons (i.e., treating others how they want to be treated). Numerous models of ego and identity development have proposed a general developmental trend towards greater levels of internal motivation with age (see Krettenauer & Hertz, 2015). In line with theoretical expectations, Krettenauer and Victor (2017) found age-related increases

in internal moral identity motivation, as well as context-dependent differentiation of moral identity motivation such that individuals (age ranging from 14 to 65 years) were more internally motivated to behave morally in the contexts of family and community compared to school/work.

Finally, at the narrative layer of moral identity, individuals are able to create a sense of connection and meaning over time by reflecting on autobiographical accounts of life experiences and events, which evidently shapes one's identity (e.g., Erikson 1959/1980; McAdams, 2001; McLean & Pasupathi, 2012). Compared to the other layers, much less is known about the development of the narrative layer of moral identity, though Proulx and Chandler (2009) proposed a general developmental trend of adolescents' self-views that reflect increased context-dependency such that one narrates their good behaviours as internally motivated and their bad behaviours as externally provoked. On the other hand, Krettenauer and Mosleh (2013) found that self-event connection increases with age such that adults were more likely to make a connection between past immoral behaviour and their current self compared to adolescents. Moreover, internal moral motivation strongly predicted the strength of self-event connections (i.e., the degree to which a past event is connected to the current self) as well as the acceptance of conflicting events. Therefore, individuals with higher levels of internal moral motivation were able to draw stronger connections between their past (im)moral actions and their present self. At the same time, among children and adolescents, Recchia, Wainryb, Bourne, and Pasupathi (2015) found that adolescents were better at drawing self-related insights from their narrative accounts of past immoral behaviour compared to children. Therefore, individuals do not simply externalize their

immoral behaviours, but in fact may integrate them into their current self. Given these discrepant findings that suggest perhaps adolescence is the age period wherein increased context-dependency in moral motivations exists, more narrative approaches to understanding moral identity development is needed. By combining the narrative approach (layer three of moral identity) with the previous layers that suggest context-differentiation and dependency (layer one and layer two of moral identity), studying developmental changes in moral identity across younger age periods is also possible. More specifically, the ways in which children versus adolescents connect morally relevant experiences to their sense of self, as well as describe their narratives depending on both moral (i.e., transgressive, prosocial) and social contexts (i.e., family, friends) have yet to be explored.

Evidently, developmental changes on these layers have been demonstrated in separate empirical investigations, but not systemically in a single investigation and primarily conducted with adolescents and beyond. Despite evidence of moral development in childhood (e.g., Kochanska, 2002; Krettenauer, Campbell, & Hertz, 2013), the vast majority of research on moral identity focuses on its development in adolescence and emerging adulthood – the “critical developmental period” – as scholars argue that maturity and understanding of moral norms and values increase during this time to better integrate morality and identity (e.g., Hardy & Carlo, 2011b). Nonetheless, moral identity development is a lifelong process that is not restricted to adolescence or emerging adulthood (Damon, 1996; Krettenauer et al., 2016; Lapsley & Stey, 2014). Based on the research on toddlers’ and children’s moral self-concept, some researchers have argued that the moral self may be a precursor to later moral identity (e.g.,

Kochanska, Gross, Lin, & Nichols, 2002; Kochanska, Koenig, Barry, Kim, & Yoon, 2010; Krettenauer, 2018; Krettenauer et al., 2013; Sengsavang & Krettenauer, 2015). Moreover, similar to moral identity, children's moral self in middle childhood becomes increasingly predictive of moral emotions and social behaviours (Krettenauer et al., 2013; Sengsavang & Krettenauer 2015), but its potential development during this time is understudied. In fact, Nucci (2004) identified the lack of developmental continuity from childhood to adolescence as a major weakness of research on the moral identity construct.

### **Overview of The Present Dissertation Research**

This dissertation research aimed to address the limitations of previous research to better understand how the multifaceted concept of moral identity develops. Specifically, the neglected developmental period of elementary school years up to adolescence was examined utilizing the integrative personological approach to moral identity by drawing on research that has been used with adolescence and emerging adults (Krettenauer & Mosleh, 2013; Krettenauer et al., 2016; Krettenauer & Victor, 2017). In addition, methodologies used with children and adolescents were drawn to adhere to the dissertation's younger sample of participants in middle childhood and adolescence. Moreover, given Bronfenbrenner's (1979) ecological systems theory, human development and thus identity development is a result of the dynamic and interactive process between individuals and their various ecosystems from the most intimate or personal ecological system that a person is in direct contact with (microsystem) to the larger societal or cultural ecological system (macrosystem) that may indirectly affect one's development. These interactive processes in one's environment includes but not limited to: family, friends, school/work, neighbours in the community, cultural

background, as well as the country in which one was raised. This indicates that identity research, including this dissertation, must consider contexts most relevant to the developmental age period under study. It is now clear that researchers need to expand the scope of inquiry to be more inclusive and examine: (1) the three layers of moral identity, while also focusing on (2) younger developmental periods, (3) individual differences in moral development, as well as (4) social contexts, which have all been limited in the past. A new empirical approach for assessing moral identity during this developmental transition period was used that combines moral values, narratives, social contexts (i.e., family, friends, school) and moral contexts (i.e., prosocial, antisocial) along with teacher-reports of student's social behaviours as a measure of their moral behaviour. This research from a personological approach tested a new methodology that is more inclusive of all three layers of moral identity and expands the scope of past research for empirically investigating individual and age-related differences in the development of moral identity.

Given the complexity and richness of each layer of moral identity, this dissertation is separated into three chapters that can be considered as three research topics all framed within one study. The chapters each tap into the different layers of moral identity development as outlined by McAdams' (2009) model of personality, while incorporating teacher-reports of moral behaviour as well as self-reports of parent-child relationship quality. It is important to note that these three chapters are part of the larger dissertation project that utilized a multi-informant, mixed-method design with the same sample of children and adolescents. Thus, only methods pertaining to each layer of moral identity and accordingly each chapter was specifically described to reduce redundancy.



The first chapter centres on the self-importance and context-specificity of moral values (trait layer of moral identity). Conceptually, traits do not vary across contexts and thus are usually generalized across all aspects of life, but empirically we<sup>1</sup> investigated this claim by including context-specificity similar to Krettenauer et al. (2016). The social contexts most relevant to this age group, specifically family, friends and school, were examined to better understand if the self-importance of moral values changed depending on the social context. Given that positive parent-child relationship quality has been linked to self-identity development in the moral domain (e.g., Kochanska, Aksan, & Joy, 2007; Sengsavang & Krettenauer, 2015), the role of parent-child relationship quality at the trait layer of moral identity was also studied.

The focus of the second chapter was moral identity motivation (characteristic adaptations layer of moral identity), particularly the reasons or motives behind the self-importance of moral values, and how it develops across middle childhood and adolescence. Moreover, given that the characteristic adaptations or motivational layer of personality is rooted in situation-specific or context-specific understanding that guide behaviour, we also examined how moral identity motivation related to teacher-reports of moral behaviour and self-reports of parent-child relationship quality.

Finally, the last chapter includes an explanation of how moral narratives provide increased richness to understanding moral identity development (narrative layer of moral identity), by specifically examining how children and adolescents describe and interpret

---

<sup>1</sup> Throughout this dissertation, the personal pronoun "we" rather than "I" is used in order to acknowledge that this project was a collaborative effort including myself, my thesis advisor (Dr. Krettenauer) and students in our research lab who assisted with data collection and coding (notably Kathleen Bauer (née Tamming) and Luc Saulnier). Nonetheless, the author of this thesis accepts full responsibility for all claims made in this thesis document.

past morally relevant behaviour. This was the first study to examine how both types of moral experiences (transgressive, prosocial), as well as how the social context (family, friends) in which the moral failures and moral achievements occurred may change the way individuals construe these experiences.

Taken together, this dissertation research (1) utilized recent innovative moral identity research methodologies that has been completed mainly with adolescents and adults and expanded it to a younger developmental period, and (2) comprehensively examined moral identity development as a multifaceted, context-dependent self-structure, while investigating its association to parenting, on the one hand, and moral behaviour, on the other. Based on the current literature discussed above, the general research question of this dissertation project is: how does moral identity form in the course of individual development during the understudied transition period from middle childhood to adolescence?

## **CHAPTER I: The Self-Importance of Moral Values and Context-Specificity Across Middle Childhood and Adolescence**

Traditionally, research on personality and identity has focused on trait-based approaches, especially after the five-factor model of personality (also known as the Big Five model) became widely accepted (see McAdams & Pals, 2006). Moral identity can also be examined from the personality layer of traits when considering the stability and cross-situational consistency of moral identity similarly to traits. Given that moral identity may function similar to personality traits, the importance of moral traits or moral values to one's sense of self should be consistent across contexts and time (Walker, 2014). Morality (i.e., promoting other people's welfare, harm avoidance, caring for

others, fairness) requires action that is guided by a person's moral intentions which provides the behaviour with moral meaning within the framework of the person's moral understanding (Blasi, 2005). Indeed, moral identity has been shown to be highly influential for everyday moral functioning (e.g., Hertz & Krettenauer, 2016; Johnston & Krettenauer, 2011) and thus an important construct in the area of moral development. Over the last several decades, this construct has gained popular interest as a predictor of moral behaviour in multiple disciplines, though its development has been much less explored.

Moral identity is traditionally seen as the extent to which moral values are integrated into an individual's sense of self (see Hardy & Carlo, 2011b). Unsurprisingly, there are individual differences in the extent to which moral values are integrated into one's sense of self. For instance, moral values such as being trustworthy, honest, or fair might be central to some people's identity, whereas nonmoral values such as being outgoing, popular, and independent are considered more important for others. According to Krettenauer et al. (2016), "these individual differences are attributable to different developmental trajectories, where some individuals were able to achieve a higher level of morality-self integration than others" (p. 972). Historically, the majority of the research on moral identity development is focused on the "critical developmental period" of adolescence and emerging adulthood (cf. Blasi, 2005; Frimer & Walker, 2009; Hardy & Carlo, 2011b), however this does not imply that moral identity development is limited to this age period (Damon, 1996; Lapsley & Stey, 2014). Given that there has been little empirical evidence for age-graded change in adolescence or emerging adulthood (see Krettenauer & Hertz, 2015), amongst other leaders in the field, Hardy and Carlo (2011b)

suggest that there is limited knowledge about the developmental trajectories of moral identity.

Moral identity can be found in earlier developmental periods, though this has often been referred as the *moral self* rather than moral identity per se. Currently, it is unknown when moral identity emerges, but scholars have provided valuable insights into the development of a moral self as a precursor of later moral identity (e.g., Kochanska, 2002; Kochanska et al., 2010; Krettenauer, 2018; Krettenauer et al., 2013; Sengsavang & Krettenauer, 2015). Moreover, precursors to moral self development include but not limited to: early conscience development of moral emotions and internalization of rules, as well as understanding of mental states in others and oneself (theory of mind) (for an overview, see Thompson, 2014). According to Krettenauer (2013, 2018), the integration of self and morality (i.e., moral selfhood) is multifaceted and develops in childhood through a three-layer model of moral self that occurs at different points in time: moral self as an *intentional agent* (ages 3- to 5-years with instrumental intentions such as one's self-interest), *volitional agent* (ages 6- to 8-years with intentions to act morally beginning to move from external to internal obligation), and *identified agent* (moral conduct reflects one's self-ideal). Early occurring processes involved in moral self-identification, such as rule internalization (Kochanska & Thompson, 1997), become further integrated into one's sense of self when these moral rules become associated with children's ideal self, which leads to an emerging moral identity (Krettenauer, 2013). Evidently, the concept of the moral self primarily refers to motivational processes and is conceptually related to moral identity, but does not have all aspects of a fully developed moral identity. The integration of morality and identity during adolescence and adulthood is based on an

increased sense of agency and responsibility for one's thoughts, emotions, and behaviours with greater concern for self-consistency (see Hardy & Carlo, 2011b). Children, on the other hand, have a lower sense of moral responsibility compared to adolescents and adults given children's limited perception of agency and responsibility (e.g., Nunner-Winkler, 2007). At the same time, Lapsley (2015) argued that "we should also not conclude too hastily that childhood is a theoretical void with nothing of interest to contribute to a developmental story for moral identity...A plausible developmental account of the moral personality would not begin in adolescence...but in early childhood" (p. 168). Therefore, although research on children's moral self has been discussed in the context of moral identity development (Hardy & Carlo, 2011b; Lapsley & Stey, 2014), the present study focused on moral identity development during the neglected age period of middle childhood to adolescence to better understand general age-related trends beginning prior to adolescence.

At the trait layer of moral identity from McAdams' (2009) model of personality, moral identity is reflected in the self-importance of moral traits or moral values. Traits are commonly understood to be relatively stable and equally apply to various areas of life, but individuals do make context-specific modifications in their overall self-descriptions based on their expected social role (i.e., child, student, friend) (Diehl & Hay, 2007). As such, the development of personality cannot be restricted to only mean-level changes, as one considers the general developmental trend of self-concept differentiation and integration across contexts over time (see Harter, 2012). This context-specific differentiation of self-representation can be seen as an important developmental achievement with the construction of multiple selves reflecting cognitive growth and

increased differentiation in social role expectations, especially during early to mid-adolescence where there is an increased differentiation in self-descriptions across various social contexts of family, friends, and school (Harter, 2012; Harter, Bresnick, Bouchee, & Whitesell, 1997; Harter & Monsour, 1992). Furthermore, in a sample of participants aged 14 to 65 years, the mean-level of moral identity (averaged across contexts of family, school/work, and community) significantly increased in the adult years, while cross-context differentiation revealed a nonlinear trend peaking at age 25 years (Krettenauer et al., 2016). Thus, with age, one's self-descriptions seem to depend less on their self-view in the context of their friends, family, romantic partner, or co-worker. However, this self-concept integration and differentiation in moral values has not been empirically addressed during the transition period of middle childhood and adolescence.

Given that morality pertains to all areas of life (e.g., family, friends, school) but has somewhat different demand characteristics in each area (Krettenauer et al., 2016), the self-integration of moral values may be context-dependent. In fact, moral identity has been conceptualized as a “context-dependent self structure that becomes differentiated and (re)integrated in the course of development and that involves a broad range of value orientations” (Krettenauer et al., 2016, p. 981). Consequently, when investigating moral identity at the trait layer, we need to consider cross-context differentiation as an important aspect of moral identity development in addition to traditional mean-level change. Bronfenbrenner's (1979) ecological systems theory suggests that individual's sense of identity is a result of their interactions with others in their lives at home, at school, at work, and in their community and society at large, over time. Thus, any empirical investigation examining morality must take into account contexts on multiple

levels in order to understand moral development. For the developmental age period between middle childhood and adolescence, the contexts of family, friends, and school are of utmost importance. Although most individuals are moral (i.e., have moral values), it is imperative to better understand how the self-importance of moral values differs with age as well as differs depending on social context.

The existing literature on moral development has been relatively consistent in demonstrating how the family, specifically the parents, influences children's moral development (for an overview, see Sengsavang & Krettenauer, in press). In terms of self-identity development, parenting has been predictive of moral self or moral identity amongst young children (Kochanska et al., 2007), in elementary-aged children (Sengsavang & Krettenauer, 2015), as well as in adolescents (e.g., Hardy, Bhattacharjee, Reed & Aquino, 2010; Hart, Atkins, & Ford, 1999; Patrick & Gibbs, 2012). For example, positive parent-child relationships characterized by high levels of parental support and low levels of negative interaction predicted higher scores in children's moral self (Sengsavang & Krettenauer, 2015). Nonetheless, an empirical measure of moral identity that also accounts for various social contexts (e.g., family, school, community) has only been recently applied to moral development research (for an overview, see Krettenauer et al., 2016). The present study aimed to replicate previous studies that link parenting to moral identity development using Krettenauer et al.'s (2016) moral identity interview to assess individual's moral identity in three different social contexts (family, friends, and school) during the transition period from middle childhood to adolescence.

In summary, following research on personality development and moral identity development across the lifespan, the present study expected two age-related trends in

moral identity development during the transition period of middle childhood and adolescence. As the first study to explore age-related patterns in mean-level of the self-importance of moral values (averaged across contexts of family, friends, and school) from middle childhood to adolescence, it was unclear what the trends would be given that Krettenauer et al. (2016) found increases with age from adolescence to middle age, but when investigating younger age groups, Krettenauer et al. (2013) found a slight decrease with age over the elementary school years. However, as the mean-level increased during the transition period from adolescence to adulthood in Krettenauer et al. (2016), we expected a similar pattern during the transition from middle childhood and adolescence. Secondly, cross-context differentiation of moral identity was also expected to demonstrate a linear increase during this age period given that Harter and colleagues (1992, 1997, 2012) found increased differentiation in adolescence. Finally, a replication of previous findings was expected wherein positive parent-child relationship quality (i.e., high levels of parental support, low levels of parent-child negative interaction) will be predictive of moral identity. The present study was the first to examine mean-level and cross-context differentiation of moral identity amongst individuals from the elementary school years through the adolescent years, while also exploring the role of parent-child relationship quality. Accordingly, we may be better able to delineate age-related trends in moral identity as well as add to the existing literature on parenting and moral identity development.



## Method

### *Participants*

The sample consisted of 190 participants (101 females) from three different age groups of approximately equal size: middle childhood (Grades 4-5;  $n = 65$ ;  $M = 10.11$  years,  $SD = 0.71$ ), early adolescence (Grades 7-8;  $n = 68$ ,  $M = 13.26$  years,  $SD = 0.53$ ), and mid-adolescence (Grades 10-11;  $n = 57$ ;  $M = 16.00$  years,  $SD = 0.67$ ). Age group was unrelated to gender,  $\chi^2(2, N = 190) = 3.66, p = .16$ . Table 1 provides a summary of all demographic variables by age group. Upon receiving ethics approval from Wilfrid Laurier University's Research Ethics Board, the Waterloo Region District School Board (WRDSB), and the Waterloo Catholic District School Board (WCDSB), principals from local elementary schools, middle schools, and high schools were contacted in order to distribute information letters and consent forms to eligible teachers who were interested in participating. All participants provided informed consent before participating. Participants received a \$7 (Grades 4-5 and Grades 7-8) or \$20 (Grades 10-11) honorarium for their time and were entered into a raffle to win one of three iTunes gift cards valued at \$25. All participating schools also received a classroom donation of \$5 (Grades 4-5 and Grades 7-8) or \$10 (Grades 10-11) for each participating student. All participants were treated in accordance to the American Psychological Association's 'Ethical Principles of Psychologists and Code of Conduct' (American Psychological Association, 2008).

At the time of data collection, all participants were residing in South-Western Ontario. Most participants (65.78%) self-identified as Canadian of European descent. Of participants, 25.13% had an Asian (South, East, South-East) background (e.g., Pakistani,

Indian, Filipino, Taiwanese, Korean), 5.35% had an African background (e.g., Zimbabwe, Nigeria, Somalia, Sudan), and 3.74% self-identified as Arabian or Arabic. In the present sample, ethnic background (European Canadian: 1 = yes, 0 = no) was not related to age group  $\chi^2(2, N = 187) = 3.90, p = .14$ , or gender,  $\chi^2(1, N = 187) = 0.74, p = .39$  (see Table 1).

For assessing socioeconomic status (SES), the validated International Socio-Economic Index of Occupational Status (ISEI) was used (Ganzeboom, De Graaf, & Treiman, 1992). Participants were asked to provide descriptions of their adult caregivers', typically mother's and father's, current occupations (most recent occupation, if unemployed). Job descriptions were coded according to the International Standard Classification of Occupations (ISCO-88) and transferred into the ISEI. Parents' ISEI scores were averaged and could theoretically range from 10 to 90 with a midpoint of the scale at 50. In the present sample, participants' ISEI score was just slightly above average (see Table 1). The three age groups did differ with regard to SES,  $F(2, 185) = 6.76, p = .001$  and post-hoc tests (Scheffé's;  $p < .05$ ) revealed that SES for the youngest age group (middle childhood) were significantly lower than the two older age groups (early adolescence and mid-adolescence).

### ***Measures and Procedures***

This study included a mixed-method cross-sectional design with 45-minute semi-structured interviews and a 15-minute self-report questionnaire. This study was part of a larger mixed-method cross-sectional and multi-informant study; thus, only procedures and measures relevant to the present study are discussed.

The interview was based on Krettenauer et al.'s (2016) moral identity interview procedure conducted to assess individual's moral identity in three different social contexts (family, friends, and school). The questionnaire was used to assess social desirability response bias, socioeconomic status, and parent-child relationship quality. Interviews were audiotaped, transcribed verbatim, and de-identified to maintain confidentiality and privacy of all participants. In the interview, both open-ended and standardized response formats were used, but only standardized responses were analyzed in the present study.

Children and adolescents were interviewed individually in a private room at the child's school or a university's laboratory. The interview began with the interviewer briefly explaining why he/she is there to talk to the child, as well as the purpose of the laptop computer (to record participant's responses), digital recording device (to record the interview), and the picture boards (to make it easier to talk about personal attributes). Moreover, the interviewer ensured that the child was comfortable with saying "I don't know" if he/she was unsure of their response rather than guessing. Finally, the interviewer reassured the participant about the importance of his/her honesty and that their responses were strictly confidential. After the participant provided oral assent, the interviewer began the interview then afterwards gave them the questionnaire.

**Moral identity interview.** The *Moral Identity Interview* procedure for assessing moral identity from Krettenauer et al. (2016) was slightly modified for the middle childhood and adolescence age group of the present study. The original modification in Krettenauer et al. (2016) was based on the widely validated Good Self-Assessment (Arnold, 1993), which has been extensively used with adolescents and adults, to address

80 value-attributes derived from previous studies that investigated individual's prototypical conceptions of a moral person, as well as the addition of context-specific assessment of moral identity (for full procedure, see Krettenauer et al., 2016). In the present study, this interview procedure was further modified for the younger age group spanning from middle childhood to adolescence, including ensuring that the language was developmentally appropriate and that that tasks were suitable to the younger sample. Specifically, 13 value-attributes from five value domains were chosen based on how often the various 80 value-attributes were selected as most important in the adolescent group (14-18 years) in Krettenauer et al. (2016).<sup>2</sup> According to the frequency analysis, the top value-attributes selected by the adolescent group from Krettenauer et al.'s (2016) study were: honest, trustworthy, genuine, responsible, forgiving, caring, selfless, accepting, respectful, non-judgmental, fair, compassionate, and knows what is right/wrong. The percentage of these attributes chosen by the adolescent group in Krettenauer et al.'s (2016) study as most important was 31.30% to 59.70%.

To assess the self-importance of moral values, participants were given a set of magnetic labels with the value-attributes and a diagram that displayed four nested circles representing the varying degrees of self-importance. Participants were asked to create a pictorial self-portrait similar to the method developed by Harter and Monsour (1992) for adolescents when assessing the context-specificities in their self-concept. There were three diagrams with different headings, each representing the different social contexts:

---

<sup>2</sup> Krettenauer et al.'s (2016) study did not include participants in middle childhood, but the value-attributes selected most by their youngest age group of adolescents resonated with the present study's younger sample given that prior to beginning the *Moral Identity Interview*, the interviewer would ask the open-ended question of "From your point of view, what describes a highly moral person?" and many of the 13-value-attributes were spontaneously described across all three age groups, including the youngest age group of middle childhood.

family (“How important is it for you to be \_\_\_ in the context of your family?”), friends (“How important is it for you to be \_\_\_ in the context of your friends?”), and school (“How important is it for you to be \_\_\_ in the context of your school?”). Each diagram was presented consecutively, where participants were instructed to place each label in the circle that represents its level of importance to the self from 1 = *not important to me* to 5 = *extremely important to me* (for an illustration, see Figure 1). The order of the diagrams was based on computer randomization for each participant in order to control for order effects of social context. Therefore, various statistical indices were calculated based on this procedure to reflect: (1) the self-importance of moral values (mean-level across social contexts) and (2) cross-context differentiation of moral identity.

**Mean-level of moral identity.** To assess mean-level of participants’ moral identity, the self-importance ratings of the value-attributes (1 = *not important to me* to 5 = *extremely important to me*) were averaged across all social contexts and then combined into a single scale with higher scores indicating higher levels of moral identity. Internal consistency for this scale was  $\alpha = .87$  with a sample mean of 3.82 and a standard deviation of 0.38.

**Cross-context differentiation of moral identity.** In order to assess cross-context differentiation of moral identity, we calculated the standard deviation for each value-attribute across social contexts. The internal consistency of this sum score was  $\alpha = .67$ . Similar to Krettenauer et al. (2016), standardized residuals were computed by regressing cross-context differentiation on mean-level of moral identity using standard linear regression techniques (for a discussion, see also Baird, Le, & Lucas, 2006). Thus, this score reflected cross-context differentiation that is independent of mean-level, with

higher scores indicated greater levels of cross-context differentiation of the self-importance of moral values.

**Social desirability.** In order to measure social desirability response bias, participants were asked to complete the validated *Children's Social Desirability Short (CSD-S)* scale consisting of 14 items from the Children's Social Desirability scale originally developed by Crandall, Crandall, and Katkovsky (1965) (see Appendix A). Baxter et al. (2004) chose 14 items from the original CSD for the CSD-S. Recently, Miller et al. (2014) further demonstrated the CSD-S scale's adequate test-retest reliability and internal consistency for subgroups of children formed by academic achievement, gender, socioeconomic status, and BMI percentile. Participants were presented with 14 questions and responded to each item using a dichotomous YES versus NO response format. For example, "Have you ever felt like saying unkind things to a person?" and "Do you always listen to your parents?". Participants received one-point for each answer keyed as socially desirable. The CSD-S scale scores ranged from 0 to 14, with higher scores indicating a greater tendency to respond in a socially desirable way. For the present study, internal consistency for this scale was  $\alpha = .78$  with a sample mean of 3.74 and a standard deviation of 3.01.

**Parent-child relationship quality.** Participants completed the widely used *Network of Relationships Inventory-Social Provisions Version (NRI-SPV; Furman & Buhrmester, 1985)* to assess a broad range of relationship qualities. The 13-item 'short form' of the NRI was used in the present study to reduce the 'questionnaire load' for children (see Appendix B). The short-form includes two factors, seven items representing 'support' (e.g., "How much does this person help you figure out or fix things?" and "How

much does this person treat you like you're admired and respected") and six items representing 'negative interaction' (e.g., "How much do you and this person disagree or quarrel with each other?" and "How much do you and this person hassle or nag one another?"). The reliability and validity of this measure has been empirically supported in previous research (Furman & Buhrmester, 1985) and the two factors have shown strong reliability (e.g., Oberlander & Black, 2011) with Cronbach's alpha of both factors being  $\alpha = .89$ .

Participants answered questions for relationships with their adult caregivers, typically a mother figure (e.g., biological/adopted mother, step-mother/father's significant other, or other including another father) and a father figure (e.g., biological/adopted father, step-father/mother's significant other, or other including another mother). It is important to note the complex family make-up in today's modern society and this was communicated to participants prior to them completing the measure. Participants used the same set of items to answer questions about both adult caregivers. They were asked to rate the extent each individual satisfies each item based on a four-point scale ranging from (1) little or none to (4) extremely much. An average score was computed for both subscales (e.g., maternal and paternal support, maternal and paternal negative interaction).

In the present sample, internal consistency scores were high with the following Cronbach's alphas: maternal support  $\alpha = .80$ , maternal negative interaction  $\alpha = .90$ , paternal support  $\alpha = .83$ , and paternal negative interaction  $\alpha = .90$ . Correlational analyses indicated a significant positive association between maternal and paternal support ( $r(166) = .34, p < .001$ ) as well as between maternal and paternal negative interaction ( $r(166) =$

.34,  $p < .001$ ). Accordingly, these pairs of variables were aggregated to create summary variables representing parental support (i.e., participants' perceived support from both caregivers) and parent-child negative interaction (i.e., participant's perceived negative interaction with both caregivers). Internal consistencies were high for both parental support and parent-child negative interaction,  $\alpha = .83$  and  $\alpha = .86$  respectively. Like Sengsavang and Krettenauer (2015), the sample mean was higher for parental support ( $M = 2.98$ ,  $SD = .51$ ) than for parent-child negative interaction ( $M = 1.83$ ,  $SD = .53$ ).

## Results

Preliminary analyses were conducted to identify if gender, social desirability, ethnicity and/or SES would be included as control variables in the main analyses.<sup>3</sup> A multiple regression with mean-level of moral identity as the dependent variable and gender, social desirability response bias, ethnicity and SES as predictors, yielded a significant overall effect,  $F(4, 163) = 5.36$ ,  $p < .001$ . Social desirability response bias was a significant predictor of individual's mean-level of moral identity,  $\beta = .33$ ,  $p < .001$ . However, gender, ethnicity, and SES were not significantly related to mean-level of moral identity,  $\beta_{\text{gender}} = -.03$ ,  $p = .66$ ,  $\beta_{\text{ethnicity}} = .05$ ,  $p = .53$ , and  $\beta_{\text{SES}} = .04$ ,  $p = .62$ , respectively. Another multiple regression with cross-context differentiation of moral identity on gender, social desirability, ethnicity and SES yielded a significant overall effect,  $F(4, 163) = 3.94$ ,  $p = .004$ . Social desirability response bias and ethnicity were significant predictors of individual's cross-context differentiation,  $\beta = -.25$ ,  $p = .002$  and  $\beta = -.17$ ,  $p = .024$ , respectively. However, gender and SES were not significantly related

---

<sup>3</sup> All analyses for this dissertation project were based on two-tailed hypothesis testing using an alpha level of .05 for all statistical tests.



to cross-context differentiation,  $\beta = -.04, p = .61$  and  $\beta = -.05, p = .50$ , respectively. As a result of these preliminary analyses, only social desirability response bias was used as a control variable in the main analyses with mean-level of moral identity. For main analyses with cross-context differentiation, both social desirability response bias and ethnicity were used as control variables. Assumptions of normality, linearity, and homoscedasticity were met.

### ***Mean-Level of Moral Identity and Age***

The bivariate correlation between mean-level of moral identity (averaged across contexts) and age revealed a significant negative relationship,  $r(187) = -.22, p = .002$ . Next, a multiple regression was performed to examine the effect of age group on mean-level of moral identity. Age group was entered as two dummy variables (age1 = early adolescents in Grades 7-8, age2 = mid-adolescents in Grades 10-11) with the reference group as the youngest age group (middle childhood in Grades 4-5) in Step 1 followed by social desirability entered in Step 2 (see Table 2). Overall, model 1 was significant,  $F(2, 169) = 6.29, p = .002$ , with age2 as the only significant effect and age1 was marginally significant, suggesting that participants in early adolescence ( $M = 3.82, SD = .41$ ) and mid-adolescence ( $M = 3.70, SD = .34$ ) have lower scores in mean-level of moral identity than participants in middle childhood ( $M = 3.93, SD = .36$ ). There was a significant  $\Delta R^2 = .078, p < .001$  when social desirability was added to the model,  $F(3, 168) = 9.67, p < .001$ , with social desirability and age2 as significant effects. The effect of age2 dropped from  $-.30$  to  $-.21$ , but still remained significant above and beyond the effect of social desirability. Age1 was no longer significant once social desirability was entered into the model. Mean-level of moral identity appeared to decrease with age, such that participants

in middle childhood had significantly higher mean-levels of moral identity than mid-adolescents, even after controlling for social desirability.

### ***Cross-Context Differentiation of Moral Identity and Age***

The bivariate correlation between cross-context differentiation of moral identity (standardized residual score, controlling for mean-level) and age revealed a significant positive relationship,  $r(187) = .21, p = .004$ . Similar to the mean-level analysis, a multiple regression was performed to examine the effect of age group on cross-context differentiation of moral identity. The two age group dummy variables were entered in Step 1 followed by social desirability and ethnicity in Step 2 (see Table 2). Overall, model 1 was significant,  $F(2, 167) = 4.18, p = .017$ , with age2 as the only significant effect and age1 was marginally significant, suggesting that participants in middle childhood ( $M = -.05, SD = .15$ ) had less cross-context differentiation than participants in early adolescence ( $M = .01, SD = .14$ ) and mid-adolescence ( $M = .04, SD = .17$ ). When social desirability and ethnicity were added to the model, there was a significant  $\Delta R^2 = .057, p = .006, F(4, 165) = 4.85, p = .001$ , with social desirability, ethnicity, and age2 as significant effects. The effect of age2 dropped from .25 to .18, but still remained significant above and beyond the effect of social desirability and ethnicity. Age1 was no longer significant once social desirability and ethnicity were entered into the model. The findings indicated that cross-context differentiation in moral identity appears to increase with age especially between middle childhood and mid-adolescence, even after controlling for social desirability and ethnicity.

*Effects of Parent-Child Relationship Quality on Mean-Level of Moral Identity*

The bivariate correlations between parent-child relationship quality and mean-level of moral identity revealed a significant positive relationship between parental support and moral identity,  $r(169) = .21, p = .005$ , as well as a significant negative relationship between parent-child negative interaction and moral identity,  $r(169) = -.20, p = .01$ . A multiple regression was performed to examine the effect of parent-child relationship quality on mean-level of moral identity. Both parental support and parent-child negative interaction were entered in Step 1 followed by social desirability and age in years entered in Step 2. Overall, model 1 was significant,  $F(2, 168) = 5.48, p = .005$ , with parental support ( $\beta = .16, p = .04$ ) significantly and parent-child negative interaction ( $\beta = -.13, p = .09$ ) marginally predicting moral identity. Once social desirability and age in years were added to the model as control variables, there was a significant  $\Delta R^2 = .105, p < .001, F(4, 166) = 8.28, p < .001$ , with parental support ( $\beta = .17, p = .03$ ) and social desirability ( $\beta = .28, p < .001$ ) as significant effects. Evidently, parental support positively and significantly predicted mean-level of moral identity above and beyond social desirability, age, and parent-child negative interaction.

**Discussion**

The present study was the first of its kind to examine mean-level and cross-context differentiation of moral identity with a younger sample during the transition from middle childhood (Grades 4-5) to adolescence (Grades 7-8 and Grades 10-11), which is significant given that development does not begin at adolescence but is a lifelong process. Thus, the present study was able to shed some insight onto how moral identity develops prior to adolescence. More specifically, this study extended previous work by (1)

investigating earlier developmental periods given that moral identity development is not limited to the “critical developmental period” of adolescence and emerging adulthood, (2) examining moral identity defined as the context-dependent self-integration of moral values, and (3) exploring the role of parenting in this context-dependent examination of moral identity. In summary, results indicated that mean-level of moral identity (averaged across the three contexts) decreased with age, such that children had significantly higher levels of moral identity than adolescents, even after controlling for social desirability. Cross-context differentiation of moral identity, on the other hand, significantly increased with age, especially between middle childhood and mid-adolescence. Finally, in line with previous research, parental support positively predicted mean-level of moral identity, above and beyond social desirability, age, and parent-child negative interaction. In the following, these findings and their implications are discussed in detail.

In contrast to our hypothesis, mean-level of moral identity decreased from middle childhood to adolescence. Although Krettenauer et al. (2016) found a linear increase in mean-level of moral identity with age and sampled four different age groups, their youngest group consisted of adolescents aged 14-18 years, whereas the present study’s three age groups consisted of children as young as 8 years up to adolescents 17 years of age. Thus, it is difficult to compare our findings with younger age groups to Krettenauer et al.’s (2016) older sample. In an earlier investigation with a younger sample (aged 5- to 12-years-old), Krettenauer et al. (2013) also found a decrease in children’s moral self-concept with age. Therefore, the decline in mean-level of moral identity in the present study may be attributable to the developmental period of the sample itself, specifically the positivity bias that is likely inherent in our younger sample. To date, there is limited

empirical research in moral identity development from childhood to adolescence, but we can draw on research on the development of self-representations and self-concepts to elucidate the present study's findings on moral identity.

It has been well documented that children's self-view is overly positive compared to adolescents and adults (see Harter, 1999, 2012) and self-serving biases are present in children and adults, but especially strong in children ages 8- to 11-years-old (for a review, see Trzesniewski, Kinal, & Donnellan, 2011). Overall, Trzesniewski et al. (2011) suggests that the developmental trends in positivity bias are likely due to cognitive maturation, life experiences, as well as changes in social contexts. In fact, a recent longitudinal study found decreases in mean-level global and domain-specific self-concepts from late childhood to early adolescence and concluded that both biological (puberty) and contextual factors (school transition) play an important role in differences in individuals' self-views during this sensitive transition period from late childhood to early adolescence (Schaffhuser, Allemand, & Schwarz, 2017). Although Schaffhuser et al. (2017) did not specifically examine the moral domain, given Schaffhuser et al.'s (2017) decrease in the mean-levels from late childhood to early adolescence, as well as Krettenauer et al.'s (2016) increase in mean-levels from adolescence to old age, it is apparent that the developmental trajectory of one's self-identity may not be as linear as previous research may suggest.

It is plausible that an individual's self-view, including how they see and describe themselves as a moral person, may temporarily change as they transition into adolescence and become exposed to different experiences (e.g., puberty, school transitions, new friends) and thus other factors (e.g., social) or characteristics (e.g., non-moral values such

as being popular or cool) may take priority over moral values. Evidently, biological, psychological, and social factors need to be explored as to how they influence the moral domain given the important implications. In particular, if the decline in mean-level of moral identity is attributable to biological or psychological factors, educators and parents need to know that this is a vital developmental period to promote moral identity development. For instance, as individuals experience puberty and transition into high school, they might be more concerned with the need to belong and “fit in” with their peers rather than upholding their moral values. It is also important to note that our findings are statistically significant with the effect sizes being small to moderate ( $r_{\text{age and mean-level}} = -.22$  and  $r_{\text{age and cross-context differentiation}} = .21$ ), indicating that age indeed has an impact on moral identity, but that other factors need to be considered simultaneously. Therefore, in terms of practical significance of our findings, it appears that other factors may contribute to the decrease in mean-level of moral identity and increase in cross-context differentiation during this age period – more specifically, perhaps puberty and the transition to high school. During this sensitive developmental period, adolescents may especially need greater support and education regarding moral values both at home and at school with educators and teachers considering the role of peer pressure and puberty during these important discussions. Given the various designs and samples with differing age ranges in the existing literature, future research needs to consider biological and social factors, as well as incorporate a wider age range of participants that begin in middle childhood and expands into adulthood to better understand the probable non-linear trends in mean-levels of moral identity development.

We reasoned earlier, any investigation of moral identity at the trait layer needs to consider cross-context differentiation as well as mean-level given that the self-integration of moral values may be context-dependent. In line with Bronfenbrenner's (1979) ecological systems theory, as well as the differentiation and integration principles of self-development across contexts and time (Harter, 2012), when assessing moral identity separately for the social contexts of family, friends, and school, it was found that cross-context differentiation of moral identity increased between middle childhood and adolescence. As such, throughout this developmental period, individual's sense of moral identity seemed to be reflective of the interactions and relationships in their lives at home, with friends, and at school. This finding provides further validation (in addition to Krettenauer et al., 2016) of the moral identity measure for this younger sample and reinforces Harter's (2012) argument of context-specific differentiation of self-representations, especially during early to mid-adolescence.

During this developmental period, individuals are reaching the important developmental milestone of cognitive growth and greater differentiation as a function of social contexts and socialization pressures (Daniel et al., 2012; Harter, 2012; Harter et al., 1997; Harter & Monsour, 1992; Krettenauer et al., 2016). As individuals are experiencing these developmental changes from middle childhood to adolescence, their values and thus the way they may perceive or describe themselves become increasingly differentiated across contexts. From a developmental perspective, this makes sense given that in adolescence, individuals are experiencing new things, new environments and new peer groups and thus their sense of self and who they are is more differentiated and less integrated during this time period. Once in adulthood, individuals are more likely to

integrate value priorities and cohesively perceive themselves as more similar across contexts or different areas of life, as suggested by Krettenauer et al. (2016). This finding has important implications for educators and parents as they discuss morality and moral values with their children and students given that it is context-dependent. Educators and parents need to be aware that discussions about morality cannot be overly generalized and should be discussed with respect to specific contexts. This finding also largely corresponds with the empirical findings reported by Daniel et al. (2012) and Krettenauer et al. (2016). In the first empirical study of adolescents' value differentiation, Daniel et al. (2012) found that mid-adolescents demonstrated greater value differentiation than early adolescents. When examining only moral values, Krettenauer et al. (2016) found a nonlinear effect of age on cross-context differentiation of moral identity such that there was an increase from adolescence to emerging adulthood and then declined in the older adult years. It remains an open question as to whether this nonlinear effect is simply reflective of generational or cohort differences within Krettenauer et al.'s (2016) large age-range. Nonetheless, cross-context differentiation of values appears from middle childhood to adolescence, but longitudinal studies should be carried out in order to better understand when and how moral values are differentiated and integrated throughout the lifespan from childhood to adulthood.

An important finding of the present study is that despite the differences in age as well as in assessments of moral identity across studies (e.g., Hardy et al., 2010; Kochanska et al., 2007; Patrick & Gibbs, 2012; Sengsavang & Krettenauer, 2015), parental support was found to be a positive predictor of moral identity from middle childhood to adolescence. Participants who reported higher levels of parental support had



higher scores in mean-level of moral identity compared to participants with lower levels of parental support. This significant effect had a small to moderate effect size ( $r = .21$ ), which suggests that although parental support had an important impact on mean-level of moral identity, other relationship quality indicators should be considered including friendship quality during this developmental period. Nonetheless, even with the inclusion of relevant social contexts of family, friends, and school in present study, positive parenting continues to play an important role in the formation of moral identity regardless of the social context. Parents nurture their children from a young age in their homes and hope that the values and lessons taught to their children transfer into other contexts as well. For example, parents might model that being helpful and caring is important in the home, which children may internalize and carry forward with their friends and peers at school.

Several limitations of the present study should be addressed in future research. A major limitation of the study was its cross-sectional design and limited age range. Longitudinal models following children into adulthood would be better to disentangle the complex (e.g., nonlinear effects) findings of moral identity development over time and better explain individual and age-related changes with multiple time assessments. Moreover, given the biological, social, and psychological changes inherent within this understudied developmental period from middle childhood to adolescence (e.g., Schaffhuser et al., 2017), it is vital that future research designs consider how these changes contribute to moral identity development. Given that participants were predominately from the public school board, we were unable to adequately stratify the sample to compare differences between the public versus catholic school system; as such

future research should consider sampling adequately from both types of school boards to determine the effect of the school curriculum on moral identity development. Given the differences in the two school boards (e.g., Kelly, 2010), it is possible that the difference in school environments may influence students' development and behaviour. As well, the parenting variables were based on children's self-reports (rather than parent-reports) and thus we need to be cautious of any causal conclusions. It is possible that there are discrepancies between how parents view their relationship with their children and how children view the same relationship, especially if there was any conflict between the parent and child when the child was completing the measure which may have affected the accuracy of the reporting. Finally, the sample of the present study was limited to a Canadian sample of children and adolescents predominately of European descent and although morality has universal components, there are also key cultural differences in morality (Jia & Krettenauer, 2017). Thus it is an open question as to whether the findings can be generalized to other cultures for this developmental period of middle childhood to adolescence. Overall, the present study adds to the existing literature and demonstrated that moral identity development is a lifelong process that begins prior to adolescence and that social contexts play an important role in its development.

## **CHAPTER II: The Development of Moral Identity Motivation and its Links to Moral Behaviour and Parent-Child Relationship Quality**

The complex system of moral identity with self-defining moral values that regulate behaviour cannot be fully explained by the self-importance of these values (layer one of McAdams' (2009) theory of personality: traits). From a social-cognitive and characteristic adaptations approach (layer two of personality), moral identity entails the

motivational and social-cognitive features of personality, which are more context-specific. Therefore, beyond the trait layer of personality, moral identity is also represented by different moral motivations and goal orientations expressed in various areas of life. Moral motivation can be understood as an expression of moral identity that is defined by each person (Doering, 2013). In moral psychology, moral motivation has been broadly defined as “an agent’s willingness to do what s/he judges to be right, even if that entails personal costs” (Nunner-Winkler, 2007, p. 402). As such, moral motivation’s cognitive component requires the person to understand the validity of moral rules, while also accepting it as personally binding (Blasi, 2004).

Moral motivation is multifaceted (see Krettenauer & Victor, 2017) as it entails both motives for actions and motivation for prioritizing moral concerns over personal or conventional concerns. Importantly, moral identity motivation is “an individual’s motivation to uphold moral intentions in the face of other, potentially conflicting, concerns...[and] is not limited to overt moral action but includes many aspects of decision-making and judgment formation” (Krettenauer & Victor, 2017, p. 1). Moral identity motivation or the reason why a moral value is important to an individual may substantially vary from person to person, as well as from one social context to another. For instance, being honest may be an important moral value to most individuals, but the strength of people’s moral motivation to adhere to this moral value in real life may differ. For one person, it is important for them to be honest at school/work because they want to avoid punishment (external), whereas at home with family being honest makes them feel good (internal). Therefore, when an individual recognizes and acknowledges that a specific moral value is personally valid and important to their sense of self and do not

want to betray the self, morality is internally motivated (cf. Blasi, 2005). Consequently, one feels satisfied for doing what they consider is right.

Developmental psychology has historically studied different forms of internal or autonomous motivation. According to various models of identity development, there is an overall developmental trend toward higher levels of self-integration or internal motivation given that one's commitment to life goals and ideals become increasingly self-selected and less externally imposed by others (e.g., Blasi & Glodis, 1995; Marcia, Waterman, Matteson, Archer, & Orlofsky, 1993). According to Self-Determination Theory (for an overview, see Ryan & Deci, 2012), rules, values, and cultural practices can be integrated into the self to varying degrees and can be viewed as a continuum based on the degree to which the motivation appears to be controlled or autonomous with extrinsic motivation on one end and intrinsic motivation on the other. External or extrinsic motivation are based on external standards set by others, whereas internal or intrinsic motivation derive freely from the individual and are inherently worthwhile. The continuum of extrinsic motivation has different levels of self-regulation from the least autonomous to the most autonomous as individuals integrate social or cultural expectations to varying degrees: external, introjected ("should do"), identified ("want to do"), and integrated (regulations are fully assimilated with self). When values have personal meaning and integrated within one's sense of self, the resulting behaviour will be self-regulated or self-chosen and thus internally initiated and autonomously driven. The development of internal motivation is contingent on environmental factors that support internal self-regulation (Grolnick, Deci, & Ryan, 1997). More specifically, children require environments with autonomy support, structure, and involvement in

order for their needs of competence and autonomy to be met and thus better promote internalization and integration. Internal motivation is flexible and context-dependent wherein it may decline over time with more extrinsic contingencies in a given social context (e.g., school), but may also increase in other contexts (e.g., family) (e.g., Renaud-Dubé, Taylor, Lokes, Koestner, & Guay, 2010). Thus, it is vital that research considers various contexts when measuring motivation.

Developmental trends in moral motivation have been traditionally studied in adolescence with internal moral motivation increasing with age (e.g., Arnold, 1993) and external moral motivation declining throughout adolescence (e.g., Krettenauer, 2011). This trend is consistent with research on adolescents' prosocial moral reasoning (e.g., Eisenberg, Zhou, & Koller, 2001; Gibbs, Basinger, Grime, & Snarey, 2007), as well as research on adolescents' moral disengagement (Paciello, Fida, Tramontano, Lupinetti, & Carprara, 2008). Although Krettenauer (2011) found decreases in external moral motivation, internal moral motivation was unrelated to age in his adolescent sample. On the other hand, more recently, Krettenauer and Victor (2017) found important context-differentiation in moral identity motivation in their cross-sectional study such that what motivates individuals to behave morally may be dependent on the social context. Specifically, they found that internal moral identity motivation was highest in the contexts of family and community (compared to the context of school/work) whereas external moral identity motivation was highest in the context of school/work (compared to the contexts of family and community). Moreover, their study revealed age-related increases in internal moral identity motivation between adolescence and young adulthood (plateauing at middle age), while external moral identity motivation decreased with age.

The discrepant findings from Krettenauer (2011) and Krettenauer and Victor (2017) might be due to measurement differences in assessing moral motivation (ratings of reasons why it is important to act morally on a 5-point scale versus openly asking participants for reasons why self-selected moral values are extremely important to them). Thus, increases in internal moral motivation may occur earlier in development than adolescence – a period that has been arguably the crucial age period for the development of moral identity.

Traditionally, morality in childhood, such as prioritizing a moral desire over an immoral desire, is often viewed as more driven by external factors rather than emanating from the self (Hardy & Carlo, 2011a). In particular, Kohlberg's stage model of moral development suggests that there is a decline in external moral motivation as adolescents progress beyond the preconventional stages (Stages 1 and 2) and move onto the conventional stages (Stages 3 and 4) where one's own conscience becomes more salient (see Gibbs et al., 2007).<sup>4</sup> At the same time, according to three contemporary, prominent lines of research (i.e., social domain theory, infants' helping behaviour, and development of children's empathy) (for an overview, see Sengsavang, Willemsen, & Krettenauer, 2015), children spontaneously engage in prosocial moral actions because they genuinely care about the wellbeing of others and they believe it is the right thing to do regardless of instrumental rewards. These contemporary lines of research are in contrast to what Piaget (1932/1999) and Kohlberg (1976) would have stressed.

---

<sup>4</sup> Kohlberg's (1976) preconventional stages are based on obedience and punishment, as well as instrumentalism or "what's in it for me?", whereas his conventional stages focus on good interpersonal relationships or "good boy/nice girl" and maintaining social conventions.

Moral motivation in childhood has been mostly inferred from rule justifications or decision-making in hypothetical dilemma situations, but when examining explicit moral motives of everyday moral actions, Sengsavang et al. (2015) found that overall internal moral motivation (i.e., fairness-related, personal-moral preferences) increased, which indicates higher levels of organismic integration as described by Self-Determination Theory (for an overview, see Deci & Ryan, 2012). On the other hand, external motives (i.e., self-interested, standards and rules) decreased among children aged 4- to 12-years, but continued to be salient among 10- to 12-year-olds in the antisocial context (i.e., harming others). The findings from Sengsavang et al. (2015) and Krettenauer and Victor (2017) seem to support Self-Determination Theory that proposes developmental processes move towards internal modes of self-regulation (e.g., Grolnick et al., 1997), but are also flexible and context-dependent (see Ryan & Deci, 2008). Evidently, it is important that future research expands the age range to include both children and adolescents to better understand how context plays a role in the development of moral motivation.

Research in moral development has consistently demonstrated the important role the family has on children's moral development (for an overview, see Sengsavang & Krettenauer, in press). The family environment, specifically parental behaviours or parent-child relationships, can profoundly influence the importance of morality to the self (Hardy et al., 2010). According to Bronfenbrenner's (1979) ecological systems theory, one's sense of identity is a result of their interactions with people in their lives, especially their family and friends. Importantly, Bronfenbrenner stressed that interactions within the most personal ecosystem, the microsystem, are typically bidirectional such that personal

relationships one has with family members, friends, peers, and teachers influence one's development but at the same time, how one reacts to or interacts with these individuals also influences how individuals treat the person in return. Arguably, the family environment influences their child's morality through the broader quality of the parent-child relationship consisting of behavioural compliance within the network of good, positive relations that they share (Sengsavang & Krettenauer, in press; Thompson et al., 2006). Therefore, warm, nurturing and supportive interactions between the parent and child likely fosters a healthier development. For example, supportive and warm parenting – which is theoretically related to secure attachment – has been positively linked to the development of moral reasoning (e.g., Malti, Eisenberg, Kim, & Buchmann, 2013; Pratt, Skoe, & Arnold, 2004), moral motivation (Malti & Buchmann, 2010; Sengsavang et al., 2015), and prosocial behaviours (e.g., Carlo, Mestre, Samper, Tur, & Armenta, 2011). More specifically, children reporting warm and supportive parent-child relationships as well as fewer negative interactions with their parents were more likely to elucidate their motives for moral action and were more other-oriented in their motivations compared to children with more negative parent-child relationships (Sengsavang et al., 2015).

The present study was designed to address the gaps in the moral motivation literature as a way to better understand the development of moral identity at the second layer of McAdams' (2009) personality theory. In particular, we wanted to elucidate these findings pertaining to moral identity motivation by exploring age-related differences in moral identity motivation while considering context-specificity most relevant to this age period (i.e., family, friends, and school), as well as how moral identity motivation relates to parent-child relationship quality and teacher-reported moral behaviour. Moral



motivation and moral behaviour are intimately connected from a theoretical perspective, but only a few studies have empirically examined this relation (Malti, Gummerum, & Buchmann, 2007; Malti, Gummerum, Keller, & Buchmann, 2009). Following the existing research, it was reasonable to expect that moral identity motivation would be context-specific such that higher levels of internal moral identity motivation was expected in contexts of family and friends given that morality is more central to individuals in these contexts, while external motivation was expected to be highest in the context of school. As well, similar to previous research, age-related increases in internal moral identity motivation and decreases in external moral identity motivation were expected during this period from middle childhood to adolescence. Finally, higher levels of internal moral identity motivation were expected to be related to more positive parent-child relationship quality and higher levels of teacher-reported moral behaviour across middle childhood to adolescence.

## **Method**

### ***Sample and Procedure***

The sample was the same as Chapter I with 190 participants (101 females) approximately evenly distributed across three different age groups. For more details on the sample description, recruitment and overall procedure, see Chapter I and Table 1 for summary of all demographic variables by age group. This study included a mixed-method cross-sectional design with 45-minute semi-structured interviews and a 15-minute self-report questionnaire. The interview was conducted to assess participants' moral identity in three different contexts (family, friends, and school) and the questionnaire was used to assess parent-child relationship quality and social desirability

response bias. Teachers also completed a short questionnaire on their student's social behaviour. All interviews were audio-recorded and transcribed verbatim. This study was part of a larger mixed-method cross-sectional and multi-informant study; thus, only procedures and measures relevant to the present study are discussed. Two interviews were unscorable due to equipment failure, resulting in this Chapter's sample to be  $N = 188$ . These two participants were males from the early adolescent age group and identified themselves as Canadian of European descent. With the exclusion of these two participants, the sample demographics remained the same given that: age group was still unrelated to gender ( $\chi^2(2, N = 188) = 2.98, p = .23$ ) and ethnic background ( $\chi^2(2, N = 185) = 4.43, p = .11$ ), while gender was still unrelated to ethnic background ( $\chi^2(1, N = 185) = 0.56, p = .46$ ), and finally age group continued to differ with regard to SES ( $F(2, 183) = 6.42, p = .002$ ). Post-hoc tests (Scheffé's;  $p < .05$ ) revealed that the youngest age group (middle childhood) still have significantly lower SES than the two older age groups (early adolescence and mid-adolescence). Therefore, there were no differences in the sample when excluding the two interviews that were unscorable. See Table 3 for an updated summary of all demographic variables by age group.

### ***Moral Identity Interview***

The *Moral Identity Interview* followed the same procedure developed by Krettenauer et al. (2016) and Krettenauer and Victor (2017) based on the widely validated Good Self-Assessment (Arnold, 1993) to measure moral identity and moral identity motivation. The procedure was slightly modified for the present study's younger sample of children and adolescents (for details, see Chapter I). The interview first began with the ratings of the self-importance of moral values, for more details on this portion of

the interview, see Chapter I. After participants completed rating the self-importance of moral values for each diagram representing a social context, similar to previous research with participants in middle childhood (Sengsavang et al., 2015), participants were further asked to explain their reasoning. In particular, participants were asked to elaborate on the moral values or qualities they placed in the inner most circle of the diagram indicating that it was “extremely important to me”. For example, “you put being honest, caring, and respectful at the center of the diagram and these qualities are extremely important to you. How come these qualities are extremely important to you in the context of your family?”.

**Moral identity motivation.** Coding categories were deductively informed from past research examining moral motivation (Krettenauer & Victor, 2017; Sengsavang et al., 2015). Coding categories were defined to capture common themes of moral identity motivation on a continuum from external to internal motivation as described by Self-Determination Theory (Ryan & Deci, 2000). The following nine coding categories derived from Krettenauer and Victor (2017) (adolescents and adults) as well as Sengsavang et al. (2015) (middle childhood) were used as a framework for the present study: (1) standards and rules, (2) self-interest, (3) reputation, (4) consequences-relationships, (5) consequences-others, (6) fairness-related, (7) relationship ideals, (8) role model, and (9) self ideals. These coding categories were chosen for the framework to best reflect individuals’ motivation to maintain their moral identity as well as were most suitable for the age range of the sample given that no single study has examined explicit moral motivation with children and adolescents. Thus, we examined coding categories from Sengsavang et al.’s (2015) study with participants in middle childhood and Krettenauer and Victor’s (2017) study with participants in adolescence and adulthood to

account for motivations across middle childhood and adolescence. Similar to the aforementioned studies, if a participant articulated more than one motive, all motives were coded separately. Thus, multiple responses were possible for each context. For a detailed description of these categories as well as interview examples, see Table 4.

A subset of 47 transcripts (25% of total sample) was randomly selected across the age groups and periods of the data collection to determine agreement between two independent coders. For the family context, inter-coder agreement was  $\kappa = .72$ ; for the context of friends, it was  $\kappa = .74$ ; and for the context of school, it was  $\kappa = .73$ . Discrepancies between coders were discussed until consensus was reached. Establishing inter-coder agreement took approximately one month (August 28, 2017 to October 2, 2017) and then one coder completed coding the remaining transcripts ( $n = 141$ ) within 15 days following establishing inter-coder reliability. For the nine coding categories combined across all contexts, the relative frequencies ranged from 2.96% to 20.89% (see Table 4).

Following Krettenauer and Victor (2017), these coding categories were grouped into three category groups to represent moral identity motivation: external, internal, and relationship-oriented (see Table 4). *Standards and rules*, *self-interest*, and *reputation* were combined to represent external moral identity motivation given their focus on standards and consequences of moral actions that are external to the self. In contrast, *consequences-others*, *fairness-related*, *relationship ideals*, *role model*, and *self ideals* represented internal moral identity motivation as they express connection to moral values. *Consequences-relationship* can be interpreted as either internal or external motivation and cannot be differentiated between these two types of motivation given that it focuses

on a concern for consequences of moral actions on their relationships. As such, this coding category was kept as a separate category group labelled relationship-oriented moral identity motivation. The three category groups of moral identity motivation were used in the main analyses and scores for each category group were calculated by totalling the coding categories (e.g., standards and rules, self-interest, and reputation) pertaining to each category group (e.g., external). These calculations were computed separately for the three social contexts (family, friends, and school). It is important to note that given that multiple responses were possible in each context, as well as both internal and external moral identity motivation category groups encompassed multiple coding categories (e.g., family: self-interest (external), role model (internal), relationship ideal (internal); friends: reputation (external), standards and rules (external), consequences-others (internal)), the sum score was open-ended and had no defined maximum.

Table 5 displays the descriptive statistics for the category groups and the scores indicate the number of times a particular type of moral identity motivation (external, internal, or relationship-oriented) was present in a given social context by participants. The numerical value of 0 indicates that in a given context, there was no response in any of the coding categories of that specific category group for that particular participant. On the other hand, a numerical value of 2 indicates that a participant's responses fit into two coding categories from the same category group in a given context (e.g., role model and relationship ideal for internal moral identity motivation in the context of family). It is important to note that scores for one category group do not affect scores in another category group given that the numerical values are analytically independent. Despite analytical independence, the moral identity motivation category groups were empirically

correlated (see Table 6). Consistent with Krettenauer and Victor (2017) and Self-Determination Theory, bivariate correlations between external and internal motivation were significantly negative in all three contexts, whereas consistencies across contexts were small to moderate, with a median bivariate correlation of  $r = .26$ .

### ***Questionnaire Measures***

**Moral behaviour.** Teachers were asked to complete a short questionnaire for each participant regarding their moral behaviour, specifically the two dimensions of prosocial and antisocial behaviours. This short questionnaire was comprised of a combination of two previously validated scales. First, the revised *Child Behavior Scale* (CBS; Ladd & Profilet, 1996) from Vandell et al. (2006) that included 17 items to form two scales, Aggressive with Peers (nine-items; e.g., “Taunts and teases other students”, “Argues with students”;  $\alpha = .92$ ) and Prosocial with Peers (eight-items; e.g., “Is kind towards students”, “Offers help or comfort when other students are upset”;  $\alpha = .92$ ). Secondly, 10 items from the *Strengths and Difficulties Questionnaire* (SDQ; Goodman, 1997) was used: five items from the Prosocial scale (e.g., “Considerate of other people’s feelings”, “Shares readily with other students”;  $\alpha = .87$ ) and five-items from the Conduct Problems scale (e.g., “Often loses temper”, “Often fights with other students or bullies them”;  $\alpha = .80$ ). Teachers responded to each item on a 3-point scale, 0 = *not true*, 1 = *somewhat true*, and 2 = *certainly true*.

In the present study, correlational analyses indicated significantly strong positive associations between the CBS and SDQ measures for prosocial items ( $r(187) = .90, p < .001$ ) and between the antisocial items ( $r(187) = .88, p < .001$ ). Subsequently, the two measures were combined to create two subscales to represent moral behaviour: prosocial

behaviour (13 items; eight items from the CBS and five items from the SDQ) and antisocial behaviour (14 items; nine items from the CBS and five items from the SDQ). An average score was computed for each subscale with higher scores representing either higher levels of prosocial behaviour or antisocial behaviour. For the complete scale, see Appendix C. Internal consistencies were high for both overall prosocial and antisocial behaviours,  $\alpha = .95$  and  $\alpha = .94$  respectively. Similar to previous studies (e.g., Hardy, Bean, & Olsen, 2015; Vandell et al., 2006), sample mean for prosocial behaviour ( $M = 1.61$ ,  $SD = .43$ ) was higher than for antisocial behaviour ( $M = .20$ ,  $SD = .37$ ).

**Parent-child relationship quality.** For details on this measure, see Chapter I.

**Social desirability.** For details on this measure, see Chapter I.

## Results

Preliminary analyses were conducted to identify if self-importance of moral values, gender, social desirability, ethnicity, and/or SES were to be included as control variables in the main analyses (see Table 7). All bivariate correlations between study variables can be found in Table 8. Tests of normality indicated some measures were positively skewed, but most assumptions of normality, linearity, and homoscedasticity were met. The parametric tests used below have also been demonstrated to be robust to violations of normality (e.g., Blanca, Alarcón, Arnau, Bono, & Bendayan, 2017; Rasch & Guiard, 2004).

For moral identity motivation category groups, self-importance of moral values, gender, social desirability, ethnicity, and SES were unrelated to moral identity motivation. As such, no control variables were used in the main analyses involving moral identity motivation.

For moral behaviour, SES was significantly related to antisocial behaviour and gender was significantly related to both types of moral behaviours. Females had higher scores in prosocial behaviour than males, whereas males had higher scores in aggression compared to females. The self-importance of moral values, social desirability, and ethnicity, by contrast, were unrelated to moral behaviour. Both SES and gender were used as control variables in the main analyses predicting moral behaviour.

### ***Moral Identity Motivation and Age***

Similar to previous research (Krettenauer & Victor, 2017; Sengsavang et al., 2015), in order to investigate age-related differences in moral identity motivation across social contexts, a mixed model multivariate analysis of variance (MANOVA) was conducted with repeated measures of moral identity motivation (external, relationship-oriented, internal) in three social contexts (family, friends, school), as well as the three age groups (middle childhood, early adolescence, mid-adolescence) as between-subjects factor. For bivariate correlations between age and all motivation coding categories, see Table 9. This MANOVA procedure yielded a significant main effect of motivation (see Table 10). However, this main effect was qualified by two significant Two-Way interactions: (a) an interaction between moral identity motivation and age group and (b) an interaction between moral identity motivation and social contexts. Thus, participants' moral identity motivation varied by age as well as by social contexts (family, friends, school).<sup>5</sup>

---

<sup>5</sup> Mauchly's test indicated that the assumption of sphericity was violated for the main effect of motivation,  $\chi^2(2) = 45.22, p < .001$ , and the interaction between motivation and social contexts,  $\chi^2(9) = 61.68, p < .001$ . Greenhouse-Geisser corrected tests ( $\epsilon = .82, .86$  respectively) yielded slightly different degrees of freedom and  $F$ -values, but all  $p$ -values remained the same at  $p < .001$ .



Differences between age groups for moral identity motivation (averaged across contexts) were followed up by univariate ANOVAs and post-hoc tests (Scheffé;  $p < .05$ ). For external moral identity motivation, significant differences were found between age groups,  $F(2, 184) = 6.01, p = .003, \eta^2p = .06$  (see Table 11). Participants in middle childhood scored the highest in external moral identity motivation and significantly differed from participants in mid-adolescence ( $p = .008, CI[.01, .12], d = .62$ ), who scored the lowest. Moreover, participants in early adolescence and mid-adolescence significantly differed from each other ( $p = .015, CI[.01, .12], d = .53$ ) with the oldest age group scoring the lowest in external moral identity motivation. As such, it seems that external moral identity motivation decreases with age. For the sum of responses for external moral identity motivation category groups by age group, see Figure 2.

For relationship-oriented moral identity motivation, significant differences between age groups emerged,  $F(2, 184) = 10.00, p < .001, \eta^2p = .10$  (see Table 11). Participants in middle childhood scored the highest in relationship-oriented motivation and significantly differed from the oldest age group as mid-adolescents scored the lowest ( $p < .001, CI[.11, .37], d = .77$ ). Participants in middle childhood and early adolescence were marginally different from each other ( $p = .054, CI[-.00, .25], d = .43$ ), with the youngest age group scoring higher in relationship-oriented moral identity motivation. It appears that relationship-oriented moral identity motivation decreases with age.

For internal moral identity motivation, again, significant differences between age groups were found,  $F(2, 184) = 14.21, p < .001, \eta^2p = .13$  (see Table 11). The youngest age group scored the lowest in internal moral identity motivation and marginally differed from participants in early adolescence ( $p = .082, CI[-.08, .00], d = .40$ ). The oldest age

group scored significantly higher than participants in both middle childhood ( $p < .001$ ,  $CI[.05, .14]$ ,  $d = .98$ ) as well as participants in early adolescence ( $p = .008$ ,  $CI[.01, .10]$ ,  $d = .56$ ). Evidently, internal moral identity motivation appears to increase with age. For the sum of responses for internal moral identity motivation category groups by age group, see Figure 3.

Mean differences of moral identity motivation by context are summarized in Table 5. Internal moral identity motivation was most salient in the family and friends contexts, whereas both external and internal moral identity motivation were salient in the school context. In terms of moral identity motivation, pairwise comparisons with a Bonferroni correction showed that external moral identity motivation in the school context was significantly higher than both the family context,  $p < .001$ ,  $CI[.26, .49]$ ,  $d = .65$ , and the friends context,  $p < .001$ ,  $CI[.46, .72]$ ,  $d = 1.13$ ; external moral identity motivation in the family context was significantly higher than in the friends context,  $p < .001$ ,  $CI[.12, .32]$ ,  $d = .47$ . Relationship-oriented moral identity motivation in the friends context was significantly higher than the family context,  $p = .004$ ,  $CI[.04, .27]$ ,  $d = .31$  and the school context,  $p < .001$ ,  $CI[.32, .50]$ ,  $d = .94$ ; relationship-oriented moral identity motivation in the family context was significantly higher than in the school context,  $p < .001$ ,  $CI[.16, .35]$ ,  $d = .59$ . Thus, participants reported the highest levels of external moral identity motivation in the school context compared to the other contexts and the highest levels of relationship-oriented moral identity motivation in first the friends context followed by the family context.

In terms of context, pairwise comparisons with a Bonferroni correction showed that in the family context, internal moral identity motivation was significantly higher than

both external moral identity motivation,  $p < .001$ ,  $CI[.33, .70]$ ,  $d = .81$ , and relationship-oriented moral identity motivation,  $p < .001$ ,  $CI[.33, .67]$ ,  $d = .80$ . In the friends context, internal moral identity motivation was significantly higher than both external moral identity motivation,  $p < .001$ ,  $CI[.58, .91]$ ,  $d = 1.25$ , and relationship-oriented moral identity motivation,  $p < .001$ ,  $CI[.16, .55]$ ,  $d = .57$ , while relationship-oriented motivation was significantly higher than external motivation,  $p < .001$ ,  $CI[.27, .51]$ ,  $d = .88$ . Finally, in the school context, relationship-oriented moral identity motivation was significantly lower than both external motivation,  $p < .001$ ,  $CI[-.74, -.48]$ ,  $d = 1.19$ , and internal motivation,  $p < .001$ ,  $CI[-.79, -.47]$ ,  $d = 1.06$ . Thus, within the family and friends context, only internal moral identity motivation was referred to most, whereas in the school context, both internal and external moral identity motivation were more salient.

### ***Effects of Parent-Child Relationship Quality***

To investigate the effect of parent-child relationship quality (parental support, parent-child negative interaction) on moral identity motivation, multiple regression analyses were performed separately for each moral identity motivation category group combined across the social contexts (external, relationship-oriented, internal). Parental support and parent-child negative interaction were entered in Step 1 followed by SES as the control variable in Step 2. Findings from these regressions are summarized in Table 12. Parental support and parent-child negative interaction were not significant predictors in any of the moral identity motivation category groups.

***Moral Identity Motivation and Moral Behaviour***

To examine how moral identity motivation predicts moral behaviour, multiple regressions were performed separately for each type of moral behaviour (prosocial and antisocial). First, moral identity motivation (external, relationship-oriented, internal) was entered in Step 1, followed by SES and gender as control variables entered in Step 2. Findings from these regressions are summarized in Table 13. Internal moral identity motivation was a significant negative predictor of antisocial behaviour ( $\beta = -.19$ ,  $p = .030$ ,  $B = -.65$ , 95% CI [-1.24, -.06],  $\Delta R^2 = .07$ ) above and beyond SES and gender. Relationship-oriented moral identity motivation was a marginally significant positive predictor of antisocial behaviour ( $\beta = .13$ ,  $p = .095$ ,  $B = .16$ , 95% CI [-.03, .34],  $\Delta R^2 = .07$ ). By contrast, external moral identity motivation was unrelated to both types of moral behaviour.

**Discussion**

The present study was designed to examine age-related differences in moral identity motivation across middle childhood and adolescence to better understand the development of moral identity at the second layer of McAdams' (2009) personality theory. As expected, it was found that moral identity motivation varied by both age and social contexts most relevant to this age period (family, friends, school). First, both external and relationship-oriented moral identity motivation decreased with age, while internal moral identity motivation increased with age. Moral identity motivation was context-specific such that levels of internal, external, and relationship-oriented moral identity motivation differed depending on whether the context was family, friends, or school. Finally, moral identity motivation was unrelated to parent-child relationship

quality, and there was a negative relationship between internal moral identity motivation and antisocial behaviour. In the following, these findings and their implications are discussed in detail.

Similar to previous research, the overall age-related trends of moral identity motivation are consistent with Self-Determination Theory such that there appears to be a developmental trend towards higher levels of self-integration or internal motivation from middle childhood to adolescence. Moreover, moral identity motivation is indeed flexible and context-dependent as previous research suggests, given the present study's finding of differential patterns of motivation in the three contexts of family, friends, and school. Extending and replicating Renaud-Dubé et al.'s (2010) research on autonomous environmental motivation and Krettenauer and Victor's (2017) research on moral identity motivation, increases in internal moral identity motivation occurs prior to adolescence and is most salient in contexts of family and friends, while external moral identity motivation was highest in the school context compared to the other two contexts. The study's findings were statistically significant, but they also have important practical significance given that nine percent of the variance was accounted for by the age and motivation interaction, while 53 percent of the variance was accounted for by the context and motivation interaction. Therefore, while motivation importantly varies by age and context (all effect sizes of Cohen's *d* were medium to large), social contexts especially impacts an individual's moral identity motivation. Theoretically, this confirms the developmental nature of moral identity motivation that moves towards more internal modes of self-regulation and integration, but age is not the only factor that is impacting its development. Practically, this means that with age, moral identity motivation becomes

more internal overall but interventions aimed to promote moral behaviour and moral motivation should especially consider how the social contexts can influence one's motivations and thus moral behaviour. In particular, educators need to be cognizant of promoting more internal modes of motivation in the school environment given that internal motivation has been a stronger predictor of various actual behaviour—including moral behaviour as the present study demonstrated—than external motivation (for an overview, see Deci & Ryan, 2012).

Krettenauer and Victor (2017) did not find age-related differences in relationship-oriented moral identity motivation across adolescence to adulthood, whereas the present study found a decrease in this type of motivation from middle childhood to adolescence. The difference in these findings is likely due to the different developmental periods under study. Given the younger sample of the present study, it was unsurprising that relationship-oriented moral identity motivation was highest in the friends context given that peer relationships tend to increase in importance and intimacy during middle childhood and adolescence, but especially in middle childhood when social hierarchies of power and popularity are most salient (for an overview, see Parker, Rubin, Erath, Wojslawowicz, & Buskirk, 2006). It is probable that moral identity motivation in the friends context is less stable over time compared to the family and school (which would later be work) contexts given that the importance of friends is most significant during childhood and adolescence, whereas other relationships such as romantic relationships become increasingly important in adulthood. For example, moral identity motivation might fluctuate from external to relationship-oriented to internal within the friends context overtime, but individuals also develop new friendships or have the same long

lasting friendships across the lifespan and thus motivations may or may not fluctuate.

Overall, like previous research suggests, as individuals transition from middle childhood to adolescence, it appears that their commitment to goals and ideals become increasingly self-chosen, less externally imposed by others, and less grounded on relationship concerns as reflected in the current sample's increase in internal motivation and decrease in both external and relationship-oriented moral identity motivation.

Contrary to our expectation, we did not find any significant relationships between moral identity motivation and parent-child relationship quality. This was the first study to examine the role of parenting on moral identity motivation (i.e., motives for the self-importance of moral values), whereas previous studies on parenting and moral motivation examined moral motivation generally through hypothetical moral dilemmas (Malti & Buchmann, 2010) and explicit motives for engaging in prosocial behaviour and avoiding antisocial behaviour (Sengsavang et al., 2015). Moreover, in Malti and Buchmann (2010) the quality of parent-child relationship quality amongst 15-year-olds and 21-year-olds was a combination of self-ratings and primary-caregiver ratings of the same items rather than only derived from self-reports. Thus, the lack of findings in the present study could be attributable to measurement differences. Unlike Malti and Buchmann (2010), this study also did not take into account the effect of friendship quality on moral identity motivation nor did either study examine teacher-student relationship quality, which may be important contributors to moral identity motivation during this period. From a developmental perspective, this transition period from middle childhood and adolescence may encompass other important relationships (e.g., teachers, coaches, siblings) that are more influential to an individual's moral identity motivation compared to the parent-child

relationship. Finally, the role of parent-child relationship quality on moral identity motivation might be more important for females than for males. Past research has documented gender differences in moral motivation (e.g., Malti & Buchmann, 2010; Malti et al., 2009; Nunner-Winkler, Meyer-Nikele, & Wohlrab, 2007), and although the present study did not find any gender differences in moral motivation, follow-up analyses indicated that parental support positively predicted internal moral identity motivation for females ( $\beta = .25, p < .05$ ), but not for males. Perhaps other relationships are more important in shaping male's moral identity motivation during this sensitive period between middle childhood and adolescence. Evidently, further research on how gender, parent-child relationship, as well as friendship and teacher-student relationship quality affects moral identity motivation is needed.

Despite the theoretical connection between moral motivation and moral behaviour, few empirical studies have examined this relation. The present study adds to the limited literature by examining type of motivation (rather than overall moral motivation) and prosocial and antisocial behaviour (rather than only prosocial behaviour). As hypothesized, above and beyond gender and parental SES, internal moral identity motivation was a negative predictor of antisocial behaviour, while relationship-oriented moral identity motivation positively predicted antisocial behaviour. In line with past research that has demonstrated internal motivation as a stronger predictor of behaviour compared to external motivation in areas of prosocial behaviour, health behaviour, and academic behaviours (for an overview, see Deci & Ryan, 2012), external moral identity motivation was not a significant predictor of moral behaviour, whereas internal moral identity motivation was predictive of antisocial behaviour. This finding was statistically



significant, but also suggests practical significance with its moderate effect size ( $r = -.29$ ) and thus interventions aimed to promote moral behaviour need to strongly consider internal moral motivation as a means to less antisocial behaviour. Evidently, internal moral motivation reflects a desire to care for others and identification with moral values as part of oneself, which may strengthen one's overall motivation to behave less antisocially—as reflected in our findings.

On the other hand, relationship-oriented moral identity motivation is driven by consequences on one's relationships which are very important during this developmental age period and thus might be more similar to external motivation than internal motivation given the focus on consequences. In fact, as seen in Table 6, relationship-oriented moral identity motivation was significantly and negatively related to internal moral identity motivation for each context ( $r$ s ranged from  $-.16$  to  $-.49$ ,  $p$ s  $< .05$ ) and across contexts ( $r(186) = -.39$ ,  $p < .001$ ). Therefore, it is not surprising that internal and relationship-oriented moral identity motivation both predict antisocial behaviour, albeit in opposite ways. In order for children to become moral citizens of the future, it is vital for parents and educators to cultivate environments promoting and attracting children's internal motivation as a means to encourage moral behaviour – especially given the practical significance of how context interacts with motivation. For example, teachers involved in the Child Development Project (CDP; see Battistich, Schaps, & Wilson, 2004), which was designed to promote caring learners and prosocial character, helped develop students' intrinsic motivations to act cooperatively by engaging them in rule-setting, decision-making, and problem-solving. By offering environments focused on

rewards/punishments to the self and to their relationships (relationship-oriented), children are less likely to be prosocial and more likely to engage in antisocial behaviours.

This study was not without limitations. The main limitations were discussed in Chapter I (i.e., cross-sectional design, limited age-range, public versus catholic school boards, self-reports of parent-child relationship quality, and sample was predominately of European descent), but there are some specific limitations related to the present study. First, moral behaviour was assessed by teacher-reports, but there may be differences in the degree to which elementary school teachers and high school teachers engage with their students. More specifically, high school students have several teachers throughout the day, whereas elementary school students spend much more time with their homeroom teacher. In similar vein, background demographics of teachers (e.g., years of experience) were not collected, which has implications for how well they may engage or know how to evaluate students' social behaviours. Teachers with less experience may not adequately or confidently know how to assess students' social behaviours compared to teachers with many years of experience and thus the assessments of moral behaviour in the present study may not accurately represent participants' actual moral behaviour. Future research ought to collect demographic information on teachers as well as assess high school students' moral behaviour through reports from multiple teachers rather than only one to provide a more accurate assessment of behaviour. Finally, given that aspects of morality appears to be context-dependent, moral behaviour may also vary from context to context and the present study only measured moral behaviour in one context (school). Thus, future research may aim to measure moral behaviour in different contexts (family, friends) to examine if one's moral actions differ depending on the social context and who

is assessing the behaviour (e.g., parent, teacher, peers). It is possible that moral identity motivation is more predictive of moral behaviour in some contexts (e.g., family and friends) than others (e.g., school, community), which may also change over time.

Overall, the present study adds an important contribution to the literature by examining moral identity motivation from middle childhood to adolescence. In particular, moral identity motivation differs depending on the social context and its development is not limited to adolescence and beyond. The present study provides evidence that moral identity motivation can be studied with younger samples by using an open-ended qualitative approach to understanding children's and adolescent's motivations that indeed vary from context to context. Evidently, it is imperative that developmental research and theory on moral identity motivation consider both age and social contexts, especially given that its development appears to be more complex than simply stating that internal motivation increases and external motivation decreases with age. Overall, by providing environments (especially the school environment) that attract and promote internal motivation and self-regulation while children age, we are more likely to cultivate moral citizens of the future. Given especially the current political climate and thus the continuous aspiration for moral citizens, moral identity motivation should continue to be studied as well as encouraged and discussed by parents and educators as an important goal of moral development to better foster engagement in moral actions among children and students.

### **CHAPTER III: Moral Identity Development through Reflections on Past (Im)Moral Experiences**

In recent years, narrative approaches have become more popular as a means to understanding personality – including aspects of moral identity – by examining integrative life narratives or the life story, which is the third layer of McAdams' (2009) three-layer model of personality. Beyond the trait layer (first layer) and characteristic adaptations layer (second layer) of personality, moral identity is also reflected in the life stories individuals tell. According to Erikson (1959/1980), an individual's identity affords a sense of stability or connection over time as they integrate their past experiences with present concerns and future plans and goals. This notion best elucidates this third layer of personality and specifically, moral identity, by highlighting the important role of an individual's life story or past life narratives in shaping one's identity (see also McAdams, 2001; McLean & Pasupathi, 2012).

Narratives about past experiences and events – and thus the interpretation and construction of these narratives – can typically be seen to either confirm one's self-view or challenge it (for a review, see Pasupathi, Mansour, & Brubaker, 2007). At the same time, narrative research has also revealed that lessons learned (i.e., change in behaviour caused by past event) and gaining insight (i.e., change in one's self-understanding or self-view beyond the past event itself) are two types of meaning making that individuals have when reflecting on past experiences (see McLean 2005; McLean & Thorne, 2003). This ability to form self-event connections or connecting past experiences or actions to the present self is an important aspect of identity development (e.g., Krettenauer & Mosleh, 2013; McLean & Pasupathi, 2012; McLean & Pratt, 2006). Overall, self-event

connections in one's narratives about past events appears to increase with age from early adulthood to young adulthood (Pasupathi & Mansour, 2006). This mechanism of identity development has also been empirically applied to moral identity development, specifically how individuals connect narratives about past moral and immoral behaviours to their present sense of self (Krettenauer & Mosleh, 2013; Recchia et al., 2015).

Developmental research suggests that the life story becomes integrated into personality and is considered a developmental achievement that begins with the biological, social, and cognitive transitions of adolescence (e.g., Habermas & de Silveira, 2008; Reese et al., 2014). Although life stories become more connected or reflective of one's sense of self during adolescence and emerging adulthood (Habermas & Bluck, 2000; Habermas & Reese, 2015), children as young as five years are able to narrate and construct meaningful accounts of episodes or events of their lives (e.g., Fivush & Nelson, 2004; Pasupathi & Wainryb, 2010b), including morally-laden experiences of helping and harming others (e.g., Recchia et al., 2015; Recchia, Wainryb, & Pasupathi, 2013; Wainryb & Pasupathi, 2018). Narrative accounts about children's and adolescents' own past moral achievements (i.e., helping others) and failures (i.e., harming others) can aid in understanding their own interpretations and representations of these experiences; specifically their thoughts, emotions, and more importantly, their motivation behind these behaviours (Pasupathi & Wainryb, 2010a; Recchia et al., 2015; Wainryb, Brehl, & Matwin, 2005). At the same time, as individuals reflect on and interpret these narrative accounts of past moral behaviour, it may "encourage and facilitates the development of a more mature sense of how one's morally relevant actions are based in goals and beliefs (i.e., a sense of moral agency)" (Tappan, 2010, p. 81), while also negotiating the extent of

their moral responsibilities (Tappan, 2010). More specifically, when an individual reflects on the consequences of their actions (e.g., emotions evoked from the self, as well as the emotional or behavioural response of the other person), this aids in the development and construction of their moral self or moral identity given that it allows the individual to understand how they want to be and who they want to be as a moral person. Arguably, narratives reflect children's current moral understanding, while also prospectively shaping new understandings that cannot be captured from other approaches such as self-report questionnaires (Wainryb & Pasupathi, 2018). During middle childhood and adolescence, children are developing more sophisticated understandings of themselves and others, while also becoming more skilled in reflecting on the psychological features of their experiences (Pasupathi & Wainryb, 2010a; Recchia et al., 2015). Evidently, the way they perceive and interpret past experiences may change over time.

There have been several empirical studies examining age-related and context-dependent differences in how children and adolescents narrate past (im)moral behaviours. For example, Recchia et al., (2015) found meaningful asymmetries in children's and adolescents' past experiences of helping and harming in the context of friends, such that reasons in the harmful context was both self- and other-focused, whereas reasons in the helping narratives were mainly other-focused across middle childhood and adolescence. In terms of age-related differences, Recchia et al. (2015) found that participants of all ages highlighted the negative consequences of harming others, yet younger children were less likely to consider the positive consequences of helping others. Proulx and Chandler (2009) proposed a general developmental trend of adolescents' self-views that reflect

increased context dependency with age such that one narrates their bad behaviours as externally motivated, while viewing their good behaviours as internally motivated. On the other hand, Krettenauer and Mosleh (2013) found participants with higher levels of internal motivation and older participants (adults compared to adolescents) had more self-event connections such that they were more likely to make a connection between past (im)moral and their present self. In the aforementioned studies, there were two moral contexts of prosocial and antisocial behaviours, but only one social context was investigated (Recchia et al., 2015) or social context was not examined at all (Krettenauer & Mosleh, 2013; Proulx & Chandler, 2009).

Recchia and colleagues (2013) examined narrative accounts of harming experiences in two social contexts (i.e., siblings and friends) and demonstrated how these two social contexts are distinct for sociomoral development. For instance, they found social context or relationship differences in participants' reasons for harm such that harm against siblings was based on emotional/impulsive reasons and provocation (i.e., offensive behaviour or property-related issues), whereas harm against friends was due to relationship-oriented concerns such as trust and desire for connectedness, as well as more benign behaviours (i.e., benevolent reasons such a prosocial intent and extenuating circumstances). In terms of age-related differences, Recchia et al. (2013) found that 7-year-olds described mutual harm more often with siblings compared to friends (though this was not apparent among 11-year-olds or 16-year-olds), while narrative accounts of harming siblings and friends became somewhat more similar with age (e.g., children are increasingly able to recognize the hurtful consequences of their behaviour). Moreover, experiences of harm became more psychologically based with age as participants

increasingly made references to the cognition of the victim. Given the importance and difference in social contexts (siblings versus friends), as well as the two dimensions of moral action (harmful and helpful), it is imperative that individual differences in children's and adolescents' experiences of harming and helping are investigated separately for the friends context and the family context to further understand how individuals differentially narrate their past (im)moral actions depending on social context and moral context.

To date, no studies have compared these two moral contexts as well as these two social contexts in children and adolescents. Furthermore, by using the narrative approach to moral identity (layer three of personality) that has been used in the past, we were able to investigate the ways in which children versus adolescents connect morally relevant experiences to their sense of self and reveal moral motivations in their narratives. In sum, the purpose of this study was to extend previous research by examining both types of contexts, as well as investigating children's and adolescents' narrative descriptions of the (1) type of harmful and helpful behaviours, (2) their motivations or reasons for engaging in these behaviours, and (3) the extent to which they describe how the past morally relevant experience connects to their present self. Based on the lack of research examining moral contexts and social contexts in narratives, it may be premature to offer specific hypotheses. Broadly, context was expected to impact how children and adolescents narrate and understand their past (im)moral experiences, while the ability to draw stronger connections between past events and the current self was expected to increase with age. As such, the present study provided increased richness to



understanding moral identity development by examining how children and adolescents construe and interpret their past (im)moral experiences.

## **Method**

### ***Sample, Measures and Procedures***

The sample was the same as Chapter II with 188 participants (101 females) given that two interviews from the original  $N = 190$  (Chapter I) were unscorable, for more details on the sample and recruitment, see Chapters I and II, as well as Table 3 for a summary of all demographic variables by age group. The present study included a mixed-method cross-sectional design with a 45-minute semi-structured interviews and a 15-minute self-report questionnaire. This study was part of a larger mixed-method cross-sectional and multi-informant study (Chapters I and II) and thus only procedures and measures relevant to the present study are discussed.

Children and adolescents were interviewed individually in a private room at the child's school or a university's laboratory. The *Moral Identity Interview* assessed the different layers of moral identity across social contexts. For more details on the earlier portions of the interview, see Chapter I (self-importance of moral values) and Chapter II (moral identity motivation). After the self-importance of moral values and moral identity motivation parts of the interview were over, similar to Recchia and colleagues (2013, 2015) who interviewed children and adolescents, each participant was asked to provide a narrative account of a time when they hurt or upset someone in their family ("*Tell me about a time when you did or said something that ended up hurting or upsetting someone in your family*"), and then to provide a narrative account of a time when they helped someone in their family ("*Tell me about a time when you did or said something that*

*ended up helping someone in your family*”). The ordering of the moral context (harming versus helping) was based on computer randomization for each participant in order to control for order effects of the moral context. This process was then repeated for the friends context (“*Tell me about a time when you did or said something that ended up hurting or upsetting [helping] one of your friends*”).

Participants were provided a worksheet and instructed to think of some situations for that type of event and then to briefly write down some keywords. If participants could not come up with situations or experiences, the interviewer expressed to participants that the event did not have to be recent nor did it have to be a big event. Once completed, the interviewer asked the participant to narrate an account of one specific episode for that type of event that stands out most to them. The interviewer encouraged elaboration with follow-up prompts (e.g., “*That’s interesting, tell me more about that*”, “*How did you feel when that happened?*”, “*So we’ve talked about what you experienced from this, but how did the other person react?*”). Interviews were audiotaped and transcribed verbatim for analysis.

**Social desirability.** For details on this measure, see Chapter I.

### ***Coding and Reliability***

Coding categories were deductively informed from past research examining moral narratives of helping and harming with children and adolescents (Recchia et al., 2015), as well as research examining autobiographical memories about past moral and immoral actions (Krettenauer & Mosleh, 2013). The following coding categories derived from Recchia et al. (2013, 2015) and Krettenauer and Mosleh (2013) were used as a framework for the present study: type of harmful and helpful actions, the narrator’s

reasons for engaging in harmful or helpful action, as well as self-event connection. As the first study to examine both moral contexts and social contexts of narratives among children and adolescents, these coding categories were chosen for the framework to describe the narratives overall as well as to examine the narrator's strength of self-event connection. A subset of 47 transcripts (25% of total sample) was randomly selected across the age groups and periods of the data collection to determine agreement between two independent coders. Discrepancies between coders were discussed until consensus was reached. For type of harmful and helpful actions, inter-coder agreement was  $\kappa = .86$ ; for the narrator's reasons for harming or helping, it was  $\kappa = .81$ ; for self-event connection, it was  $\kappa = .73$ . Establishing inter-coder agreement took approximately one month (November 6, 2017 to December 12, 2017) and then one coder completed coding the remaining transcripts ( $n = 141$ ) within one month following establishing inter-coder reliability.

**Types of harmful and helpful actions.** Each narrative was coded for the presence (1) or absence (0) of three possible types of actions: (a) *material* or *concrete* forms of harming or helping (e.g., refusal to share, helping with schoolwork), (b) *physical* forms of harming or helping (e.g., hitting, helping with injury), and (c) *psychological* or *emotional* forms of harming or helping (e.g., teasing, gossiping, helping someone feel better after a bad day).

**Types of reasons for harm or help.** Each narrative was coded for the presence (1) or absence (0) of references to five possible reasons for engaging in harmful or helpful behaviour: (a) *external* motivation or constraints (e.g., parents' directives), (b) *self-interested* or *narrator's perspective* (e.g., pursuit of an instrumental goal), (c) *other-*

*interested or other's perspective* (e.g., prosocial intent), (d) *response to other's actions* (e.g., driven by anger), and (e) *unintentional* (e.g., accident). Similar to Sengsavang et al. (2015) and Chapter II, if a participant articulated more than one motive for why he or she engaged in the harmful or helpful event, all motives were coded separately. As such, multiple codings were possible which reduced linear dependency between codes.

**Strength of self-event connection.** Each narrative was coded for the extent of self-related insights or self-event connection, which was originally adapted from narrative research (Pasupathi & Mansour, 2006; Pasupathi & Wainryb, 2010b) and utilized by Krettenauer and Mosleh (2013). The strength of these self-event connections reflected the extent to which the past event or past experience was connected to the narrator's current self. Following Krettenauer and Mosleh (2013), there were five coding categories for self-event connection: *no self-event connection*, *dismissal*, *implicit self-event connection*, *explicit self-event connection: confirming self-concept*, and *explicit self-event connection: changing self-concept*.

*No self-event connection* showed a lack of thought about the meaning and relevance of the event for the narrator's current self. The participant spent little or no time reflecting on this event prior to the interview. For example:

*After I felt pretty good and it wasn't as bad as I thought it was going to be and I could tell that it really helped my mom out because she had a lot on her plate...(Interviewer: OK and if a similar situation came up what would you do?) I would help her out again because I know that we have some family friends coming over again in February, so I'll help out again. (ID119, Grade 8, female, 13-years-old)*

A *dismissal* revealed that the event was unimportant to the self in which case the participant clearly dismissed the event. There was little to no evidence of the event having any effect on the narrator's current self. For example: "*It's in the past, so I say it's in the past, it doesn't matter anymore.*" (ID016, Grade 4, female, 9-years-old)

*Implicit self-event connection* was apparent when participants showed evidence of some reflection about the event, but no direct connection between the narrator's current self and the event. The event may have continued to work its way into the participant's consciousness and/or captures a recurring theme/behaviour, however an explicit connection between self and event was not made. For example, "*I think about it. It still hurts but now it doesn't, it's not as bad.*" (ID168, Grade 11, female, 16-years-old)

*Explicit self-event connection* showed that the event had a significant impact to the narrator's current self by either *confirming* or *changing* one's self-view. The impact goes beyond the immediate situation and appeared to have a lasting effect and still relevant today. An example of an explicit confirming self-event connection:

*Sometimes I feel like I'm a miracle worker with people, because they – my friends – they're so dramatic – they always get into like fights...I feel like I'm a miracle worker. I can work things out between them. So yes, I felt good...I [still] feel like a miracle worker.* (ID161, Grade 10, female, 15-years-old)

An example of an explicit changing self-event connection:

*Sometimes I really wish I didn't have to do this and I wish that, people could figure this out by themselves or at least try to understand. But then I always remember back to how not everyone thinks the same way and for some people it's just so much harder to try and see someone else's perspective and so I always*

*think back how it's actually a blessing or a gift of some kind that at least I am someone who is able to understand other people's perspective and so I feel like it's almost a responsibility of mine to just be there to help out...I've grown into this position of being a person who is always kind of there as the middle person.*  
(ID171, Grade 10, female, 15-years-old)

Similar to Krettenauer and Mosleh (2013), codes were further combined given that some categories were rare for some events. *Dismissals* were rarely evident in the helping narratives (0% -1.1%) and with low frequency in the harming narratives (10.5%-14.2%). Therefore, dismissals were combined with *no self-event connection* (see also Krettenauer & Mosleh, 2013; Pasupathi & Mansour, 2006). For harmful narratives, rarely were explicit confirming self-event connections made (1.1% for both social contexts) and for helpful narratives, rarely were explicit changing self-event connections made (1.1% and 1.6% respectively for the family and friends contexts). Thus, like Krettenauer and Mosleh (2013), both categories of explicit self-event connection were combined to represent overall explicit self-event connection. Following Krettenauer and Mosleh (2013), codes were further combined for data analyses to represent categories of increasing articulateness of self-event connection: no self-event connection or dismissal (0) at the lower end of the scale, explicit self-event connection (2) at the higher end of the scale, and implicit self-event connection in between (1). On average, the strength of the self-event connection was  $M = 0.56$ ,  $SD = .59$  for the harmful narratives and  $M = 0.39$ ,  $SD = .61$  for the helpful narratives on a scale that ranged from 0 to 2.

## Results

The primary goal was to examine age-related differences in how children and adolescents narrate their past (im)moral experiences. First, preliminary analyses were conducted to identify if any potential confound variables (i.e., social desirability, gender, ethnicity, SES) related to age would be included as control variables in the main analyses. In the present sample, both social desirability and SES were related to age and thus we examined if these two variables were correlated with the narrative outcome variables. Social desirability was negatively and significantly related to self-interested reasons for harmful and helpful actions. On the other hand, SES was positively and significantly related to both psychological or emotional types of harmful and helpful actions and strength of self-event connection. Thus, social desirability was used as a control variable in the main analyses involving reasons for harmful and helpful actions, while SES was used as control variable in the main analyses involving type of harmful and helpful actions as well as self-event connection. All bivariate correlations with means and standard deviations can be found in Table 14.

Analyses of narrative content (type, reasons, self-event connection) were conducted as a function of moral context (harm, help), social context (family, friends), and age group (middle childhood, early adolescence, mid-adolescence) with moral context and social context as the repeated measures. ANOVA-based procedures were used given that this technique has been demonstrated to be acceptable for analyzing this type of data (see Wainryb, Shaw, Laupa, & Smith, 2001). Tests of normality indicated some of the measures were skewed, but these parametric tests have been demonstrated to be robust to violations of normality (e.g., Blanca et al., 2017; Rasch & Guiard, 2004). All

*F*-values reported are based on Pillai's Trace test statistic given that it is considered the most robust. Other test statistics (Wilk's Lambda, Hotelling's Trace, Roy's Largest Root) yielded slightly different *F*-values for some interactions, but all *p*-values reached the same level of statistical significance.

### ***Types of Harmful and Helpful Actions***

A Moral Context x Social Context x Age Group mixed model multivariate analysis of covariance (MANCOVA) with contexts (harm, help, family, friends) as the repeated measures, the three age groups (middle childhood, early adolescence, mid-adolescence) as the between-subjects factor, and the three types of actions (material/concrete, physical, psychological/emotional) as dependent variables was performed, while controlling for SES.<sup>6</sup> The MANCOVA revealed significant main effects of type,  $F(2, 152) = 95.42, p < .001, \eta^2p = .56$ , and social context,  $F(1, 153) = 9.13, p = .003, \eta^2p = .06$ , as well as a marginally significant main effect of age group,  $F(2, 152) = 2.65, p = .074, \eta^2p = .03$ . Post-hoc pairwise comparisons ( $ps < .001$ , Bonferroni corrected) revealed that psychological or emotion forms ( $M = .65, SD = .02$ ) of harm/help were described more than both material or concrete forms ( $M = .25, SD = .02$ ) and physical forms ( $M = .19, SD = .02$ ). These main effects, however, were qualified by three significant two-way interactions: Type x Age Group,  $F(4, 306) = 3.61, p = .007, \eta^2p = .05$ , Type x Moral Context,  $F(2, 152) = 56.10, p < .001, \eta^2p = .42$ , and Type x Social Context,  $F(2, 152) = 4.59, p = .012, \eta^2p = .06$ .

---

<sup>6</sup> Mauchly's test indicated that the assumption of sphericity was violated for the main effect of type,  $\chi^2(2) = .91, p = .001$ . Greenhouse-Geisser corrected tests ( $\epsilon = .92$ ) yielded slightly different degrees of freedom, but the *F*-value and *p*-value remained the same.



Differences between age group for types of harmful and helpful actions (averaged across contexts) were followed up by univariate ANOVAs and post-hoc tests (Scheffé;  $p < .05$ ). Results revealed significant differences for physical forms,  $F(2, 183) = 6.11$ ,  $p = .003$ ,  $\eta^2p = .06$ , and for psychological or emotional forms,  $F(2, 183) = 6.44$ ,  $p = .002$ ,  $\eta^2p = .07$  (see Table 15). For physical forms of harm/help, participants in the youngest age group of middle childhood scored the highest and significantly differed from participants in early adolescence ( $p = .029$ ,  $CI[.03, .79]$ ,  $d = .44$ ) and mid-adolescence ( $p = .006$ ,  $CI[.13, .92]$ ,  $d = .60$ ). For psychological or emotional forms, participants in middle childhood scored the lowest and significantly differed from the oldest age group of mid-adolescence ( $p = .002$ ,  $CI[.22, 1.23]$ ,  $d = .66$ ) and marginally from participants in early adolescence ( $p = .07$ ,  $CI[-.03, .95]$ ,  $d = .38$ ). Thus, physical forms of harm/help appear to decrease with age, while psychological or emotional forms of harm/help appear to increase during this period.

Mean differences of type of harm/help by moral context are summarized in Table 16. Psychological or emotional forms was most salient in the harmful context ( $M = 1.52$ ,  $SD = .64$ ) and in the helpful context, psychological or emotional forms ( $M = .91$ ,  $SD = .80$ ) and material or concrete forms ( $M = .82$ ,  $SD = .75$ ) were equally salient. Pairwise comparisons ( $t$ -tests,  $p < .003$ ) yielded significant differences between the harmful and helpful contexts for all types of harm/help. Thus, participants made more references to material or concrete types of actions in the help narratives than for harm narratives ( $p < .001$ ,  $CI[.48, .72]$ ,  $d = .96$ ), engaged in more physical types of actions in the help than harm narratives ( $p = .002$ ,  $CI[.07, .28]$ ,  $d = .30$ ), as well as had more psychological or

emotional types of actions in the harm than help narratives ( $p < .001$ , CI[.48, .73],  $d = .84$ ).

Mean differences of type of harm/help by social context are summarized in Table 17. In terms of type, pairwise comparisons ( $t$ -tests,  $p < .001$ ) yielded significant differences only for the material or concrete type of harm/help such that participants reported higher levels of this type of harm/help in the family context compared to the friends context ( $p < .001$ , CI[.12, .34],  $d = .88$ ). In terms of social contexts, pairwise comparisons with a Bonferroni correction showed that in the family context, participants reported significantly more psychological or emotional harm/help compared to material or concrete ( $p < .001$ , CI[.35, .77],  $d = .83$ ) and physical types of harm/help ( $p < .001$ , CI[.60, .99],  $d = 1.23$ ). Moreover, participants reported significantly more material or concrete harm/help than physical harm/help ( $p = .004$ , CI[.06, .41],  $d = .38$ ). In the friends context, psychological or emotional harm/help was reported significantly more often than both material or concrete ( $p < .001$ , CI[.66, 1.05],  $d = 1.34$ ) and physical harm/help ( $p < .001$ , CI[.71, 1.11],  $d = 1.42$ ).

### ***Reasons for Engaging in Harmful and Helpful Actions***

A Moral Context x Social Context x Age Group mixed model MANCOVA with contexts (harm, help, family, friends) as the repeated measures, the three age groups (middle childhood, early adolescence, mid-adolescence) as the between-subjects factor, and the five types of reasons (external constraints, self-interested, other-interested, response to others' actions, and unintentional) as dependent variables was performed,

while controlling for social desirability.<sup>7</sup> The MANCOVA revealed a significant main effect of reasons,  $F(4, 140) = 158.05, p < .001, \eta^2p = .82$ . Post-hoc comparisons with a Bonferroni correction revealed that external constraints were reported significantly less than all other types of reasons ( $ps < .001$ ). Self-interested reasons were reported significantly less than other-interested reasons ( $p = .032$ ), but significantly higher than unintentional reasons ( $p < .001$ ). Both other-interested and response to others' actions reasons were reported significantly more than unintentional reasons ( $p$ 's  $< .001$ ). For means and standard deviations, see Table 18.

This main effect, however, was qualified by two significant two-way interactions: Reasons x Moral Context,  $F(4, 140) = 308.78, p < .001, \eta^2p = .90$ , and Reasons x Social Context,  $F(4, 140) = 4.10, p = .004, \eta^2p = .10$ . Moreover, these two-way interactions were qualified by a significant three-way interaction, Reasons x Moral Context x Social Context,  $F(4, 140) = 5.21, p = .001, \eta^2p = .13$ . The nature of this three-way interaction is illustrated in Figure 4. A follow-up analysis of the pattern of means revealed that the difference between the family and friends context varied across reasons for action and moral context. In the context of harm narratives, three categories of reasons for action were most salient with higher levels of self-interested and response to others' actions among harmful actions with the family compared to friends, while unintentional harmful actions were more common among friends than family. A different pattern was found in the context of help narratives. Here, there were only two categories of reasons for action

---

<sup>7</sup> Mauchly's test indicated that the assumption of sphericity was violated for the main effect of reasons,  $\chi^2(9) = .38, p < .001$ , and the interactions between reasons and social context,  $\chi^2(9) = .44, p < .001$ , reasons and moral context,  $\chi^2(9) = .29, p < .001$ , and the interaction between reasons, social context, and moral context,  $\chi^2(9) = .33, p < .001$ . Greenhouse-Geisser corrected tests ( $\epsilon = .75, .78, .67, .76$  respectively) yielded slightly different degrees of freedom, but the  $F$ -values and  $p$ -values remained the same.

that were most salient: other-interested and responses to others' actions. In both categories, participants referred to other-interested and response to others' actions more frequently with helpful actions with friends than with family. Interestingly, there were no unintentional reasons for helpful actions, but this was a major reason category for harmful actions.

### ***Strength of Self-Event Connections***

A Moral Context x Social Context x Age Group mixed model MANCOVA with contexts (harm, help, family, friends) as the repeated measures, the three age groups (middle childhood, early adolescence, mid-adolescence) as the between-subjects factor, and the strength of the self-event connection as the dependent variable was performed, while controlling for SES. The MANCOVA revealed significant main effects of age group,  $F(2, 152) = 12.46, p < .001, \eta^2p = .14$ , and moral context,  $F(2, 153) = 8.78, p = .004, \eta^2p = .05$ .

Post-hoc tests (Scheffé;  $p < .001$ ) revealed that the oldest age group ( $M = 2.93, SD = 2.09$ ) had significantly higher scores in strength of self-event connection compared to both participants in middle childhood ( $M = 1.11, SD = 1.40$ ) ( $p < .001, CI[1.01, 2.63], d = 1.03$ ) and participants in early adolescence ( $M = 1.63, SD = 1.86$ ) ( $p < .001, CI[.49, 2.10], d = .66$ ). In order to better understand the main effect of age group on self-event connection, see Figure 5 for sum scores of each self-event connection category by age group. It is evident that no self-event connection/dismissal decreases with age, while implicit self-event connection, and both types of explicit self-event connection increases with age. In terms of moral context, post-hoc tests ( $t$ -test,  $p = .001, d = .30$ ) revealed that the strength of self-event connection was significantly higher in the harmful narratives ( $M$

= .57,  $SD = .59$ ) than in the helpful narratives ( $M = .34$ ,  $SD = .61$ ). Therefore, self-event connection appears to increase with age and participants were able to draw more self-event connections from their past harmful behaviours compared to their past helpful behaviours.

Although the two categories of explicit self-event connections (confirming versus changing) were combined in how we measured strength of self-event connection due to overall low frequencies, we wanted to do a follow-up analysis and investigate age-related differences in these two explicit categories of self-event connections by performing a series of one-way ANOVAs. The rates were examined across social contexts given that the frequencies were quite low in some categories (e.g., 1.1% of participants indicated confirming one's self-view in family harm narratives) and as such combined across the family and friends contexts. Results indicated that the three age groups significantly differed with regard to rates of confirming one's self-view in the helpful narratives,  $F(2, 181) = 5.45$ ,  $p = .005$ ,  $\eta^2p = .06$ , as well as in terms of the rates of changing one's self-view in the harmful narratives,  $F(2, 181) = 7.15$ ,  $p = .001$ ,  $\eta^2p = .07$ . Post-hoc tests (Scheffé;  $p < .05$ ) revealed that the oldest age group of mid-adolescence ( $M = .46$ ,  $SD = .68$ ) reported significantly higher rates of the past helpful event confirming one's self-view compared to both participants in middle childhood ( $M = .17$ ,  $SD = .42$ ) ( $p = .018$ ,  $CI[.04, .52]$ ,  $d = .52$ ) and participants in early adolescence ( $M = .17$ ,  $SD = .49$ ) ( $p = .016$ ,  $CI[.04, .53]$ ,  $d = .50$ ). A similar pattern was also found with the rates of changing one's self-view in the harmful narratives such that the youngest age group had significantly lower rates ( $M = .03$ ,  $SD = .18$ ) compared to participants in early adolescence ( $M = .25$ ,  $SD = .53$ ) ( $p = .037$ ,  $CI[.01, .43]$ ,  $d = .55$ ) and participants in mid-adolescence ( $M = .35$ ,

$SD = .61$ ) ( $p = .002$ ,  $CI [.10, .53]$ ,  $d = .73$ ). Thus, it appears that participants increasingly with age reported higher levels of the past helpful event confirming one's self view, while also reporting higher levels of past harmful events changing one's self-view.

## **Discussion**

The present study was designed to examine age-related differences in children's and adolescents' third layer of moral identity. Specifically, we aimed to examine age differences in narrative descriptions of past immoral and moral actions as well as the extent to which children versus adolescents connect these past events to their current self. This was the first study to examine both moral contexts (harm, help) as well as social contexts (family, friends) to better understand how children and adolescents narrate and interpret their past moral failures and moral achievements. This novel study was significant given that human development is complex and it is important to study development in the context of multiple environments (for an overview, see Bronfenbrenner, 1979) because children's and adolescents' understanding of their past experiences may vary from context to context – as this study demonstrated. Replicating, and importantly, extending previous research, our results revealed numerous distinctions between narrator's accounts of harmful and helpful actions with family and friends, suggesting that there are meaningful asymmetries in their experiences of these (im)moral events that also differ depending on the social context. In terms of age-related differences, our findings revealed distinct age-related patterns for the type of harmful/helpful actions as well as for the strength of self-event connection. Interestingly, the rates of explicit confirming and explicit changing self-event connections also differed based on age and type of moral event. Therefore, the way children and adolescents

construe their past morally relevant experiences evolve with age and depends on whether the experience was transgressive (harmful) or prosocial (helpful), as well as whether the event took place with their family or friends. In the following, these findings and their implications are discussed in detail.

***Does Context Impact How Children and Adolescents Narrate and Understand Past (Im)Moral Experiences?***

Previous research examining narratives about past (im)moral experiences have not examined the two moral contexts of harm and help, as well as the two social contexts of family and friends simultaneously. The present study adds unique patterns of findings to the literature that replicate and extend past research in a single empirical investigation, while also adding validity to this narrative method given that children and adolescents were indeed responsive to the context in mind. In terms of the moral context, what was most significant was how participants' reasoning for engaging and their strength of self-event connection changed depending on whether the action was harmful or helpful. Similar to Recchia et al. (2015), participants often referred to self-focused, response to others' actions, and unintentional reasons for engaging in harmful behaviours, while referring to other-focused and response to others' actions as reasons in the helpful context. This finding was somewhat in contrast to Proulx and Chandler's (2009) finding of increased context dependency and multiplicity in self-constructions with age given that in the present study, regardless of age, participants did not only narrate their bad behaviours as externally provoked and good behaviours as internally motivated. The way participants narrate their past (im)moral behaviour appears to be more complex than what Proulx and Chandler (2009) originally proposed, especially given that there was no main

effect of age in participants' reasons for engaging in (im)moral behaviour. It is important to note that participants in Proulx and Chandler's (2009) study were asked to explain motivations behind the fictional character Dr. Jekyll and Mr. Hyde rather than asking participants to reflect on their own past (im)moral behaviour, which could explain the discrepancy in findings between the studies. Our findings certainly support the notion that reasons or motivations for behaviour are indeed context-dependent. Therefore, reasons for engaging in (im)moral behaviour appear to be more dependent on the context in which the individual is situated in rather than the age of the individual. This importantly informs developmental theory such that context is an important factor when understanding children's and adolescent's reasonings for engaging in behaviour. When disciplining and/or rewarding children, adults need to be sure to have children actively reflect on their past moral and immoral behaviours separately. Consequently, children are likely to become more self-aware of their behaviours that are often goal-directed in some way, whether it be other-oriented or self-oriented, and discuss the consequences of their behaviours (e.g., feelings evoked from the behaviour) in order to promote future positive action and reflection.

At the same time, participants were able to draw more self-event connections from their past harmful behaviours compared to their past helpful behaviours. Therefore, although harmful acts were often driven by self-interested concerns, participants were able to reflect more deeply on this type of past behaviour and connect them to their current self, compared to help narratives. This is a novel finding in the literature and provides important implications for moral identity development. Often researchers examine reasons or motivations for (im)moral behaviour, but future research should also



investigate how the type of (im)moral behaviour – regardless of whether the reason behind the act was self-oriented or other-oriented – may in fact greatly shape one’s sense of self and subsequent behaviour. For example, one participant described a recent time when she hurt her friend’s feelings because the participant revealed she was uncomfortable after her friend confided in her and shared a personal confession that occurred years prior. This was a self-focused and unintentional form of harm given that the participant was only focused on her own perspective and feelings, but did not intend to harm her friend. However, later in her narrative she explained:

*I definitely tried to explain myself [to my friend]. I think giving some time and some space was part of the way to help, I guess to ease the tension. But after reflecting on it myself and what I would do if this situation were to ever happen again, that was what I thought a lot about ... I guess just being really sincere about it and telling them, I understand, actually I don't understand but I'm definitely willing to accept it. I'm cool with it, that's the best I could and can do.*

(ID171, Grade 10, female, 15-years-old)

By reflecting on this experience, the participant connected her past behaviour to her present self and it helped explicitly change her self-view to be more accepting and understanding of others in the future. This finding was in contrast to Recchia et al. (2015) who found that self-event connections were more prominent in youth’s help narratives than harm narratives. This difference could lie in how self-event connections were coded in the present study compared to Recchia and colleagues. Recchia et al. (2015) coded self-event connections or self-related insights slightly differently than the present study given that their coding was also based on self-evaluations (e.g., ““I reacted wrong”” (p.

868)) and personally significant statements (e.g., ““It was the worst fight that I’d ever had”” (p. 868)), in addition to self-event connections. Therefore, Recchia et al. (2015) did not code strictly for self-event connection and thus their findings related to self-event connections also reflect self-evaluations and personal statements. The present study focused only on self-event connections and the degree to which the past event connected to the narrator’s current sense of self. It is important to also note that Recchia and colleagues mentioned that these self-event connections might become increasingly more prevalent in harm narratives in later adolescence and adulthood (see also Pasupathi & Mansour, 2006), which the present study supports given that our sample was slightly older. Nonetheless, it would be vital to extend this research from a more lifespan perspective by examining participants in middle childhood to adulthood.

In terms of social context, it is well known that relationships with friends and relationships with family (e.g., siblings) have distinct characteristics, especially in childhood and adolescence. Friendships are voluntary and based on mutuality and reciprocity and often have greater quality and intimacy compared to family relationships (i.e., siblings) (see Buhrmester, 1992; Derkman, Engels, Kuntsche, van, & Scholte, 2011). As such, close friendships are extremely important and youth aim to protect and maintain these relationships. On the other hand, family relationships are involuntary and there is less perceived risk for an end to the relationship (Vandell & Bailey, 1992). Compared to peers and friends, conflicts in the home with siblings are more intense, often lack reasoning and are more likely to lead to aggression (e.g., Laursen & Adams, 2018; Laursen, Finkelstein, & Betts, 2001). Thus, it is unsurprising that the present study found results supporting this relationship difference similar to Recchia et al. (2013). During this

age period of middle childhood to adolescence, one's reasons for engaging in harmful and helpful behaviours seem to reflect a stronger investment in friendships to maintain harmony compared to familial relationships. Indeed, among our participants, harm against friends was described as more unintentional and more other-focused for helping behaviour compared to these same narratives with family. As children age, relationships within the family – specifically sibling relationships – become more egalitarian with support and intimacy (e.g., Buhrmester, 1992; Kim, McHale, Osgood, & Crouter, 2006). Therefore, it would be interesting to compare narratives about past (im)moral behaviour with family and friends across the lifespan. It is probable that one's understanding of harmful and helpful actions with family versus friends will converge with age such that reasons for these behaviours will be similar regardless of the relationship. Nevertheless, it is also important for future research to keep in mind the quality and closeness of family relationships compared to friendships when examining these types of narratives across the lifespan.

### *Age-Related Changes in Narrative Accounts of Harmful and Helpful Actions*

Our findings suggested two important age-related changes in children's and adolescents' narrative accounts of harmful and helpful actions that confirm well-established developmental trends in the narrative field (e.g., Krettenauer & Mosleh, 2013; Pasupathi & Wainryb, 2010b; Recchia et al., 2013, 2015). Firstly and unsurprisingly, physical forms of harm and help were described most in the youngest age group (middle childhood) and appeared to decrease with age. On the other hand, psychological forms of harm and help were described more often in the two older age groups (early adolescence and mid-adolescence) compared to the youngest age group. Therefore, experiences of

help and harm became less physically based and more psychologically based from middle childhood to adolescence. This pattern was the same for events with the family and with friends.

Similar to Krettenauer and Mosleh (2013), Pasupathi and Mansour (2006), and Recchia et al. (2015), the extent to which participants connected their past experience to their current sense of self increased with age. In fact, no self-event connection or dismissal decreased with age, while both types of explicit confirming and explicit changing self-event connection increased with age (see Figure 5). Moreover, the present study adds a unique contribution to the literature given the specificity in our findings related to the increase in self-event connection with age. In particular, with age, participants reported higher levels of past helpful events explicitly confirming their self-view, while also reporting a greater degree of past harmful events explicitly changing their self-view. These findings are also consistent with Pasupathi et al. (2015) who found that participants drew more growth conclusions (i.e., positive perceived changes in one's understanding of the self and the world) in perpetrator narratives wherein the participant harmed another person. This makes sense given that individuals may ruminate or dwell more on their past moral failures compared to their moral achievements and thus desire to actively reflect on and make sense of how the past moral wrongdoing shapes or affects how they see themselves and how they want to be in the future. From a developmental perspective, with age, individuals may seek to integrate and connect their past experiences and reflect on how those experiences shape their current self: What has led me to be who I am today? How am I different or the same after this happened? It is well known that individuals desire a sense of connection over time between past experiences

and present concerns and future goals that ultimately shape their identity (e.g., Erikson, 1959/1980; McAdams, 2001; McLean & Pasupathi, 2012).

In addition to the difference in self-event connection coding between Recchia et al. (2015) and the present study, perhaps Recchia et al. (2015) found more self-event connections in youth's help narratives than in harm narratives because they did not distinguish between explicit confirming and explicit changing self-event connections in their coding. Again, contrary to Proulx and Chandler (2009), there does not seem to be a general developmental trend towards increased multiplicity and context-dependency in one's self-constructions to imagine one's bad behaviours as externally provoked and good behaviours as internally motivated. If older participants were better able to externalize their immoral behaviours, as Proulx and Chandler (2009) proposed, we would not have found age-related differences in the explicit self-event connections for both harmful and helpful actions. Therefore, even in the harmful context, older participants take on a sense of moral responsibility and were able to connect their past wrongdoing to their current self by changing one's self-view rather than blaming their wrongdoing on external reasons.

These age differences, as well as individual differences, in self-event connection may be linked to larger developmental gains, as outlined by Pasupathi and Mansour (2006). Pasupathi and Mansour (2006) examined self-event connections in important non-specific life narratives and suggested the adaptive nature of these connections given the potential gains in mental and physical health, as well as interpersonal benefits. In terms of the moral domain and reflecting on past (im)moral behaviour, these age-related differences could also demonstrate developmental gains in the health and interpersonal

areas. For example, a past moral event confirming one's self-view may lead to greater personal well-being and enhanced self-worth given that the past behaviour aligns with one's current moral values. At the same time, a past immoral event changing one's self-view may lead to self-transformation (see Pasupathi & Mansour, 2006) given that self-event connection might be similar to coherent positive resolution, which has also been coded for in life narratives. Coherent positive resolution is seen as a type of transformational processing as one reflects on the past event and creates a sense of change in one's self, which is also central to one's narrative identity (see Pals, 2006). This type of processing has been associated with greater emotional well-being, including higher levels of optimism and lower levels of depressive symptoms, compared to those who exhibited less coherent positive resolution in their narratives (Dumas, Lawford, Tieu, & Pratt, 2009).

Evidently, future research needs to continue examining self-event connections in narratives about past experiences across the lifespan to better delineate age as well as context effects, while also exploring its relation to well-being and behaviour. The ability to form self-event connections is an important mechanism of identity development, specifically the development of the third layer of personality. By reflecting on past (im)moral actions, it contributes to moral identity development and how one may view morality as imperative to their sense of self. Thus, it is also important for educators and parents to ensure that their children and students, especially in high school, are reflecting on their past moral achievements as well as moral failures to better facilitate the development of moral understanding and a more mature sense of moral agency. Whether the past moral event confirms or changes one's self-view, it appears that with age

reflecting on one's past behaviour increases the strength of self-event connection from merely no connection or dismissal to more explicit forms of self-event connection.

Through these reflections, one might be better able to understand themselves and others in the context of how their morally laden actions go beyond the actual event itself and rooted in goals and beliefs.

### ***Limitations and Conclusions***

The present study's overall major limitations were discussed in Chapter I (i.e., cross-sectional design, limited age-range, public versus catholic school boards, predominately European-descent sample), but there are some specific limitations related to this study. Given the narrative nature of the study, selection bias in the events that participants chose to narrate was a possibility, though social desirability does not seem to play a large role in explaining age and context differences in observed patterns in these types of data (see Recchia et al., 2015; Wainryb et al., 2005). Moreover, we cannot generalize these findings across different relationships. For instance, future research should examine whether these harmful and helpful experiences with a parent, sibling, best friend(s), and other friends or peers would change the pattern of effects. Finally, the study was correlational in nature and we cannot draw any causal conclusions. For example, physical forms of harm decreased with age which could suggest that participants engaged in less physical forms of harm over time or it could also suggest that older participants were less likely to discuss physical forms of harm. At the same time, other factors altogether, such as social conventions and past consequences of physical forms of harm, might explain why this type of harm decreased across middle childhood and adolescence.

Despite the limitations, the present study adds an important contribution to the literature by considering similarities and differences between transgressive and prosocial experiences separately for family and friends when examining narrative accounts of past morally relevant experiences. Importantly, these findings related to context and age were not only statistically significant, but also had practical significance given that the effect sizes (Cohen's *d*) were mainly medium to large. Practically, this means that the way children and adolescents understand and interpret past morally relevant events depend on the moral and/or social context of the situation, as well as changes with age. By comparing the effect sizes of social context (e.g., reasons x social,  $\eta^2p = .10$ ) and moral context (reasons x moral,  $\eta^2p = .90$ ), it appeared that the moral context was more important than the social context in how children and adolescents reason and connect to past morally relevant behaviour. Most importantly, this study has the potential to inform parents, educators, and future research on ways to help support moral identity development, specifically their moral understanding of the self and therefore, others. Across all ages, parents and educators need to encourage their children and students to actively reflect on their past moral and immoral behaviour given that they gain different insights about themselves in each of these moral contexts. By gaining greater insight on the self as a moral person through active reflection, hopefully we can enrich these moral citizens to engage together in a more compassionate and caring world.

#### **CHAPTER IV: Relationships Between the Three Layers of Moral Identity**

The focus of each chapter of this dissertation has been one of three layers of moral identity, but how do these layers of moral identity relate to each other? Bivariate



correlations between key study variables of each layer of moral identity were examined, controlling for age given that there were age-related differences at each layer (see Table 19). After controlling for age, similar to Krettenauer and Victor (2017), the first layer of moral identity (mean-level of self-importance of moral values) was positively and marginally significantly related to internal moral identity motivation at the second layer,  $r(183) = .14, p = .061$ . It is important to note that although the relationship between mean-level of moral identity (layer one) and internal moral identity motivation (layer two) was marginally significant, it is consistent and similar in strength ( $r = .14$ ) to Krettenauer and Victor's (2017) finding with a larger sample of adolescents and adults. The second layer of moral identity motivation was also significantly related to the third layer of moral identity, such that internal moral identity motivation was positively related to strength of self-event connection,  $r(183) = .18, p = .017$ . The first layer and third layer of moral identity were unrelated,  $r(183) = .09, ns$ . Evidently, there was a substantial relationship between the second and third layers of moral identity, and a marginal relationship between the first and second layers. Finally, supporting previous research connecting moral identity to moral behaviour (see Hertz & Krettenauer, 2016), the three layers of moral identity seem to be related to moral behaviour, specifically antisocial behaviour. These follow-up analyses support the notion that there are three layers to moral identity given that they appear to be somewhat related to one another as well as to moral behaviour.

Although these effect sizes were small ( $r$ 's = .14 and .18), they allude to some important theoretical and practical significance. In terms of developmental theory, this was the first study to examine moral identity development, especially the three layers,

prior to adolescence and the findings suggest that layers of moral identity are present and already appear to relate to each other in younger developmental age periods, which is worth studying. From middle childhood to adolescence, individuals are becoming more self-aware of their moral understanding while also navigating new experiences, new environments, and new friendships. As such, aspects or layers of their identity may be more related than others, especially in terms of their motivations (i.e., why they want to be this way or why they engage in specific behaviours) and the ability to draw connections to past experiences to their current sense of self (i.e., confirming versus changing one's self-view). As individuals enter adulthood and become less differentiated and more integrated with their sense of self across contexts, these layers might become more related to each other. Evidently, future research is needed that examines these layers of moral identity across middle childhood to adulthood. Practically, the findings also suggest that it might be worth pursuing interventions to further enhance these layers by emphasizing environments that both foster internal motivation and stress the importance of active reflection of past (im)moral actions. Despite the small effect size, the relationship between these layers is present and it is continuously important to contribute to developmental theory as well as to pursue ways to foster moral understanding and moral citizens.

The trait layer of moral identity, however, seemed to be the most different layer of moral identity compared to the motivation and narrative layers. This was especially apparent when comparing age-related patterns across the three layers and only the first layer exhibited a decline in moral identity (i.e., self-importance of moral values) in terms of traits, whereas the other two layers exhibited general positive increases with age.

Moreover, the trait layer was not as strongly related to the other layers. There are a number of potential explanations for the variation in the trait layer compared to the motivation and narrative layers of moral identity.

First, the decline in the self-importance of moral values could indicate a transformation in identity formation in the adolescent years. Identity development may not be as linear at the trait layer given that there are fluctuations in identity and it continues to develop throughout the lifespan. Erikson (1968, 1980) was the first to conceptualize identity as a multidimensional construct and given developmental changes and transitions in environment, an individual's identity is subject to both change and transformation. This meaningful notion can also be applied to moral identity development. Marcia (1966) built on Erikson's model of identity and outlined two key identity processes described by Erikson that could be used in empirical research: identity exploration and identity commitment. These processes led to the creation of Marcia's identity statuses based on the level of exploration and commitment (for an overview, see Luyckx, Schwartz, Goossens, Beyers, & Missotten, 2011; Schwartz, Donnellan, Ravert, Luyckz, & Zamboanga, 2013). Based on their research program, Meeus and colleagues (e.g., Crocetti, Rubini, & Meeus, 2008; Meeus, van de Schoot, Keijsers, Schwartz, & Branje, 2010) argued that individuals enter adolescence with a more foreclosed identity status (high commitment, low exploration) with commitments internalized from parents and these commitments can be reassessed as part of the process in becoming more autonomous and one developing their own identity separate from their parents. In particular, "during adolescence, individuals manage their commitments in two ways: through in-depth exploration and through reconsideration [of commitments]" (Meeus et

al., 2010, p. 1567). In a large longitudinal study spanning throughout adolescence, Meeus et al. (2010) found various identity progression as well as identity regression transitions, which indicates that adolescents may reconsider commitments, while considering alternative ones. Interestingly, they also found that the “early closure/closure” identity status (similar to foreclosure) was the most prevalent status in the sample, again providing evidence that individuals entering adolescence have a more foreclosed status compared to later age groups.

In line with this view, the personality trait of openness tends to increase during the transition to adulthood (Roberts, Walton, & Viechtbauer, 2006), which suggests the allowance for more identity exploration during this time period (Schwartz et al., 2013). Children and early adolescents may appear to have a foreclosed identity, reflecting higher scores in mean-level of self-importance of moral values (layer one). As they move through adolescence into adulthood they likely engage in a more moratorium identity status (high exploration, low commitment) as they navigate new environments and social situations (e.g., high school, university), which may result in temporarily lower identity commitment and thus lower scores in mean-level of moral identity. Adolescence is also a developmental period wherein individuals become more social and more sensitive to social inclusion (e.g., Brown, 2004; Mrazek, Harada, & Chiao, 2015; Steinberg & Morris, 2001). With the added social pressures, their sense of identity is likely fluctuating with greater degrees of exploration and a temporary decline in commitment as they try to understand themselves and become their own person. The above research on identity exploration and commitment point to the conception that at the trait layer, there may not be a continuous linear increase in identity commitment and thus mean-level of moral

identity may also fluctuate over the lifespan, especially from childhood to adulthood. Unfortunately, there has yet to be longitudinal research examining how these processes in identity formation appear prior to adolescence and a more lifespan approach is needed.

Another possible explanation for why the trait layer of moral identity exhibited different patterns than both the motivation and narrative layers of moral identity could be that the general importance of values and traits may not take fruition until adolescence and adulthood, as traditional identity theorists suggest. In childhood, there could be a lack of connection between abstract value attributes and their own motivations and interests, and as such, mean-level of traits may not be adequately present in younger developmental periods. Children are able to communicate their reasons and motivations, and are able to reflect on past behaviour (layer two and layer three of moral identity), but these may not yet be coherently linked to how they view themselves in terms of traits. For example, children know they like to be honest and not lie because it allows others to view them more positively, but they may not have explicitly connected this to their general sense of self as an honest person. Therefore, mean-level of moral identity as reflected at the trait layer of personality may not yet be directly connected to the other two layers. In fact, when examining mean-level change in personality traits, Roberts et al. (2006) concluded that mean-level change in traits is more prevalent in young adulthood than in adolescence (except for openness which increases in adolescence), though they did not have children in their study nor did they examine moral attributes.

Finally, we cannot rule out that it could be a methodological issue when examining the self-importance of moral values given that this approach has not been conducted with samples younger than adolescence. It is also important to note that unlike

Krettenauer et al. (2016), we did not provide our sample with a choice to choose which moral attributes they considered as descriptive of a highly moral person. Perhaps if our younger sample was able to select their own moral attributes that resonated with them, our findings may be different. At the same time, the developmental age period itself may be attributable to explain the results at the trait layer of moral identity given that the positivity bias or self-serving bias has been documented to be especially salient from ages 8- to 11-years-old (for an overview, see Trzesniewski et al., 2011). When examining children's moral self-concept, Krettenauer and colleagues (2013) found a decrease in the moral self with age from 5- to 12-years-old, which again could suggest the positivity bias inherent with the younger sample.

It is apparent that a more lifespan view of moral identity development at all three layers needs to be further explored in theory and in data collection to better understand how each layer develops over time and are related to each other from childhood to adulthood. Moral identity development is likely not linear at all layers given that identity commitment changes qualitatively with greater in-depth exploration and reconsideration of commitments occurring in the adolescent years prior to adulthood. It is also reasonable to believe that the layers become increasingly related throughout the lifespan.

### **General Discussion and Conclusion**

Moral psychology has questioned the nature of human morality and its development, as well as searched for explanations for why individuals behave morally. Blasi's (1980, 1983, 1984) introduction of moral identity as an explanatory construct to understanding moral development has shaped the empirical landscape in this area for the last several decades. Throughout the hundreds of published articles following Blasi's

work, moral identity has been recognised as an important development dimension, but there has been a lack of documented systematic developmental trends on the construct. The leading two approaches to studying moral identity, trait-based and sociocognitive, arguably do not place development at the forefront and heavily rely on a single layer of personality description (for an overview, see Krettenauer & Hertz, 2015). The personological approach, on the other hand, provides a rich source for studying moral identity development across the lifespan and includes the three layers important to studying moral personality and development (see Pratt & Hardy, 2014; Walker, 2014). Identity is more complex than simply traits or schema formation and action, and thus can be differentiated into multiple layers with varying age-related patterns.

While this integrative approach is promising and evidence has suggested developmental changes on these layers (predominately with adolescents and adults) (see Krettenauer & Hertz, 2015), no single empirical investigation has investigated age-related patterns on all three layers. At the same time, it is important to address what Nucci (2004) identified as a major weakness of research on moral identity and focus on the understudied developmental period of middle childhood to adolescence. The vast majority of moral identity research centres on adolescence and emerging adulthood given that it has been deemed the “critical developmental period” of identity formation (e.g., Hardy & Carlo, 2011b). Arguably, identity, and more specifically moral identity, is a lifelong process that is not exclusive to adolescence and beyond (e.g., Damon, 1996; Krettenauer et al., 2016), especially given the evidence of the moral self in childhood.

The present dissertation aimed to better understand how the multifaceted concept of moral identity develops across the lifespan. Given research by Krettenauer and

colleagues (2016, 2017, in press), moral identity can be described as a context-dependent self-structure that develops across the lifespan from adolescence to adulthood. However, what about its development prior to adolescence? More specifically, the main research question of this dissertation was: how does moral identity form in the course of individual development during middle childhood to adolescence?

Chapter I focused on the first layer of moral identity (traits) and was the first of its kind to examine mean-level and cross-context differentiation of moral identity across middle childhood and adolescence. Participants were asked to rate the self-importance of 13-value attributes that were most frequently chosen by the youngest adolescent age group in Krettenauer et al.'s (2016) study that described a highly moral person. Participants rated these value attributes separately for the social contexts most relevant to this developmental age period: family, friends, and school. Age-related patterns were found on this layer of moral identity with mean-level of moral identity (averaged across all three contexts) decreasing with age, while cross-context differentiation increased with age. Moreover, similar to previous research, parental support was a positive predictor of moral identity above and beyond social desirability, age, and parent-child negative interactions.

Chapter II centred on the second layer of moral identity (motivations) by asking participants to elaborate on the moral attributes they identified as extremely important to the self in the procedure described in Chapter I. As expected, moral identity motivation varied by both age and social context. Consistent with Self-Determination Theory (see Deci & Ryan, 2012), external moral identity motivation and relationship-oriented moral identity motivation decreased with age, while internal moral identity motivation



increased with age. In line to what previous research suggests, this second layer of moral identity was indeed context-specific such that rates of internal, external, and relationship-oriented moral identity motivation depended on whether the context was family, friends, or school. For instance, external moral identity motivation was highest in the school context compared to the family and friends contexts, while internal moral identity motivation was most salient in the contexts of family and friends. This layer of moral identity was also predictive of moral behaviour, specifically those reporting higher levels of internal moral identity motivation had lower levels of teacher-reported antisocial behaviour.

Chapter III addressed the third layer of moral identity by focusing on narrative accounts of past moral failures (harming others) and past moral achievements (helping others) in the context of family and friends. This approach was different from past narrative studies because this was the first study to empirically examine both types of moral contexts (transgressive, prosocial) as well as social contexts (family, friends) to better understand how children's and adolescents' descriptions and interpretations of their past morally relevant events connect to their current sense of self. As expected, results indicated age-related patterns in the ability to connect past experiences to one's present sense of self by either confirming or changing one's self-view. This chapter also illuminated meaningful asymmetries in children's and adolescents' experiences and interpretations of past (im)moral actions that also depend on the social context. For example, reasons for engaging in behaviour were different for past harmful and helpful behaviours with more emphasis on self-oriented reasons in the harmful context and more other-oriented reasons in the helpful context. Moreover, reflecting on past harmful

actions led to more self-event connections compared to past helpful actions. This chapter importantly added validity to this narrative method given that children and adolescents were able to differentiate and be responsive to the separate contexts.

Overall, the separate analyses of the three research topics (traits, motivations, and narratives) described in the chapters provide concrete evidence for utilizing the personological approach to moral identity development. In his commentary to Krettenauer and Hertz (2015), Lapsley (2015) was concerned about the degree to which the personological approach yields developmental potential and that it “still requires developmental specification. It still needs to show how developmental processes in childhood influence the trajectory of moral identity in adolescence and adulthood” (p. 169). This dissertation addresses Lapsley’s concern – albeit through a cross-sectional design – by providing empirical age-related patterns at each layer of moral identity outlined in the personological approach. This innovative inclusive methodology that expands the scope of inquiry of moral identity development is necessary to take the field to a higher, more sophisticated level of moral psychology that reflects the multifaceted construct of moral identity. In the following sections, implications of the dissertation research will be considered in order to facilitate future research in the area.

### **Moving Towards a Comprehensive Theory of Moral Identity Development**

Identity development is shaped by macro-level and micro-level factors including but not limited to, culture, history, and individual differences in characteristics; arguably researchers need to consider the multiple layers of individuality when examining how identity develops (for an overview, see Schwartz et al., 2013). Consequently, the current dissertation aimed to utilize the personological approach to study moral identity

development that draws upon the personality framework of McAdams (2009). This more integrative and heuristic approach allows researchers to distinguish between these layers of individuality and examine the developmental nature of moral identity. In Lapsley's (2015) commentary to Krettenauer and Hertz's (2015) critical review of moral identity development, he noted that "What we have not done is the hard work of articulating a theory of development that yields moral identity (even as life story narratives) as an outcome" (p. 168). Moreover, Nucci (2004) pointed out that "perhaps the biggest gap in theory is the paucity of explanatory connection between children's morality and the period of early adolescence when the construction of moral identity is presumed to exert its influence on moral responsibility" (p. 123). As the first systematic investigation into the three layers of moral identity, I would like to propose in the following paragraphs a more comprehensive theory of moral identity development based on our findings and in response to both Lapsley and Nucci.

The self becomes increasingly involved in morality and moral action across the lifespan and thus is not limited to older developmental periods. This dissertation provides evidence in contrast to the Eriksonian perspective stating that only adolescents are capable to construct a sense of identity given the cognitive limitations (for an overview, see Kroger, 2007). Now that it is evident that there are three layers to moral identity similar to personal identity (see Schwartz et al., 2013), it is important to keep in mind that "some aspects of morality are in place both before and after adolescence" (Heiphetz, Strohming, Gelman, & Young, 2018, p. 2). Specifically, layers of moral identity may differentially appear before and after adolescence and become increasingly connected throughout the lifespan. At some point in adulthood, these layers of moral identity will be

integrated into an individual's moral identity as a whole, similar to Damon's (1984) conception of moral systems being integrated into one's sense of self by adulthood.

In order to better articulate this new general perspective of how moral identity may manifest from middle childhood to adolescence, let us compare a moral identity in middle childhood versus a moral identity in the adolescent years. Before we compare, in middle childhood, individuals are more accurate in their self-appraisals given advances in their cognitive ability to (1) appreciate negative and positive attributes, (2) use social comparisons for their own self-evaluation, (3) differentiate between real versus ideal self-perceptions, as well as (4) enhanced perspective-taking skills that can directly impact one's own self-perception to be more realistic (see Harter, 2012). Thus, these cognitive-developmental advances as well as their increased self-awareness, self-agency, and self-continuity (for an overview, see Harter, 2012) make it appropriate for us to discuss and use the concept of moral "identity" prior to adolescence. It is, however, important to keep in mind that there are restrictions and identity may appear differently from middle childhood to adolescence.

The moral identity of a 10-year-old consists of a high degree of self-importance of moral values (layer one), but their self-view as a moral person appears to be more externally or relationship driven (layer two) and there is also less self-relevance of past moral actions (layer three). Individuals in middle childhood appear to have a strong sense of self, but this self-view is more "external" and reflective of their parental values and nurturing rather than a purely personal "internal" self-view. Scholars in identity research might be reluctant to believe that identity begins forming in childhood, but it is reasonable that by middle childhood, children may have a developing moral identity that

is more reflective of a *social* moral identity. This social moral identity is based on the desire to be the type of person who is considered a valued member of one's community (family, friends, school), beyond simply having a good relationship with one's parents. The need for a sense of belonging in one's environment is still a priority with social comparisons for self-evaluation occurring naturally for this age period. For example, Bryan, Master, and Walton (2014) found that children (3- and 6-year-olds) were motivated to pursue a positive identity given that participants who were encouraged to "be a helper" (noun condition) helped more than participants encouraged "to help" (verb condition). The noun condition appeared to invoke a perceived valued identity that actually fostered helping behaviour. Bryan et al. (2014) argued that adults may involuntarily or straightforwardly signal to children the behaviours and values that are more relevant to defining their identity and that are also valued by adults. As such, we propose that an individual's social moral identity in middle childhood is likely consistent with one's self-view (e.g., attributes you have) but is also highly valued in social contexts (e.g., attributes that your parents and friends also value) and thus not a fully autonomous identity.

The moral identity of a 16-year-old, on the other hand, has a lower level of self-importance of moral values (layer one) as the adolescent is likely reconsidering their identity commitments derived from their parents, while also experiencing in-depth identity exploration as they enter new environments (e.g., high school). However, the 16-year-old's moral identity appears to be moving towards a more personal, autonomous, and internalized sense of identity with a greater degree of both internal identity motivation (layer two) as well as greater self-relevance of past moral behaviour (layer

three). Consequently, compared to the 16-year-old, the 10-year-old's moral identity does not appear to have an internal mechanism to drive their behaviour, but rather a desire to be a valued member in their community of family, friends, teachers, peers, and neighbours. In other words, moral identity may be more socially driven in middle childhood and progresses to be more autonomous with age. Our view certainly aligns with the well-established developmental research that suggests, especially at the trait layer, identity is largely shaped during the transition period from adolescence to adulthood through socialization as well as through the incorporation of self-definitions that an individual attaches to themselves (e.g., Harter, 2012; Mead, 1934). Initially in childhood and early adolescence, one's sense of identity forms based on feelings of belonging and commitment, as well as attitudes and values that are shared by both the self and others' in one's social group (see Mrazek et al., 2015; Phinney, 1990). At some point during the transition to adulthood, with adequate in-depth exploration and reconsideration, individuals are able to formulate their own sense of identity based on what is most important and most fulfilling to the self.

Past research (e.g., Kochanska et al., 2002, 2010; Krettenauer, 2018; Krettenauer et al., 2013) has argued that young children's moral self-concept may be a precursor to later moral identity, but here we argue that young children's moral self-concept may lead to a social moral identity in middle childhood, which continues to be more autonomous with age forming a more fully internal moral identity during the transition to adulthood. In light of Lapsley's (2015) request for a theory of development that yields moral identity as an outcome (e.g., life narratives), this dissertation leads us to consider the strength of the relationship between layers of moral identity as the overall outcome or indicator of a

personal, autonomous and thus mature moral identity. From a developmental and theoretical perspective, it is too simple to claim a specific layer of moral identity as the outcome given that human development itself (including personality) is complex and thus its explanations and outcomes are as well. Based on this dissertation, the most important theoretical implication is that in order to fully understand and describe moral identity, we need to consider all three layers and how they interact together over time to formulate a cohesive and “complete” moral identity that may first emerge as a *social* moral identity in middle childhood and later develops into a more autonomous, internalized moral identity. Over the lifespan, these layers of moral identity are differentially developing and continue to develop to be more internalized and reflect a more personal identity. Once the trait layer, motivation and goal-oriented layer, as well as narrative layer of moral identity are strongly connected, and thus integrated, we can conclude that one’s moral identity has reached maturity. Empirically, researchers may examine each layer of moral identity as an indicator of moral identity similar to Chapters I, II, and III, but it would be premature to state that moral identity is simply only traits, or motivations, or narratives. By connecting the layers, we are able to provide a more complete perspective on moral identity and how it develops over time. It is important to note that these layers are not meant to be outlined as stages to moral identity development. Instead, this more comprehensive theory of moral identity development suggests that it is a multifaceted, context-dependent construct and its development occurs throughout the course of the lifespan beginning with a more social moral identity in middle childhood that becomes more internal and autonomous over time.

**Future Directions**

As discussed above, the present dissertation has many implications related to moral identity as a construct (three layers) as well as its development from middle childhood to adolescence. This dissertation may serve as a springboard for the many research investigations that will come to further test the aforementioned theory of moral identity. First, researchers need to continue this line of work across the lifespan without limiting the scope exclusively to adolescents and adults. It is important to also acknowledge that this dissertation project utilized a cross-sectional design and thus we cannot make conclusive general claims about “development”. These age-related patterns across the age groups may also be attributable to other factors other than age, such as sample characteristics and thus we need to be cautious on how to generalize these age patterns until longitudinal investigations have been conducted. At the same time, Bronfenbrenner’s (1979) view that identity is a result of one’s interactions across different levels of ecosystems in their environment from the personal and most intimate ecological system (the microsystem consisting of family, friends, school) to the broader cultural and societal ecological system (the macrosystem), which need to be considered in any investigations examining identity. Additionally, the bi-directional influence that personal relationships at the microsystem level has on the individual is important to consider. For example, the family can influence the child’s behaviour and development, but the child’s reactions to and interactions with the family also influences how the family interacts with the child. It would be vital to consider how the influences that go back and forth shape moral identity development.



Context-specificity needs to be part of the research design regardless of developmental age period because even at a young age, there is context-dependency in how children reflect and understand the self and the world (i.e., family, friends, school, immoral context, moral context). Recent work in the field has taken into account various moral and social contexts (e.g., Krettenauer et al., 2016; Krettenauer & Victor, 2017; Recchia et al., 2013, 2015), though not systematically in a single study like the present dissertation project. Expanding the dimension of context-specificity is also needed in empirical investigations to better reflect the complexity of human development across the different ecological systems given that these systems naturally interact with and influence one another. For instance, findings from this dissertation cannot be generalized to all cultural contexts especially given that there are culturally specific conceptions of moral identity (see Jia et al., in press). The present study needs to be replicated in other cultural contexts to better understand how moral identity develops cross-culturally (macrosystem). Finally, given the implications for moral education in how educators and parents can foster moral understanding and moral behaviour, as well as the difference in the school systems (e.g., Kelly, 2010), future research needs to also differentiate the school context by examining students in public versus catholic schools (macrosystem). The present study recruited participants from both school systems, but the number of participants from catholic schools were too few (approximately 23% of the sample) to adequately compare both school systems. Evidently, another layer of human complexity needs to be considered to better understand how moral identity develops; more specifically, the cultural context (Western versus Eastern) and school context (public

versus catholic) may influence the development of these layers of moral identity in important and diverse ways.

Although it is ideal to investigate all three layers together when examining moral identity development, it may be challenging to incorporate all three layers of moral identity into a single empirical investigation depending on the resources available to researchers. However, as a recommendation from a developmental perspective, researchers at the very least need to consider the second layer of moral identity as imperative to examine for two reasons. First, internal moral identity motivation reflected in the second layer of moral identity was the strongest link to moral behaviour and finding ways to continue to foster this layer of moral identity is needed to promote higher rates of moral acts and lower incidences of immoral events. At the same time, human beings all have motivations or reasoning for their behavior, which can be tapped into from at a relatively young age. Therefore, in terms of methodological consistency over time, scholars need to examine one's intentions in order to better understand their sense of self. This type of focus will allow developmental researchers to better compare age trends across the lifespan given that at most ages, individuals can articulate their reasons, which we now know are context-specific.

Finally, this dissertation proposed that moral identity development may appear as a *social* moral identity in middle childhood that progresses to be more internal with age, but this has not been supported by empirical evidence. In the present dissertation, external moral identity motivation and relationship-oriented moral identity motivation could be considered indicators of "social moral identity", but future research should also incorporate methods to better access social moral identity to determine if this is indeed

present in middle childhood. For example, future research could interview children and adolescents and ask them how their sense of identity or the self-importance of moral values may or may not impact close relationships in their own lives (e.g., What if your friends did not think these were important? How would that impact how you see these values for yourself?). This type of procedure may allow researchers to assess whether participants' moral identity is reflective of a social identity to uphold close relationships. Relatedly, Heiphetz et al. (2018) found that perceptions of friendship change may play an important role in perceived identity change and that changes in identity are likely linked to changes in relationships. Therefore, it might be meaningful to also ask participants if the values of their friends and family changed, how would that impact their own self-view?

Overall, in order for research in this area to continue to expand and add to the theory of moral identity development, the following need to be accomplished: (1) longitudinal designs from childhood to adulthood, (2) including measures that tap into each layer of moral identity assessed at each time point to track the trajectories across and within layers, and (3) examine environmental factors such as parent-child relationship quality as well as parental values at the onset. These types of empirical investigations will allow researchers to better test this developmental theory of moral identity. At the very least, these results provide promising directions for future research in the area.

## **Conclusion**

In summary, this dissertation provides the first comprehensive set of findings in support of important developmental changes at each of the three layers of moral identity across middle childhood and adolescence. Based on the empirical evidence from the

chapters described above, a more comprehensive theory of moral identity development was proposed suggesting that moral identity development is context-dependent and that each layer of moral identity manifests differentially throughout the lifespan. Importantly, it begins to emerge in middle childhood perhaps as a *social* moral identity and progresses to be more internal with age.

Traits (layer one) may not be ready to be fully formed yet in middle childhood, but warm and supportive parent-child relationships seem to nurture higher levels of moral identity from middle childhood to adolescence. Parents may shape children to have a strong *social* moral identity, which may later manifest into a more internalized moral identity. Also, given the moderate relationship between the self-importance of moral values (layer one) and internal moral identity motivation (layer two), perhaps by enhancing children's internal moral motivation we may be able to nurture developing moral traits in adolescence and thus allow it to be further enriched in adulthood. Another way to promote internal motivation in order to support the self-importance of moral values in the future is for children to engage in reflections of their past moral and immoral behaviours (layer three). Both second and third layers of moral identity have many implications for educators and parents in understanding developmentally appropriate ways to promote moral understanding and thus moral behavior. For example, reflecting on past events can occur at most ages and educators and parents can help facilitate this type of reflective processing. Moreover, reflecting on both types of morally relevant behaviour appears to have different benefits for the development of their identity given that prosocial events may help to confirm their sense of self and reflecting on transgressive events aids in changing one's self-view in light of a transgressive act.

Taken together, this dissertation suggests that there are three layers of moral identity that develop across the lifespan. Future theory and research on moral identity need to consider these three layers and that it is important and possible to nurture the development of each layer of moral identity beginning in middle childhood in order to better predict moral behaviour. In our current political global climate, it is increasingly important to cultivate moral citizens who are accepting and understanding of others and thus are more likely to disengage from immoral acts.

### Appendix A: Social Desirability

Below you find a list of statements. Please read each statement carefully and decide if that statement describes you or not. If it describes you, check the box for "True"; if not, check "False".

	Yes	No
Have you ever felt like saying unkind things to a person? .....	<input type="checkbox"/>	<input type="checkbox"/>
Are you always careful about keeping your clothing neat and your room picked up? .....	<input type="checkbox"/>	<input type="checkbox"/>
Do you sometimes feel like staying home from school even if you are not sick? .....	<input type="checkbox"/>	<input type="checkbox"/>
Do you ever say anything that makes somebody else feel bad? .....	<input type="checkbox"/>	<input type="checkbox"/>
Are you always polite, even to people who are not very nice? .....	<input type="checkbox"/>	<input type="checkbox"/>
Sometimes, do you do things you've been told not to do? .....	<input type="checkbox"/>	<input type="checkbox"/>
Do you always listen to your parents? .....	<input type="checkbox"/>	<input type="checkbox"/>
Do you sometimes wish you could just play around instead of having to go to school? ...	<input type="checkbox"/>	<input type="checkbox"/>
Have you ever broken a rule? .....	<input type="checkbox"/>	<input type="checkbox"/>
Do you sometimes feel angry when you don't get your way? .....	<input type="checkbox"/>	<input type="checkbox"/>
Do you sometimes feel like making fun of other people? .....	<input type="checkbox"/>	<input type="checkbox"/>
Do you always do the right things? .....	<input type="checkbox"/>	<input type="checkbox"/>
Are there sometimes when you don't like to do what your parents tell you? .....	<input type="checkbox"/>	<input type="checkbox"/>
Do you sometimes get mad when people don't do what you want them to do? .....	<input type="checkbox"/>	<input type="checkbox"/>

### **Appendix B: Parent-Child Relationship Quality Questionnaire**

Everyone has a number of people who are important in his or her life. The following questions are about you and your relationship with **your mother**. Please tell me:

**How much do you and your mother get upset with or mad at each other?**

Little or none ----- somewhat ----- very much ----- extremely much

**How much do you and your mother get on each other's nerves?**

Little or none ----- somewhat ----- very much ----- extremely much

**How much does your mother treat you like you're admired and respected?**

Little or none ----- somewhat ----- very much ----- extremely much

**How sure are you that the relationship with your mother will last no matter what?**

Little or none ----- somewhat ----- very much ----- extremely much

**How much do you play around and have fun with your mother?**

Little or none ----- somewhat ----- very much ----- extremely much

**How much do you and your mother disagree and quarrel?**

Little or none ----- somewhat ----- very much ----- extremely much

**How much does your mother help you figure out or fix things?**

Little or none ----- somewhat ----- very much ----- extremely much

**How much do you and your mother get annoyed with each other's behavior?**

Little or none ----- somewhat ----- very much ----- extremely much

**How much do you share your secrets and private feelings with your mother?**

Little or none ----- somewhat ----- very much ----- extremely much

**How much does your mother really care about you?**

Little or none ----- somewhat ----- very much ----- extremely much

**How much do you and your mother argue with each other?**

Little or none ----- somewhat ----- very much ----- extremely much

**How much do you and your mother hassle or nag one another?**

Little or none ----- somewhat ----- very much ----- extremely much

**How much do you take care of your mother?**

Little or none ----- somewhat ----- very much ----- extremely much

Now, let's talk about the relationship with your father.

**How much do you and your father get upset with or mad at each other?**

Little or none ----- somewhat ----- very much ----- extremely much

**How much do you and your father get on each other's nerves?**

Little or none ----- somewhat ----- very much ----- extremely much

**How much does your father treat you like you're admired and respected?**

Little or none ----- somewhat ----- very much ----- extremely much

**How sure are you that the relationship with your father will last no matter what?**

Little or none ----- somewhat ----- very much ----- extremely much

**How much do you play around and have fun with your father?**

Little or none ----- somewhat ----- very much ----- extremely much

**How much do you and your father disagree and quarrel?**

Little or none ----- somewhat ----- very much ----- extremely much

**How much does your father help you figure out or fix things?**

Little or none ----- somewhat ----- very much ----- extremely much

**How much do you and your father get annoyed with each other's behaviour?**

Little or none ----- somewhat ----- very much ----- extremely much

**How much do you share your secrets and private feelings with your father?**

Little or none ----- somewhat ----- very much ----- extremely much

**How much does your father really care about you?**

Little or none ----- somewhat ----- very much ----- extremely much

**How much do you and your father argue with each other?**

Little or none ----- somewhat ----- very much ----- extremely much

**How much do you and your father hassle or nag one another?**

Little or none ----- somewhat ----- very much ----- extremely much

**How much do you take care of your father?**

Little or none ----- somewhat ----- very much ----- extremely much



**Appendix C: Teacher-Report of Moral Behaviour**

	<b>Not True</b>	<b>Sometimes True</b>	<b>Certainly True</b>
1. Tends to react to other student's distress by teasing them or making things worse.	0	1	2
2. Seems concerned when other students are distressed.	0	1	2
3. Is an aggressive student.	0	1	2
4. Taunts and teases other students.	0	1	2
5. Threatens other students.	0	1	2
6. Is kind toward other students.	0	1	2
7. Listens to other students.	0	1	2
8. Compromises in conflicts with other students.	0	1	2
9. Is cooperative with other students.	0	1	2
10. Loses temper easily in conflicts with other students.	0	1	2
11. Argues with other students.	0	1	2
12. Is friendly toward other students.	0	1	2
13. Annoys or irritates other students.	0	1	2
14. Disrupts other student's activities.	0	1	2
15. Shows concern for moral issues (e.g., fairness, welfare of others).	0	1	2
16. Offers help or comfort when other students are upset.	0	1	2
17. Will continue to bother or hurt other students even when they are clearly upset.	0	1	2
18. Considerate of other people's feelings.	0	1	2
19. Often loses temper.	0	1	
20. Helpful if someone is hurt, upset, or feeling ill.	0	1	2
21. Generally not well behaved.	0	1	2

22. Often offers to help others (parents, teachers, students).	0	1	2
23. Often fights with other children or bullies them.	0	1	2
24. Shares readily with other students (e.g., books, games).	0	1	2
25. Often lies or cheats.	0	1	2
26. Steals from home, school, or elsewhere.	0	1	2
27. Kind to younger students.	0	1	2

### References

- American Psychological Association. (2008). Ethical principles of psychologists and code of conduct. In D. N. Bersoff (Eds.), *Ethical conflicts in psychology (4th ed.)* (pp. 14-30). Washington, DC: American Psychological Association.
- Aquino, K., Freeman, D., Reed, A., Lim, V., & Felps, W. (2009). Testing a social-cognitive model of moral behavior: The interactive influence of situations and moral identity centrality. *Journal of Personality and Social Psychology, 97*(1), 123-141. doi:10.1037/a0015406.
- Arnold, M. L. (1993). *The place of morality in the adolescent self* (Unpublished doctoral dissertation). Harvard University, Cambridge.
- Baird, B. M., Le, K., & Lucas, R. E. (2006). On the nature of intraindividual personality variability: Reliability, validity, and associations with well-being. *Journal of Personality and Social Psychology, 90*(3), 512-527. doi:10.1037/0022-3514.90.3.512
- Battistich, V., Schaps, E., & Wilson, N. (2004). Effects of an elementary school intervention on students' "connectedness" to school and social adjustment during middle school. *The Journal of Primary Prevention, 24*(3), 243-262. doi:10.1023/B:JOPP.0000018048.38517.cd
- Baxter, S. D., Smith, A. F., Litaker, M. S., Baglio, M. L., Guinn, C. H., & Shaffer, N. M. (2004). Children's social desirability and dietary reports. *Journal of Nutrition Education and Behavior, 36*(2) doi:http://dx.doi.org/10.1016/S1499-4046(06)60138-3

- Blanca, M. J., Alarcón, R., Arnau, J., Bono, R., & Bendayan, R. (2017). Non-normal data: Is ANOVA still a valid option?. *Psicothema*, 29(4), 552-557. doi: 10.7334/psicothema2016.383
- Blasi, A. (1980). Bridging moral cognition and moral action: A critical review of the literature. *Psychological Bulletin*, 88(1), 1-45. doi:http://dx.doi.org/10.1037/0033-2909.88.1.1
- Blasi, A. (2005). Moral character: A psychological approach. In D. K. Lapsley & F. C. Powers (Eds.), *Character psychology and character education* (pp. 67-100). Notre Dame, IN: University of Notre Dame Press.
- Blasi, A. (1983). Moral cognition and moral action: A theoretical perspective. *Developmental Review*, 3(2), 178-210. doi:10.1016/0273-2297(83)90029-1
- Blasi, A. (2004). Moral functioning: Moral understanding and personality. In D. K. Lapsley & D. Narvaez (Eds.), *Moral development, self, and identity* (pp. 335-347). Mahwah, NJ: Lawrence Erlbaum Associates.
- Blasi, A. (1984). Moral identity: Its role in moral functioning. In W. M. Kurtines & J. J. Gewirtz (Eds.), *Morality, moral behavior, and moral development* (pp. 128-139). New York, NY: John Wiley & Sons.
- Blasi, A., & Glodis, K. (1995). The development of identity. A critical analysis from the perspective of the self as subject. *Developmental review*, 15(4), 404-433. doi:https://doi.org/10.1006/drev.1995.1017
- Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard Press.

- Brown, B. B. (2004). Adolescents' relationships with peers. In R. M. Lerner & L. Steinberg (Eds.), *Handbook of adolescent psychology* (2nd ed.) (pp. 363–394). Hoboken, NJ: Wiley.
- Bryan, C. J., Master, A., & Walton, G. M. (2014). “Helping” versus “being a helper”: Invoking the self to increase helping in young children. *Child Development, 85*(5), 1836-1842. doi:10.1111/cdev.12244
- Buhrmester, D. (1992). The developmental courses of sibling and peer relationships. In F. Boer & J. Dunn (Eds.), *Children's sibling relationships: Developmental and clinical issues* (pp. 19–40). Hillsdale, NJ: Erlbaum.
- Carlo, G., Mestre, M. V., Samper, P., Tur, A., & Armenta, B. E. (2011). The longitudinal relations among dimensions of parenting styles, sympathy, prosocial moral reasoning, and prosocial behaviors. *International Journal of Behavioral Development, 35*(2), 116-124. doi:http://dx.doi.org/10.1177/0165025410375921
- Crandall, V. C., Crandall, V. J., & Katkovsky, W. (1965). A children's social desirability questionnaire. *Journal of Consulting Psychology, 29*(1), 27-36. doi:http://dx.doi.org/10.1037/h0020966
- Crocetti, E., Rubini, M., & Meeus, W. (2008). Capturing the dynamics of identity formation in various ethnic groups: Development and validation of a three-dimensional model. *Journal of Adolescence, 31*, 207–222. doi:10.1016/j.adolescence.2007.09.002

- Damon, W. (1984). Self-understanding and moral development from childhood to adolescence. In W. M. Kurtines & J. L. Gewirtz (Eds.), *Morality, moral behavior, and moral development* (pp. 109–127). New York, NY: Wiley.
- Damon, W. (2004). What is positive youth development? *Annals of the American Academy of Political and Social Science*, *591*, 13-24.  
doi:<http://dx.doi.org/10.1177/0002716203260092>
- Damon, W. (2006). Review of handbook of moral development. *Journal of Moral Education*, *35*(2), 269-271. doi:<http://dx.doi.org/10.1080/03057240600681793>
- Damon, W. (1996). The lifelong transformation of moral goals through social influence. In P. B. Baltes & U. M. Staudinger (Eds.), *Interactive minds* (pp. 198-220). Cambridge, MA: Cambridge University Press.
- Daniel, E., Schiefer, D., Möllering, A., Benish-Weisman, M., Boehnke, K., & Knafo, A. (2012). Value differentiation in adolescence: The role of age and cultural complexity. *Child Development*, *83*(1), 322-336. doi:10.1111/j.1467-8624.2011.01694.x
- Deci, E. L., & Ryan, R. M. (2012). Motivation, personality, and development within embedded social contexts: An overview of Self-Determination Theory. In R. M. Ryan (Eds.), *The Oxford handbook of human motivation* (pp. 85–107).  
<http://dx.doi.org/10.1093/oxfordhb/9780195399820.013.0006>
- Derkman, M. M. S., Engels, R. C. M. E., Kuntsche, E., van, d. V., & Scholte, R. H. J. (2011). Bidirectional associations between sibling relationships and parental support during adolescence. *Journal of Youth and Adolescence*, *40*(4), 490-501.  
doi:10.1007/s10964-010-9576-8

- Diehl, M., & Hay, E. L. (2007). Contextualized self-representations in adulthood. *Journal of Personality, 75*(6), 1255-1284. doi:10.1111/j.1467-6494.2007.00475.x
- Doering, B. (2013). The development of moral identity and moral motivation in childhood and adolescence. In K. Heinrichs, F. Oser & T. Lovat (Eds.), *Handbook of moral motivation* (pp. 289-305). Rotterdam: Sense Publishers.
- Dumas, T. M., Lawford, H., Tieu, T., & Pratt, M. W. (2009). Positive parenting in adolescence and its relation to low point narration and identity status in emerging adulthood: A longitudinal analysis. *Developmental Psychology, 45*(6), 1531-1544. doi:10.1037/a0017360
- Eisenberg, N., Zhou, Q., & Koller, S. (2001). Brazilian adolescents' prosocial moral judgment and behavior: Relations to sympathy, perspective taking, gender-role orientation, and demographic characteristics. *Child Development, 72*(2), 518-534. doi:http://dx.doi.org/10.1111/1467-8624.00294
- Erikson, E. H. (1959/1980). *Identity and the life cycle*. New York, NY: W. W. Norton.
- Erikson, E. H. (1968). *Identity: Youth and crisis*. New York, NY: W. W. Norton.
- Fivush, R., & Nelson, K. (2004). Culture and language in the emergence of autobiographical memory. *Psychological Science, 15*(9), 573-577. doi:http://dx.doi.org/10.1111/j.0956-7976.2004.00722.x
- Freud, S. (1935). *A general introduction to psychoanalysis*. New York: Modern Library.
- Frimer, J. A., & Walker, L. J. (2009). Reconciling the self and morality: An empirical model of moral centrality development. *Developmental Psychology, 45*, 1669-1681. doi:10.1037/a0017418

- Furman, W., & Buhrmester, D. (1985). Children's perceptions of the personal relationships in their social networks. *Developmental Psychology, 21*, 1016-1024.  
doi:10.1037/0012-1649.21.6.1016
- Ganzeboom, H. B. G., De Graaf, P. M., & Treiman, D. J. (1992). A standard international socio economic index of occupational status. *Social Science Research, 21*, 1-56.  
doi:http://dx.doi.org/10.1016/0049-089X(92)90017-B
- Gibbs, J. C., Basinger, K. S., Grime, R. L., & Snarey, J. R. (2007). Moral judgment development across cultures: Revisiting Kohlberg's universality claims. *Developmental Review, 27*, 443-500. doi: 10.1016/j.dr.2007.04.001
- Goodman, R. (1997). The Strengths and difficulties questionnaire: A research note. *Journal of Child Psychology and Psychiatry, 38*, 581-586.  
doi:10.1111/j.1469-7610.1997.tb01545.x
- Graham, J., Haidt, J., & Nosek, B. A. (2009). Liberals and conservatives rely on different sets of moral foundations. *Journal of Personality and Social Psychology, 96*(5), 1029-1046. doi:10.1037/a0015141
- Grolnick, W. S., Deci, E. L., & Ryan, R. M. (1997). Internalization within the family: The self-determination theory perspective. In J. E. Grusec & L. Kuczynski (Eds.), *Parenting and children's internalization of values* (pp. 135-161). New York, NY: Wiley.
- Habermas, T., & Bluck, S. (2000). Getting a life: The emergence of the life story in adolescence. *Psychological Bulletin, 126*(5), 748-769.  
doi:http://dx.doi.org/10.1037/0033-2909.126.5.748



Habermas, T., & de Silveira, C. (2008). The development of global coherence in life narratives across adolescence: Temporal, causal, and thematic aspects.

*Developmental Psychology, 44*, 707–721. doi:10.1037/0012-1649.44.3.707

Habermas, T., & Reese, E. (2015). Getting a life takes time: The development of the life story in adolescence, its precursors and consequences. *Human*

*Development, 58*(3), 172-201. doi:http://dx.doi.org/10.1159/000437245

Haidt, J. (2007). The new synthesis in moral psychology. *Science, 316*(5827), 998-1002. doi:10.1126/science.1137651

Haidt, J. (2012). *The righteous mind*. New York, NY: Vintage Books.

Hardy, S. A., Bean, D. S., & Olsen, J. A. (2015). Moral identity and adolescent prosocial and antisocial behaviors: Interactions with moral disengagement and self-

regulation. *Journal of Youth and Adolescence, 44*(8), 1542-1554.

doi:10.1007/s10964-014-0172-1

Hardy, S. A., Bhattacharjee, A., Reed, A., & Aquino, K. (2010). Moral identity and psychological distance: The case of adolescent parental socialization. *Journal of*

*Adolescence, 33*, 111-123. doi:10.1016/j.adolescence.2009.04.008

Hardy, S. A., & Carlo, G. (2005). Identity as a source of moral motivation. *Human*

*Development, 48*, 232-256. doi:10.1159/000086859

Hardy, S. A., & Carlo, G. (2011a). Moral identity. In S. J. Schwartz, K. Luyckx & V. L.

Vignoles, *Handbook of identity theory and research* (pp. 495-514). New York,

NY: Springer.

- Hardy, S. A., & Carlo, G. (2011b). Moral identity: What is it, how does it develop, and is it linked to moral action? *Child Development Perspectives*, 5(3), 212-218.  
doi:10.1111/j.1750-8606.2011.00189.x
- Hardy, S. A., Krettenauer, T., & Hunt, N. (in press). Moral identity development. In L. Arnett-Jensen (Eds.), *Oxford Handbook of Moral Development*.
- Hardy, S. A., Walker, L. J., Gray, A., Ruchty, J. A., & Olsen, J. A. (2012, March). A possible selves approach to adolescent moral identity. In S. A. Hardy (Chair), *Moral identity in adolescence and emerging adulthood: Conceptualization, measurement, and validation*. Symposium presented at the meeting of the Society for Research on Adolescence, Vancouver.
- Hardy, S. A., Walker, L. J., Olsen, J. A., Skalski, J. E. and Basinger, J. C. (2011). Adolescent naturalistic conceptions of moral maturity. *Social Development*, 20, 562–586. doi:10.1111/j.1467-9507.2010.00590.x
- Hart, D., Atkins, R., & Ford, D. (1999). Family influences on the formation of moral identity in adolescence: Longitudinal analyses. *Journal of Moral Education*, 28, 375-386. doi:10.1080/030572499103142
- Harter, S. (2012). *The construction of the self: A developmental perspective* (2nd ed.). New York, NY: Guilford Press.
- Harter, S., Bresnick, S., Bouchev, H. A., & Whitesell, N. R. (1997). The development of multiple role-related selves during adolescence. *Development and Psychopathology*, 9(4), 835-853. doi:10.1017/S0954579497001466

- Harter, S., & Monsour, A. (1992). Developmental analysis of conflict caused by opposing self-attributes in the adolescent self-portrait. *Developmental Psychology, 28*, 251–260. <http://dx.doi.org/10.1037/0012-1649.28.2.251>
- Heiphetz, L., Strohminger, N., Gelman, S. A., & Young, L. L. (2018). Who am I? the role of moral beliefs in children's and adults' understanding of identity. *Journal of Experimental Social Psychology*. doi:10.1016/j.jesp.2018.03.007
- Hertz, S. G., & Krettenauer, T. (2016). Does moral identity effectively predict moral behavior?: A meta-analysis. *Review of General Psychology, 20*(2), 129-140. doi:<http://dx.doi.org/10.1037/gpr0000062>
- Jia, F., & Krettenauer, T. (2017). Recognizing moral identity as a cultural construct. *Frontiers in Psychology, 8*, 412. doi:10.3389/fpsyg.2017.00412
- Jia, F., Krettenauer, T., & Li, L. (in press). Moral identity in cultural context: Differences between Canadian and Chinese university students. *Journal of Moral Education*.
- Johnston, M., & Krettenauer, T. (2011). Moral self and moral emotion expectancies as predictors of anti- and prosocial behaviour in adolescence: A case for mediation? *European Journal of Developmental Psychology, 8*, 228-243. doi:10.1080/17405621003619945
- Kelly, S. (2010). The prevalence of developmental instruction in public and Catholic schools. *Teacher College Record, 112*(9), 2405-2440.
- Kim, J., McHale, S. M., Osgood, D. W., & Crouter, A. C. (2006). Longitudinal course and family correlates of sibling relationships from childhood through adolescence. *Child Development, 77*(6), 1746-1761. doi:10.1111/j.1467-8624.2006.00971.x

- Kohlberg, L. (1976). Moral stages and moralization: The cognitive-developmental approach. In T. Lickona (Eds.), *Moral development and behavior* (pp. 31-53). New York, NY: Holt, Rinehart & Winston.
- Kochanska, G. (2002). Committed compliance, moral self, and internalization: A mediational model. *Developmental Psychology, 38*(3), 339-351.  
doi:10.1037/0012-1649.38.3.339
- Kochanska, G., Aksan, N., & Joy, M. E. (2007). Children's fearfulness as a moderator of parenting in early socialization: Two longitudinal studies. *Developmental Psychology, 43*(1), 222-237. doi:10.1037/0012-1649.43.1.222
- Kochanska, G., Gross, J. N., Lin, M., & Nichols, K. E. (2002). Guilt in young children: Development, determinants, and relations with a broader system of standards. *Child Development, 73*(2), 461-482.  
doi:http://dx.doi.org/10.1111/1467-8624.00418
- Kochanska, G., Koenig, J. L., Barry, R. A., Sanghang, K., & Yoon, J. E. (2010). Children's conscience during toddler and preschool years, moral self, and a competent, adaptive developmental trajectory. *Developmental Psychology, 46*(5), 1320-1332. doi:10.1037/a0020381
- Kochanska, G., & Thompson, R. A. (1997). The emergence and development of conscience in toddlerhood and early childhood. In J. E. Grusec & L. Kuczynski (Eds.), *Parenting and children's internalization of values: A handbook of contemporary theory* (pp. 53-77). Hoboken, NJ: Wiley.

- Krettenauer, T. (2018). Children's moral self as a precursor of moral identity development. In C. Helwig (Eds.), *New perspectives on moral development* (pp. 73-87). New York, NY: Routledge.
- Krettenauer, T. (2013). Revisiting the Moral Self-Construct: Developmental Perspectives on Moral Selfhood. In B. Sokol, F. Grouzet & U. Müller (Eds.), *Self-regulation and autonomy: Social and developmental dimensions of human conduct*. Cambridge, MA: Cambridge University Press.  
doi:10.1017/CBO9781139152198.010
- Krettenauer, T. (2011). The dual moral self: Moral centrality and internal moral motivation. *The Journal of Genetic Psychology*, 172(4), 309–328.  
doi:10.1080/00221325.2010.538451
- Krettenauer, T., Campbell, S., & Hertz, S. (2013). Moral emotions and the development of the moral self in childhood. *European Journal of Developmental Psychology*, 10(2), 159-173. doi:http://dx.doi.org/10.1080/17405629.2012.762750
- Krettenauer, T., & Hertz, S. (2015). What develops in moral identities? A critical review. *Human Development*. 58(3), 137-153 doi:10.1159/000433502
- Krettenauer, T., & Mosleh, M. (2013). Remembering your (im)moral past: Autobiographical reasoning and moral identity development. *Identity: An International Journal of Theory and Research*, 13(2), 140-158.  
doi:http://dx.doi.org/10.1080/15283488.2013.776497
- Krettenauer, T., Murua, L. A., & Jia, F. (2016). Age-related differences in moral identity across adulthood. *Developmental Psychology*, 52(6), 972-984.  
doi:http://dx.doi.org/10.1037/dev0000127

- Krettenauer, T., & Victor, R. (2017). Why be moral? Moral identity motivation and age. *Developmental Psychology*, doi:<http://dx.doi.org/10.1037/dev0000353>
- Kroger, J. (2007). *Identity development: Adolescence through adulthood* (2nd ed.). Newbury Park, CA: Sage.
- Ladd, G. W., & Profilet, S. M. (1996). The Child Behavior Scale: A teacher-report measure of young children's aggressive, withdrawn, and prosocial behaviors. *Developmental Psychology*, *32*(6), 1008–1024. doi:10.1037/0012-1649.32.6.1008
- Lapsley, D. (2015). Moral identity and developmental theory. *Human Development*, *58*(3), 164-171. doi:10.1159/000435926
- Lapsley, D. K., & Lasky, B. (2001). Prototypic moral character. *Identity: An International Journal of Theory and Research*, *1*(4), 345-363. doi:10.1207/S1532706XID0104\_03
- Lapsley, D. K. & Narvaez, D. (2004). A Social-cognitive approach to the moral personality. In D. K. Lapsley & D. Narvaez (Eds.), *Moral Development, Self and Identity* (pp. 189–212). Mahwah, NJ: Lawrence Erlbaum Associates.
- Lapsley, D. K., & Stey, P. C. (2014). Moral self-identity as the aim of education. In L. Nucci, D. Narvaez & T. Krettenauer (Eds.), *Handbook of Moral and Character Education* (pp. 84–100). New York, NY: Routledge.
- Laursen, B., & Adams, R. (2018). Conflict between peers. In W. M. Bukowski, B. Laursen & K. H. Rubin (Eds.), *Handbook of peer interactions, relationships, and groups* (2nd ed.) (pp. 265-283). New York, NY: Guilford Press.

- Laursen, B., Finkelstein, B. D., & Townsend Betts, N. (2001). A developmental meta-analysis of peer conflict resolution. *Developmental Review, 21*(4), 423-449. doi:10.1006/drev.2000.0531
- Luyckx, K., Schwartz, S. J., Goossens, L., Beyers, W., & Missotten, L. (2011). Processes of personal identity formation and evaluation. In S. J. Schwartz, K. Luyckx & V. L. Vignoles (Eds.), *Handbook of Identity Theory and Research (Vols. 1 and 2)* (pp. 77-98). New York, NY: Springer Science + Business Media.
- Malti, T., & Buchmann, M. (2010). Socialization and individual antecedents of adolescents' and young adults' moral motivation. *Journal of Youth and Adolescence, 39*(2), 138-149. doi:10.1007/s10964-009-9400-5
- Malti, T., Eisenberg, N., Kim, H., & Buchmann, M. (2013). Developmental trajectories of sympathy, moral emotion attributions, and moral reasoning: The role of parental support. *Social Development, 22*(4), 773-793. doi:10.1111/sode.12031
- Malti, T., Gummerum, M., & Buchmann, M. (2007). Contemporaneous and 1-year longitudinal prediction of children's prosocial behavior from sympathy and moral motivation. *The Journal of Genetic Psychology: Research and Theory on Human Development, 168*(3), 277-299. doi:10.3200/GNTP.168.3.277-300
- Malti, T., Gummerum, M., Keller, M., & Buchmann, M. (2009). Children's moral motivation, sympathy, and prosocial behavior. *Child Development, 80*(2), 442-460. doi:10.1111/j.1467-8624.2009.01271.x
- Marcia, J. E. (1966). Development and validation of ego-identity status. *Journal of Personality and Social Psychology, 3*(5), 551-558. doi:10.1037/h0023281

Marcia, J. E., Waterman, A. S., Matteson, D. R., Archer, S. L., & Orlofsky, J. L. (1993).

*Ego identity*. New York, NY: Springer-Verlag.

McAdams, D. P. (2009). The moral personality. In D. Narvaez & D. Lapsley (Eds.),

*Personality, identity, and character: Explorations in moral psychology* (pp. 11-29). New York, NY: Cambridge University Press.

McAdams, D. P. (2001). The psychology of life stories. *Review of General*

*Psychology*, 5(2), 100-122. doi:10.1037/1089-2680.5.2.100

McAdams, D. P., & Pals, J. L. (2006). A new big five: Fundamental principles for an

integrative science of personality. *American Psychologist*, 61(3), 204-217.

doi:http://dx.doi.org/10.1037/0003-066X.61.3.204

McLean, K. C. (2005). Late adolescent identity development: Narrative meaning making

and memory telling. *Developmental Psychology*, 41(4), 683-691.

doi:10.1037/0012-1649.41.4.683

McLean, K. C., & Pasupathi, M. (2012). Processes of identity development: Where I am

and how I got there. *Identity: An International Journal of Theory and*

*Research*, 12(1), 8-28. doi:10.1080/15283488.2011.632363

McLean, K. C., & Pratt, M. W. (2006). Life's little (and big) lessons: Identity statuses and

meaning-making in the turning point narratives of emerging adults.

*Developmental Psychology*, 42(4), 714-722. doi:10.1037/0012-1649.42.4.714

McLean, K. C., & Thorne, A. (2003). Late adolescents' self-defining memories about

relationships. *Developmental Psychology*, 39(4), 635-645. doi:10.1037/0012-

1649.39.4.635



- Mead, G. H. (1934). *Mind, self and society from the standpoint of a social behaviorist*. Chicago, IL: University of Chicago Press.
- Meeus, W., van de Schoot, R., Keijsers, L., Schwartz, S. J., & Branje, S. (2010). On the progression and stability of adolescent identity formation: A five-wave longitudinal study in early-to-middle and middle-to-late adolescence. *Child Development, 81*(5), 1565–1581. doi:10.1111/j.1467-8624.2010.01492.x
- Miller, P. H., Baxter, S. D., Hitchcock, D. B., Royer, J. A., Smith, A. F., & Guinn, C. H. (2014). Test-retest reliability of a short form of the children's social desirability scale for nutrition and health-related research. *Journal of Nutrition Education and Behavior, 46*(5), 423-428. doi:http://dx.doi.org/10.1016/j.jneb.2013.11.002
- Mrazek, A. J., Harada, T., & Chiao, J. Y. (2015). Cultural neuroscience of identity development. In K. C. McLean & M. Syed (Eds.), *The Oxford handbook of identity development* (pp. 423-436). New York, NY: Oxford University Press.
- Nucci, L. (2004). Reflections on the moral self construct. In D. K. Lapsley & D. Narvaez (Eds.), *Moral development, self, and identity* (pp. 111-132). Mahwah, NJ: Lawrence Erlbaum Associates.
- Nunner-Winkler, G. (2007). Development of moral motivation from childhood to early adulthood. *Journal of Moral Education, 36*(4), 399-414.  
doi:http://dx.doi.org/10.1080/03057240701687970
- Nunner-Winkler, G., Meyer-Nikele, M., & Wohlrab, D. (2007). Gender differences in moral motivation. *Merrill-Palmer Quarterly, 53*(1), 26-52.  
doi:10.1353/mpq.2007.0003

- Oberlander, S. E., & Black, M. M. (2011). African American adolescent mothers early caregiving involvement and childrens' behavior and academic performance at age 7. *Journal of Clinical Child and Adolescent Psychology, 40*(5), 756-764. doi:10.1080/15374416.2011.597087
- Paciello, M., Fida, R., Tramontano, C., Lupinetti, C., & Carprara, G. V. (2008). Stability and change of moral disengagement and its impact on aggression and violence in late adolescence. *Child Development, 79*(5), 1288–1309. doi:10.1111/j.1467-8624.2008.01189.x
- Parker, J. G., Rubin, K. H., Erath, S. A., Wojslawowicz, J. C., & Buskirk, A. A. (2006). Peer relationships, child development, and adjustment: A developmental psychopathology perspective. In D. Cicchetti & D. J. Cohen (Eds.), *Developmental psychopathology: Theory and method* (2nd ed.) (pp. 419-493). Hoboken, NJ: John Wiley & Sons Inc.
- Pasupathi, M., Billitteri, J., Mansfield, C. D., Wainryb, C., Hanley, G. E., & Taheri, K. (2015). Regulating emotion and identity by narrating harm. *Journal of Research in Personality, 58*, 127-136. doi:10.1016/j.jrp.2015.07.003
- Pasupathi, M., & Mansour, E. (2006). Adult age differences in autobiographical reasoning in narratives. *Developmental Psychology, 42*(5), 798–808. doi:10.1037/0012-1649.42.5.798
- Pasupathi, M., Mansour, E., & Brubaker, J. R. (2007). Developing a life story: Constructing relations between self and experience in autobiographical narratives. *Human Development, 50*(2-3), 85-110. doi:10.1159/000100939

- Pasupathi, M., & Wainryb, C. (2010a). Developing moral agency through narrative. *Human Development, 53*(2), 55-80. doi:10.1159/000288208
- Pasupathi, M., & Wainryb, C. (2010b). On telling the whole story: Facts and interpretations in autobiographical memory narratives from childhood through midadolescence. *Developmental Psychology, 46*(3), 735-746. doi:10.1037/a0018897
- Patrick, R. B., & Gibbs, J. C. (2012). Inductive discipline, parental expressions of disappointed expectations, and moral identity in adolescence. *Journal of Youth and Adolescence, 41*(8), 973-983. doi:10.1007/s10964-011-9698-7
- Phinney, J. S. (1990). Ethnic identity in adolescents and adults: Review of research. *Psychological Bulletin, 108*(3), 499-514. doi:10.1037/0033-2909.108.3.499
- Piaget, J. (1932/1999). *The moral judgment of the child*. London: Routledge.
- Pratt, M. W., & Hardy, S. A. (2014). Cultivating the moral personality: Socialization in the family and beyond. In J. E. Grusec & P. D. Hastings (Eds.), *Handbook of socialization: Theory and research* (2nd ed.) (pp. 661-685). New York, NY: Guilford Press.
- Pratt, M. W., Skoe, E. E., & Arnold, M. L. (2004). Care reasoning development and family socialisation patterns in later adolescence: A longitudinal analysis. *International Journal of Behavioral Development, 28*(2), 139-147. doi:http://dx.doi.org/10.1080/01650250344000343
- Proulx, T., & Chandler, M. J. (2009). Jekyll and hyde and me: Age-graded differences in conceptions of self-unity. *Human Development, 52*(5), 261-286. doi:http://dx.doi.org/10.1159/000233259

- Rasch, D., & Guiard, V. (2004). The robustness of parametric statistical methods. *Psychology Science, 46*(2), 175-208. Retrieved from <https://libproxy.wlu.ca/login?url=https://search-proquest-com.libproxy.wlu.ca/docview/620555660?accountid=15090>
- Recchia, H. E., Wainryb, C., Bourne, S., & Pasupathi, M. (2015). Children's and adolescents' accounts of helping and hurting others: Lessons about the development of moral agency. *Child Development, 86*(3), 864-876. doi:<http://dx.doi.org/10.1111/cdev.12349>
- Recchia, H. E., Wainryb, C., & Pasupathi, M. (2013). “Two for flinching”: Children’s and adolescents’ narrative accounts of harming their friends and siblings. *Child Development, 84*(4), 1459–1474. doi:10.1111/ cdev.12059
- Reese, E., Chen, Y., McAnally, H. M., Myftari, E., Neha, T., Wang, Q., & Jack, F. (2014). Narratives and traits in personality development among New Zealand Māori, Chinese, and European adolescents. *Journal of Adolescence, 37*(5), 727-737. doi:<http://dx.doi.org/10.1016/j.adolescence.2014.02.005>
- Reimer, K. S., DeWitt Goudelock, B. M., & Walker, L. J. (2009). Developing conceptions of moral maturity: Traits and identity in adolescent personality. *The Journal of Positive Psychology, 4*(5), 372-388. doi:<http://dx.doi.org/10.1080/17439760902992431>
- Renaud-Dubé, A., Taylor, G., Lokes, N., Koestner, R., & Guay, F. (2010). Adolescents’ motivation toward the environment: Age- related trends and correlates. *Canadian Journal of Behavioural Science, 42*(3), 194–199. <http://doi.org/10.1037/a0018596>

- Roberts, B. W., Walton, K. E., & Viechtbauer, W. (2006). Patterns of mean-level change in personality traits across the life-course: A meta-analysis of longitudinal studies. *Psychological Bulletin, 132*(1), 1–25. doi:10.1037/0033-2909.132.1.1
- Ryan, R. M., & Deci, E. L. (2000). Self-Determination Theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist, 55*(1), 68-78. doi:10.1037//0003-066x.55.1.68
- Ryan, R. M., & Deci, E. L. (2008). Self-Determination Theory and the role of basic psychological needs in personality and the organization of behavior. In P. John, R. W. Robins & L. A. Pervin (Eds.), *Handbook of personality* (pp. 654–678). New York, NY: Guilford Press.
- Schaffhuser, K., Allemand, M., & Schwarz, B. (2017). The development of self-representations during the transition to early adolescence: The role of gender, puberty, and school transition. *The Journal of Early Adolescence, 37*(6), 774-804. doi:10.1177/0272431615624841
- Schwartz, S. H., & Bardi, A. (2001). Value hierarchies across cultures taking similarities perspective. *Journal of Cross-Cultural Psychology, 32*(3), 268-290. doi:10.1177/0022022101032003002
- Schwartz, S. J., Donnellan, M. B., Ravert, R. D., Luyckx, K., & Zamboanga, B. L. (2013). Identity development, personality, and well-being in adolescence and emerging adulthood: Theory, research, and recent advances. In R. M. Lerner, M. A. Easterbrooks, J. Mistry & I. B. Weiner (Eds.), *Handbook of psychology: Developmental psychology* (pp. 339-364). Hoboken, NJ: John Wiley & Sons Inc.

- Sengsavang, S., & Krettenauer, T. (2015). Children's moral self-concept: The role of aggression and parent-child relationships. *Merrill-Palmer Quarterly*, *61*(2), 213-235. doi:<http://dx.doi.org/10.13110/merrpalmquar1982.61.2.0213>
- Sengsavang, S., & Krettenauer, T. (in press). Moral development in the family. In S. Hupp, & J. Jewell (Eds.), *The Encyclopedia of Child and Adolescent Development (ECAD)*. John Wiley Blackwell: New York. doi:10.1002/9781119171492.
- Sengsavang, S., Willemsen, K., & Krettenauer, T. (2015). Why be moral? Children's explicit motives for prosocial-moral action. *Frontiers in Psychology*, *6*(552). doi:10.3389/fpsyg.2015.00552
- Steinberg, L., & Morris, A. S. (2001). Adolescent development. *Annual Review in Psychology*, *52*, 83-110. doi:10.1146/annurev.psych.52.1.83
- Tappan, M. (2010). Telling moral stories: From agency to authorship: Commentary on Pasupathi and Wainryb. *Human Development*, *53*(2), 81-86. doi:<http://dx.doi.org/10.1159/000288209>
- Thompson, R. A. (2014). Conscience development in early childhood. In M. Killen, & J. G. Smetana (Eds.), *Handbook of moral development (2nd ed.)* (pp. 73-92). New York, NY: Psychology Press.
- Thompson, R. A., Meyer, S., & McGinley, M. (2006). Understanding values in relationship: The development of conscience. In M. Killen & J. Smetana (Eds.), *Handbook of moral development* (pp. 267-297). Mahwah, NJ: Erlbaum.
- Trzesniewski, K. H., Kinal, M. P., & Donnellan, M. B. (2011). Self-enhancement and self-protection in a developmental context. In M. D. Alicke, & C. Sedikides

- (Eds.), *Handbook of self-enhancement and self-protection* (pp. 341-357). New York, NY: Guilford Press.
- Turiel, E. (1983). *The development of social knowledge: Morality and convention*. New York, NY: Cambridge University Press.
- Vandell, D. L., & Bailey, M. D. (1992). Conflicts between siblings. In C. U. Shantz, & W. W. Hartup (Eds.), *Conflict in child and adolescent development* (pp. 242–269). Cambridge, England: Cambridge University Press.
- Vandell, D. L., Reisner, E. R., Pierce, K. M., Brown, B. B., Lee, D., Bolt, D., & Pechman, E. M. (2006). *The study of promising after-school programs: Examination of longer term outcomes after two years of program experiences*. Madison, WI: Wisconsin Center for Education Research.
- Wainryb, C., Brehl, B. A., & Matwin, S. (2005). Being hurt and hurting others: Children's narrative accounts and moral judgments of their own interpersonal conflicts. *Monographs of the Society for Research in Child Development*, 70(3), 1-114. doi:10.1111/j.1540-5834.2005.00350.x
- Wainryb, C., & Pasupathi, M. (2018). "I hurt him": From morally relevant actions to moral development, by way of narrative. In C. Helwig (Eds.), *New perspectives on moral development* (pp. 105-120). New York, NY: Routledge.
- Wainryb, C., Shaw, L. A., Laupa, M., & Smith, K. R. (2001). Children's, adolescents', and young adults' thinking about different types of disagreements. *Developmental Psychology*, 37(3), 373–386. doi:10.1037/0012-1649.37.3.373

Walker, L. J. (2014). Moral personality, motivation, and identity. In M. Killen & J. G. Smetana (Eds.), *Handbook of moral development* (pp. 497–519). New York: Psychology Press.

Walker, L. J. (1999). The perceived personality of moral exemplars. *Journal of Moral Education, 28*(2), 145–162. doi:10.1080/030572499103188

Walker, L. J., & Pitts, R. C. (1998). Naturalistic conceptions of moral maturity. *Developmental Psychology, 34*(3), 403–419. doi:10.1037/0012-1649.34.3.403



Table 1

*Demographic Characteristics of the Sample Across Age Groups*

	Middle Childhood (8-11 years)	Early Adolescence (12-14 years)	Mid-Adolescence (15-17 years)	Total
<i>n</i>	65	68	57	190
Male: <i>n</i> (%) <sup>a</sup>	26 (40.00)	38 (55.88)	25 (43.86)	89 (46.84)
Age in years ( <i>SD</i> )	10.11 (0.71)	13.26 (0.53)	16.00 (0.67)	13.00 (2.58)
European Canadian: <i>n</i> (%) <sup>b</sup>	47 (74.60)	39 (58.20)	37 (64.91)	123 (65.78)
Socioeconomic status (ISEI)	50.83 (17.29)	60.45 (14.43)	58.75 (15.57)	56.71 (16.26)

*Note.* ISEI = International Socio-Economic Index of Occupational Status.

<sup>a</sup> Percentage refers to within column.

<sup>b</sup> Total number of participants for European Canadian is  $n = 187$  given that there are  $n = 3$  missing data.

Table 2

*Results of Regression Analyses Predicting Mean-Level and Cross-Context Differentiation of Moral Identity by Age and Social Desirability Response Bias*

Predictors/controls	Moral identity: Mean-level				Moral identity: Cross-context differentiation			
	Step 1		Step 2		Step 1		Step 2	
	$\beta$	<i>t</i>	$\beta$	<i>t</i>	$\beta$	<i>t</i>	$\beta$	<i>t</i>
Age1 (Grade 7-8)	-.15	-1.71 <sup>+</sup>	-.05	-.53	.16	1.78 <sup>+</sup>	.08	.83
Age2 (Grade 10-11)	-.30	-3.55 <sup>**</sup>	-.21	-2.48 <sup>*</sup>	.25	2.86 <sup>**</sup>	.18	2.03 <sup>*</sup>
Social desirability			.30	3.92 <sup>***</sup>			-.18	-2.32 <sup>*</sup>
Ethnicity <sup>a</sup>							-.18	-2.39 <sup>*</sup>
$\Delta R^2$	.069 <sup>**</sup>		.078 <sup>***</sup>		.048 <sup>*</sup>		.057 <sup>**</sup>	

Note. *N* = 172.

<sup>a</sup>Ethnicity was only added to the main analyses with cross-context differentiation.

\*\*\**p* < .001, \*\**p* < .01, \**p* < .05, +*p* < .10.

Table 3

*Demographic Characteristics of the Sample Across Age Groups*

	Middle Childhood (8-11 years)	Early Adolescence (12-14 years)	Mid-Adolescence (15-17 years)	Total
<i>n</i>	65	66	57	188
Male: <i>n</i> (%) <sup>a</sup>	26 (40.00)	36 (54.55)	25 (43.86)	87 (46.28)
Age in years ( <i>SD</i> )	10.11 (0.71)	13.26 (0.53)	16.00 (0.67)	12.99 (2.59)
European Canadian: <i>n</i> (%) <sup>b</sup>	47 (74.60)	37 (56.92)	37 (64.91)	121 (65.41)
Socioeconomic status (ISEI)	50.83 (17.29)	60.21 (14.58)	58.75 (15.57)	56.59 (16.30)

*Note.* ISEI = International Socio-Economic Index of Occupational Status.

<sup>a</sup> Percentage refers to within column.

<sup>b</sup> Total number of participants for European Canadian is  $n = 187$  given that there are  $n = 3$  missing data.

Table 4

*Coding Categories for Moral Identity Motivation*

Coding category	Category group	Definition	Interview example	% <sup>a</sup>
Standards and rules	E	Being moral based on following standards and rules of others.	“My parents raised me to be an honest, trustworthy, person. And I feel that it’s important to just live up to their standards.” (ID151, Grade 10, Male, 15-years-old)	2.76
Self-interest	E	Being moral is instrumental in staying out of trouble and/or gaining rewards or getting ahead in life. Primary motive to be moral is based on positive and/or negative consequences to the self.	“Because I don’t want to be in trouble, or get suspended, or go into detention, because you only just sit there for an hour or two.” (ID006, Grade 4, Male, 9-years-old)	16.74

Reputation	E	Being moral is important for leaving good impressions on others and/or avoiding bad impressions.	“I like to be known well by other people like my friends or family friends, so I want to be known as a good person when I grow up and they will remember me for a long time and they will always think of me when they look back through their lives.” (ID121, Grade 8, Male, 13-years-old)	7.99
Consequences-relationships	R	Being moral is important establishing trust, maintaining good relationships with others, and ensuring social groups are functioning well.	“Because I would be building good relationships where we trust each other and we know we can confide in one another.” (ID147, Grade 10, Male, 15-years-old)	20.89
Consequences-others	I	Being moral is important for others’ well-being.	“Because I don't want people to feel bad or I don't want to hurt their feelings.” (ID044, Grade 5, Female, 10-years-old)	12.29

Fairness-related	I	Being moral is important so that everyone is treated the same way you want to be treated.	“I want to be treated that way as well. So I think those ones are the most important for me to be that way because I wouldn’t want to be like disrespected or not accepted.” (ID125, Grade 8, Female, 13-years-old)	16.28
Relationship ideals	I	Being moral is essential and reflective of the type of relationship or community one wants to have.	“It’ll create like a happy, loving environment... a happy, accepting environment having these three things; that’s where people would want to be. I want to be this way because I think it would build a school that I’d want to go to and a school I’d be happy to go to every day.” (ID140, Grade 10, Male, 15-years-old)	11.21

Role model	I	Being moral is important to set a good example for others and/or teach others about moral values.	“I have to be responsible because I’m the oldest and I have to take care and make sure I do the right thing. Because the younger students, they look up to the older students and if I’m not responsible, they’re not going to be either so I have to be that.” (ID081, Grade 8, Female, 13-years-old)	4.15
Self ideals	I	Being moral reflects the type of person one hopes to be.	“It’s important to me because I think it’s basically what every human should do, it’s not right if you get rid of one of these things and you don’t really care about your family with one of these traits...these are all the things that you should look for in a person and it seems just natural, just to find these qualities in a human being.” (ID121, Grade 8, Male, 13-	7.68

---

years-old)

---

*Note.* E = external; I = internal; R = relationship-oriented

<sup>a</sup>Percentage based on total number of coded responses ( $N = 651$ )



Table 5

*Means (and Standard Deviations and Ranges) for Moral Identity Motivation Category Groups Across Contexts*

Motivation	Context		
	Family	Friends	School
External	.38 <sup>a,x</sup> (.52, 0-2)	.17 <sup>b,x</sup> (.39, 0-2)	.76 <sup>c,x</sup> (.63, 0-2)
Relationship-oriented	.40 <sup>a,x</sup> (.49, 0-1)	.57 <sup>b,y</sup> (.50, 0-1)	.15 <sup>c,y</sup> (.36, 0-1)
Internal	.90 <sup>a,y</sup> (.73, 0-3)	.91 <sup>a,z</sup> (.75, 0-3)	.78 <sup>a,x</sup> (.76, 0-3)

$N = 188$

<sup>a,b,c</sup>Means in the same row with different superscripts are significantly different ( $t$ -test,  $p < .004$ )

<sup>x,y,z</sup>Means in the same column with different superscripts are significantly different (pairwise comparisons with a Bonferroni correction,  $p < .001$ )

Table 6

*Bivariate Correlations Between Moral Identity Motivation Category Groups Across Contexts*

Context	Context		
	Family	Friends	School
Family	-.12 <sub>E-R</sub> / -.20 <sub>R-I</sub> ** / -.36 <sub>E-I</sub> ***		
Friends	.26 <sub>E</sub> *** / .10 <sub>R</sub> / .24 <sub>I</sub> ***	-.09 <sub>E-R</sub> / -.49 <sub>R-I</sub> ** / -.19 <sub>E-I</sub> *	
School	.41 <sub>E</sub> *** / .17 <sub>R</sub> * / .32 <sub>I</sub> ***	.08 <sub>E</sub> / .28 <sub>R</sub> *** / .26 <sub>I</sub> ***	-.02 <sub>E-R</sub> / -.16 <sub>R-I</sub> * / -.51 <sub>E-I</sub> ***

*Note.* *N*'s ranged from 185 to 188 due to some missing data. Category groups of moral identity motivation: E = external; R = relationship-oriented; I = internal. Coefficients along the diagonal represent correlations of category groups within contexts. Coefficients below the diagonal represent correlations of category groups across contexts. \*\*\**p* < .001, \*\**p* < .01, \**p* < .05.

Table 7

*Bivariate Correlations Between Study Variables and Demographic Characteristics*

	Moral Identity Motivation			Moral Behaviour	
	External	Relationship -Oriented	Internal	Prosocial Behaviours	Antisocial Behaviours
Self-importance of moral values	-.04	.12	.07	.07	-.11
Social desirability	.02	.11	-.08	-.01	-.04
Socioeconomic status (ISEI)	-.10	-.06	.14	.08	-.15*
Ethnicity (European Canadian): 1 (yes), 0 (no)	.08	.05	-.04	-.06	.11
Gender: 1 (female), 2 (male)	.03	-.08	-.08	-.22**	.25**

*Note.* Moral identity motivations (external, relationship-oriented, and internal) represent overall motivation scores across all social contexts. ISEI = International Socio-Economic Index of Occupational Status. *N*'s ranged from 170 to 189 due to some missing data.

\*\* $p < .01$ , \* $p < .05$ .

Table 8

*Bivariate Correlations Between Study Variables*

	1	2	3	4	5	6	7
1. External							
2. Relationship-oriented	.06						
3. Internal	-.45***	-.39***					
4. Prosocial behaviour	-.02	-.11	.17*				
5. Antisocial behaviour	.14 <sup>+</sup>	.19**	-.29***	-.63***			
6. Parental support	-.09	.10	.06	.18*	.06		
7. Parent-child negative interaction	.03	-.14 <sup>+</sup>	.11	-.06	-.01	-.38***	

*Note.* Moral identity motivations (external, relationship-oriented, and internal) represent overall motivation scores across all social contexts. *N*'s ranged from 169 to 189 due to some missing data. \*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$ , <sup>+</sup> $p < .10$ .

Table 9

*Bivariate Correlations Between Motivation Coding Categories and Age (in years)*

	External			Relationship- Oriented	Internal				
	Standards	Self- Interest	Reputation	Consequences- Relationship	Consequences- Others	Fairness- Related	Relationship Ideals	Role Model	Self Ideal
Age (in years)	-.17*	-.26***	.12 <sup>+</sup>	-.31***	-.13 <sup>+</sup>	.29***	.39***	.14 <sup>+</sup>	.09

*Note.*  $N = 188$ . \*\*\* $p < .001$ , \* $p < .05$ , <sup>+</sup> $p < .10$ .

Table 10

*Moral Identity Motivation by Age Group and Social Contexts: Results of Mixed-Model*

*MANOVA*

	<i>df</i>	<i>F</i>	$\eta^2p$
Motivation	2, 181	55.72***	.38
Context	2, 181	.25	.00
Age group	2, 179	.45	.01
Motivation x Age group	4, 364	9.07***	.09
Motivation x Context	4, 179	50.86***	.53
Age group x Context	4, 364	.43	.01
Motivation x Age group x Context	8, 360	1.44	.03

*Note.* All *F*-values reported are based on Pillai's Trace test statistic given that it is considered the most robust. Other test statistics (Wilk's Lambda, Hotelling's Trace, Roy's Largest Root) yielded slightly different *F*-values for some interactions, but all *p*-values reached the same level of statistical significance. \*\*\**p* < .001, +*p* < .10.

Table 11

*Means (and Standard Errors) for Moral Identity Motivation by Age Group*

	Middle Childhood (Grade 4/5; 9-11 years old)	Early Adolescence (Grade 7/8; 12-14 years old)	Mid-Adolescence (Grade 10/11; 15- 17 years old)
External	.17 <sup>a</sup> (.14)	.16 <sup>a</sup> (.13)	.10 <sup>b</sup> (.14)
Relationship-oriented	.49 <sup>a</sup> (.11)	.37 <sup>a,b</sup> (.11)	.25 <sup>b</sup> (.11)
Internal	.13 <sup>a</sup> (.19)	.17 <sup>a</sup> (.19)	.23 <sup>b</sup> (.20)

*Note.*  $N = 187$ .

<sup>a,b</sup>Means in the same row with different superscripts indicate significant group differences (post-hoc Scheffé;  $p < .05$ ).

Table 12

*Results of Regression Analyses Predicting Moral Identity Motivation by Parent-Child Relationship Quality and SES*

	External				Relationship-Oriented				Internal			
	Step 1		Step 2		Step 1		Step 2		Step 1		Step 2	
	$\beta$	<i>SE</i>	$\beta$	<i>SE</i>	$\beta$	<i>SE</i>	$\beta$	<i>SE</i>	$\beta$	<i>SE</i>	$\beta$	<i>SE</i>
Parental support	-.10	.02	-.10	.02	.05	.05	.05	.05	.11	.02	.12	.02
Parent-child negative interaction	-.01	.02	-.01	.12	-.12	.05	-.12	.05	.15	.02	.16 <sup>+</sup>	.02
Socioeconomic status (ISEI)			-.10	.00			-.06	.00			.11	.00
$\Delta R^2$	.01		.01		.02		.00		.02		.01	

*Note.*  $N = 167$ . ISEI = International Socio-Economic Index of Occupational Status. <sup>+</sup> $p < .10$ .



Table 13

*Results of Regression Analyses Predicting Moral Behaviour by Moral Identity Motivation, SES, and Gender*

	Prosocial Behaviour				Antisocial Behaviour			
	Step 1		Step 2		Step 1		Step 2	
	$\beta$	<i>SE</i>	$\beta$	<i>SE</i>	$\beta$	<i>SE</i>	$\beta$	<i>SE</i>
External	.04	.29	.03	.28	.02	.24	.03	.23
Relationship-oriented	-.05	.11	-.07	.11	.10	.10	.13 <sup>+</sup>	.09
Internal	.16 <sup>+</sup>	.36	.13	.36	-.23**	.31	-.19*	.30
Socioeconomic status (ISEI)			.03	.00			-.10	.00
Gender			-.19*	.06			.23**	.05
$\Delta R^2$	.030		.038*		.088**		.068**	

*Note.*  $N = 184$ . ISEI = International Socio-Economic Index of Occupational Status. \*\* $p < .01$ , \* $p < .05$ , <sup>+</sup> $p < .10$ .

Table 14

*Bivariate Correlations Between Study Variables and Demographic Characteristics with Means and Standard Deviations*

	Type of harmful and helpful								
	actions			Reasons for harmful or helpful actions					
	Material	Physical	Psycho-logical	Response					
External				Self-interested	Other-interested	to others' actions	Un-intentional	Self-event connection	
Social desirability	.02	.02	-.07	-.00	-.16*	.05	-.01	.02	.04
SES	-.07	-.05	.17*	.02	.07	.04	-.05	.03	.17*
Mean	1.02	.73	2.41	.13	1.01	1.32	1.33	.58	1.85
SD	.93	.90	1.16	.39	.87	.75	1.01	.68	1.94

*Note.* Narrative coding categories represent scores across all social (family, friends) and moral (harm, help) contexts. SES = socioeconomic status measured by the ISEI = International Socio-Economic Index of Occupational Status.

*N*'s ranged from 170 to 186 due to some missing data. \* $p < .05$ .

Table 15

*Means (and Standard Deviations) for Types of Harmful and Helpful Actions by Age*

*Group*

	Middle	Early	Mid-
	Childhood	Adolescence	Adolescence
	(Grade 4/5;	(Grade 7/8;	(Grade 10/11;
Type	9-11 years old)	12-14 years old)	15-17 years old)
Material or concrete	.95 <sup>a</sup> (.90)	.98 <sup>a</sup> (.91)	1.14 <sup>a</sup> (.99)
Physical	1.03 <sup>a</sup> (.94)	.62 <sup>b</sup> (.91)	.51 <sup>b</sup> (.76)
Psychological or emotional	2.03 <sup>a</sup> (1.17)	2.49 <sup>a,b</sup> (1.20)	2.75 <sup>b</sup> (.99)

*Note.*  $N = 186$ .

<sup>a,b</sup>Means in the same row with different superscripts indicate significant group differences (post-hoc Scheffé;  $p < .05$ ).

Table 16

*Means (and Standard Deviations) for Types of Harmful and Helpful Actions Across*

*Moral Contexts*

Type	Harmful Acts	Helpful Acts
Material or concrete	.22 <sup>a,x</sup> (.46)	.82 <sup>b,x</sup> (.75)
Physical	.28 <sup>a,x</sup> (.50)	.45 <sup>b,y</sup> (.66)
Psychological or emotional	1.52 <sup>a,y</sup> (.64)	.91 <sup>b,x</sup> (.80)

*Note.*  $N = 184$ .

<sup>a,b</sup>Means in the same row with different superscripts indicate significant group differences ( $t$ -tests;  $p < .003$ ).

<sup>x,y,z</sup>Means in the same column with different superscripts are significantly different (pairwise comparisons with a Bonferroni correction,  $p < .001$ )

Table 17

*Means (and Standard Deviations) for Types of Harmful and Helpful Actions Across Social Contexts*

Type	Family	Friends
Material or concrete	.63 <sup>a,x</sup> (.64)	.40 <sup>b,x</sup> (.55)
Physical	.39 <sup>a,y</sup> (.59)	.35 <sup>a,x</sup> (.56)
Psychological or emotional	1.19 <sup>a,z</sup> (.70)	1.26 <sup>a,y</sup> (.71)

*Note.*  $N = 182$ .

<sup>a,b</sup>Means in the same row with different superscripts indicate significant group differences ( $t$ -tests;  $p < .001$ ).

<sup>x,y,z</sup>Means in the same column with different superscripts are significantly different (pairwise comparisons with a Bonferroni correction,  $p < .005$ )

Table 18

*Overall Means (and Standard Deviations) for Reasons of Harmful and Helpful Actions*

Type	<i>M</i>	<i>SD</i>
External constraints	.13 <sup>a</sup>	.39
Self-interested	1.01 <sup>b</sup>	.87
Other-interested	1.32 <sup>c</sup>	.75
Response to others' actions	1.33 <sup>c,b</sup>	1.02
Unintentional	.58 <sup>d</sup>	.68

*Note.*  $N = 186$ .

<sup>a,b,c,d</sup>Means in the same column with different superscripts are significantly different (pairwise comparisons with a Bonferroni correction,  $p < .05$ )

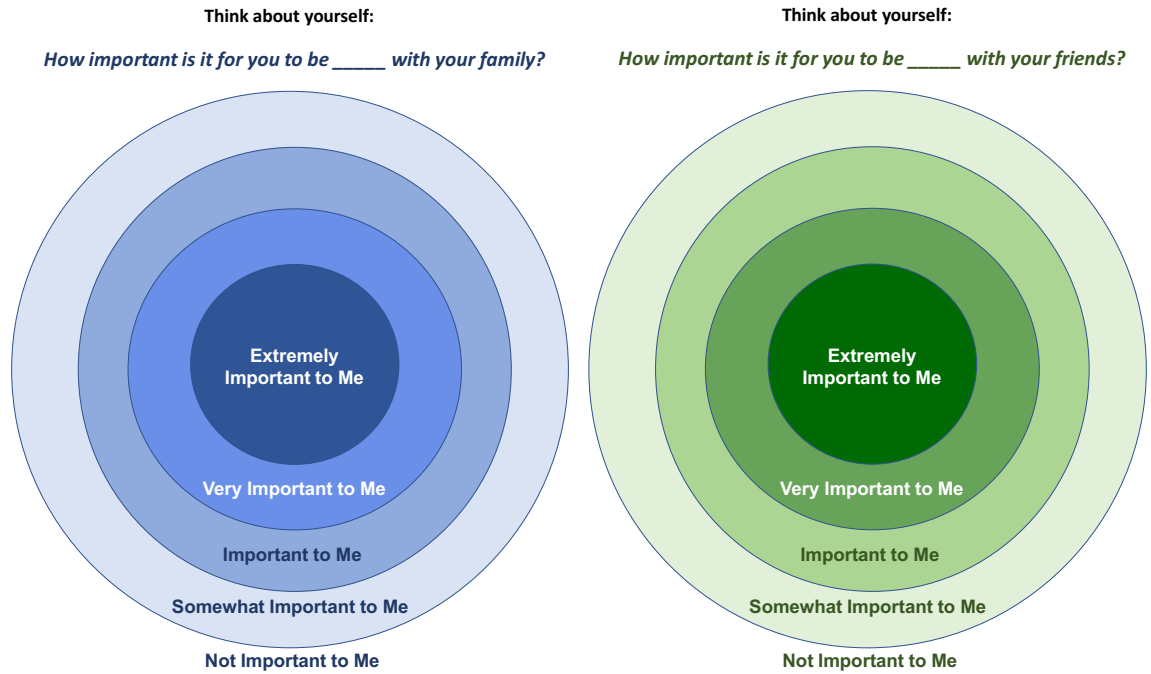
Table 19

*Bivariate Correlations Between Key Variables of Each Layer of Moral Identity Controlling for Age (Zero-Order Correlations in Parentheses)*

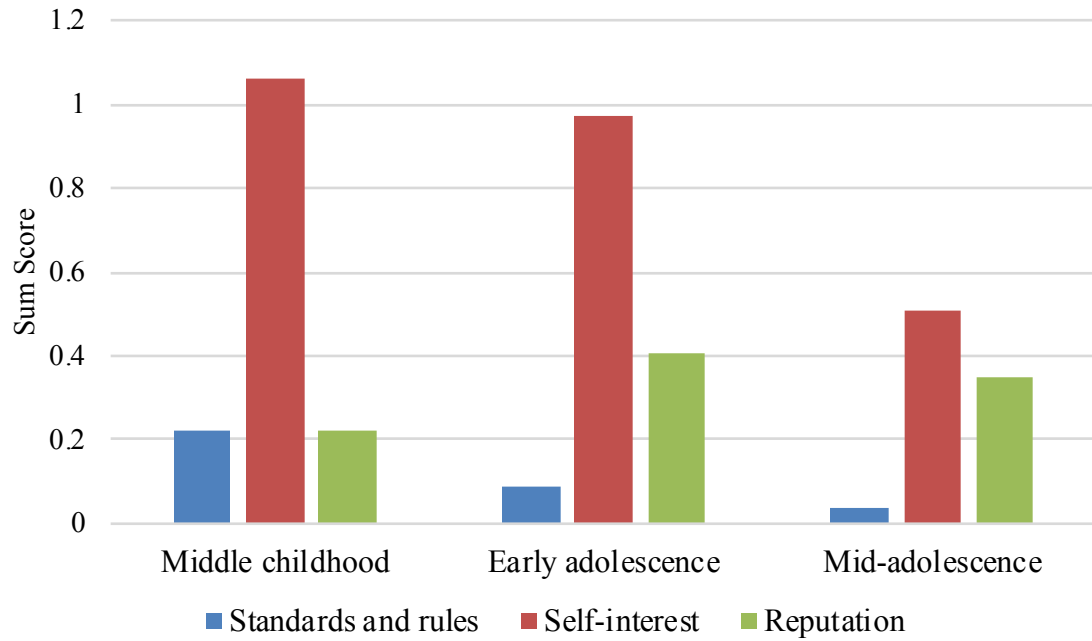
	1	2	3	4	5	6
1. Mean-level of moral identity (layer 1)						
2. Internal moral identity motivation (layer 2)	.14 <sup>+</sup> (.04)					
3. External moral identity motivation (layer 2)	-.08 (-.03)	-.40*** (-.45***)				
4. Self-event connection (layer 3)	.09 (-.02)	.18* (.31***)	-.05 (-.13 <sup>+</sup> )			
5. Prosocial behaviour	.09 (.07)	.14 <sup>+</sup> (.17*)	-.00 (-.02)	.03 (.07)		
6. Antisocial behaviour	-.18* (-.09)	-.19* (-.29***)	.08 (.14 <sup>+</sup> )	-.08 (-.19**)	-.64*** (-.64***)	

*Note.* Moral identity motivations (external and internal) represent overall motivation scores across all social contexts (family, friends, school). *N*'s ranged from 181 to 184 due to some missing data. Partial correlations were also performed controlling for gender and the coefficients were very similar and significance levels remained the same. \*\*\* $p < .001$ , \*\* $p < .01$ , \* $p < .05$ , + $p < .10$ .

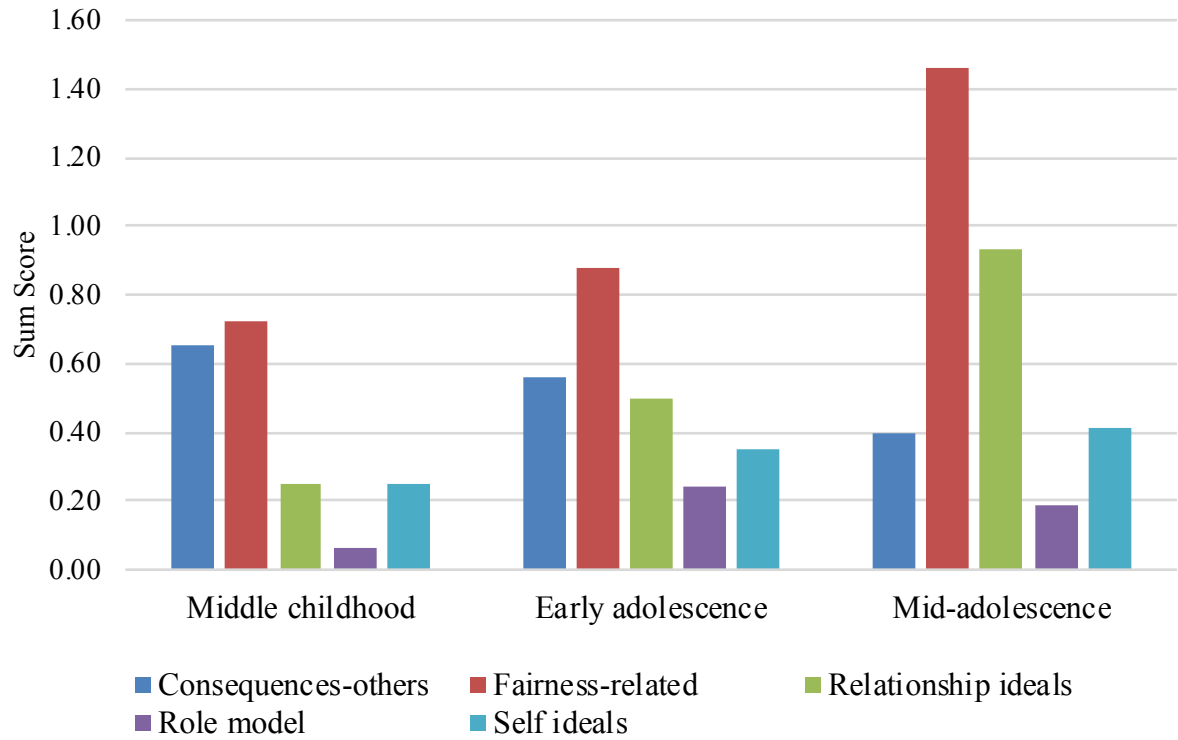




*Figure 1.* Diagrams of the family (blue) and friends (green) contexts to represent varying degrees of self-importance of moral values wherein participants placed each moral value label in the circle that represents its level of importance to the self.



*Figure 2.* External moral identity motivation category groups across social contexts by age group.



*Figure 3.* Internal moral identity motivation category groups across social contexts by age group.

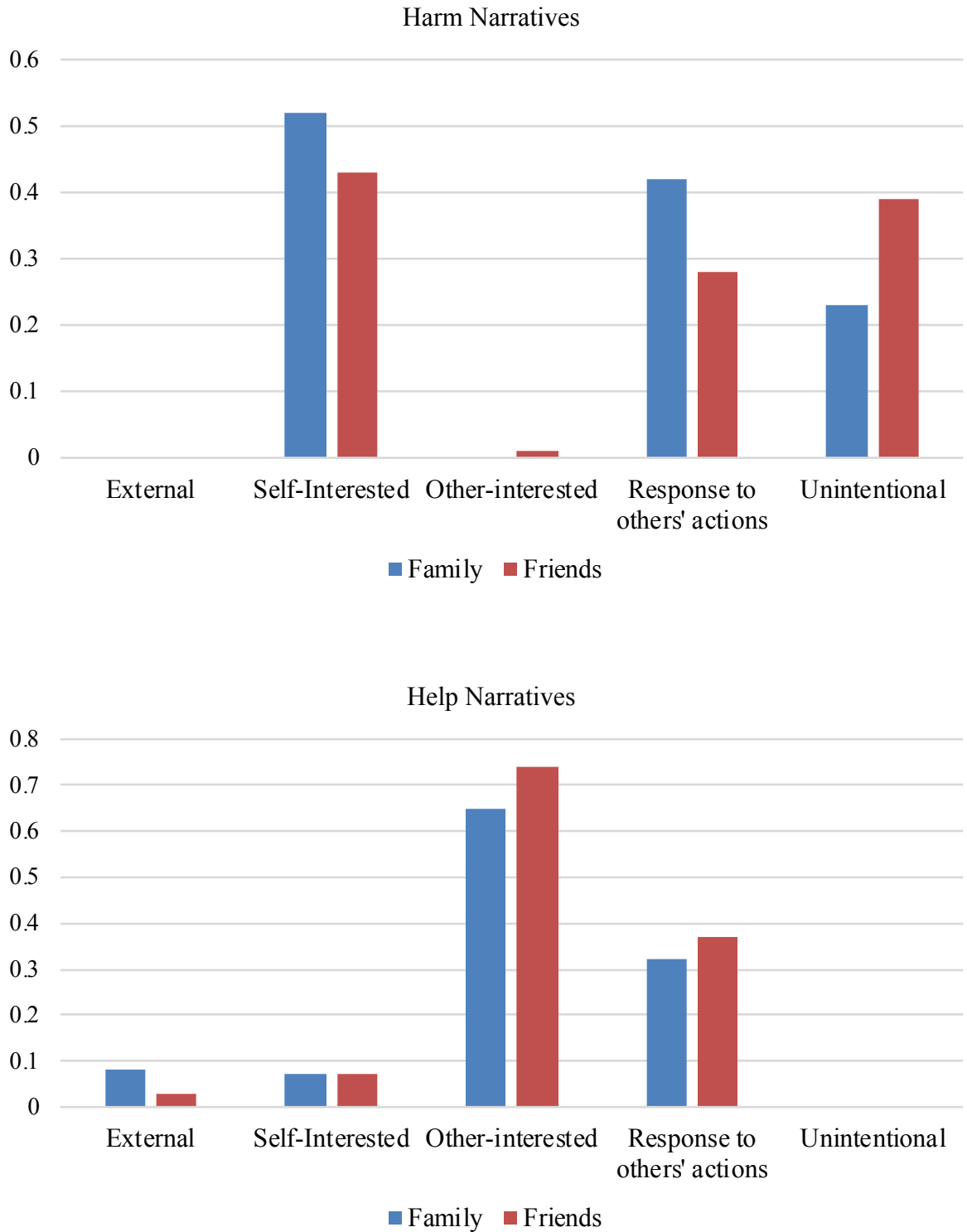


Figure 4. Mean scores of reasons for engaging in harmful/helpful actions by social contexts.

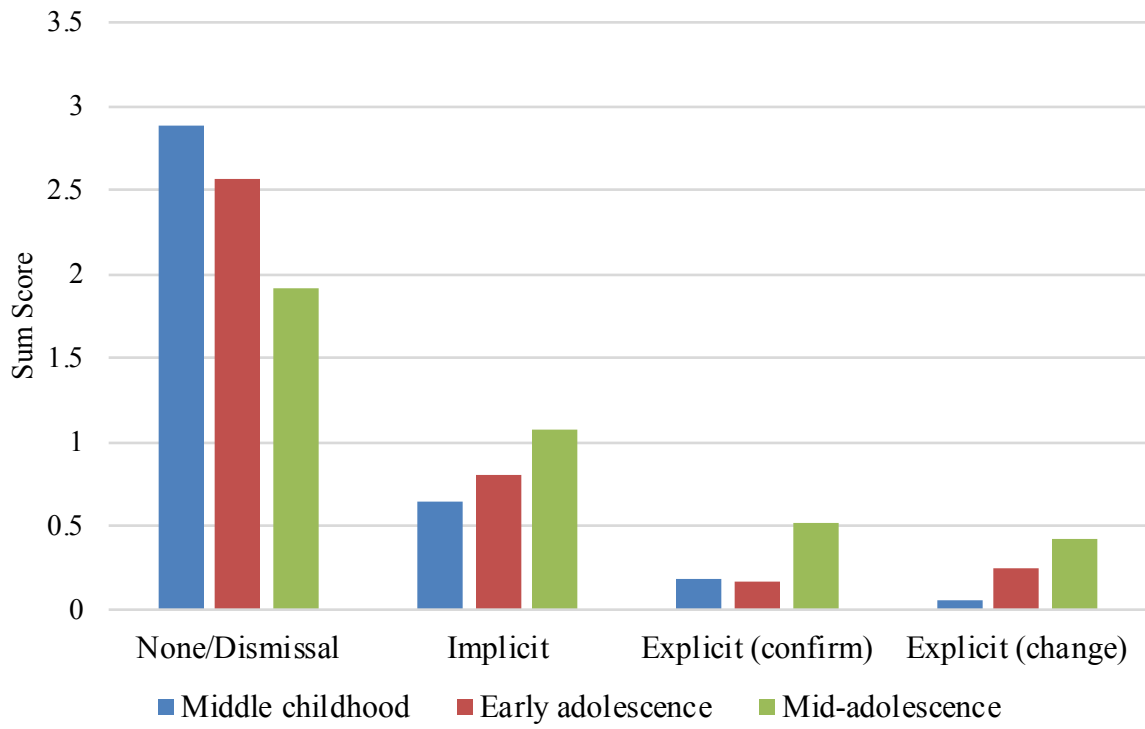


Figure 5. Self-event connection across social contexts and moral contexts by age group.