Mindset and Morality: Adolescents' Implicit Theories of Morality

Alyssa Scirocco

A Thesis

In the Department

Of

Education

Presented in Partial Fulfillment of the Requirements

For the Degree of

Doctor of Philosophy (Education) at

Concordia University

Montreal, Quebec, Canada

December 2021

CONCORDIA UNIVERSITY

SCHOOL OF GRADUATE STUDIES

This is to certify that the thesis prepared

By: Alyssa Scirocco

Entitled: Mindset and Morality: Adolescents' Implicit Theories of Morality

and submitted in partial fulfillment of the requirements for the degree of

                        Doctor Of Philosophy (Education)

complies with the regulations of the University and meets the accepted standards with respect to originality and quality.

Signed by the final examining committee:

        _____ Chair
        Dr. Julie Corrigan

        _____ External Examiner
        Dr. Heather Lawford

        _____ External to Program
        Dr. Erin Barker

        _____ Thesis Supervisor
        Dr. Holly Recchia

        _____ Examiner
        Dr. Nina Howe

        _____ Examiner
        Dr. Hariclia Petrakos

Approved by   _____
        Dr. Kim McDonough, Graduate Program Director

12/16/2021   _____
        Dr. Pascale Sicotte, Dean
        Faculty of Arts and Science

Abstract

Mindset and Morality: Adolescents' Implicit Theories of Morality

Alyssa Scirocco, Ph.D.
Concordia University, 2021

In adolescents' everyday interactions, it is inevitable that they encounter morally-laden events. Arguably, adolescents' essentialist vs. incremental moral mindsets, or whether they perceive moral qualities and traits as fixed or malleable, might be linked to how they make sense of moral experiences. In two studies, this dissertation examined links between mindsets and youths' constructions of meaning about their own and others' moral experiences. Both studies were based on a sample of 98 adolescents from the Montreal area. Study 1 investigated how adolescents' moral mindsets varied across contexts depicting others' prosocial and antisocial actions that were recurrent or nonrecurrent, as well as their judgments of others. Youth endorsed moral essentialism more in the prosocial domain. When youth made essentialist attributions in prosocial situations, they judged actors as more likable, their actions as more acceptable, and endorsed more praise and "good person" attributions. In antisocial situations, essentialism was linked to judging actors as more *un*likable, their actions as more *un*acceptable, more endorsement of punishment, and "bad person" attributions. Study 2 examined how moral mindsets were linked to youths' narrative accounts of their own morally-laden experiences and how these associations might differ across experiences in which youth described acting consistently and inconsistently with an important value. Individual differences in moral incrementalism were associated with adolescents' construction of meanings in their narratives. Adolescents who endorsed moral incrementalism referred more to moral emotions, elaborated more on psychological interpretations, and engaged in more meaning-making in their narratives.

Furthermore, moral incrementalism was inversely linked with disengagement when youth narrated a time they acted inconsistently with a moral value. Both studies illuminate how moral mindsets are applied in nuanced ways across situations. Findings suggest that moral essentialism might be especially variable across contexts, and informs situation-specific ways in which adolescents make judgments of others. In turn, individual differences in moral incrementalism were more strongly associated with adolescents' own moral self-constructions. This research contributes to scholarship on moral mindset during a crucial developmental period by illuminating inter- and intra-individual differences in adolescents' judgments about others as well as meaning-making in relation to their own moral experiences.

Acknowledgments

I would like to dedicate my dissertation to my daughter, Milena, who has provided me with the strength and motivation to cross the finish line. I absolutely cannot wait to meet you! I would also like to acknowledge all the incredible individuals who have contributed to my successes throughout this lengthy and worthwhile journey.

I would first like to thank my supervisor, Dr. Holly Recchia. Thank you for offering me this amazing opportunity, believing in my abilities and investing in me. I appreciate all the invaluable guidance and mentorship you have provided me over the years. Your brilliance and expertise are truly inspiring and I could not have done this without you.

I would also like to express my gratitude to Dr. Nina Howe for her continued support and encouragement throughout the years. Thank you for believing in me and mentoring me throughout this journey. Thank you to Dr. Harriet Petrakos for being a part of my doctoral committee and for your continued input and support. I would also like to thank Dr. Erin Barker and Dr. Heather Lawford for agreeing to be on my examination committee and to Dr. Julie Corrigan for chairing my defense.

I would like to acknowledge the financial support from the Social Sciences and Humanities Research Council of Canada awarded as a doctoral fellowship and Concordia University for providing me with a merit scholarship and graduate fellowship.

I also want to thank the participating mothers and adolescents, without whom my research would not have been possible. Thank you to Jade Elyssia Pare, Ergie Marie Evans, Claudia Toriz and Alessia Frattolillo for their commitment to my research project and their research assistance. I would also like to thank all the members, past and present, of the RAD lab.

Contributions of Authors

The first author of each manuscript is Alyssa Scirocco, who recruited the participants, collected and coded the data, ran analyses, and wrote two manuscripts. The second author of each manuscript is Holly Recchia, who provided guidance at all stages of the research, from its inception to completion. This included research ideas, questionnaire content, analyses, and manuscript production.

Table of Contents

List of Tables

Study 1

Table

Study 2

Table

List of Figures

Figure

General Introduction

During the adolescent years, increasing social interactions, heightened maturity and autonomy may contribute towards youths' engagement in a wide array of prosocial actions and ultimately, acting in ways that maintain or bolster their positive sense of self (Carlo et al., 2012; Fabes et al., 1999). Nevertheless, in the course of adolescents' everyday interactions, it is also inevitable that they occasionally hurt and upset others (Recchia et al., 2015). Although vastly different experiences, each one provides adolescents with opportunities to grapple with a sense of who they are as a moral person. These experiences prompt the construction of their understanding that they may sometimes act in ways that are fair, caring, honest and dependable and other times, act in ways that are discordant with their moral values. However, how do they make sense of these experiences? Consider 13-year-old Jane's experience in which she described acting consistently with her most important moral value (i.e., caring). Note that all names are pseudonyms:

> "There were a lot of moments when I was caring. Probably the most important one for me was when I spent the day with my sister. It all started when she asked me if I could play with her and even though I didn't want to do anything I said yes because I knew it would make her smile. I asked her what she had in mind and she told me that she wanted to play a board game so we did. Then, we went outside to play soccer and I challenged her and gave her pointers on how to improve her game. It was hot so we went in the pool and I forced myself to stay longer because I knew how she loved to be in the pool for long until her fingers looked all wrinkly and often times I'd only stay in for 30 minutes which is clearly not long enough for her. After that, we played cards and watched a movie that she wanted to watch AGAIN because she wanted to learn one of

the dances in it. I even took a video of her because she was so funny and happy. So basically I was doing whatever she wanted to do mostly because I love her and partially because she would often do what I wanted to do. Also, this event happened many times but this was one of the best ones because it made my little sister laugh and smile. It makes me feel like a good person, a person that cares about others and respects them. I think that I am a good sister and that I make sacrifices in order for someone else to enjoy themselves."

This narrative provides a snapshot into how Jane views herself as a moral person, someone who is oftentimes caring and willing to make a "sacrifice" in order to make her sister happy. It also demonstrates Jane's positive conception of self and how this experience further contributed to her understanding of herself, as someone who is "a good person, a person that cares about others and respects them". However, occasionally adolescents act in ways where they must confront their imperfections and grapple with the notion that they are the sort of person who may sometimes act in ways that are not dependable, are uncaring, dishonest, or unfair, causing harm to others. In making sense of such events, youth may consider the implications for their presently established positive sense of self and what it means to be a moral person (Wainryb et al., 2005; Wainryb & Pasupathi, 2008). Consider 15-year-old Phil's experience in which he described acting inconsistently with his most important moral value (i.e., caring).

"One time during a sporting event I got frustrated and ended up purposely hurting someone on the other team. All though he was badly injured I didn't care because I was frustrated at the time. During the heat of the moment I was to frustrated to really care about anything at the time. I didn't really care if he was hurt or not and I didn't care that I

was the one that hurt him. However, after I calmed down the reality of the matter hit me and I felt really bad. I tried ignoring how I felt but my conscious couldn't take so I went to go visit him in the hospital and apologized and stayed to keep him company for a while but I never told him I did on purpose".

In this narrative, Phil attempts to reconcile a view of himself as imperfect but nevertheless moral person. That is, he describes his intentionality and internal state of frustration as motivating factors that led him to hurt someone else. Although he describes feeling too frustrated to "really care about anything at the time", he indicates that upon reflection (i.e., when the reality of the matter hit him), he "felt really bad" and consequently aimed to make reparations for his actions with a visit to the hospital and an apology.

Both Jane and Phil make sense of themselves as moral people, albeit, in different ways and in the context of distinct types of morally laden experiences. Jane's experience appears to bolster her positive sense of self and maintain her view of herself as a "good person", whereas Phil attempts to wrestle with an uncaring action that weighs on his conscience due to its inconsistency with his sense of self.

In relation to documenting how adolescents construct meanings about these kinds of prosocial and transgressive experiences, existing scholarship has yet to examine how mindset might be linked to how adolescents' construction of meaning about moral events. For instance, do the ways in which Jane or Phil makes sense of their experiences depend on whether they attribute their actions as due to situational psychological and circumstantial factors and/or whether they think these actions call into question the good people they believe themselves to be? Further, how do Jane and Phil think about other people who have acted consistently or inconsistently with similar moral principles? Arguably, their mindset, and whether they hold

more essentialist or incrementalist perspectives might be associated with these sensemaking processes. That is, whether adolescents view qualities, aptitudes, and traits as fixed or malleable, decided by inheritance or shaped by the environment, stable or unstable across situations and time (i.e., fixed mindset; essentialist view vs. growth mindset; incremental view; Chiu et al., 1997; Dweck, 2006; Levy & Dweck, 1998) are likely associated with how they make sense of moral experiences, both their own and others. Broadly, this dissertation aims to investigate adolescents' moral mindsets and how they are associated with how youth make sense of their own and others' moral experiences.

Moral Essentialism and Incrementalism

Mindset, or implicit theories, are beliefs and assumptions about the world and ourselves that guide the ways we understand and evaluate experiences (Dweck & Legett, 1988; Levy & Dweck, 1998). Specifically, there are two overarching types of mindsets that inform how we think about and react to social events. The first involves an understanding that qualities, aptitudes, and traits are fixed (i.e., fixed mindset; essentialist view). In this mindset, individuals believe that intelligence, personality, and moral character are decided by inheritance, are innate, and do not change with effort or time (Dweck et al., 1993). By contrast, incremental theorists understand that qualities, traits, and aptitudes are malleable, in that they are shaped by the environment and personal experiences (Chiu et al., 1997; Dweck, 2006; Levy & Dweck, 1998). Holding an incremental or essentialist mindset has been shown to affect a wide range of outcomes, including well-being, coping, attributions of blame, and consequence judgements (Heyman & Dweck, 1998; Levy & Dweck, 1998; Yeager et al., 2011). Although these associations have been previously established, they have been less frequently examined in the moral realm and in the adolescent years.

Most work on essentialism and incrementalism has been conducted within the domains of intelligence and personality with evidence to suggest implicit theories are associated with wide-ranging outcomes including performance on tasks, responses to challenge, attributions of ability, goals, and self-judgments (Levy & Dweck, 1998). More specifically, people who hold more essentialist views of intelligence as compared to incremental views (i.e., believe intelligence is fixed) are less likely to persist on challenging tasks (Dweck, 2006) and are more likely to ascribe stable, negative traits to the self and other people (e.g., "I failed because I am stupid"; Levy & Dweck, 1998). On the other hand, people who hold incremental views of intelligence are more likely to explain someone's successes or failures in terms of psychological processes (e.g., "because he was going through a bad breakup") and are more likely to exhibit mastery-oriented patterns of coping and are thus more likely to persist when faced with challenges (Levy & Dweck, 1998).

With regards to personality, holding an incremental vs. essentialist view of character (i.e., viewing one's own or others' personality traits as changeable vs. fixed) can impact the ways in which people cope with rejection, attribute blame, and behave towards others (Heyman & Dweck, 1998). For instance, 7- and 8-year-old children who hold an essentialist view of personality (i.e., believe personality traits are fixed) tend to show a helpless pattern of response when faced with social rejection (e.g., decreasing effort, withdrawing from social encounters) and make more negative self-attributions (e.g., blaming the self for failure; Erdley et al., 1997; Goetz & Dweck, 1980). Contrarily, children who hold more incremental views of personality (i.e., perceptions that personality can change) tend to have mastery-oriented response patterns when faced with social failure (e.g., rejection from of a pen-pal club) by increasing social efforts,

persisting on tasks, and not blaming their failure on their own social inadequacies (Erdley et al., 1997).

In terms of research more closely linked to morality, studies have shown that 7- to 8-year-old children with essentialist views of both personality and academic achievement are more likely to make global inferences regarding character. That is, when presented with hypothetical vignettes depicting a character behaving in either a moral or immoral way (e.g., "Imagine a new girl at school makes up a lie to get other kids at school to like her, does this mean she is a bad kid?"), they are more likely to endorse global inferences such as "good", "nice", "bad", "naughty", as compared to those with more incremental mindsets (Heyman & Dweck, 1998). Similarly, children with more essentialist mindsets were more likely to believe that a hypothetical character would behave consistently (e.g., consistently mean) across time (he/she will always act this way) and situations (he/she will act this way with other people) even when these children were presented with an inconsistent ending to a hypothetical story (i.e., although a character had repeatedly behaved in a way that was mean, he/she did something nice in the end) (Heyman & Dweck, 1998). Further, adolescents who hold more malleable views of character and personality have been found to advocate less punishment and retaliation after hypothetical transgressions given that they tend to make fewer bad-person attributions (Yeager et al., 2011). Priming of an incremental mindset has also shown similar patterns; adolescents exposed to an article with incremental language as opposed to a control article were less likely to advocate retaliation against an offender after hearing a story about a hypothetical victimization and were more likely to respond in a more prosocial manner (i.e., write prosocial notes such as apologies or a warning; Yeager et al., 2013).

Among adults, incremental theorists were found to focus less on misconduct and more on appropriate conduct by assigning more hypothetical reward to the students who behaved appropriately and less punishment to the students who did not (see Chiu et al., 1997). Prior studies have also revealed that adults who hold a more essentialist view use less information to cast judgments and make moral decisions. Contrarily, those who endorse incrementalism show a higher tolerance for immoral actions and make fewer negative evaluations (Chiu et al., 1997; Haselhun et al., 2010). Across development, findings suggest that incrementalism is linked with more empathy and an increased likelihood to forgive others (Erdley & Dweck, 1993; Haselhuhn et al., 2010; Heyman & Dweck, 1998). There is also emerging evidence suggesting that moral essentialism and incrementalism are influential in informing prosocial behaviors amongst children and adults (e.g., sharing resources and voluntary service behavior; Han et al., 2018; Rhodes et al., 2018). Taken together, implicit theories of morality have been shown to have predictive power, with evidence suggesting that incremental perspectives are beneficial inasmuch as they are associated with various positive outcomes.

More recent work suggests there is context-specificity in incrementalism and essentialism, both generally and more specifically in the domain of morality. For instance, although incrementalism and essentialism tend to be negatively correlated with one another, adults have been shown to hold distinct beliefs depending on the domain (i.e., intelligence, personal attributes, morality; Hughes, 2015) or depending on the particular focus of consideration (i.e., mathematics versus other academic domains; Tarbetsky et al., 2016). There is also recent evidence pointing to context-specificity within the domain of morality. Heiphetz (2019) found both 5- to 8-year-old children and adults tended to essentialize prosocial actions more than antisocial ones. That is, goodness was viewed in more essentialist terms than badness.

In another study, four- to five-year-old children expected positive characteristics such as "niceness" to transfer more easily than "meanness" after a hypothetical heart transplant (Meyer et al., 2017). Further, children have been found to view prosociality as more stable over time than antisociality (Heyman & Dweck, 1998). This implies that moral essentialism should be considered in relation to specific domain components (e.g., prosocial vs. antisocial).

Some work has also pointed to context-specificity inasmuch as moral incrementalism and essentialism are linked to distinct outcomes (i.e., moral character attributions). More specifically, even though there is evidence to suggest that incremental perspectives are beneficial inasmuch as they are associated with various positive outcomes, it has also been suggested that essentialized thinking is not always detrimental. Rather, the effects associated with essentialized thinking depend on motivation and context (Ryazanov & Christenfeld, 2018a). For instance, 3- to 6-year-olds tend to engage in more prosocial behavior when provided with characterological attributions such as being a "helper" rather than behavioral attributions such as "helping". Along the same line, asking people to not be a "cheater" rather than to not "cheat" has been shown to discourage cheating (Bryan et al., 2014). However, it has also been shown that these attributions can backfire if children experience setbacks such as failing to successfully help someone (Foster-Hansen et al., 2020). Thus, it is important to go beyond characterizing individuals as moral essentialists or incrementalists and to consider how patterns and correlates of social information processing vary depending on the unique features of the moral situation under consideration.

Overall, the current dissertation aims to fill various gaps in existing research on mindset. First, most research has investigated incrementalism and essentialism in the domains of intelligence and personality, while less extant research has focused on mindset in the moral realm. Second, incrementalism and essentialism have been investigated as two sides of the same

coin (i.e., a continuum ranging from incrementalism to essentialism; e.g., Dweck, 2006). However, there is more recent evidence to imply that moral incrementalism and essentialism should be measured as separate constructs as they are associated with the context at hand (e.g., Heiphetz, 2019). Third, work on moral mindsets have largely overlooked the adolescent developmental period, a time when navigating the complexities of moral life and experiencing tensions between important moral principles and their own actions becomes more rampant (Pasupthi & Wainryb, 2010). Instead, most work has focused on either childhood or adulthood (refer to pp. 19-21 below for a review of moral mindsets across development).

Moral Identity in Adolescence

The adolescent years involve an increasing focus on moral self and identity (Blasi & Glodis, 1995; Damon & Hart, 1988) and yet is has been understudied in the moral mindset literature with most research focusing on childhood or adulthood (Bamberg, 2010; Fivush & Haden, 2013). Moral identity is defined as "the degree to which being a moral person is important to an individual's identity" (Hardy & Carlo, 2011, p. 212). The overall goal of moral identity development is the integration of self and morality whereby personal concerns and moral concerns become unified (Krettenauer & Hertz, 2015). For example, if moral values such as honesty and caring are central to defining one's personal identity, this is understood to imply a strong moral identity. The adolescent developmental period is crucial for the development of moral identity and self-understanding (Blasi & Glodis, 1995; Damon & Hart, 1998). During adolescence, self-understandings become increasingly differentiated as youth explore the facets of their morally-laden experiences and draw self-connections (Hardy & Carlo, 2011; Mclean & Pasupathi, 2012). The pre-adolescent to adolescent age range is a time when youth are navigating the complexities of moral life and experiencing tensions between important moral principles and

their own actions (Pasupthi & Wainryb, 2010). Their construction of meanings from their positive and negative morally-laden experiences are crucial for their developing sense of moral agency; to explore and deepen their moral commitments, and also to recognize that they are not defined by their immoral actions, but rather that their harmful actions stem from complex beliefs and competing desires (Pasupthi & Wainryb, 2010).

One important process whereby identity is constructed is via the construction of narratives about self-relevant experiences (e.g., Habermas & Bluck, 2000; McLean et al., 2007). Narratives are first-person renderings of life experiences that include reports of interpretive elements and episodic details whereby the narrator explains their behaviors, intentions, thoughts, and feelings (e.g., Grysman & Mansfield, 2017; Nelson & Fivush, 2004; Pasupathi et al., 2014; Reese et al., 2011). Scholarship in this area emphasizes the importance of narratives as they provide meaning for selfhood and depict one's internalized, evolving narrative of self (Grysman & Mansfield, 2017; McLean et al., 2007). In this respect, narratives can be approached two ways. Narratives can be conceptualized as *windows* into development, as well as *processes* whereby development occurs. Narratives as windows involves uncovering aspects of youths' memories and personality. In this approach, narrated content tends to be the focus in order to draw conclusions about the event or aspects of one's personality. Narratives as processes involve interpretations of experiences that inform the construction of knowledge. In this approach, the focus is on the dynamic process of how experiences are interpreted, how knowledge is constructed and how it shapes the self or one's understanding of events (see Grysman & Mansfield, 2017; Pasupathi et al., 2017). Examining aspects of both narrative process ("how") and content ("what") can thus provide a more comprehensive view of links between narrative and identity development (McLean et al., 2014; Syed & McLean, 2015).

One narrative methodology that examines moral identity has explored how experiences may serve to confirm or challenge individuals' self-views (Krettenauer & Mosleh, 2013). Typically, individuals are asked to provide two narrative accounts, one that confirms their self-view (e.g., recall and talk about a time you did something right and felt good about it) and another that challenges or rather, disconfirms it (e.g., recall and talk about a time you did something wrong and felt bad about it) (Krettenauer & Mosleh, 2013). Confirming events are easier to retrieve and often positively valenced (Pasupathi & Weeks, 2011). On the other hand, disconfirming events can be harder for individuals to integrate with their self-concept and are saturated with tension (Krettenauer & Mosleh, 2013). Nevertheless, such experiences can lead to significant meaning-making including beliefs about the self and goals for the future (McLean, 2005; McLean & Pasupathi, 2012).

To date, interrelations between the narrative construction of meaning and moral mindsets have not been investigated. Arguably, the ways in which adolescents understand, interpret and narrate these different types of moral experiences may be linked to the type of moral mindset they hold. That is, the extent to which they believe they can improve and work on themselves to become a better person might be associated with what is included in their narrative as well as the ways in which they process this experience. For instance, endorsing moral incrementalism might be associated with including more connections to personal change and explaining their behavior as a cause of situational factors, whereas more essentialism might be linked with making more references to dispositional factors and stable-self connections. It is important to investigate how narrative construction and moral mindset might be linked as this can help to illuminate how moral identity development unfolds.

Examining essentialist and incremental beliefs in the moral domain may be particularly crucial in adolescence, as youth increasingly develop a sense of their moral identities during this period (Krettenuer & Hertz, 2015). As adolescents navigate through everyday experiences, they learn to reason about morally-laden situations, weigh conflicting considerations, and apply their moral concepts flexibly (Turiel & Wainryb, 2000; Wainryb, 2006; Wainryb & Recchia, 2013). In this regard, the mindsets that adolescents have developed may be linked to how they navigate their moral experiences. That is, the ways in which adolescents process and respond to situations may be linked to their endorsement of moral essentialism (i.e., that moral attributes are stable and due to internal factors) and incrementalism (i.e., that attributes are unstable, change with effort, and due to external factors; Huang et al., 2017). The moral mindset adolescents hold might also be associated with how they think about, and delve into experiences that shaped, molded or changed their sense of self (McLean et al., 2010; McLean & Breen, 2009). Yet this age range is understudied in that most research on moral mindsets has focused on either childhood or adulthood. Moreover, little is known about how morality and mindset intersect, including whether and how moral essentialism and incrementalism might be applied in context specific ways and how they might be associated with adolescent's narrative construction, illuminating associations with how adolescents construct an understanding of self. The present corpus of studies thus extends an emerging literature on moral mindset among young children and adults. More specifically, it contributes to our understanding of how moral essentialism and incrementalism are applied flexibly across different types of moral experiences (i.e., prosocial/antisocial or self-consistent/discrepant events) and how moral mindset is linked to adolescents' understandings of self and other.

Research Aims. Two main research aims guided the present dissertation. The first was to assess both between- and within-person variations in adolescents' endorsement of moral mindsets. Specifically, in Study 1, we examined whether and how adolescents' moral mindsets varied across contexts depicting others' prosocial and antisocial actions, as well as the judgments of others that were associated with adolescents' situation-specific endorsement of essentialist and incremental attributions. To address this goal, we developed a new vignette-based measure of incrementalism and essentialism across various morally-laden contexts. The second goal, addressed in Study 2, was to examine how individual differences in adolescents' endorsement of moral mindsets (using the same vignette-based measure) were linked to their narrative account of their own, meaningful, morally-laden experiences. We also considered how these associations might differ across experiences in which youth described acting consistently and inconsistently with an important value.

Moral mindsets (i.e., moral incrementalism and moral essentialism) have typically been examined as two sides of the same coin (e.g., Dweck, 2006). For instance, an individual characterized as high on essentialism was also deemed low on incrementalism. However, more recent work is suggesting incrementalism and essentialism may be distinct, yet related cognitive patterns inasmuch as there is evidence to suggest that individuals endorse moral mindset flexibly (i.e., depending on the domain or situation; Hughes, 2015; Tarbetsky et al., 2016). There is also recent evidence to suggest implicit theories within the domain of morality may be more context-specific than originally thought (e.g., findings by Heiphetz, 2019) indicated that goodness is viewed in more essentialist terms than badness). Thus, the corpus of studies aimed to disentangle how moral incrementalism and essentialism may be applied in context-specific ways across the adolescent period, as well as how they are related in similar or distinct ways to adolescents'

narrative accounts of personally-experienced events. That is, given our limited understanding of

how moral mindsets might be associated with adolescents' constructions of meaning about their

morally laden experiences, it is important to examine associations between moral mindsets and

the features of events that are salient to adolescents in their narratives, as well as aspects of how

they narrate moral events. Arguably, examining the associations between moral mindsets and

narrative constructive processes can shed light on adolescent moral identity development.

Specific predictions are discussed in each manuscript below.

Summary of Method

Both studies reported in this dissertation are based on the same sample of 98 adolescents (51 girls, 47 boys) and their mothers. This sample size was determined on the basis of an a priori power analysis indicating that 96 participants was adequate for 80% power in a regression analysis of the hypothesized effects ($f^2 > .15$, $p < .05$). In study 1, one participant was omitted from analyses as they did not respond to the hypothetical vignette questions and therefore the final sample consisted of 97 adolescents (51 girls, 46 boys). In study 2, two participants were omitted from analyses due to missing narrative data, and therefore the final sample consisted of 96 adolescents (50 girls, 46 boys). A detailed description of the participants and the demographics of the sample are provided in each manuscript. Ethics approval was received from the Concordia University Human Research Ethics Committee (see Appendix I). Parental consent and adolescent written assent were obtained for each participant (see Appendices G and H).

The measures and tasks that formed the focus of this dissertation were drawn from a larger study of adolescents' moral mindsets and maternal socialization practices. As part of a larger data collection effort, mothers also completed a series of measures at the same time as their teenage daughter or son. Although data were collected on mothers, aside from the demographic questionnaire, these data were not analyzed or included in this dissertation. Similarly, not all measures completed by adolescents were included in this dissertation. An overall account of all procedures, listed in order, for both the adolescents and their mother, is provided in Appendix A. A detailed description of the relevant tasks and procedures reported in the current studies is provided in each manuscript as well as in Appendices.

Context Specificity in Adolescents' Implicit Theories of Morality

Alyssa Scirocco and Holly Recchia

Abstract

This study investigated between and within person differences in adolescents'
endorsement of moral essentialism and moral incrementalism across various types of morally-
relevant situations. The sample included 97 adolescents (age range = 12-15 years). Adolescents
responded to vignettes depicting recurrent and nonrecurrent actions in prosocial and antisocial
contexts, with questions assessing moral essentialism, incrementalism, and other character and
situation judgments. The majority of the variance for essentialism and incrementalism was linked
to within-person differences across contexts. Findings revealed between-person associations
between moral mindset, implicit theories of personality, and externalization of blame.
Adolescents endorsed moral essentialism more in prosocial contexts and incrementalism more in
antisocial contexts. Within-person variations in essentialism were linked to likability,
acceptability, person attributions and consequence judgments in particular contexts. Results
corroborate research and theorizing about the flexible endorsement of moral essentialism and
incrementalism, and document the ways in which adolescents' judgments are responsive to the
unique features of events. Findings are discussed in terms of their contributions to scholarship on
moral mindsets during adolescence.

Keywords: Morality; Incremental Mindset; Essentialist Mindset; Adolescence; Context-
specificity

Context Specificity in Adolescents' Implicit Theories of Morality

As they navigate through everyday experiences, adolescents engage with the complexities of moral life. In their day to day interactions, adolescents reason about morally-laden situations, weigh conflicting considerations, and apply their moral concepts flexibly (Turiel & Wainryb, 2000; Wainryb, 2006; Wainryb & Recchia, 2013). In this regard, the mindsets that adolescents have developed may be linked to how they navigate their moral experiences. That is, adolescents may process and respond to situations differently depending on their endorsement of moral essentialism (i.e., that moral attributes are stable and due to internal factors) and incrementalism (i.e., that attributes are unstable, change with effort, and due to external factors; Huang et al., 2017). However, little is known about how morality and these social information processing patterns intersect, and whether these associations are similar or different across prosocial and antisocial moral contexts. In other words, while mindsets in the moral domain are typically considered with respect to between-person differences, it is also important to capture within-person variations in adolescents' essentialist and incremental attributions (e.g., Hughes, 2015). Furthermore, given evidence suggesting people can hold both incremental and essentialist beliefs simultaneously (e.g, Dweck et al., 1995; Molden & Dweck, 2006), it is useful to consider moral essentialism and incrementalism as distinct processes. Examining adolescents' essentialist and incremental beliefs in the moral domain is important, inasmuch as they increasingly develop a sense of their moral identities during this period (Krettenuer & Hertz, 2015) as well as advancing in their thinking about whether and how others can change (Killen et al., 2002; Yeager at al., 2011). Yet this age range is understudied in that most research on moral mindsets has focused on either childhood or adulthood. Therefore, the purpose of this study was to extend a growing body of research on moral mindsets by

investigating between and within person differences in adolescents' endorsement of moral essentialism and incrementalism across various types of morally-relevant situations.

Moral Essentialism and Incrementalism Across Development

Children formulate theories about their social worlds that guide the ways in which they understand and evaluate themselves and their experiences (Dweck & Legett, 1988; Levy & Dweck, 1998). Specifically, there are two overarching types of mindsets that inform how children think about and react to social events. The first involves an understanding that qualities, aptitudes, and traits are fixed (i.e., fixed mindset; essentialist view). In this mindset, individuals believe that intelligence, personality, and moral character are decided by inheritance, are innate, and do not change with effort or time (Dweck et al., 1993). By contrast, incremental theorists understand that qualities, traits, and aptitudes are malleable, in that they are shaped by the environment and personal experiences (Chiu et al., 1997; Dweck, 2006; Levy & Dweck, 1998). Importantly, distinct implicit theories can be held across different domains (Dweck et al., 1995).

Cognitive-developmental scholarship suggests that essentialism is a cognitive bias that emerges early on (e.g., Eidson & Coley, 2014; Gelman, 2003; Gil-White, 2001). For instance, describing behavior using trait labels (e.g., "smart") influences 4-years-olds' predictions of future behavior (Liu et al., 2007). More specific to the moral domain, kindergarteners expect a character's future antisocial behaviors to match the valence of their previous actions (Cain et al., 1997). There is also emerging evidence that moral essentialism and incrementalism are influential in informing prosocial behaviors, such as sharing resources, in early childhood (i.e., 4-5 years-old; Rhodes et al., 2018).

Across the elementary school years, children increasingly expect people to behave in consistent ways, such as anticipating that a child who shared with a hungry peer would also

behave generously in the future by helping someone perform a chore (Rholes & Ruble, 1984). One interpretation of these findings is that older children make more trait-based inferences; in this sense, they appear to increasingly understand morality in essentialist terms whereby morally relevant behaviors stem from internal, unchanging characteristics (Heyman, 2009; Heiphetz, 2020). Indeed, moral characteristics may be perceived as especially fundamental to one's "essence": school aged children were more likely to believe that a change of identity occurred if one's moral beliefs changed as compared to non-morally relevant characteristics, such as preferences (Heiphetz, et al., 2018). Further, mindset has been shown to influence how elementary school aged children make social judgments, whereby essentialist views are linked to more generalized, global negative evaluations and trait labels such as "bad", less empathy, and more endorsement of punishment (Erdley & Dweck, 1993; Heyman & Dweck, 1998).

Early to middle adolescence is a crucial period for the emergence of a moral identity (Krettenauer & Hertz, 2015). In this age range, morality and identity become increasingly connected and ideologically-based, and adolescents begin to define themselves in light of their moral ideals and commitments (Hardy & Carlo, 2011; Hardy et al., 2014). Moreover, adolescents' self-understandings become more nuanced, differentiated and complex as they become increasingly adept at drawing self-connections and exploring the psychological facets of their morally laden experiences (McLean & Pasupathi, 2012). Alongside self development, adolescents also develop in their understandings of whether and how others can change (Yeager at al., 2011). Nevertheless, it is unclear whether essentialism is likely to increase or decrease from middle childhood to adolescence. As compared to younger children, adolescents may hold more fixed views regarding a peer's ability to change their aggressive behavior (Killen et al., 2002). Moreover, adolescents increasingly use previous information regarding a peer's prior

transgressions in judging their current actions (Killen et al., 2010). Conversely, there is other evidence suggesting that essentialism might decline across this age range; elementary school aged children have been found to hold more essentialist beliefs than adults and to perceive less environmental influence (e.g., Cimpian & Steinberg, 2014; Heiphetz, 2019). With respect to individual differences, adolescents who hold more essentialist views of personality are more likely to experience negative feelings such as shame and sadness as well as endorse vengeful responses such as punishment and retaliation (Yeager et al., 2011). As such, though there is emerging evidence to suggest the predictive significance of mindset in adolescence, little research has examined *moral* mindsets during this developmental period.

Among adults, research suggests that individuals who endorse essentialist beliefs tend to be more concerned with duty-based morality than those who endorse incremental beliefs, as they are more likely to support the status quo and focus on sanctioning and punishing deviance. On the other hand, those who endorse moral incrementalism are more concerned with rights-based morality as they tend to focus on social change and support people's rights to equality (Chiu et al., 1997; Dworkin, 1978; Hughes, 2015; Wurthmann, 2017). Additionally, moral incrementalism and essentialism are linked to distinct moral character attributions such that adults who hold a more essentialist view use less information to cast judgments and make moral decisions (Chiu et al., 1997; Haselhun et al., 2010). Moreover, adults who hold an incremental view of moral character are more likely to trust and forgive after a received apology and to engage in voluntary service behavior (Han et al., 2018; Haselhun et al., 2010). Nevertheless, as noted above, these associations have not been widely examined in adolescence, and thus it is important to address whether these patterns are evident across development.

Context Specificity in Incremental and Essentialist Beliefs

21

Overall associations with moral mindsets, however, should be considered in conjunction with evidence suggesting context-specificity in incrementalism and essentialism, both generally and more specifically in the domain of morality. That is, even though overall levels of incrementalism and essentialism tend to be negatively correlated with one another, adults have been shown to hold distinct beliefs depending on the domain (i.e., intelligence, personal attributes, morality; Hughes, 2015). For instance, someone with a view that intelligence is malleable and can be changed through effort might also simultaneously believe that others are born with a stable personality that cannot change regardless of how much effort is applied. Moreover, even within a given domain such as intelligence, there is evidence to suggest that pre-adolescents (i.e., 7-9th grade students) can hold distinct implicit theories depending on the particular focus of consideration (i.e., mathematics versus other academic domains; Tarbetsky et al., 2016).

There is also recent evidence pointing to context-specificity of implicit theories within the domain of morality. Findings by Heiphetz (2019) indicated that goodness is viewed in more essentialist terms than badness, by both 5- to 8-year-old children and adults, implying that moral essentialism should be considered in relation to specific domain components (e.g., goodness/badness). This is in line with work suggesting a person-positivity bias, whereby adults tend to see human beings in a positive light and tend to regard people's "true selves" as fundamentally good (Newman, Bloom, & Knobe, 2014; Newman, De Freitas, & Knobe, 2015). Conversely, other studies suggest negativity and extremity biases in impression formation, such that negative moral behaviors are viewed as more diagnostic (Skowronski & Carlston, 1987; 1989). It is worth noting that recent reviews on diagnosticity suggest that these processes are primarily at play when there are alternative categories to choose from (e.g., consistent vs.

inconsistent behavior) and also that the effect might be particularly robust when applied to extreme behaviors (Rusconi et al., 2020). With respect to age-related change, Lockhart et al. (2002) found that the tendency to essentialize positive qualities more readily than negative qualities may be particularly evident in early childhood (as compared to middle childhood and adulthood), although these patterns have not been examined in adolescence. In sum, these findings suggest that it is useful to extend research on the context-specificity of moral mindsets into the adolescent period.

A second important feature of the context to consider involves behavioral repetition. Both moral transgressions and prosocial actions tend to be understood differently when they occur repetitively. For instance, Heiphetz (2019) notes that, in a legal context, three strike laws tend to suggest that multiple offences are indicative of bad moral character and that it is especially important to punish multiple offenders harshly. Further, adults who are induced with an incremental mindset tend to blame others significantly more after they show continual (but not single) failure as compared to participants induced with an essentialist mindset, suggesting increased blame when participants were primed with perceived control over one's abilities (Ryazanov & Christenfeld, 2018a). As such, both valence and recurrence of moral behaviors are relevant contexts to explore.

Some scholars have also pointed to context-specificity in considering the outcomes associated with mindset. Overall, as noted above, incrementalism tends to be associated with positive outcomes and essentialism with negative outcomes among both children and adults (e.g., Erdley & Dweck, 1993; Haselhuhn et al., 2010). However, it has also been suggested that essentialized thinking is not always detrimental; rather, the effects associated with essentialized thinking depend on motivation and context (Ryazanov and Christenfeld, 2018a). For instance,

essentializing the good aspects of oneself or of one's group can be beneficial (Rayzanov & Christenfeld, 2018b). In prosocial situations, characterological (i.e., "helper") rather than behavioral attributions (i.e., "helping") has been shown to encourage 3- to 6-year-olds' prosocial behavior, and similarly, asking people to not be a "cheater" rather than to not "cheat" has been shown to discourage cheating (Bryan et al., 2014), although these attributions may also backfire if children experience setbacks (Foster-Hansen et al., 2020). Thus, it is important to go beyond characterizing individuals as moral essentialists or incrementalists and to consider how patterns and outcomes of social information processing vary depending on the unique features of the moral situation under consideration.

The Current Study: Summary of Hypotheses

The present study aimed to assess both between- and within-person variations in adolescents' endorsement of moral mindsets. To address this goal, we developed a new vignette-based measure of incrementalism and essentialism across various morally-laden contexts. We considered global between-person differences by examining associations with a measure of implicit theories of personality (Dweck et al., 1995) as well as affective reactions to moral events (Tangney et al., 1991), based on established links to these factors and other definitional elements associated with moral incrementalism and essentialism in the literature (e.g., Dweck et al., 1993; Han et al., 2018). That is, adolescents who hold more essentialist views of personality tend to experience more negative feelings about themselves and are more likely to experience shame or depressive symptoms after victimization (Erdley et al., 1997; Graham & Juvoven, 1998); as such, we expected to find that moral essentialism would be linked to shame- and guilt-proneness.

We also assessed whether and how adolescents' moral mindsets varied across contexts depicting others' prosocial and antisocial actions that were described as recurrent or

nonrecurrent, as well as the judgments of others associated with adolescents' situation-specific endorsement of essentialist and incremental attributions. Based on past theory and research (e.g., Dweck et al., 1993; Heiphetz, 2019; Rayzanov & Christenfeld, 2018b; Yeager et al., 2011) we expected adolescents to endorse moral essentialism more when stories depicted a hypothetical character acting prosocially, whereas we expected adolescents to endorse moral incrementalism more when the stories depicted antisocial behavior. We further expected that adolescents would endorse moral incrementalism more than moral essentialism in one-time incidents since individuals who hold a more incremental mindset tent to draw less abrupt conclusions (Yeager et al., 2011). Conversely, we expected adolescents to endorse moral essentialism more than moral incrementalism when actions were described as recurrent. We anticipated that this might be particularly the case for prosocial actions described as recurrent, given research suggesting that children and adults have predispositions to essentialize goodness (Heiphetz, 2019).

Regarding associations between adolescents' moral mindsets and their character and situation judgments in response to hypothetical moral situations, on the basis of past research (e.g., Erdley & Dweck, 1993; Heiphetz, 2019; Yeager et al., 2011; Yeager & Dweck, 2012) we expected that within-person variations in essentialist and incremental attributions across contexts would be linked to predictable differences in judgments of action acceptability (whether the behavior was okay or not okay), character likability (whether the protagonist was likable or unlikable), consequences of actions (whether the behavior was deserving of praise/punishment), and person attributions (whether the protagonist was a good/bad person). Specifically, we hypothesized that greater endorsement of moral incrementalism and less endorsement of essentialism would be linked to less extreme judgments of (un)acceptability and character likability, less endorsement of praise and punishment, and fewer person attributions. We also

considered whether these associations differed across contexts; given the limited literature on moral mindsets among adolescents, we tested the variations in the magnitude of these associations between prosocial/antisocial contexts and recurrent/nonrecurrent events on an exploratory basis.

Finally, we considered associations with age, especially considering the substantive ways in which adolescents' understandings of themselves and others develop across early adolescence (Krettenauer & Hertz, 2015). These associations were exploratory, given inconsistencies in the current literature. For example, some research suggests that 5-8-year-olds hold more essentialist beliefs than adults (Cimpian & Steinberg, 2014; Gelman et al., 2007; Heiphetz, 2019). Conversely, other evidence suggests that older children expect more consistent moral behavior and make more make trait-based inferences (Rholes & Ruble, 1984; Heiphetz, 2020). Gender differences were also examined in an exploratory way, given that gender differences in mindset have not been widely investigated in the adolescent years.

Method

Participants

Participants consisted of 97 early to middle adolescents (51 girls, 46 boys) with sampling aimed at ensuring approximately equal coverage across the 12- to 15-year age range (M = 13.5 years). They were recruited from the Montreal area via advertisements posted on social media and in public spaces (e.g., public libraries, a yoga studio), via word of mouth, through flyers distributed in schools, and by contacting past participants.

Participating families were mostly Canadian born (74%) and White (78%) with the remaining families representing a variety of racial/ethnic backgrounds (1% Chinese, 2% Latin American, 2% West Asian, 3% Middle Eastern, 4% South Asian, 4% Black, 6% Eastern

European). Most mothers in the sample were well educated (52% had a University degree) with a mean age of 43.7 years. The adolescents' other parent (85% described as fathers) were also well-educated (47% had a University degree) with a mean age of 46.7 years. English was the predominant language spoken at home (84.2%) and all adolescents were fluent in English, although some also spoke French, Russian, Arabic, Spanish and Persian in the home setting. Most adolescents had one or more siblings (87.4%).

Procedure

Ethics approval was received from Concordia University Human Research Ethics Committee. Parental consent and adolescent written assent were obtained for each participant. Participants received either $20 or two movie tickets as an incentive for participating. Adolescents completed a survey on a tablet computer provided by the researcher. The survey was completed either in their family home or at a university lab, depending on the participant's preference. Participants initially completed the implicit theories of personality measure (Dweck, 1999) followed by the test of self-conscious affect (Tangney et al., 1991). These measures were included to validate the new measure of moral essentialism and incrementalism used in this study, in order to assess whether between-person variations in implicit theories of morality were related to personality, as well as moral emotions such as guilt and shame. Next, participants were presented with four hypothetical vignettes and follow-up questions regarding the vignettes. Some of these follow-up questions assessed moral essentialism and incrementalism, and others provided information about adolescents' character and situation judgments in particular morally-laden contexts.

Measures

Implicit theories of personality. The Implicit Theories of Personality measure (Dweck et al., 1995) is comprised of six statements about whether someone's personality can change, with six-point Likert-type response scales ranging from *strongly disagree* [1] to *strongly agree* [6]. The items were averaged and combined into a single scale, with higher scores indicating more agreement with an incremental (rather than essentialist) view of personality. For this sample, internal consistency reliability of this measure was adequate (Cronbach's alpha = 0.74).

Moral emotions. Adolescents responded to the TOSCA-Adol (Test of Self-Conscious Affect for Adolescents) by Tangney and colleagues (1991). This measure is comprised of ten negative and five positive scenarios yielding indices of Shame-Proneness, Guilt-Proneness, Externalization, Detachment/Unconcern, Alpha Pride, and Beta Pride. Participants were asked to rate on a 5-point Likert scale how likely each statement is true of them, ranging from *not at all likely* [1] to *very likely* [5]. Cronbach's alphas for this sample were 0.80 for TOSCA-shame, 0.86 for TOSCA-guilt, 0.82 for TOSCA-externalization, 0.44 for TOSCA-unconcern, 0.5 for TOSCA-alpha pride, and 0.34 for TOSCA-beta pride. Detachment/Unconcern, Alpha Pride and Beta Pride were omitted from subsequent analyses given low internal consistency reliabilities.

Vignette-based measure of others' morally-laden actions. Hypothetical vignettes were designed with ecological validity in mind, depicting situations that adolescents of this age range might encounter in their daily lives. Hypothetical situations were first pilot tested with a small group of adolescents and refined accordingly. Each participant was presented with four hypothetical vignettes in a randomly generated order, each of which portrayed actions representing a distinct value (i.e., fairness, honesty, dependability, and caring; see Appendix E[1]) One value was assigned to each combination of the valence (prosocial/antisocial) and recurrence

---

[1] In the published version of this study this information is contained in supplementary materials.

(recurrent/non-recurrent) conditions, counterbalanced across participants using a latin square design. The gender of the characters was matched to the gender of the adolescent. The prosocial stories involved a hypothetical character behaving consistently with a moral value. For example, Charles is depicted as dependable by keeping Sergio's secret. The antisocial stories involved the hypothetical character behaving inconsistently with a moral value. For example, Jason is not dependable by telling the entire class who Tommy has a crush on. Recurrent stories involved a character behaving in this way more than one time (i.e., "oftentimes"). Non-recurrent stories involved a character behaving in this way only one time (i.e., "one day"). Following each of the four hypothetical vignettes, the adolescents were asked a series of questions to assess moral essentialism and incrementalism, as well as their character and situation judgments.

Moral essentialism and incrementalism. The moral essentialism and incrementalism measures included items assessing dimensions based in attribution theory (i.e., internal/external; stable/changing) and consistent with established conceptions of essentialist and incremental mindsets (e.g., Han et al., 2018; Heiphetz, 2019). Alongside these conceptual considerations, item analysis informed the construction of two internally consistent scales measuring moral essentialism and incrementalism, respectively. Specifically, the moral essentialism measure included 16 items (i.e., four items per vignette) that assessed fixed mindset components, with an overall Cronbach's alpha of $\alpha = 0.77$. That is, given that fixed or essentialist patterns of thinking involve perceiving qualities, aptitudes and traits as stable and unchanging (Dweck & Legett, 1988; Dweck et al., 1993; Levy & Dweck, 1998), items were designed to assess stability across time and situations. We asked adolescents to rate their perceptions of the stability of the actor's behavior over time (e.g., "Do you think [name] will do something like this again?") and relationship contexts (e.g., "Do you think [name] will do something like this with other

people?"). These items were rated on a six-point Likert-type scale ranging from *very unlikely* [1] to *very likely* [6]. Items also assessed attributions that the hypothetical character acted the way they did due to internal factors (e.g., "it is a part of who he/she is") and that their behaviors can be explained by broader personality traits (e.g., "he/she is mean in other ways"). These items were rated on a six-point Likert-type scale ranging from *strongly disagree* [1] to *strongly agree* [6].

In turn, the moral incrementalism measure included eight items (i.e., two items per vignette), with a Cronbach's alpha of $\alpha = 0.71$. Adolescents were asked to provide ratings on a six-point Likert-type scale ranging from *strongly disagree* [1] to *strongly agree* [6]. This measure assessed adolescents' endorsement that behaviors can be explained by external processes (e.g., Levy & Dweck, 1998). Adolescents rated their perceptions that the hypothetical character's actions were due to external factors (e.g., "[name]'s life experiences have led him/her to act this way"), as well as their perception that traits and behaviors can be cultivated (i.e., developed or improved through effort, work and/or sustained attention) and that people are able to change and grow over time (e.g., "[name] could become nicer"). See Appendix F[2] for a complete list of items assessing moral essentialism and incrementalism.

Character and situation judgments. For each vignette, participants responded to questions about character acceptability, likability, consequence judgments, and person attributions. Character acceptability was examined on a four-point Likert-type scale ranging from *not okay* [1] to *okay* [4]. Adolescents rated the protagonist's actions in response to the question "do you think what [name] did was okay or not okay?" The scale for the antisocial scenarios were reversed for multilevel analyses such that higher scores in this context were indicative of

---

[2] In the published version of this study this information is contained in supplementary materials.

greater unacceptability. This allowed for direct comparisons between the two sets of scenarios in the magnitude of predicted associations.

Character likability was rated on a six-point Likert-type scale ranging from *dislike a lot* [1] to *like a lot* [6]. Adolescents rated how much they liked the protagonist, in response to the question how much do you think you would like [name] if you met him/her?" Similar to acceptability, the scale for the antisocial scenarios were reverse scored such that higher scores in this context were indicative of more unlikability.

Regarding consequence judgments, adolescents rated on a four-point Likert-type scale ranging from *not at all* [1] to *a lot* [4] whether they believed the character was deserving of praise (for the two prosocial scenarios) or punishment (for the two antisocial scenarios). For example, "if you were Mark, how much would you want Carl to be praised?" or "if you were Jenna, how much would you want Sabrina to be punished?". In each case, higher scores indicated greater endorsement of relevant consequences.

Finally, for person attributions, adolescents responded to questions to assess their person-centered moral attributions ("Do you think that he/she is a good/bad person?) on a four-point Likert-type scale ranging from *not at all* [1] to *a lot* [4]. For prosocial scenarios, they were asked to indicate whether they thought the character was a good person, and in antisocial scenarios, when the character was a bad person. In each case, higher scores indicated greater endorsement of relevant characterological attributions.

Plan of Analysis

First, to assess between-person differences and validate the overall vignette-based measures of moral incrementalism and essentialism, we conducted hierarchical linear regressions to investigate how moral incrementalism and essentialism predicted adolescents' responses to the

Implicit Theories of Personality measure as well as externalization, guilt and shame scales of the TOSCA. Age and gender were entered in the first step of the models. Adolescents' ratings of moral essentialism and incrementalism were entered together at step two to assess their unique associations, as moral essentialism was significantly, positively correlated with moral incrementalism ($r = .31$, $p = 0.007$). An analysis to determine how much data were missing revealed that 1.64% of values were incomplete due to item nonresponse. Ten iterations of multiple imputation using the automatic method were conducted on all variables to account for missing data. Parameters based on pooled data are reported.

Next, to assess within-person variations in measures of moral incrementalism and essentialism, we conducted multilevel modeling with HLM ver. 7.00 with adolescents' responses for specific vignettes at level 1 (L1) nested within the participant at level 2 (L2) (Raudenbush & Bryk, 1992). In each case, model building began with an unconditional model to assess the distribution of variance in the dependent variables across L1 and L2 (i.e., ICCs).

The first set of models examined essentialism and incrementalism as the outcome variables, respectively, to examine how they varied as a function of condition, age, and gender. We tested within-person variations as a function of condition by sequentially testing the effects of story valence, recurrence, and their two-way interaction. Main effects of age and gender (boys coded as 1, girls coded as 2) were tested at L2 in each model, as well as cross-level interactions.

A second set of models examined how within-person variations in moral essentialism and incrementalism were related to character and situation judgments in particular contexts. We constructed one model for each of the four types of judgments (i.e., acceptability, likability, consequence judgments, person attributions). The effects of story valence and recurrence were entered first as controls, followed by main effects of essentialism and incrementalism, and finally

by two-way interactions between conditions and the two measures of mindset (e.g., recurrence x essentialism). Essentialism and incrementalism were centered and final estimation of fixed effects with robust standard errors were reported. Age and gender effects were also tested at L2. All significant fixed effects reported below were also accompanied by a statistically significant reduction in deviance (in each case, at $p < .05$).

Results

How are Between-Person Variations in Moral Essentialism and Incrementalism Associated with Measures of Implicit Theories of Personality and Moral Emotions?

Final regression models are presented in Table 1. After accounting for age and gender effects, as expected, moral essentialism was significantly negatively associated with adolescents' responses to the implicit theories of personality measure, wherein higher scores reflect the belief that personality can change. In turn, moral incrementalism was significantly positively associated with adolescents' scores on the implicit theories of personality measure.

Regarding the TOSCA, moral essentialism significantly positively predicted adolescents' externalization of blame. On the other hand, moral incrementalism did not predict scores on the TOSCA. Gender predicted adolescents' responses to the shame dimension of the TOSCA, such that girls scored higher on shame-proneness as compared to boys.

How Does Adolescents' Endorsement of Moral Essentialism and Incrementalism Vary Across Contexts?

Initially, ICC values were calculated for moral essentialism and incrementalism. An ICC value of 0.16 was calculated for essentialism, whereas an ICC value of 0.40 was calculated for incrementalism.

Our first analysis examined the main and interactive effects of story valence (i.e., prosocial vs. antisocial) and recurrence on moral essentialism. Results revealed greater endorsement of moral essentialist attributions in prosocial stories ($M = 4.79$, $SE = 0.05$) as compared to antisocial stories ($M = 4.04$, $SE = 0.05$), $t(92) = 12.53$, $b = 0.78$, $SE = 0.06$, $p < 0.01$. The main effect of recurrence was not significant, nor did recurrence interact with story valence.

Our next analysis examined the main and interactive effects of story valence (i.e., prosocial vs. antisocial) and recurrence on moral incrementalism. Results revealed a nonsignificant trend towards less endorsement of moral incrementalism when stories were prosocial ($M = 4.23$, $SE = 0.07$) as compared to antisocial stories ($M = 4.34$, $SE = 0.06$), $b = -0.14$, $SE = 0.08$, $t(92) = -1.77$, $p = 0.07$. The main effect of recurrence was not significant, nor did recurrence interact with story valence. Final models are reported in Table 2. Results for the L2 model further revealed a main effect of gender on moral incrementalism, $t(90) = 2.62$, $b = 0.35$, $SE = 0.13$, $p < 0.01$, such that girls ($M = 4.47$, $SD = 0.65$) endorsed moral incrementalism significantly more than boys ($M = 4.12$, $SD = 0.61$).

How are Within-Person Variations in Moral Essentialism and Incrementalism Associated with Character and Situation Judgments in Particular Contexts?

In this section, we focus on associations with moral essentialism and incrementalism, although all retained effects in final models are presented in Table 3. Regarding acceptability, analyses revealed that acceptability judgments were significantly associated with moral essentialism, such that endorsement of essentialism was linked to higher acceptability of the character's actions in prosocial stories and higher *un*acceptability in the antisocial stories. Similarly, results revealed that likability judgments were significantly associated with moral essentialism, such that greater endorsement of essentialism was linked to higher likability ratings

in the prosocial stories and higher *un*likability ratings in the antisocial stories. Results revealed similar patterns for consequence judgments and person attributions: moral essentialism was associated with more endorsement of praise and "good person" attributions for prosocial stories, and similarly associated with more endorsement of punishment and "bad person" attributions for antisocial stories. In each case, the magnitude of the associations was similar across vignette types, in that valence and recurrence conditions did not significantly moderate any of these associations. There were no significant unique or interactive effects of age or gender.

Discussion

Overall, the findings from this study emphasize that adolescents' implicit theories of morality do not take a "one size fits all" approach. Although we did observe meaningful between-person variations in adolescents' moral mindsets, youths' endorsement of moral incrementalism and essentialism was also sensitive to the features of particular contexts, and predicted how they made judgments about others in hypothetical situations. Each of these sets of findings is discussed in turn.

Individual Differences in Moral Essentialism and Incrementalism

In this study, moral essentialism and incrementalism were positively associated, emphasizing the value of examining them as distinct factors rather than assuming that they represent two ends of one dimension. This is also broadly consistent with past research showing that children and adults can be higher or lower on essentialism depending on the item or characteristic in question (Gelman et al., 2007; Heiphetz et al., 2017).

In line with past work emphasizing overall differences in mindset between individuals (e.g., Dweck et al., 1995; Hughes, 2015), a meaningful portion of the variance in essentialism and incrementalism (16% and 40%, respectively) was associated with between-person

differences. Overall, the between-person findings provided some preliminary evidence that supported the convergent validity of a new vignette-based measure of these constructs, inasmuch as they were related to implicit theories of personality in the expected directions. That is, moral essentialism was negatively associated with adolescents' responses to the implicit theories of personality measure (wherein higher scores reflect the belief that personality can change), whereas moral incrementalism was positively associated with adolescents' scores on the implicit theories of personality measure. Nevertheless, the amount of shared variance between the moral mindset measures and the ITP was relatively modest, in line with research suggesting that moral mindsets can be distinguished from implicit theories of personality more generally (Hughes, 2015). Contrary to our expectations, measures of moral mindset were not significantly associated with TOSCA scores for shame and guilt. However, moral essentialism was positively linked to adolescents' responses to the externalization dimension of the TOSCA. This link with essentialism is consistent with past theorizing, inasmuch as it reflects a tendency to externalize blame, which is described as a defensive reaction in response to attributing one's failures to global, enduring qualities (Levy & Dweck, 1998; Tangney, 1990; 1995).

Context Specificity of Moral Essentialism and Incrementalism

One key contribution of our work was the joint assessment of between and within person differences in implicit theories within the domain of morality. Although our findings did reveal between-person differences, as described above, the majority of the variance for both essentialism and incrementalism was linked to within-person variations across contexts. Thus, it appears as though context *is* meaningful, particularly in the case of moral essentialism (for which 84% of the variance was linked to intraindividual variations).

With respect to differences across contexts, findings revealed that adolescents endorsed moral essentialism significantly more in the prosocial domain, as well as a nonsignificant trend for incrementalism to be endorsed more in the antisocial domain. That is, when the hypothetical moral situations depicted prosocial actions (e.g., the protagonist acts honestly by telling the truth about their unequal contribution to a group project), adolescents were more likely to endorse statements that reflected internal factors, stability, and unchangeable qualities, aptitudes and traits. This is in line with evidence from Heiphetz (2019) suggesting that individuals tend to essentialize "goodness" more than "badness." For instance, positive characteristics such as "niceness" are more likely to be perceived as stable and transferrable as compared to negative characteristics like "meanness" (Meyer et al., 2017). Relatedly, younger children have been shown to hold optimistic views in negative contexts by believing people can change in a positive direction (e.g., Lockhart et al., 2009). These patterns may be adaptive in that essentializing the good aspects of oneself or of others can be quite beneficial (Rayzanov & Christenfeld, 2018b), whereas this is less likely to be the case in the antisocial domain.

In contrast, adolescents' endorsement of moral essentialism and incrementalism did not differ significantly depending on whether the story depicted behavioral repetition. We had expected to see differences based on whether the action was described as a one-time event (i.e., "one day") versus an event that has occurred many times before (i.e., "oftentimes") given that individuals who hold a more incremental mindset tend to draw less abrupt conclusions (Yeager et al., 2011). When actions were described as recurrent, we expected adolescents to endorse moral essentialism more strongly, and particularly for prosocial actions given adolescents' predispositions to essentialize goodness over badness (Heiphetz, 2019). It may be that our manipulation of repetition was too subtle. We explored this possibility using an additional item

37

that had been initially intended to measure essentialism but that was removed from the scale because it was deemed to overlap somewhat with the notion of behavioral repetition ("Do you think [Name] has done something like this before"?). Although this item was not intended to serve as a manipulation check (in that acting in a particular way on "one day" did not preclude the possibility that it had happened before), findings revealed no difference in the endorsement of this item across recurrence conditions. In this sense, it is possible that the lack of significant findings for recurrence may be at least partially due to the way in which recurrence was manipulated in this study, although past research on mindset and behavioral repetition has often focused on subtle linguistic cues (i.e., category labels versus generic language; e.g., Rhodes et al., 2012). Nevertheless, most work on this topic has been focused on nonmoral domains (e.g., levels of intelligence; Niiya et al., 2010), and thus more work is needed to address issues of recurrence in the context of actions reflecting moral values.

How are Intraindividual Variations in Moral Essentialism and Incrementalism Associated with Character and Situation Judgments?

Past work has largely painted the consequences of moral essentialism and incrementalism in broad brush strokes. That is, incrementalism tends to be associated with positive outcomes (e.g., better academic performance, overcoming setbacks, empathy, forgiveness) and essentialism with negative outcomes (e.g., stereotyping, punishment) (Blackwell et al., 2007; Erdley & Dweck, 1993; Haselhuhn et al., 2010). However, in line with other recent research (e.g., Ryazanov & Christenfeld, 2018a), this study implies that essentialized thinking may not necessarily be detrimental under all circumstances. For instance, we found that adolescents who made essentialist attributions also tended to judge prosocial actors as more likable and their

actions as more acceptable. Thus, rather than positioning essentialism as a uniformly "bad mindset," it may be more fruitful to consider the context at hand.

Our findings also revealed that adolescents endorsed consequence judgments (i.e., praise and punishment) and person attributions (i.e., "good" and "bad" person) in moral contexts wherein they made more essentialist attributions. These findings are in line with previous research examining between-person effects suggesting that essentialism is linked to endorsing punishment (Yeager et al., 2011), but extend this work by addressing intraindividual variations and considering prosocial contexts. Similarly, our finding that adolescents endorsed person attributions and thus evaluated the moral and immoral character engaging in the prosocial or antisocial behavior as a "good person" or "bad person" provides further evidence to suggest that essentialism is linked to more stable, dispositional and trait-like attributions across both prosocial and antisocial contexts (Dweck et al., 1993; Yeager & Dweck, 2012). Taken together, these patterns of finding suggest that it is meaningful to consider how moral essentialism and incrementalism are linked to distinct judgments and outcomes across contexts.

Given that there are not well-established patterns in the mindset literature regarding gender and age effects in adolescence, this study examined these factors in exploratory ways. We found a main effect of gender on moral incrementalism, such that girls endorsed moral incrementalism more than boys. This is consistent with Killen et al. (2002), who found that girls are more tolerant to differences and hold less fixed perceptions about excluding others. Of course, more research is needed to corroborate this finding, especially given the overall absence of gender effects in this study. With regards to age-related findings, we posited two competing hypotheses given some research suggesting age-related decreases in essentialized thinking (e.g., Heiphetz, 2019) and other work suggesting possible increases (Heyman, 2009; Heiphetz, 2020;

Rholes and Ruble, 1984). However, we did not find any significant associations with adolescents' ages. Although early to mid-adolescence is a developmental period in which changes might be anticipated in light of youths' burgeoning moral identity development and the increasing complexity with which they make sense of their morally laden experiences (Hardy & Carlo, 2011; McLean & Pasupathi, 2012), it would be useful to examine these processes across a wider age span in future work. That said, our findings contribute to research and theorizing on moral mindsets in adolescence, a period that is crucial for self development and currently understudied in the moral mindset literature.

Conclusion

The results of this study were based on a community sample consisting primarily of well-educated, White, and Canadian families. There is evidence to suggest that in some domains (e.g., implicit theories of intelligence), factors such as socioeconomic status (SES) and parental education are associated with mindset, such that students from higher SES and educated backgrounds tend to be less likely to hold a fixed mindset (e.g., Claro et al., 2016). More research is needed to disentangle how these factors might be associated with moral essentialism and incrementalism. Thus, future research should encompass a more heterogenous and a larger sample size to test these associations. A further limitation of this study is that the moral essentialism scale included more items than the moral incrementalism scale, which may account for the lower reliability of our measure of moral incrementalism, and perhaps the larger number of significant associations evident with moral essentialism. Lastly, the recurrence manipulation may not have adequately captured adolescents' responsiveness to repetitive behaviors across contexts; rephrasing "One day" events to "Only this one time" might be less ambiguous. As well,

including a check question specifically designed to assess the manipulation would have been useful.

Despite these limitations, our study makes a number of contributions to research on moral mindsets. First, our findings suggest that moral incrementalism and moral essentialism are both relevant, distinct processes associated with how adolescents make sense of their morally-laden experiences. Moreover, our findings illuminate both between- and within-person variations in moral essentialism and incrementalism, and demonstrate that these beliefs are applied in context-specific ways. That is, our findings illustrate that adolescents' endorsements of both types of moral mindsets are sensitive to the features of the moral scenario at hand, and in particular, whether it involves prosocial or antisocial actions. Further, our findings address how within-person variations in moral essentialism are associated with character and situation judgments in particular contexts, and that signal the potentially adaptive features of these types of attributions. In sum, our results provide a novel contribution to research on moral mindset by examining the inter and intra-individual differences during an understudied developmental period. Our work also corroborates and extends recent research and theorizing (e.g., Heiphetz, 2019) by illustrating adolescents' flexible endorsement of moral essentialist and incremental perspectives, and the ways in which their judgments are responsive to the unique features of morally-laden events.

Table 1

Final Models for Overall Associations between Moral Mindset, Implicit Theories of Personality, and Self-Conscious Emotions

Variable	ITP		TOSCA-Externalization		TOSCA-Shame		TOSCA-Guilt	
	B	*SE B*	*B*	*SE B*	*B*	*SE B*	*B*	*SE B*
Constant	5.52**	1.53	1.00	1.01	2.03*	0.93	2.78*	0.96
Age	-0.06	0.09	-0.01	0.06	0.11	0.05	0.02	0.06
Gender	-0.06	0.19	0.31	0.13	0.35*	0.12	0.18	0.13
Moral essentialism	-0.56*	0.21	0.42*	0.13	0.2	0.13	0.07	0.14
Moral incrementalism	0.42*	0.16	-0.06	0.10	-0.18	0.1	0.04	0.11
R^2	0.12*		0.14*		0.08		0.05	
R^2 Change for step 2	0.08*		0.14*		0.03		0.01	

Note. *$p < .05$. ITP = Implicit Theories of Personality; TOSCA = Test of Self-Conscious Affect.
Age and gender were entered together in step 1, followed by moral incrementalism and essentialism in Step 2. Boys were coded as 1 and girls were coded as 2.

Table 2

Final Fixed Effects and Variance Components for Multilevel Models of Moral Essentialism and Incrementalism Across Contexts

	Essentialism	Incrementalism
	b (SE)	*b* (SE)
Intercept	4.02** (0.07)	4.42** (0.07)
Prosocial	0.78** (0.06)	-0.14 (0.08)
Recurrence	0.04 (0.05)	-0.07 (0.06)
Variance components		
Intercept	0.30	0.29
Prosocial	0.09	0.21
Recurrence	0.06	0.01

Note. ** *p* <0.001. Higher scores indicate greater endorsement of essentialism and incrementalism. The two-way interaction between conditions at L1 (i.e., prosocial x recurrence) was tested but not retained due to nonsignificant results. The main effects of age and gender at L2 as well as age and gender as moderators of associations at L1 were tested separately; a significant main effect of gender on moral incrementalism is reported in the text, but gender did not qualify any of the L1 patterns.

Table 3

Final Fixed Effects and Variance Components for Multilevel Models of Acceptability, Likability, Consequence Judgments, and Person Attributions across Contexts

	Acceptability b (SE)	Likability b (SE)	Consequence Judgment b (SE)	Person Attribution b (SE)
Intercept	3.74** (0.05)	4.12** (0.09)	2.71** (0.08)	2.45** (0.06)
Prosocial	-0.06 (0.08)	1.05** (0.16)	0.18 (0.11)	0.25* (0.08)
Essentialism	0.15* (0.05)	0.32** (0.08)	0.29** (0.06)	0.50** (0.05)
Incrementalism	0.02 (0.04)	-0.00005 (0.08)	-0.04 (0.05)	-0.03 (0.05)
Variance components				
Intercept	0.06	0.32	0.06	0.37
Prosocial	0.23	1.16	0.02	0.35
Essentialism	0.04	0.10	0.01	0.02
Incrementalism	0.05	0.16	0.05	0.01

Note: ** p <0.001*, * p < 0.05. In prosocial stories, higher scores indicate greater acceptability, likability, praise and good person attributions. In antisocial stories, higher scores indicate greater unacceptability, unlikability, punishment and bad person attributions. The effects of recurrence were tested but this variable was removed for parsimony as it did not significantly contribute to the model nor did it interact with other predictors. Two-way interactions between conditions and mindset variables at L1 were considered but not retained due to nonsignificant results. Similarly, the main effects of age and gender at L2 as well as age and gender as moderators of associations with L1 variables were tested but these analyses did not reveal any significant effects.

Moral Mindset and Adolescents' Conceptions of Self and Other

The manuscript above provides evidence in support of the notion that moral essentialism and incrementalism are applied in more context specific ways than once thought. Specifically, our findings revealed that adolescents' moral mindsets are applied flexibly across hypothetical moral scenarios and when reasoning about others. That is, adolescents endorsed moral essentialism significantly more in prosocial contexts and there was a trend towards endorsing incrementalism more in antisocial contexts. The types of character and consequence judgments they made about others were also sensitive to the moral situation at hand. That is, moral essentialism in a given context was associated with more endorsement of praise and "good person" attributions for prosocial stories whereas, in antisocial stories, adolescents who made essentialist attributions also endorsed more punishment and "bad person" attributions. Moreover, in situations when adolescents endorsed essentialist attributions they tended to judge prosocial actors as more likable and their actions as more acceptable, whereas they described antisocial actors as more unlikeable and their actions as more unacceptable. Taken together, these findings paint a more nuanced picture of moral mindsets across the adolescent period with regards to their understandings and judgements of others' actions. Results suggest we should shift our focus from exclusively labelling an adolescent as a "moral essentialist" or "moral incrementalist"; rather, we should also be concerned about how each aspect of mindset can be applied distinctly across different moral situations. In particular, Study 1 provided evidence to suggest that within-person variations in moral essentialist attributions are meaningfully tied to adolescents' interpretations of others across contexts.

While these findings are interesting and contribute to research on adolescents' judgments of others' positive and negative actions, they do not speak to how adolescents make sense of

their *own* morally-relevant actions. Research posits that the "true self," a term used to describe characteristics that are central to one's identity (Strohminger, Knobe, & Newman, 2017), is typically perceived to be both moral and good (e.g., Heiphetz, Strohminger & Young, 2017; Strohminger & Nichols, 2014). This perception has been shown to apply to one's own true self as well as the true self of others (e.g., Bench, Schlegel, Davis, & Vess, 2015; Heiphetz et al., 2017). However, there is some evidence to suggest that perceptions of moral selfhood may not be applied uniformly in situations involving the self versus others, particularly during childhood and adolescence. For instance, one study asked children, adolescents, and adults to imagine either undergoing a moral change or someone else undergoing a moral change (Lefebvre and Krettenauer, 2020). Both children and adolescents reported that moral changes in others were more disruptive to identity continuity as compared to moral changes in themselves, whereas adults did not perceive such differences. This was interpreted to suggest there may be differences with regards to how children and adolescents, compared to adults, integrate moral characteristics into their own and others' subjective sense of self (Lefebvre & Krettenauer, 2020; Krettenauer, 2019). Moreover, there is also evidence to suggest that adults tend to rate positive characteristics as more descriptive of the self and negative characteristics as less descriptive of the self, compared to their views of others. This was interpreted to suggest the existence of a "self-other bias" (Brown, 1986). Inasmuch as these findings collectively address views of moral traits as well as change over time and situation, they also imply that mindset may be linked in distinct ways to reasoning about one's own and others' morally-relevant behaviors.

In addition to distinctions between self and other, it is also important to complement research using hypothetical vignettes with analyses of adolescents' own, personal morally laden experiences. Narrative methods have been widely viewed as an ideal way to investigate self-

development (McLean, Pasupathi, & Pals, 2007). Narratives have been shown to provide an indication of how the self is reflected in the content and themes of the narratives provided, ultimately interrelated with self-construction (e.g., Grysman & Mansfield, 2017; Pasupathi et al., 2017). Although hypothetical vignettes can illuminate how adolescents make specific judgments about themselves or others, the unique value of narratives is in their ability to provide a more in-depth investigation of the constructive process whereby self-development occurs. That is, narrating is a dynamic process that entails interpreting experiences and constructing knowledge (Grysman & Mansfield, 2017; Pasupathi et al., 2017; Mclean & Breen, 2009). Adolescence is a particularly interesting time in which to examine these meaning-making processes; it is period that is regarded as central for moral identity development, whereby moral beliefs become increasingly incorporated into youths' subjective sense of identity (Krettenauer & Hertz, 2015).

Study 2 aimed to bridge this gap in an attempt to gain a more holistic understanding of how adolescents' moral mindsets are associated with their interpretations of their own experiences that bear on understandings of the self. In order to achieve this, Study 2 utilized a narrative approach to investigate adolescents' endorsement of moral mindsets and how they are linked to their own narrative accounts of meaningful, moral experiences. As well, this study examined how these association might differ across experiences where youth acted consistently and inconsistently with one of their most important moral values.

Links Between Adolescents' Moral Mindsets and Narratives of their Inconsistent and Consistent Moral Value Experiences

Alyssa Scirocco

Holly Recchia

Concordia University

Abstract

This study investigated how moral incrementalism and essentialism are linked to how adolescents make sense of their own morally-laden experiences. The analytic sample included 96 adolescents (age range = 12-15 years). Adolescents generated inconsistent and consistent moral value narratives and completed follow-up questions regarding each narrative account provided. A vignette-based measure was used to assess youths' endorsement of moral essentialism and incrementalism. Findings revealed that individual differences in moral incrementalism, in particular, were associated with how adolescents think about and construct an understanding of themselves as a moral person. Specifically, moral incrementalism was associated with delving into the psychological and emotional facets of experiences and engaging in meaning-making processes. Results also revealed that adolescents who endorsed incrementalism disengaged less only when narrating a self-discrepant experience, illuminating some context-specificity across moral event types. Overall, results provide a novel contribution to research on moral mindset and narrative identity construction during a crucial and understudied developmental period, and illuminate how mindsets are linked to aspects of narrative content and process vis-à-vis adolescents' morally-laden experiences.

Keywords: Moral essentialism; Moral incrementalism; Narrative construction; Adolescence; Consistent narratives; Inconsistent narratives

Links Between Adolescents' Moral Mindsets and Narratives of their Inconsistent and Consistent Moral Value Experiences

Early to middle adolescence is a crucial period for the emergence of moral identity (Krettenauer & Hertz, 2015). During this time, adolescents' self-understandings become increasingly differentiated as they explore the facets of their morally-laden experiences and draw self-connections (Hardy & Carlo, 2011; Mclean & Pasupathi, 2012). One important process whereby identity develops is via the construction of narratives about self-relevant experiences (e.g., Habermas & Bluck, 2000; McLean et al., 2007). Reflecting on past events have been shown to support meaning-making and identity development (McLean, 2005; McLean & Pratt, 2006). That said, there may be intra- and inter-individual differences with regards to how adolescents draw meanings from their morally laden experiences. The current study examines how youths' moral mindsets may be associated with such variations in their construction of narrative accounts about experiences in which they acted consistently and inconsistently with their values.

There are two overarching types of moral mindsets that inform how adolescents understand their social world, evaluate themselves and their experiences, and respond to situations (Dweck & Leggett, 1988; Rhodes et al., 2018). The first is a moral incremental mindset whereby moral attributes are perceived as unstable, changing with effort, and due to external factors. The second is an essentialist mindset whereby moral attributes are perceived as stable and due to internal factors (Huang et al., 2017). Moral mindset has been shown to guide how adolescents evaluate and respond to moral experiences. For instance, moral essentialism is associated with endorsing more praise and punishment in hypothetical situations involving others' positive and negative actions, respectively (e.g., Scirocco & Recchia, 2021; Yeager et al.,

2011). In relation to self-understanding, an essentialist mindset has been associated with trait attributions, generalization of failures, and more negative global ability judgments (e.g., "I am worthless"). On the other hand, incremental mindset has been associated with viewing one's own poor performance or failures as less diagnostic and due to specific contextualized factors (e.g., "I should have prepared earlier"; Erdley et al., 1997; Henderson & Dweck; 1990).

Most research on mindset has been conducted outside of the moral domain, focusing primarily on intelligence and personality. That said, it is important to investigate how moral mindset may be associated with adolescents' identity construction in situations bearing on adolescents' value commitments. Mindset plays a crucial role in how people think about themselves, particularly when encountering setbacks (e.g., Henderson & Dweck, 1990). As such, it is relevant to consider how mindset is linked to processes of identity development among adolescents who are navigating the complexities of moral life and experiencing tensions between important moral principles and their own actions (Pasupathi & Wainryb, 2010). This is because youths' construction of meanings vis-à-vis past experiences are crucial for their developing sense of moral agency. That is, reflecting on their past transgressions may give youth opportunities to reconcile their negative actions with a positive self-view; that they are not defined by their immoral actions, but rather that such actions stem from complex beliefs and competing desires in specific interpersonal contexts (Pasupathi & Wainryb, 2010). Nevertheless, incremental and essentialist mindsets may be linked to distinct ways of making sense of morally-laden experiences, posing both risks and opportunities for identity development.

With these issues in mind, the purpose of this study was to investigate how adolescents' moral mindsets are associated with the meanings they construct in their narrative accounts. Youths' narrative constructions may vary with regards to *what* they consider in their narratives

(i.e., narrative content) and *how* they discuss their morally relevant experiences (i.e., narrative process). As elaborated below, there is reason to believe that both aspects of narrative construction may be associated with moral mindset.

Narrative Content and Process

Narratives refer to autobiographical accounts and are thus first-person renderings of life experiences (Grysman & Mansfield, 2017). Broadly, they tend to include reports of episodic details and interpretive elements whereby the narrator explains their actions taken, as well as intentions, thoughts, and feelings that account for and stem from those actions (e.g., Nelson & Fivush, 2004; Pasupathi et al., 2014; Reese et al., 2011). Interpretive elements, in particular, are crucial to the constructive process as the narrator goes beyond the plot and event details to consider how they make sense of actions and what the event reveals about who they are (McAdams & McLean, 2013). Narratives can be conceptualized as both *windows* into development, as well as *processes* whereby development occurs; windows in the sense that they reveal aspects of youths' memories and personality, and processes whereby they serve to interpret experience and inform the construction of knowledge (see Grysman & Mansfield, 2017; Pasupathi et al., 2017). Consequently, examining aspects of both narrative process ("how") and content ("what") can provide a more comprehensive view of links between narrative and identity development (McLean et al., 2014; Syed & McLean, 2015).

In the current study, we draw on a conceptual distinction between narratives about past actions that confirm an individual's self-view and those that disconfirm or challenge their self-view (Krettenauer & Mosleh, 2013; Pasupathi et al., 2007). Self-consistent events have been found to be easier to retrieve as they typically establish a sense of stability and continuity of the self (Pals, 2006; Pasupathi & Weeks, 2011). That said, the ability to integrate disconfirming or

challenging memories into a coherent sense of self has been found to serve as an important mechanism of identity development, inasmuch as there is a positive association between identity achievement and meaning-making (i.e., drawing insights and lessons learned; McAdams & McLean, 2013; Mutluturk & Tekcan, 2016). Moreover, disconfirming events have been found to be especially rich in meaning-making inasmuch as there is a conflict or a disruptive experience to resolve (McLean & Thorne, 2003; Mutluturk & Tekcan, 2016)

Adolescence is a particularly important time to examine construction of meaning within both types of narrative accounts, as youths' self-understandings become more nuanced, complex and differentiated (McLean & Pasupathi, 2012). Moreover, with increasing age, adolescents tend to increasingly draw on multiple self-understandings that are context dependent as they strive to account for inconsistencies between past moral and immoral actions (Proulx & Chandler, 2009). Relatedly, adolescents increasingly engage in reflective processes such as meaning-making and drawing self-event connections whereby associations are made between the experience and one's sense of self, ultimately linking one's past experiences with the present self (McLean et al., 2010; McLean & Pratt, 2006; Pasupathi & Mansour, 2006; Pasupathi & Wainryb, 2010; Pasupathi et al., 2007).

Moral Incrementalism, Essentialism and Narrative Construction

Although moral essentialism and incrementalism are understudied in the adolescent years, we argue that this is a crucial developmental period in which to investigate intersections between moral mindset and narrative construction, given youths' emerging moral identities and developing self-understandings (Krettenauer & Hertz, 2015; McLean & Pasupathi, 2012; Yeager et al., 2011). A large body of scholarship on mindset, more generally, indicates that it is linked to subsequent judgments, feelings, trait attributions, and generalizations of one's failures (Chiu et

al., 1997; Dweck, 2006; Erdley et al., 1997; Henderson & Dweck; 1990; Levy & Dweck, 1998).

For instance, adolescents with an essentialist mindset are less likely to believe a peer can change

their aggressive behavior; conversely, they are more likely to endorse vengeful responses, and to

experience feelings of shame and sadness and generalize their own failures by making more

negative, global ability judgments On the other hand, as noted above, incremental mindset has

been associated with explaining one's own poor performance or failures as less diagnostic and in

terms of specific processes (Erdley et al., 1997; Henderson & Dweck; 1990; Killen et al., 2002;

Yeager et al., 2011).

Given these associations, it seems reasonable to believe that adolescents' moral mindsets

may be associated with how their narratives are recounted and how they delve into experiences

that they view as relevant to their sense of self (McLean et al., 2010; McLean & Breen, 2009).

Based on the literature, we thus considered a number of different aspects of narrative

construction that may be linked to mindset.

Specifically, since moral incrementalism is associated with viewing qualities, traits, and

aptitudes as malleable and changing with effort, time and experiences, adolescent moral

narratives might also differ with respect to referencing *internal or external attributions* (Chiu et

al., 1997). That is, moral incrementalism might be associated with more external attributions

given the increased emphasis on explaining behavior as something that can change over time and

due to situational circumstances. Conversely, essentialism emphasizes characteristics rooted in

biology and that are unchanging over time (Gelman, 2003), and thus endorsing moral

essentialism might be associated with making internal attributions. For similar reasons,

endorsing moral incrementalism might be associated with narrative references to personal

change (i.e., change-event connections), whereas essentialism is likely associated with more stable-self connections.

Moreover, youth who endorse moral incrementalism might also show evidence of greater elaboration on interpretive elements in narrating their past experiences. This may include overall levels of psychological elaboration, as well as references to moral emotions such as guilt, in particular. We anticipated that this might be particularly the case when youth were asked to recount challenging narratives (i.e., a time they were not caring, honest, fair or dependable). Past research that has shown references to psychological elaborations and emotions in narrative accounts are associated with growth, inasmuch as it serves as an antithesis of suppression, and reduces negative outcomes by allowing one to express their emotions and thoughts associated with difficult experiences (e.g., Gross, 2001). Contrarily, grappling with one's own feelings of shame, guilt, regret, thoughts, and motivations in relation to an act that is inconsistent with their moral self-view might be particularly difficult for adolescents who perceive moral character as unchanging across time and situations, particularly since negative behaviors are seen as more diagnostic (Slomkowsi & Carlston, 1987). As such, moral essentialism might be linked with adolescents finding it more challenging to discuss interpretive elements, and instead focusing more on *factual information*, or statements that are objective and verifiable.

Furthermore, past research has documented more explorations of meaning in narratives for individuals who described themselves as open and flexible (Pals, 2006). As such, we might expect to observe positive associations between *meaning-making* in adolescents' narratives and their endorsement of moral incrementalism, given that this mindset is associated with more flexible perspectives (e.g., Chiu et al., 1997). Contrarily, if adolescents perceive moral character as stable and due to unchanging, internal factors by endorsing a moral essentialist mindset, we

might expect greater *disengagement* within their narrative accounts, previously captured as passively-narrated stories or externalization (de Silveira & Habermas, 2011). That is, we might expect adolescents to negate responsibility by passively narrating their stories and/or produce a narrative that is missing important elements (e.g., "I did something and felt bad"). We expected to find this association to be particularly evident when adolescents provided a narrative account of a time they acted inconsistently with their most important moral value.

As alluded to above, we also considered whether associations between moral mindsets and narrative content and processes may depend on the type of event that is being recounted. As adolescents mature, they tend to develop an increasingly complex understanding of the self, become more adept at finding coherence in that complexity (Harter & Mansour, 1992) and grapple more with the notion that the different characteristics they possess can manifest in context-specific ways (e.g, Krettenauer & Mosleh, 2013; Pauspathi & Wainryb, 2019; Proulx & Chandler, 2006). Thus, it is important to investigate how links between narrative construction and moral mindset might depend on the context at hand. Overall, examining the links between adolescent narrative construction and moral mindset can help to illuminate how identity development unfolds.

The Current Study: Summary of Hypotheses

The present study examined how individual differences in adolescents' endorsement of moral mindsets are linked to their narrative account of their own, meaningful, morally-laden experiences; we also considered how these association might differ across experiences in which youth described acting consistently and inconsistently with an important value. To capture narrative construction, we considered aspects of both narrative content and processes. Specifically, we investigated adolescents' inclusion of content such as internal and external

attributions, connections to the self as stable or changing because of or since the event, and references to moral emotions. Regarding processes, we investigated the degree to which adolescents elaborated on psychological and factual aspects of events, as well as processes of disengagement and meaning-making.

Based on the literature reviewed above, we expected that the endorsement of moral essentialism would be linked to more internal attributions and stable-event connections in narratives. Contrarily, we expected that moral incrementalism would be linked to more external attributions and change-event connections. We also hypothesized that adolescents who endorsed moral incrementalism would be more likely to make interpretive references (both emotionally and psychologically), particularly when asked to recount challenging narratives (i.e., a time they were not caring, honest, fair or dependable). Conversely, we anticipated that endorsement of moral essentialism might be associated with adolescents finding it more challenging to include psychological elaborations and references to moral emotions and instead focus on providing more factual information. Consistent with the notion that moral incrementalism is associated with cultivation, we also expected more assertions of growth and self-improvement (i.e., insights and lessons learned) and thus more meaning-making with higher endorsement of moral incrementalism (Pals, 2006). In contradistinction, we expected more narrative disengagement (i.e., passively-narrated stories or externalization; de Silveira & Habermas, 2011) to be associated with endorsement of moral essentialism; we expected to find this association to be particularly evident when adolescents provided a narrative account of a time they acted inconsistently with an important moral value.

Given previous research investigating narration across childhood and adolescence (e.g., (Pasupathi & Wainryb, 2010; Wainryb et al., 2018), we had some expectations concerning age

and gender-related variations. We expected to find an age-related increase in psychological elaborations of self, consistent with previous research showing increases in psychological narrative content from childhood into adolescence (Pasupathi & Wainryb, 2010). We also anticipated more meaning-making among older adolescents given that this aspect of youths' narrative accounts tends to emerge around 12-years-of age and to develop with increasing age (McLean & Breen, 2009; Pasupathi & Wainryb, 2010; Reese et al., 2010). With regards to gender related patterns, we hypothesized that girls would provide more psychologically elaborated narratives including more elaborations of self and references to moral emotions, consistent with research indicating that girls tend to include more discussion of internal states and emotions in their narratives as compared to boys (Fivush, 1998; Haden et al., 1997). Other aspects of narrative content and process and their associations to age and gender were examined in exploratory ways.

Method

Participants

The sample consisted of 98 adolescents (51 girls, 47 boys) between the ages of 12 and 15 years, with sampling aimed at ensuring approximately equal coverage across the age range ($M = 13.5$ years). Two participants were omitted from analyses due to missing narrative data, and therefore the final analytic sample consisted of 96 adolescents (50 girls, 46 boys). They were recruited from the Montreal area via advertisements posted on social media and in public spaces (e.g., public libraries, a yoga studio), via word of mouth, through flyers distributed in schools, and by contacting past participants.

Participating families were mostly Canadian born (74%) and White (78%) with the remaining families representing a variety of racial/ethnic backgrounds (1% Chinese, 2% Latin

American, 2% West Asian, 3% Middle Eastern, 4% South Asian, 4% Black, 6% Eastern European). Most mothers in the sample were well educated (52% had a University degree) with a mean age of 43.7 years. The adolescents' other parent (85% described as fathers) were also well-educated (47% had a University degree) with a mean age of 46.7 years. English was the predominant language spoken at home (84.2%) and all adolescents were fluent in English, although some also spoke French, Russian, Arabic, Spanish and Persian in the home setting. Most adolescents had one or more siblings (87.4%).

Procedure

Ethics approval was received from the Concordia University Human Research Ethics Committee. Parental consent and adolescent written assent were obtained for each participant. Adolescents completed a survey on a tablet computer provided by the researcher. The survey was completed either in their family home or at a university lab, depending on the participant's preference. Participants were first asked to provide their own inconsistent and consistent moral value narratives and complete follow-up questions regarding each narrative account provided. Next, they complete the implicit theories of personality measure (Dweck et al., 1995) followed by the test of self-conscious affect (Tangney et al., 1991). These measures provided evidence of convergent validity for the moral essentialism and incrementalism measure used in the current study (see Scirocco & Recchia, 2021). Upon completion, they were presented with four hypothetical vignettes designed with ecological validity in mind, depicting morally-relevant situations that adolescents of this age might encounter in their daily lives. Following each of the four hypothetical vignettes, the adolescents were asked as series of questions to assess moral essentialism and moral incrementalism (see Appendix F). Participants received either $20 or two movie tickets in appreciation of their participation.

Measures

Value-Consistent and Inconsistent Narrative Accounts

Participants were presented with a rank order question and asked to list their most important to least important moral value from the following choices: being a caring person, being an honest person, being a dependable person, being a fair person. These four traits were selected as representing commonly-referenced moral traits (see Aquino & Reed, 2002). Moreover, initial piloting of this study revealed a somewhat balanced selection across all four moral values. Participants were then presented with a blank box where they were instructed to think about and write, in detail, about each narrative event. First, they were asked to write about a time where they acted inconsistently with the most important moral value chosen and think it was wrong. Next, they were asked to write about a time they acted consistently with the important moral value selected and think it was the right thing to do. For both narrative accounts, they were asked provide a time that was important to them and that they remembered well. After providing each narrative account, participants were presented with a prompt asking to write about how that experience makes them think and feel about themselves (see Appendix C). Coding of adolescents' responses to the open-ended narratives and prompts was collapsed for the purpose of this study. Events were presented in a fixed order whereby self-consistent narratives were elicited last so as to end the procedure on a positive note (e.g., McLean, 2005; Pasupathi & Weeks, 2011). After each narrative account, participants also completed Likert-type follow-up questions to document descriptive information regarding each event (i.e., recency, who it involved; see Table 1).

Moral Essentialism and Incrementalism

60

Although overall levels of incrementalism and essentialism tend to be negatively correlated with one another, past research suggests that individuals hold distinct essentialist and incrementalist beliefs both across and within domains (Hughes, 2015; Tarbetsky et al., 2016). Similarly, moral incrementalism and essentialism have been shown to be applied in context specific ways (Heiphetz, 2018; Scirocco & Recchia, 2021). Thus, we chose to assess moral incrementalism and essentialism as separate constructs and to examine the unique associations with each type of mindset. The moral essentialism measure included 20 items (i.e., five items per vignette) that assessed aspects of fixed mindset, with an overall Cronbach's alpha of $\alpha = 0.82$. Given that fixed or essentialist patterns of thinking involve perceiving qualities, aptitudes and traits as stable and unchanging (Dweck & Legett, 1988; Dweck et al., 1993; Levy & Dweck, 1998), items were designed to assess stability across time and situations. We asked adolescents to rate their perceptions of the stability of the actor's behavior over time (e.g., "Do you think [name] has done something like this before?"; "Do you think [name] will do something like this again?") and relationship contexts (e.g., "Do you think [name] will do something like this with other people?"). These items were rated on a six-point Likert-type scale ranging from *very unlikely* [1] to *very likely* [6]. Items also assessed attributions that the hypothetical character acted the way they did due to internal factors (e.g., "it is a part of who he/she is") and that their behaviors can be explained by broader personality traits (e.g., "he/she is mean in other ways"). These items were rated on a six-point Likert-type scale ranging from *strongly disagree* [1] to *strongly agree* [6].

In turn, the moral incrementalism measure included eight items (i.e., two items per vignette), with a Cronbach's alpha of $\alpha = 0.71$. Adolescents were asked to rate these items on a six-point Likert-type scale ranging from *strongly disagree* [1] to *strongly agree* [6]. This

measure assessed adolescents' endorsement that behaviors can be explained by external

processes (e.g., Levy & Dweck, 1998). Adolescents rated their perceptions that the hypothetical

character's actions were due to external factors (e.g., "[name]'s life experiences have led him/her

to act this way"), as well as their perception that traits and behaviors can be cultivated through

effort and that people are able to change and grow over time (e.g., "[name] could become

nicer"). See Appendix F for a complete list of items assessing moral essentialism and

incrementalism.

Narrative Coding

Coding categories were developed to capture both the content and process of the

narratives. Categories were derived based on previous theory and research concerning narrative

and identity development (e.g., Reese et al., 2011; Wainryb et al., 2005) with emphasis on

features of narratives that were expected to be linked to implicit theories, as well as variations

across moral event type (consistent versus inconsistent). Coding categories were not mutually

exclusive. Two coders were trained in order to establish interrater reliability for all codes. Coders

first discussed the categories as well as their definitions, followed by jointly coding a subset of

the narratives. Interrater reliability was then established on 20% of the narrative transcripts,

coded independently. Disagreements were resolved via discussion and consensus. Intraclass

correlations (single measures, absolute agreement) are reported below as a measure of interrater

reliability.

Narrative Content

Internal and External Attributions. Based on the attribution theories (e.g., Jones &

Davis, 1965; Weiner, 1986) we measured attributions reflecting *locus (internal versus external).*

Internal attributions (*ICC* = .74) included explanations of actions reflecting factors intrinsic to

the self, such as emotions, goals, cognitions and personality (e.g., "I did it because I was so angry"). External attributions ($ICC = .91$) included explanations of actions centered on factors extrinsic to the self and external to the actor's psychology, such as provocation, external influence or extenuating circumstances (e.g., "She started it"). Internal and external attributions were coded as the frequency of statements reflecting each attribution type.

Self-Event Connections. Narratives were coded for the frequency with which adolescents made connections to the self that referenced stability and change. Stability connections ($ICC = .90$) involved statements that indicating that the event did not change how they think of themselves or see themselves (e.g., "I am still the person I always was and still aspire to be"). On the other hand, change connections ($ICC = .87$) involved statements revealing a change since the event or mention of how they have grown/changed because of the event (e.g., "I have never done anything like that again"; "I am different now").

Moral Emotions. Consistent narratives were coded for the frequency with which pride was mentioned ($ICC = .95$). Statements related to feeling proud or happy about themselves or their actions were coded in this category (e.g., "I felt proud of myself"; "I felt good that I did that"). In inconsistent narratives, the frequency with which adolescents mentioned guilt, shame, or regret was captured (e.g., "I feel so bad that I did that"; "I should never have said that"; $ICC = .83$). Positive moral emotions were only mentioned in 3% of inconsistent narratives and negative moral emotions were only mentioned in 3% of consistent narratives, and thus these nonprototypical references were not included in analyses of individual differences.

Narrative Process

Psychological Elaboration of Self. Narratives were coded for the degree to which the narrator provided psychological elaborations of self, consistent with how recent research has

measured this construct (e.g., Pasupathi et al., 2019; Smetana et al., 2019; Wainryb et al., 2018). Narrative elaborations on one's own emotions, evaluations, intentions, goals and desires were considered in this category (e.g., "I didn't realize I would hurt his feelings"). Consistent with previous research (e.g., Pasupathi & Wainryb, 2010), this category captured elaboration of the narrator's subjective perspective on the experience. This category was coded on a scale from 0 to 3. Zero indicated absence of references to the narrator's psychological states, 1 indicated a low level, 2 indicated a moderate level, and 3 indicated a high level of psychological interpretations of self. The ICC was .87.

Factual Information. Similar to the psychological elaboration of self, adolescent narratives were coded for the degree to which the narrator provided factual information. Factual aspects refer to information that would be commonly accessible to all people experiencing an event (Pasupathi & Wainryb, 2010). This category included elaborations on observable actions, as well as concrete details such as time or location (e.g., "It was at school"; "My friend asked if she could borrow my red pen"). This category was coded on a scale from 0 to 3. Zero indicated absence, 1 indicated a low level, 2 indicated a moderate level, and 3 indicated a high level of factual information. The ICC was 0.92.

Disengagement. Narratives were coded to capture the degree to which adolescents implicitly or explicitly disconnected the self from their experience (*ICC* = .75). This included passively narrated stories, agentless talk and negating responsibility (e.g., de Silveira & Habermas, 2011; McAdams & McLean, 2013). This category was coded on a scale from 0 to 3. Zero indicated absence of disengagement, 1 indicated a low level, 2 indicated a moderate level, and 3 indicated a high level of disengagement.

Meaning-Making. Narratives were coded to capture the frequency of statements in which adolescents drew lessons and insights from their experiences ($ICC = .80$). This category captured any lessons or revelations connected to the event (e.g., "It is important to always be honest"; "Now thinking back of what I did, I realize how wrong that was").

Plan of Analysis

First, descriptive analyses were performed to assess the mean length of narratives (expressed as number of words; see Table 2) as well as to report contextual information based on the follow-up questions after each narrative (see Table 1). Overall differences in narrative content and processes between the two events were also examined (see Table 3).

Next, we conducted multilevel modeling with HLM ver. 7.00 with adolescents' narrative responses at level 1 (L1) nested within the participant at level 2 (L2) (Raudenbush & Bryk, 1992). We constructed one model for each of the narrative coding categories (i.e., internal attributions, external attributions, stable-event connections, change-event connections, moral emotions, psychological elaborations of self, factual information, disengagement, and meaning-making). In each case, model building began with an unconditional model to assess the distribution of variance in the dependent variables across L1 and L2 (i.e., ICCs; see Table 4). We then tested main effects of age and gender (boys coded as 1, girls coded as 0) at L2 in each model. These variables were grand mean centered for analysis. Subsequently, while controlling of age and gender, we examined main effects of essentialism and incrementalism at L2 (see Tables 5 and 6. Finally, we tested cross-level interactions between narrative type at L1 (consistent narrative coded as 1, inconsistent narrative type coded as 0) and measures of essentialism and incrementalism at L2; significant findings for cross-level interactions are

described in the text below. Final estimation of fixed effects with robust standard errors are reported.

Results

Narrative Descriptive Information

Adolescents most often nominated honesty as their most important value (41.2%), followed by caring (27.2%), dependability (17.9%) and fairness (13.7%). Descriptive information regarding mean number of words for each narrative type as well as the reported recency and relationship context of the event are reported in Table 1 and Table 2. Inconsistent naarratives were significantly longer than consistent narratives (see Table 2), but the two events did not differ in their recency or relationship context (see Table 1).

Variations in Narrative Content and Process across Event Types

Pairwise comparisons also revealed some significant differences across the two events vis-à-vis narrative content and process categories (see Table 3). Specifically, with regards to narrative content, change-event connections and references to moral emotions were significantly more prevalent in inconsistent, as compared to consistent narratives. References to internal attributions, external attributions, and change event connections were not significantly different across event types. With regards to narrative processes, levels of disengagement and meaning-making were found to be significantly higher in inconsistent, as compared to consistent narratives. On the other hand, psychological elaborations and factual information were not significantly different across event types.

Associations Between Age, Gender, and Narrative Variables

Age and gender related patterns for narrative content and processes are presented in Tables 5 and 6. Regarding narrative content, with increasing age, adolescents made more

external attributions, an unanticipated finding. In terms of narrative process, as expected, adolescents' narratives included greater psychological elaboration of the self and more references to meaning-making with increasing age. In terms of gender differences, results revealed that girls made more internal attributions, and as expected, also made more references to moral emotions in their narratives as compared to boys.

Associations between Narrative Content and Measures of Moral Mindset

In this section, we present associations with moral essentialism and incrementalism for narrative content categories, including internal attributions, external attributions, stable event connections, change event connections and moral emotions. Results are reported in Table 5. With age and gender controlled, consistent with our expectations, analyses revealed a significant association between moral emotions and moral incrementalism such that endorsement of moral incrementalism was uniquely linked to more references to moral emotions in the narratives. None of the other effects were significant. Furthermore, examination of cross-level interactions revealed that none of the effects were moderated by narrative type.

Associations between Narrative Process and Measures of Moral Mindset

In this section, we report associations with moral essentialism and incrementalism for narrative process categories, including psychological elaborations of self, factual information, meaning-making and disengagement. Results for the main effects are reported in Table 6, while the significant cross-level interaction is reported in the text. Consistent with our hypothesis, analyses revealed a significant association between psychological elaboration of self and moral incrementalism, such that endorsement of moral incrementalism was linked to more psychological elaboration in the narratives. In line with expectations, analyses also revealed a significant association between meaning-making and moral incrementalism, such that

endorsement of moral incrementalism was linked to more references to meaning-making. Lastly, results revealed a cross-level interaction for disengagement such that incrementalism moderated the relationship between event type (consistent versus inconsistent narrative) and disengagement, $b = 0.32$, $SE = 0.12$, $t(93) = 2.55$, $p = 0.01$. Specifically, there was a stronger negative association between endorsement of incrementalism and disengagement in the inconsistent narratives as compared to consistent narratives (see Figure 1 for model-predicted values).

Discussion

Overall, our descriptive results replicate some consistent patterns with respect to narrative content and process across varied types of past events. Furthermore, in terms of the novel contributions of this study, the findings demonstrate specific ways in which adolescents' implicit theories of morality are associated with how they narrate their morally-laden experiences. More specifically, our results suggest that between-person variations in adolescents' moral mindsets are linked to aspects of both narrative content and process. Moral incrementalism, in particular, was linked to with how adolescents construct meanings in the context of personally significant moral experiences. While event type typically did not significantly moderate these associations, in one instance, the link between adolescents' endorsement of moral incrementalism and narrative construction of meaning varied across the two narratives. Specifically, adolescents who reported lower levels of moral incrementalism disengaged more only when narrating an event where they did something in contradistinction to their most important moral value. Each of these sets of associations is discussed in turn.

Overall Descriptive Patterns for Narrative Content and Process

Various aspects of narrative content and process were found to vary across the two event types. Overall, the inconsistent narratives were significantly longer than consistent narratives.

With regards to specific aspects of content, negative moral emotions were significantly more prevalent in inconsistent narratives, as compared to consistent narratives. This is aligned with past research that has revealed that guilt/shame content is more frequent when narrating a self-defining memory that is inconsistent with one's current self-concept, as compared to one that is consistent with it (Mutluturk & Tekcan, 2016). Moreover, in line with past narrative work (e.g., McAdams & McLean, 2013; Mutluturk & Tekcan, 2016) we found significantly more meaning-making in inconsistent narratives, as compared to consistent narratives, re-iterating the importance of self-discrepant narration as it contributes to solving a current problem or guiding future behavior through lessons learned and gaining insights (e.g., McAdams & McLean, 2013; Pillemer, 2003). This is also in line with McLean and Thorne (2003) who found that meaning-making was more common in self-defining narratives that contained conflict, as compared to those that did not. Indeed, we also found significantly more self-change connections in inconsistent narratives as compared to consistent narratives. As such, our findings are in line with the notion that self-discrepant/inconsistent narratives serve as contexts for considering change and transformation in the aftermath of the event (Mclean, 2005). Although disengagement has yet to be explicitly investigated across narrative types, features of disengagement such as agentless talk and negating responsibility (e.g., de Silveira & Habermas, 2011; McAdams & McLean, 2013) were more evident in inconsistent narratives. This finding makes sense, as narrating an inconsistent narrative can serve as a threat to one's positive sense of self, producing discomfort.

Taken together, these findings replicate existing patterns concerning the unique features of self-discrepant and consistent narratives; our findings illustrate how self-discrepant narratives may provide particularly provide opportunities to enhance meaning-making processes. Our

results also point to the discomfort that some adolescents may feel with regards to disclosing challenging narratives, given that there was significantly more disengagement in inconsistent narratives. Importantly, however, as elaborated in the next section, we also found that some of these features of narrative content and processes are linked to variations in moral mindset.

How are Individual Differences in Moral Essentialism and Incrementalism Associated with Narrative Content?

In this study, adolescent moral mindset was significantly associated with one feature of narrative content; specifically, moral incrementalism was positively associated with the inclusion of moral emotions in their value-laden narratives. That is, adolescents who endorsed an understanding that moral qualities, aptitudes and traits are malleable, shaped by the environment and personal experiences (Chiu et al., 1997; Dweck, 2006; Levy & Dweck, 1998), were more likely to include references to happiness, pride, shame, regret, and/or guilt in their narrative accounts. Perhaps endorsing a mindset that values growth and cultivation makes it easier to reflect on and discuss one's feelings about moral events, in general. With a view that moral personhood can fluctuate, change and improve with effort and time, discussing moral emotions, particularly threatening emotions such as guilt, shame and regret might be easier. Alternatively, constructing understandings of emotions in narratives, whether positively or negatively valenced, might support adolescents' thinking about change and personal growth. Arguably, grappling with feelings of guilt, regret or shame (e.g., "I feel kind of guilty and bad about myself") might promote a mindset whereby growth and change over time is possible, opening the door to redemption. Positive emotions, also, may be relevant to youth's construction of a positive sense of self; emotionality of narratives has been shown to be a predictor of self-esteem inasmuch as positive emotions predict better self-esteem (McLean & Breen, 2009).

We had expected to find differences depending on the type of event narrated, such that adolescents who endorsed moral incrementalism would include more mention of emotions in their inconsistent narratives. Nevertheless, this hypothesis was not supported. Perhaps discussing moral emotions across both narrative types is an important way for adolescents to engage in exploratory processing (i.e., considering how the experience can integrated within a person's life story; Wainryb et al., 2018); as discussed further below, this type of processing might generally be more common among youth who endorse an incremental mindset.

How are Individual Differences in Moral Essentialism and Incrementalism Associated with Narrative Processes?

Understanding the process of how moral experiences are interpreted and constructed is an important undertaking of the current study. This not only builds on previous scholarship to provide a more complete understanding of how adolescents construct an understanding of themselves as moral agents (e.g., McLean et al., 2014; Wainryb & Pasupathi, 2017) but extends this work by documenting how individual differences in moral essentialism and incrementalism are associated with how adolescents construct meanings surrounding their morally laden experiences. Our results revealed that moral incrementalism, in particular, was associated with adolescents' elaboration on their own psychological perspective on events, as well as meaning - making processes such as drawing lessons and insights. Thus, individual differences associated with emphasizing growth and cultivation through effort and time (e.g., Dweck et al., 1993; Levy & Dweck, 1998) appear to be meaningfully linked to narrative processes. Adolescents who are higher on moral incrementalism may grapple more with their own cognitions, motivations, goals and desires in relation to specific moral experiences, as they are more prone to believe that moral character is malleable, cultivated and influenced by social experiences (Chiu et al., 1997; Dweck,

2006). For instance, in both consistent and inconsistent moral narratives adolescents who view themselves and others as capable of change might feel less threatened to make self-connections (e.g., "I didn't really care if he was hurt or not and I didn't care that I was the one that hurt him"). It is also plausible that adolescents who make references to interpretive information (particularly compared to factual information) and therefore delve into their own unique, subjective perspective on events might come to focus more on self-improvement and the ways in which they can grow or change over time (i.e., more closely associated with a moral incremental mindset; "after months of fighting with my Dad specifically (because he knew I was lying), I finally gave in and started dealing with my emotions with my Dad. I developed emotional awareness, became stronger and learned to defend myself").

Moral incrementalism also appeared to be associated with adolescents being prone to go beyond the event details to articulate what the experience says about who they are in the form of insights or lessons learned (e.g., McAdams & McLean, 2013). Since insights and lessons learned are assertions of growth and self-improvement, it makes sense to find more explorations of meaning among adolescents who endorse moral incrementalism (e.g., "made me realize how important it was to be a dependable person because it affects others and how they view you as a person and your abilities"; "I realize that I was being very selfish and unfair to my sister, who had spent so much time making it [a cake] for the family, not just me"). This is in line with previous work that found more explorations of meaning in narratives for individuals who described themselves as open and flexible (Pals, 2006). Taken together, these findings provide some evidence to suggest that holding a moral incremental mindset might be beneficial when it comes to the developmental of moral identity. This is because an emphasis on psychological interpretations have been shown to have numerous benefits (Pasupahi & Wainryb, 2010). For

instance, narratives that elaborate on interpretive information, as opposed to factual information, are related to higher well-being and other adaptive outcomes in both childhood and adolescence (e.g., Bird & Reese, 2006; Bohanek et al., 2008; Fivush et al., 2010; McAdams, 2006). Moreover, the positive resolution that comes from gleaning insights and lessons learned from negative situations has been found to be associated with higher levels of happiness and well-being (e.g., King & Hicks, 2007; Lilgendahl & McAdams, 2011).

Overall, it is important to note that the causal associations between mindset and narrative construction are currently unclear; it is possible that moral incrementalism influences meaning-making processes, that meaning-making within narratives impacts adolescents' endorsement of moral incrementalism, or possibly both. Indeed, past experimental work confirms that inducing an incremental mindset can impact adolescents' subsequent reasoning (Yeager et al., 2013). Conversely, engaging in meaning-making processes may support moral incrementalism since reflecting on how one has grown or changed could further the notion that self-growth is possible and that it is inevitable that people change over time and across situations. Ultimately, this interpretation would be consistent with the fundamental role that narratives are thought to play to the development of moral agency (Pasupathi & Wainryb, 2010).

Our results also revealed one instance in which event type significantly moderated the association between mindset and narrative processing. Specifically, a stronger inverse association was observed between endorsement of incrementalism and disengagement in the inconsistent narratives as compared to consistent narratives. These findings make sense in light of the fact that adolescents may be more motivated, in general, to disconnect the self from their experiences that are threatening, via narrative processes such as agentless talk and negating responsibility (e.g., de Silveira & Habermas, 2011; McAdams & McLean, 2013). That is, in this

study, when adolescents were asked to narrate a time they did something that challenged their positive self-views, they disengaged more often than when asked to narrate a less challenging event. In other words, disengagement may be a more prominent feature of inconsistent narratives, overall. Nevertheless, our results provide some evidence to suggest that moral incrementalism is associated with less disengagement in this challenging context. Instead, adolescents who endorse higher levels of incrementalism may grapple more with their inconsistent moral experiences, even though it may feel uncomfortable at the time. By doing this, it provides opportunities for adolescents to make sense of their morally laden experiences and construct an understanding of themselves as a person who may sometimes do the wrong thing but is not defined by it. Rather, they may be more likely to consider ways in which they can learn and grow from these experiences (Pasupathi & Wainryb, 2010).

Interestingly, our results also provide evidence to suggest that moral incrementalism, as compared to moral essentialism, might be more strongly associated with adolescent moral narrative construction. This finding might partially be explained by the fact that, in this dataset, 40% of the variance in scores on moral incrementalism was between individuals, whereas only 16% of the variance of moral essentialism was associated with individual differences (Scirocco & Recchia, 2021). For this reason, our measure of moral incrementalism might be more robust in tapping overall differences in mindset between individuals (e.g., Dweck et al., 1995; Hughes, 2015).

How are Age and Gender Associated with Narrative Contents and Processes?

Adolescence is an understudied age range in the moral mindset literature, albeit a crucial one given that adolescents are developing an understanding of the self that becomes increasingly differentiated as they explore the facets of their morally-laden experiences (Hardy & Carlo,

2011; Mclean & Pasupathi, 2012). Although we did not find that age moderated any of the observed associations between coded aspects of narratives and measures of moral incrementalism and essentialism, our findings replicated past work concerning age-related changes in features of narrative accounts. Specifically, our results demonstrated increases in interpretive information and meaning-making with age, with respect to psychological interpretations and references to insights and lessons learned (Pasupathi & Wainryb, 2010; McLean & Breen, 2009; McLean et al., 2010). Although we did not hypothesize an association between adolescent age and attributions, we also found that older adolescents made more external attributions in their narratives. Perhaps, given the increasing differentiation of self that comes with increase age (e.g., Proulx & Chandler, 2009), older adolescents may view their own actions as more context specific and thus explain their actions more often in relation to the situation at hand (e.g., they acted caring because they saw a need or uncaring because they were having a bad day). This is inconsistent with previous work suggesting that older children and older adults tend to make more internal and dispositional attributions in hypothetical situations (Blanchard-Fields, 1996, 1999; Normandeau & Gobeil, 1998). It is plausible that when the situation involves adolescents' own moral behaviors they may make more external attributions. This is in line with research suggesting that in situations involving failure, adolescents tend to engage in more attempts to protect their self-image by explaining their moral failures as due to external factors (Russell, 1982; Russell, McAuley, & Tarico, 1987; Whitley & Frieze, 1985). However, more research is needed to corroborate this.

Similarly, we did not find that gender significantly moderated any of the associations between mindset and narrative content or processes. That said, as expected, we did find that girls included more references to moral emotions and internal attributions in their moral narratives.

These findings are consistent with established patterns in past literature suggesting that parents tend to scaffold more references to emotional states with daughters as compared to sons (Fivush et al., 2000; Fivush & Buckner, 2000) and that girls tend to include more discussion of internal states and emotions in their narratives as compared to boys (Fivush, 1998; Haden et al., 1997).

Conclusion

The results of this study were based on a rather homogenous community sample consisting primarily of well-educated, White, and Canadian families. Given evidence to suggest factors such as greater parental education and higher socioeconomic status (SES) tend to predict lower levels of fixed mindset in some domains (i.e., intelligence; Claro et al., 2016), it will important for future studies to examine these processes in a larger and more heterogenous sample. A further limitation of this study is that the moral essentialism scale included more items than the moral incrementalism scale, constraining the reliability of the latter. Even so, we did not find a larger number of significant associations with the measure that had more items (i.e., moral essentialism measure). Moreover, the narratives produced by our adolescent sample were generated in writing. Although past research has examined narratives in the form of both written reflections (e.g., Mutluturk & Tekcan, 2016) and verbal accounts (e.g., de Silveira & Habermas, 2011), the narratives produced by our adolescent sample, particularly the younger adolescents (i.e., 12-year-olds) may have been more elaborative if they had been verbally elicited. That said, asking the adolescents to provide written narrative accounts may have allowed for a greater sense of privacy that allowed participants to respond honestly when asked to narrate the challenging moral experience that could otherwise have rendered them uncomfortable in an interview setting. An additional limitation involved the generation of narratives in a fixed order. Adolescents were first asked to provide their own inconsistent and then consistent moral value narratives. Although

76

a counterbalanced order would be ideal to minimize potential confounds, the events were elicited in the same order to ensure the procedure ended on a positive note (e.g., McLean, 2005; Pasupathi & Weeks, 2011). A final limitation of the concurrent design in this study is that it does not illuminate causal pathways. That is, the methodology utilized does not provide evidence to suggest whether endorsement of moral incrementalism is causing adolescents to narrate moral events in distinct ways, whether narrative constructions of meaning are informing mindset, or whether some third factor is accounting for both. Future work could benefit from using an experimental manipulation, such as priming adolescents with moral incrementalism (e.g., Yeager et al., 2013) and then asking them to narrate their moral experiences.

Despite these limitations, our study makes a number of contributions to research on moral mindsets during the adolescent period. First, our findings suggest that individual differences in moral incrementalism, in particular, are associated with how adolescents think about and construct an understanding of themselves as a moral person. More specifically, our results point to how individual differences in youths' views of moral traits and behavior as malleable and explained by external processes may be associated with important aspects of moral identity development such as delving into the psychological and emotional facets of their experiences and engaging in meaning-making processes. Our results also illustrate one instance in which adolescents' endorsement of moral incrementalism was related particularly to the narration of challenging events; adolescents who endorsed incrementalism disengaged less when asked to narrate a self-discrepant narrative account (e.g., a time you were dishonest) but not a self-consistent narrative account (e.g., a time you were honest). In sum, our results provide a novel contribution to research on moral mindset and narrative identity construction during a crucial

77

developmental period by illuminating inter- and intra-individual differences in both the narrative

content and process of adolescents' own relevant morally laden experiences.

Table 1

Recency and Relationship Context of Narrated Events

	Consistent Narrative	Inconsistent Narrative
Recency		
A few days ago	7.7%	11.5%
A few weeks ago	22.1%	13.5%
A few months ago	30.8%	36.5%
More than 1 year ago	20.2%	13.5%
More than 2 years ago	6.7%	13.5%
More than 5 years ago	5.8%	6.7%
Not reported	4.8%	6.7%
Relationship Context		
Friend	40.4%	31.7%
Parent	15.4%	21.0%
Sibling	6.7%	9.6%
Classmate	8.7%	8.7%
Other (e.g., teacher, romantic partner, stranger, other family member)	28.8%	29.0%

Note: McNemar's tests were performed for each category across the two event types and did not reveal any significant differences.

Table 2

Narrative length in word units.

	M	*SD*	95% CI	*t*	*df*	*Difference between events*
Consistent Narrative	105.09	67.44	[91.36-118.83]	2.71	95	<0.01
Inconsistent Narrative	123.72	83.31	[106.74-140.69]			

Table 3

Narrative Content and Process across Consistent and Inconsistent Narratives

	Consistent Narratives *M* (SD)	Inconsistent Narratives *M* (SD)
Narrative Content		
Internal Attributions	2.37 (1.96)	2.27 (1.94)
External Attributions	1.15 (1.95)	1.29 (1.43)
Stable Event Connections	0.56 (1.04)	0.45 (0.85)
Change Event Connections	0.36 (0.71)**	0.72 (1.10)**
Moral Emotions	1.15 (0.88)*	1.56 (1.52)*
Narrative Process		
Psychological Elaborations of Self	1.62 (1.00)	1.81 (1.03)
Factual Information	1.65 (1.07)	1.46 (1.09)
Disengagement	0.66 (1.02)**	1.11 (1.26)**
Meaning-making	1.38 (1.66)**	1.85 (1.91)**

Note: ** $p < 0.01$, * $p < 0.05$, for difference between events based on a paired-samples t-test.

Table 4

Distribution of Variance across L1 and L2 for Narrative Coding Categories

Dependent Variable	ICC
Internal Attributions	0.56
External Attributions	0.25
Stable Event Connections	0.11
Change Event Connections	0.07
Moral Emotions	0.23
Psychological Elaborations of Self	0.62
Factual Information	0.51
Disengagement	0.61
Meaning-Making	0.49

Note. Distribution of variance is reported using the unconditional model for each dependent variable across L1 and L2

Table 5

Final Fixed Effects for Multilevel Models Examining Narrative Content Categories.

	Internal Attributions	External Attributions	Stable Event Connections	Change Event Connections	Moral Emotions
	b (SE)	*b* (SE)	*b* (SE)	*b* (SE)	*b* (SE)
Intercept	0.82 (2.49)	-0.99 (1.51)	-1.70 (1.00)	-0.01 (0.81)	1.17 (1.22)
Age	0.16 (0.17)	0.23* (0.10)	0.12 (0.07)	-0.01 (0.07)	-0.05 (0.08)
Gender	-0.85* (0.04)	-0.18 (0.23)	-0.02 (0.12)	-0.11 (0.11)	-0.47* (0.19)
Essentialism	0.05 (0.03)	-0.10 (0.17)	0.07 (0.10)	-0.02 (0.16)	-0.08 (0.17)
Incrementalism	-0.13 (0.23)	-0.08 (0.16)	0.04 (0.11)	0.16 (0.09)	0.35* (0.15)

Note: ** p = *or* <0.001, * p < 0.05. Girls were initially coded as 0 and boys were coded as 1, but both age and gender were grand mean centered in these analyses.

Table 6

Final Fixed Effects for Multilevel Models Examining Narrative Process Categories.

	Psychological Elaborations of Self	Factual Information	Disengagement	Meaning-Making
			b (SE)	*b* (SE)
	b (SE)	*b* (SE)		
Intercept	-4.68* (2.11)	-0.61 (1.28)	1.75 (1.40)	-4.01 (2.47)
Age	0.41* (0.15)	0.16 (0.08)	-0.08 (0.10)	0.33* (0.17)
Gender	-0.35 (0.32)	-0.14 (0.20)	0.26 (0.22)	-0.07 (0.28)
Essentialism	-0.17 (0.28)	-0.25 (0.18)	0.22 (0.18)	-0.34 (0.32)
Incrementalism	0.80** (0.23)	0.28 (0.16)	-0.21 (1.15)	0.62* (0.27)

Note: ** p = or <0.001, * p < 0.05. Girls were initially coded as 0 and boys were coded as 1, but both age and gender were grand mean centered in these analyses.
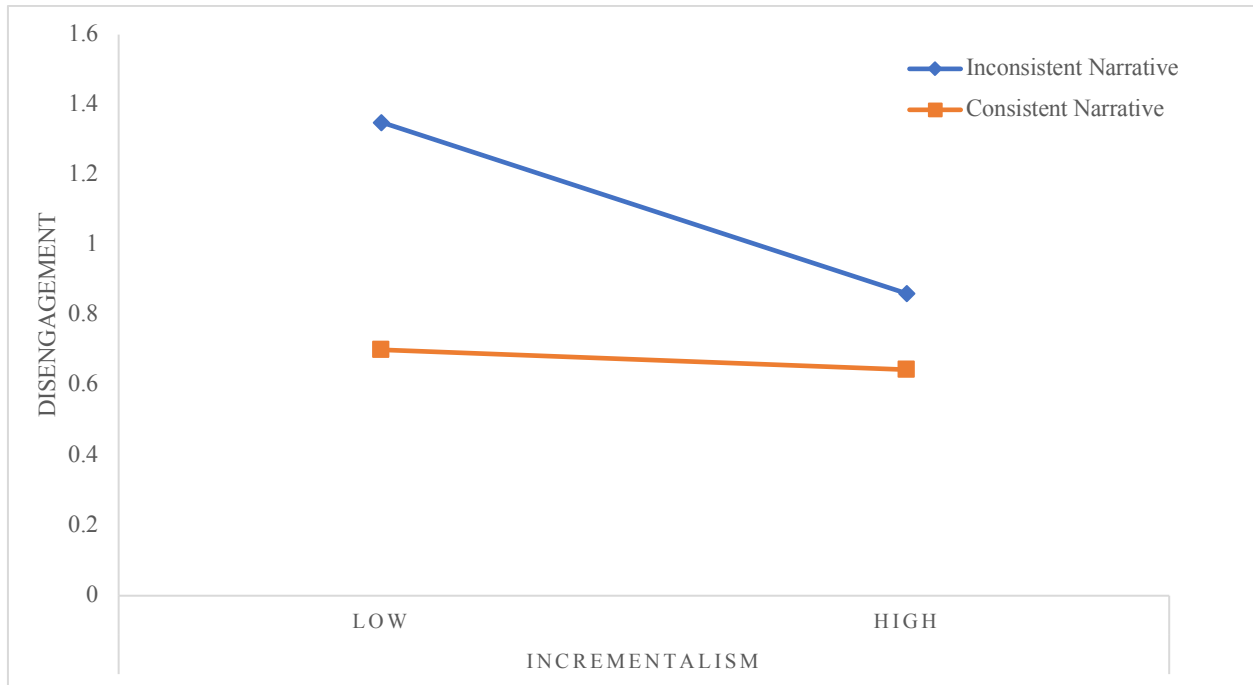
Figure 1

The Association between Incrementalism and Disengagement in Consistent and Inconsistent Moral Value Narratives

Note: The plotted scores are based on model-predicted values. High and low moral incrementalism values correspond to 1 *SD* above and below the mean.

General Discussion

The studies included in this dissertation add to an understudied area of research by investigating mindset in the moral domain. Although two overarching mindsets have been clearly delineated (i.e., incrementalism and essentialism) and shown to guide the ways we understand and evaluate experiences (Dweck & Legett, 1988; Levy & Dweck, 1998), they have been less often investigated in the moral realm and in the adolescent years. Thus, examining moral mindset in adolescence makes an important contribution to the field given that the this is a developmental period in which youth are increasingly navigating the complexities of moral life in relation to their self-understandings (Pasupathi & Wainryb, 2010). These studies contribute to our understanding of *how* moral incrementalism and essentialism are endorsed across this age range, with evidence to suggest that adolescents endorse moral mindsets flexibly across contexts. Relatedly, findings suggest that moral incrementalism and moral essentialism are distinct processes inasmuch as they showed unique sets of associations both with respect to individual differences and intraindividual variations. This is a novel finding in the adolescent literature but is broadly in line with past research suggesting that children and adults can be lower or higher on essentialism depending on the item or characteristic in question (Gelman et al., 2007; Heiphetz et al., 2017).

More specifically, Study 1 contributed to our understanding that although there are inter-individual differences in moral essentialism (e.g., moral essentialism was positively linked to adolescents' responses to the externalization dimension of the TOSCA), intraindividual variations may be particularly relevant in the case of moral essentialist attributions (for which 84% of the variance was linked to within-person variations). Specifically, when adolescents were presented with moral scenarios regarding others' positive and negative actions, they endorsed

moral essentialism significantly more in the prosocial domain whereas a nonsignificant trend for incrementalism was found in the antisocial domain. This is consistent with recent work showing that children and adults tend to essentialize "goodness" more than "badness" when responding to hypothetical situations involving others (e.g., Heiphetz, 2019). Furthermore, when adolescents made essentialist attributions, they also tended to judge actors as more likable and their actions as more acceptable in prosocial situations whereas in antisocial situations, they judged actors as more *un*likable and their actions as more *un*acceptable. In situations when adolescents endorsed essentialist explanations, also endorsed more praise (in response to prosociality) and punishment (in response to antisociality) and attributed actions more to character (i.e., "good" and "bad" person) attributions. These findings suggest that when adolescents reason about others' moral experiences, moral essentialist attributions are associated with their specific understandings and judgments of the context at hand.

In one instance, the findings of Study 2 also suggested that the moral context matters in relation to links between mindset and adolescents' own, personally meaningful moral experiences. That is, moral incrementalism was inversely linked with disengagement (i.e., a narrative process involving agentless talk and negating responsibility) particularly in adolescents' narratives of acting inconsistently with an important moral value. However, moral mindsets did not significantly moderate any other findings in Study 2, suggesting some overall links between moral incrementalism and how adolescents construct meanings surrounding their own varied moral experiences. This result can be interpreted to suggest that adolescents' narrative construction processes, disengagement specifically, is associated with the moral context at hand. The findings from study 1 and study 2 thus collectively suggest that moral essentialism and moral incrementalism are not endorsed and applied uniformly across contexts. Rather, both

87

moral mindsets appear to be endorsed in flexible ways depending on whether the moral event involves a prosocial or antisocial situation. What is more, these findings can be interpreted to suggest that this context specific application of moral mindsets is relevant to adolescents' reasoning about both the self and other in moral situations.

Taken together, these studies show how both moral essentialism and moral incrementalism are applied in nuanced, distinct ways across moral situations involving the other and the self. Results provide novel evidence to suggest that moral essentialism might be especially variable across the moral context at hand and consequently inform situation-specific ways in which adolescents make judgments of others. On the other hand, individual differences with regards to moral incrementalism might be more strongly associated with adolescents' own moral self-constructions. Contrary to previous perspectives whereby mindsets were viewed as an implicit bias that is applied uniformly across situations (e.g., Gelman, 2003) these results suggest that adolescents' implicit theories can also be endorsed flexibly when constructing meanings of both one's own and others' positive and negative actions. This implies that we need to go beyond understanding whether an adolescent has an "essentialist" or "incremental" mindset overall. Rather, more in line with a social learning explanation, social experiences, social input and as underscored in studies 1 and 2, the moral context matters (e.g., see Heiphetz, 2019).

Another key contribution of this dissertation is in illuminating how moral mindsets are associated with narrative content and processes. It has been widely established that narratives provide important opportunities to identify how the self is reflected and constructed in narratives (e.g., Pasupathi et al., 2017). In particular, narratives of morally relevant experiences can help to illuminate moral identity development (Habermas & Bluck, 2000; McLean et al., 2007; Pasupathi et al., 2017). However, until now, moral essentialism and incrementalism have not

been investigated in the context of narratives; whether adolescents perceive moral traits and/or actions as malleable or static can ultimately be associated with how adolescents describe themselves and construct the moral self. Study 2 indicated that individual differences with respect to moral incrementalism were associated with specific aspects of narrative content and process. Specifically, adolescents who endorsed moral incrementalism made more references to moral emotions, more elaborative psychological interpretations, and engaged in more meaning-making by drawing on lessons learned and insights.

These novel findings have various implications. First, they suggest that moral mindsets are important to consider as they are associated with the construction of moral selfhood. It is unclear whether moral incrementalism leads to the inclusion or reflection of moral emotions, psychological elaborations and meaning-making or whether adolescents who generate narratives with such content and processes may consequently develop perspectives of growth and cultivation (i.e., moral incrementalism). In either case, these results reveal that an association is present, one that appears to be beneficial inasmuch as positive emotions predict better self-esteem (McLean & Breen, 2009) and expressing emotions and thoughts in narratives that are associated with difficult experiences are associated with growth and reduction of negative outcomes (Gross, 2001). Moreover, psychological interpretations as well as gleaning insights and lessons learned have been found to be associated with higher levels of happiness and well-being (e.g., Bird & Reese, 2006; Bohanek et al., 2008; Fivush et al., 2010; King & Hick, 2007; Lilgendahl & McAdams, 2011; McAdams, 2006). Second, findings suggest that moral incrementalism is linked to adolescents' narrative constructions of self across different types of moral events (i.e., ones that are self-consistent and self-discrepant). Consistent with previous narrative research, this research is aligned with the view that both consistent and inconsistent

89

narratives are important for adolescent self-development (e.g., McAdams & McLean, 2013; Mutluturk & Tekcan, 2016). However, it also extends this work by revealing that moral incrementalism is relevant across different types of moral events (i.e., those that bolster and challenge an adolescent's positive sense of self).

In conclusion, this research illuminates both between- and within-person variations in moral essentialism and incrementalism across the adolescent period. This dissertation highlights adolescents' flexible endorsement of moral essentialist and incremental perspectives in making judgments of others' morally-laden actions. It also illustrates how individual differences in youths' views of moral traits and behavior as malleable and explained by external processes (i.e., moral incrementalism) may be associated with important aspects of moral identity development such as delving into the psychological and emotional facets of their experiences and engaging in meaning-making processes. In sum, our results provide a novel contribution to research on moral mindset during a crucial developmental period by illuminating inter- and intra-individual differences in adolescents' judgments about others as well as the narrative content and processes of adolescents' own relevant morally laden experiences.

There are a number of limitations that should be taken into consideration in interpreting the present set of findings. Results were based on a rather homogenous community sample consisting primarily of well-educated, White, and Canadian families. It will important for future studies to examine these processes in a larger and more heterogenous sample especially given evidence to suggest that factors such as greater parental education and higher socioeconomic status (SES) tend to predict lower levels of fixed mindset in some domains (i.e., intelligence; Claro et al., 2016). Thus, future research should encompass a more heterogenous and a larger sample size to test these associations. An additional limitation involves the constrained reliability

for moral incrementalism given that the moral essentialism scale included more items than the moral incrementalism scale. A final limitation of the design in both studies is that findings do not illuminate causal pathways. That is, the cross-sectional, correlational methodology does not provide evidence to suggest whether endorsement of moral incrementalism or essentialism is causing adolescents to respond to moral scenarios involving the self and other in distinct ways, or whether their responses to hypothetical situations involving the other or their own narrative constructions of meaning are informing mindsets. It is also plausible that a third factor is accounting for both. Future work is needed to illuminate causal pathways. For instance, it would be worthwhile to utilize an experimental manipulation, such as priming adolescents with moral incrementalism or essentialism (e.g., Yeager et at., 2013) and then asking them to respond to questions about others or narrate their moral experiences, across distinct moral contexts.

Despite these limitations, this research has implications for the field of moral development by underscoring the importance of understanding moral incrementalism and essentialism as distinct processes. Both function as cognitive predispositions linked to moral judgments of self and other, yet in this study, moral incrementalism appeared to operate as an individual difference associated with moral identity development, whereas moral essentialism was endorsed more context specific ways and was predictive of reasoning about others' (im)moral experiences. Although, more research is needed to extend and continue to disentangle how these cognitive patterns emerge and are applied, our results point to the importance of examining moral mindsets for adolescents' evolving understandings of others and themselves in the moral realm.

This research has implications for educators and parents who are often deeply invested in supporting adolescents' moral development. Both parents and educators spend significant time

with adolescents and aim to foster adolescents' development in various ways, including how they interact with others and how they develop a positive sense of self. Parents may be especially concerned with how their teenager navigates their own moral experiences and their interactions with others and have been shown to employ a variety of strategies in conversations with them about their helpful and harmful experiences (e.g., Recchia & Wainryb, 2014; Recchia et al., 2014). Educators, for their part, may be concerned with adolescents' actions towards others in schools and beyond, such as youths' prosocial and transgressive actions towards other students (e.g., Lin et al., 2021).

Based on these findings, it may be useful to sensitize these socialization agents to the fact that adolescents' reasoning across morally laden situations is associated with moral mindset and thus linked to adolescents' perspectives regarding whether moral attributes, traits and behaviors are stable/ unstable, due to internal/external factors (i.e., moral essentialist mindset/incrementalist mindset; Huang et al., 2017). In particular, these findings suggest that documented risks of essentialized thinking (e.g., Rhodes et al., 2018) may be context-dependent; indeed, essentialized attributions about others may actually be beneficial in prosocial moral contexts, whereas they become detrimental in antisocial situations. That is, in prosocial situations adolescents' essentialized thinking was found to be associated with praise, "good person" judgments and even to influence generosity in a previous study (Heiphetz, 2019). On the other hand, essentialized thinking in antisocial contexts was found to be associated with "bad person" judgments and endorsement of punishment. This can be especially problematic since it is inevitable that on occasion, teens act in ways that are not in line with moral values. To illustrate, imagine that John teases Sally while Annie witnesses this conflictual interaction. If Annie endorses moral essentialism (i.e., viewing moral attributes as stable and internal) she may be

especially punitive and perhaps even unforgiving towards John. This can negatively impact her relationship with John given her characterization of him as a diagnostically "bad person" who is unlikely to change. Thus, it may be especially important for educators and for parents to be aware that essentialized thinking may not be beneficial across contexts and that it may be better to avoid essentializing in the antisocial domain. It may also be important to start young. For instance, early childhood educators and parents can be encouraged to include storytelling activities that are less stereotypic, avoiding depictions of diagnostically "evil" characters who consistently act in such ways (e.g., The evil stepmother in Cinderella, Ursula). Instead, it may be useful to share stories with children that imply the potential for moral growth and change in antisocial contexts (e.g., The Bad Seed).

When it comes to adolescents' own self-construction in moral contexts, our findings have implications to suggest that moral incrementalism is linked to generating narrative meaning-making, a process that promotes well-being (e.g., Bird & Reese, 2006; McAdams, 2006). This has implications to suggest that when it comes to adolescents' self-understandings across different types of moral experiences (i.e., challenging or self-bolstering), it may be constructive for them to consider ways in which moral attributes are malleable and vary across situational circumstances. Therefore, both parents and educators can play a role in providing adolescents with opportunities to reflect on and narrate their own morally-laden experiences. Moreover, they can be encouraged to engage in moral socialization practices whereby they help to anchor adolescents' harm in a particular context and reflect on how they changed/evolved over experiences and across time. Ultimately, the association found between moral incrementalism and adolescents' self-constructions illuminate that moral growth mindset is connected to understandings of self that are sustainable and in line with moral agency. In this respect, the

current findings point to new avenues for supporting youths' understandings of themselves sometimes making mistakes or otherwise doing the wrong thing, but are nevertheless not bad people.

References

Aquino, K., & Reed, A. II. (2002). The self-importance of moral identity. *Journal of Personality and Social Psychology, 83*(6), 1423–1440. https://doi.org/10.1037/0022-3514.83.6.1423

Bench, S. W., Schlegel, R. J., Davis, W. E., & Vess, M. (2015). Thinking about change in the self and others: The role of self-discovery metaphors and the true self. *Social Cognition, 33*(3), 169–185. https://doi.org/10.1521/soco.2015.33.3.2

Bird, A., & Reese, E. (2006). Emotional reminiscing and the development of an autobiographical self. *Developmental Psychology, 42*(4), 613–626. https://doi.org/10.1037/0012-1649.42.4.613

Blackwell, L. S., Trzesniewski, K.H., & Dweck, C.S. (2007). Implicit theories of intelligence predict achievement across an adolescent transition: A longitudinal study and an intervention. *Child Development*

Blanchard-Fields, F. (1996). Emotion and everyday problem solving in adult development. In C. Magai & S. H. McFadden (Eds.), *Handbook of emotion, adult development, and aging* (pp. 149–165). Academic Press. https://doi.org/10.1016/B978-012464995-8/50010-8

Bohanek, J. G., Marin, K. A., & Fivush, R. (2008). Family Narratives, Self, and Gender in Early Adolescence. *The Journal of Early Adolescence*, *28*(1), 153-176. https://doi.org/10.1177/0272431607308673
, *78*(1), 246-263. https://doi.org/10.1111/j.1467-8624.2007.00995.x

Brown, J. D. (1986). Evaluations of self and others: Self-enhancement biases in social judgments. *Social Cognition, 4*(4), 353–376. https://doi.org/10.1521/soco.1986.4.4.353

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.

Burgner, D., & Hewstone, M. (1993). Young children's causal attributions for success and failure: "Self-enhancing" boys and "self-derogating" girls. *British Journal of Developmental Psychology, 11*(2), 125–129. https://doi.org/10.1111/j.2044-835X.1993.tb00592.x

Cain, K. M., Heyman, G. D., & Walker, M. E. (1997). Preschoolers' ability to make dispositional predictions within and across domains. *Social Development*, *6*, 53-75. doi: 10.1111/j.1467-9507.1997.tb00094.x

Chiu, C.-y, Hong, Y.-y., & Dweck, C. S. (1997). Lay dispositionism and implicit theories of personality. *Journal of Personality and Social Psychology, 73*(1), 19–30. https://doi.org/10.1037/0022-3514.73.1.19

Cimpian, A., & Steinberg, O. D. (2014). The inherence heuristic across development: systematic differences between children's and adults' explanations for everyday facts. *Cognitive Psychology*, *75*, 130–54.

Claro, S., Paunesku, D., & Dweck, C. S. (2016). Growth mindset tempers the effects of poverty on academic achievement. *Proceedings of the National Academy of Sciences of the United States of America*, 113(31), 8664–8. https://doi.org/10.1073/pnas.1608207113

de Silveira, C., & Habermas, T. (2011). Narrative means to manage responsibility in life narratives across adolescence. *The Journal of Genetic Psychology: Research and Theory on Human Development, 172*(1), 1–20. https://doi.org/10.1080/00221325.2010.503254

Dweck, C. S. (2006). Mindset: The New Psychology of Success. New York: Random House Publishing Group.

Dweck, C. S., Chiu, C., & Hong, Y. (1995). Implicit theories and their role in judgments and

    reactions: A world from two perspectives. *Psychological Inquiry, 6*(4), 267-285.

    https://doi.org/10.1207/s15327965pli0604_1

Dweck, C. S., Goetz, T. E., & Strauss, N. L. (1980). Sex differences in learned helplessness: IV.

    An experimental and naturalistic study of failure generalization and its

    mediators. *Journal of Personality and Social Psychology, 38*(3), 441–

    452. https://doi.org/10.1037/0022-3514.38.3.441

Dweck, C. S., Hong, Y.-y, & Chiu, C.-y. (1993). Implicit theories individual differences in

    the likelihood and meaning of dispositional inference. *Personality and Social Psychology*

    Bulletin, *19*(5), 644–656. https://doi.org/10.1177/0146167293195015

Dweck, C. S., & Leggett, E. L. (1988). A social-cognitive approach to motivation and

    personality. *Psychological Review, 95*(2), 256–273. https://doi.org/10.1037/0033-

    295X.95.2.256

Dworkin, R. (1978). *Taking rights seriously*. Cambridge, MA: Harvard University Press.

Erdley, C., Cain, K., Loomis, C., Dumas-Hines, F., & Dweck, C. S. (1997). The relations among

    children's social goals, implicit personality theories and response to social failure.

    Developmental Psychology, 33, 263–272. doi:10.1037/0012-1649.33.2.263

Eidson, R. C., & Coley, J. D. (2014). Not so fast: Reassessing gender essentialism in young

    adults. *Journal of Cognition and Development*, *15*, 382-392. doi:

    10.1080/15248372.2013.763810

Erdley, C. A., & Dweck, C. S. (1993). Children's implicit personality theories as predictors of

    their social judgments. *Child Development*, *64*(3), 863–878.

    https://doi.org/10.1111/j.1467-8624.1993.tb02948.x

Fivush, R. (1998). Gendered narratives: Elaboration, structure, and emotion in parent-child

    reminiscing across the preschool years. In C. P. Thompson, D. J. Herrmann, D. Bruce, J.

    D. Read, D. G. Payne, & M. P. Toglia (Eds.), *Autobiographical memory: Theoretical and*

    applied perspectives (pp. 79–103). Lawrence Erlbaum Associates Publishers.

Fivush R., Bohanek J.G., Marin K. (2010) Patterns of family narrative co-construction in relation

    to adolescent identity and well-being. In K. McLean, & M. Pasupathi (Eds.), *Narrative*

    Development in Adolescence. Advancing Responsible Adolescent Development. Springer.

    https://doi.org/10.1007/978-0-387-89825-4_3

Fivush, R., Brotman, M. A., Buckner, J. P., & Goodman, S. H. (2000). Gender differences in

    parent–child emotion narratives. *Sex Roles: A Journal of Research*, *42*(3-4), 233–

    253. https://doi.org/10.1023/A:1007091207068

Fivush, R., & Buckner, J.P. (2000). *Gender, sadness, and depression: The development of*

    emotional focus through gendered discourse. In A. H. Fischer (Eds.), *Gender and*

    emotion: Social psychological perspectives (p. 232-253). Cambridge University Press.

Foster-Hanson, E., Cimpian, A., Leshin, R. A., & Rhodes, M. (2020). Asking children to "be

    helpers" can backfire after setbacks. *Child Development*, *91*(1), 236-248. https://doi:

    10.1111/cdev.13147

Gelman, S. A. (2003). *The essential child: Origins of essentialism in everyday thought*. Oxford

    University Press.

Gelman, S. A., Heyman, G. D., & Legare, C. H. (2007). Developmental changes in the

    coherence of essentialist beliefs about psychological characteristics. *Child*

    Development, *78*(3), 757–774. https://dx.doi.org/10.1111/j.1467-8624.2007.01031.x

Gil-White, F. J. (2001). Are ethnic groups biological "species" to the human brain? Essentialism

in our cognition of some social categories. *Current Anthropology*, *42*, 515-554. doi:
10.1086/321802

Graham, S., & Juvonen, J. (1998). Self-blame and peer victimization in middle school: An
attributional analysis. *Developmental Psychology, 34,* 587–599. doi:10.1037/0012-
1649.34.3.587

Gross, J. J. (2001). Emotion regulation in adulthood: Timing is everything. *Current Directions in
Psychological Science, 10*(6), 214–219. https://doi.org/10.1111/1467-8721.00152

Grysman, A., & Mansfield, C. D. (2017). What do we have when we have a
narrative? *Imagination, Cognition and Personality, 37*(2), 105
126. https://doi.org/10.1177/0276236617733823

Habermas, T., & Bluck, S. (2000). Getting a life: The emergence of the life story in
adolescence. *Psychological Bulletin*, *126*(5), 748–769. https://doi.org/10.1037/0033-
2909.126.5.748

Han, H., Choi, Y.-J., Dawson, K. J., Jeong, C., & Lamm, C. (2018). Moral growth mindset is
associated with change in voluntary service engagement. *Plos One*, *13*(8), 0202327.
https://doi.org/10.1371/journal.pone.0202327

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. https://doi.org/10.1007/s10964-014-0172-1

Hardy, S. A., & Carlo, G. (2011). Moral identity: What is it, how does it develop, and is it linked
to moral action? *Child Development Perspectives*, *5*(3), 212-
218. https://doi.org/10.1111/j.1750-8606.2011.00189.x

Harter, S. (2012) *Manual for the Self-Perception Profile for Adolescents-Revision*. Denver, CO.

University of Denver.

Harter, S.A., & Monsour, A. (1992). Development analysis of conflict caused by opposing

attributes in the adolescent self-portrait. *Developmental Psychology, 28*(2), 251–

260. https://doi-org.lib-ezproxy.concordia.ca/10.1037/0012-1649.28.2.251

Haselhuhn, M. P., Schweitzer, M. E., & Wood, A. M. (2010). How implicit beliefs influence

trust recovery. *Psychological Science*, *21*(5), 645–648.

https://doi.org/10.1177/0956797610367752

Heiphetz, L. (2019). Moral essentialism and generosity among children and adults. *Journal of

Experimental Psychology*, *148*(12), 2077-2090. https://doi.org/10/1037/xge0000587

Heiphetz, L. (2020). The development and consequences of moral essentialism. *Advances in

Child Development and Behavior*, *59*, 165–194.

https://doi.org/10.1016/bs.acdb.2020.05.006

Heiphetz, L., Gelman, S. A., & Young, L. L. (2017). The perceived stability and biological basis

of religious beliefs, factual beliefs, and opinions. *Journal of Experimental Child

Psychology, 156,* 82–98. http:// dx.doi.org/10.1016/j.jecp.2016.11.015

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*, *78*, 210-219. doi: 10.1016/j.jesp.2018.03.007

Henderson, V. L., & Dweck, C. S. (1990). Motivation and achievement. In S. S. Feldman & G.

R. Elliott (Eds.), *At the threshold: The developing adolescen*t (pp. 308–329). Harvard

University Press.

Heyman, G. D. (2009). Children's reasoning about traits. *Advances in Child Development and

Behavior*, *37*, 105-143. doi: 10.1016/S0065-2407(09)03703-3

Heyman, G. D., & Dweck, C. S. (1998). Children's thinking about traits: Implications for

    judgments of the self and others. *Child Development, 69*(2), 391–

    403. https://doi.org/10.2307/1132173

Hong, Y.-y., Chiu, C.-y., Dweck, C. S., Lin, D. M.-S., & Wan, W. (1999). Implicit theories,

    attributions, and coping: A meaning system approach. *Journal of Personality and Social*

    Psychology, 77(3), 588–599. https://doi.org/10.1037/0022-3514.77.3.588

Huang, N., Zuo, S., Wang, F., Cai, P., & Wang, F. (2017). The dark side of malleability:

    incremental theory promotes immoral behaviors. *Frontiers in Psychology*, *8*.

    https://doi.org/10.3389/fpsyg.2017.01341

Hughes, J. S. (2015). Support for the domain specificity of implicit beliefs about persons,

    intelligence, and morality. *Personality and Individual Differences*, *86*, 195–203.

    https://doi.org/10.1016/j.paid.2015.05.042

Jones, E., & Davis, K. (1965). From acts to dispositions: The attribution process in person

    perception. *Advances in Experimental Social Psychology, 2*, 219-266.

    https://doi.org/10.1016/S0065-2601(08)60107-0

Jones. E., & Nisbett, R. (1971). The actor and the observer: Divergent perceptions of the causes

    of behavior. In E. Jones, D. Kanhouse, H. Kelley, R. Nisbett, S. Valins, & B. Weiner

    (Eds.), *Attribution: Perceiving the causes of behavior* (pp 79-94). General Learning

    Press.

Killen, M., Crystal, D. S., & Watanabe, H. (2002). Japanese and American children's evaluations

    of peer exclusion, tolerance of differences, and prescriptions for conformity. *Child*

    Development, 73, 1788–1802. doi: 10.1111/1467-8624.t01–1-00506

Killen, M., Kelly, M. C., Richardson, C., & Jampol, N. S. (2010). Attributions of intentions and

fairness judgments regarding interracial peer encounters. *Developmental Psychology, 46,* 1206–1213. doi:10.1037/ a0019660

King, L. A., & Hicks, J. A. (2007). Whatever happened to "What might have been"? Regrets, happiness, and maturity. *The American psychologist, 62*(7), 625–636. https://doi.org/10.1037/0003-066X.62.7.625

Krettenauer, T. (2019). Moral identity as a goal for moral action. A self-determination theory perspective. *Journal of Moral Education, 49*(3), 330-345. https://doi.org/10.1080/03057240.2019.1698414

Krettenauer, T., & Hertz, S. (2015). What develops in moral identities? A critical review. *Human Development, 58*(3), 137–153. https://doi.org/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. https://doi.org/10.1080/15283488.2013.776497

Lefebvre, J. P., & Krettenauer, T. (2020). Is the true self truly moral? Identity intuitions across domains of sociomoral reasoning and age. *Journal of experimental child psychology, 192,* 104769. https://doi.org/10.1016/j.jecp.2019.104769

Levy, S. R., & Dweck, C. S. (1998). Trait- versus process-focused social judgment. *Social Cognition, 16*(1), 151–172. https://doi.org/10.1521/soco.1998.16.1.151

Lilgendahl, J. P., & McAdams, D. P. (2011). Constructing stories of self-growth: how individual differences in patterns of autobiographical reasoning relate to well-being in midlife. *Journal of personality, 79*(2), 391–428. https://doi.org/10.1111/j.1467-6494.2010.00688.x

Lin, T.-J., Kraatz, E., Ha, S. Y., Hsieh, M.-Y., Glassman, M., Nagpal, M., Sallade, R., & Shin, S. (2021). Shaping classroom social experiences through collaborative small-group discussions. *British Journal of Educational Psychology*. Advance online publication. https://doi-org.lib-ezproxy.concordia.ca/10.1111/bjep.12442

Liu, D., Gelman, S. A., & Wellman, H. M. (2007). Components of young children's trait understanding: Behavior-to-trait inferences and trait-to-behavior predictions. *Child Development*, *78*, 1543-1558. doi: 10.1111/j.1467-8624.2007.01082.x

Lockhart, K. L., Chang, B., & Story, T. (2002). Young children's beliefs about the stability of traits: protective optimism? *Child Development*, *73*(5), 1408–1430.

Lockhart, K. L., Nakashima, N., Inagaki, K., & Keil, F. C. (2009). From ugly duckling to swan? Japanese and American beliefs about the stability and origins of traits. *Cognitive Development*, *23*(1), 155–179.

McAdams, D. P. (2006). The redemptive self: Generativity and the stories Americans live by. *Research in Human Development, 3*(2-3), 81-100. https://doi.org/10.1080/15427609.2006.9683363

McAdams, D. P., & McLean, K. C. (2013). Narrative Identity. *Current Directions in Psychological Science*, *22*(3), 233–238. https://doi.org/10.1177/0963721413475622

McLean, K. C. (2005). Late Adolescent Identity Development: Narrative Meaning Making and Memory Telling. *Developmental Psychology, 41*(4), 683–691. https://doi.org/10.1037/0012-1649.41.4.683

McLean, K. C., & Breen, A. V. (2009). Processes and content of narrative identity development in adolescence: Gender and well-being. *Developmental Psychology, 45*(3), 702–710. https://doi.org/10.1037/a0015207

McLean, K. C., Breen, A. V., & Fournier, M. A. (2010). Constructing the self in early, middle, and late adolescent boys: Narrative identity, individuation, and well-being. *Journal of Research on Adolescence, 20*(1), 166–187. https://doi.org/10.1111/j.1532-7795.2009.00633.x

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. https://doi.org/10.1080/15283488.2011.632363

McLean, K. C., Pasupathi, M., & Pals, J. L. (2007). Selves Creating Stories Creating Selves: A Process Model of Self-Development. *Personality and Social Psychology Review*, *11*(3), 262–278. https://doi.org/10.1177/1088868307301034

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. https://doi.org/10.1037/0012-1649.42.4.714

McLean, K. C. Syed, M., Yoder, A., & Greenhoot, A.F. (2014). Identity Integration: The Importance of Domain Content in Linking Narrative and Status Approaches to Emerging Adult Identity Development. *Journal of Research on Adolescence, 26*(1), 60-75. https://doi.org/10.1111/jora.12169

McLean, K. C., & Thorne, A. (2003). Late adolescents' self-defining memories about relationships. *Developmental Psychology, 39*(4), 635–645. https://doi.org/10.1037/0012-1649.39.4.635

Meyer, M., Gelman, S. A., Roberts, S. O., & Leslie, S. J. (2017). My heart made me do it: children's essentialist beliefs about heart transplants. *Cognitive Science*, *41*(6), 1694–1712. https://doi.org/10.1111/cogs.12431

Molden, D. C., Plaks, J. E., & Dweck, C. S. (2006). "Meaningful" social inferences: effects of implicit theories on inferential processes. *Journal of Experimental Social Psychology*, *42*(6), 738–752. https://doi.org/10.1016/j.jesp.2005.11.005

Mutlutürk, A., & Tekcan, A. I. (2016). Remembering and telling self-consistent and self-discrepant memories. *Memory (Hove, England)*, *24*(4), 513–525. https://doi.org/10.1080/09658211.2015.1021256

Nelson, K., & Fivush, R. (2004). The Emergence of Autobiographical Memory: A Social Cultural Developmental Theory. *Psychological Review, 111*(2), 486–511. https://doi.org/10.1037/0033-295X.111.2.486

Newman, G. E., Bloom, P., & Knobe, J. (2014). Value judgments and the true self. *Personality and Social Psychology Bulletin, 40*(2), 203-216. https://doi.org/10.1177/0146167213508791

Newman, G. E., De Freitas, J., & Knobe, J. (2015). Beliefs about the true self explain asymmetries based on moral judgment. *Cognitive Science, 39*(1), 96–125. https://doi.org/10.1111/cogs.12134

Niiya, Y., Brook, A. T., & Crocker, J. (2010). Contingent self-worth and self-handicapping: Do incremental theorists protect self-esteem? *Self and Identity, 9*(3), 276–297. https://doi.org/10.1080/15298860903054233

Normandeau, S., & Gobeil, A. (1998). A developmental perspective on children's understanding of causal attributions in achievement-related situations. *International Journal of Behavioral Development, 22*(3), 611–632. https://doi.org/10.1080/016502598384298

Pals., J. L. (2006). Narrative Identity Processing of Difficult Life Experiences: Pathways of

Personality Development and Positive Self-Transformation in Adulthood. *Journal of Personality, 74*(4), 1079-1110. https://doi.org/10.1111/j.1467-6494.2006.00403.x

Pasupathi, M., Mansfield, C. D., & Weeks, T. L. (2014). Me and my stories. In T. M. Holtgraves (Ed.), *The Oxford handbook of language and social psychology* (pp. 265–279). Oxford University Press.

Pasupathi, M., & Mansour, E. (2006). Adult age differences in autobiographical reasoning in narratives. *Developmental Psychology, 42*(5), 798–808. https://doi.org/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. https://doi.org/10.1159/000100939

Pasupathi, M., & Wainryb, C. (2010). Developing moral agency through narrative. *Human Development, 53*(2), 55–80. https://doi.org/10.1159/000288208

Pasupathi, M., & Wainryb, C. (2019). Ghosts in the story: The role of audiences in stability and change in twice-told life stories. *Qualitative Psychology, 6*(2), 178–193. https://doi.org/10.1037/qup0000153

Pasupathi, M., Wainryb, C., Bourne, S., & Posada, R. (2017). Narrative construction of morality in adolescence among typically developing and violence-exposed youth. *Imagination, Cognition and Personality, 37*(2), 178–198. https://doi.org/10.1177/0276236617733826

Pasupathi, M., Wainryb, C., Oldroyd, K., & Bourne, S. (2019). Storied lessons: Learning from anger in childhood by narrating. *International Journal of Behavioral Development, 43*(6), 553–562. https://doi.org/10.1177/0165025419844023

Pasupathi, M., & Weeks, T. L. (2011). Integrating self and experience in narrative as a route to

adolescent identity construction. *New directions for child and adolescent development*, *2011*(131), 31–43. https://doi.org/10.1002/cd.287

Pillemer D. B. (2003). Directive functions of autobiographical memory: the guiding power of the specific episode. *Memory (Hove, England)*, *11*(2), 193–202. https://doi.org/10.1080/741938208

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. https://doi.org/10.1159/000233259

Raudenbush, S. W. & Bryk, A. S. (1992). Hierarchical linear models. Newbury Park, CA: Sage.

Recchia, H., & Wainryb, C. (2014). Mother-child conversations about hurting others: Supporting the construction of moral agency through childhood and adolescence. In C. Wainryb & H. Recchia (Eds.), *Talking about right and wrong: Parent-child conversations as contexts for moral development* (pp. 242-269). Cambridge University Press.

Recchia, H. E., Wainryb, C., Bourne, S., & Pasupathi, M. (2014). The construction of moral agency in mother–child conversations about helping and hurting across childhood and adolescence. *Developmental Psychology, 50*(1), 34–44. https://doi.org/10.1037/a0033492

Recchia, H., 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. https://doi.org/10.1111/cdev.12059

Reese, E., Haden, C. A., Baker-Ward, L., Bauer, P., Fivush, R., & Ornstein, P. A. (2011). Coherence of Personal Narratives across the Lifespan: A Multidimensional Model and Coding Method. *Journal of cognition and development: official journal of the Cognitive Development Society*, *12*(4), 424–462. https://doi.org/10.1080/15248372.2011.587854

Rhodes, M., Leslie, S.-J., Saunders, K., Dunham, Y., & Cimpian, A. (2018). How does social

  essentialism affect the development of inter-group relations? *Developmental Science,*

  21(1). https://doi.org/10.1111/desc.12509

Rhodes, M., Leslie, S.-J., & Tworek, C. M. (2012). Cultural transmission of social

  essentialism. *Proceedings of the National Academy of Sciences of the United States of*

  America, *109*(34), 13526–13531. https://doi.org/10.1073pnas.1208951109

Rholes, W. S., & Ruble, D. N. (1984). Children's understanding of dispositional characteristics

  of others. *Child Development*, *55*, 550-560. doi: 10.2307/1129966

Russell, D. (1982). The Causal Dimension Scale: A measure of how individuals perceive

  causes. *Journal of Personality and Social Psychology, 42*(6), 1137–

  1145. https://doi.org/10.1037/0022-3514.42.6.1137

Rudolph, K. D. (2010). Implicit theories of peer relationships. *Social Development, 19,* 113–129.

  doi:10.1111/j.1467-9507.2008.00534.x

Rusconi, P., Sacchi, S., Brambilla, M., Capellini, R., & Cherubini, P. (2020). Being honest and

  acting consistently: Boundary conditions of the negativity effect in the attribution of

  morality. *Social Cognition, 38*(2), 146–178. https://doi.org/10.1521/soco.2020.38.2.146

Russell, D. W., McAuley, E., & Tarico, V. (1987). Measuring causal attributions for success and

  failure: A comparison of methodologies for assessing causal dimensions. *Journal of*

  Personality and Social Psychology, 52(6), 1248–1257. https://doi.org/10.1037/0022-

  3514.52.6.1248

Ryazanov, A. A., & Christenfeld, N. J. S. (2018a). Incremental mindsets and the reduced

  forgiveness of chronic failures. *Journal of Experimental Social Psychology*, *76*, 33–41.

  https://doi.org/10.1016/j.jesp.2017.12.003

Ryazanov, A. A., & Christenfeld, N. J. S. (2018b). The strategic value of essentialism. *Social and Personality Psychology Compass, 12,* 1-15. https://doi.org/10.1111/spc3.12370

Scirocco, A., & Recchia, H. (2021). Context specificity in adolescents' implicit theories of morality. *Cognitive Development, 60.* https://doi.org/10.1016/j.cogdev.2021.101112

Sears, D. O. (1983). The person-positivity bias. *Journal of Personality and Social Psychology, 44*(2), 233–250. https://doi.org/10.1037/0022-3514.44.2.233

Skowronski, J. J., & Carlston, D. E. (1987). Social judgment and social memory: The role of cue diagnosticity in negativity, positivity, and extremity biases. *Journal of Personality and Social Psychology, 52*(4), 689–699. https://doi.org/10.1037/0022-3514.52.4.689

Skowronski, J. J., & Carlston, D. E. (1989). Negativity and extremity biases in impression formation: A review of explanations. *Psychological Bulletin, 105*(1), 131–142. https://psycnet.apa.org/doi/10.1037/0033-2909.105.1.131

Smetana, J., Robinson, J., Bourne, S. V., & Wainryb, C. (2019). "I didn't want to, but then I told": Adolescents' narratives regarding disclosure, concealment, and lying. *Developmental psychology*, *55*(2), 403–414. https://doi.org/10.1037/dev0000646

Strohminger, N., Knobe, J., & Newman, G. (2017). The True Self: A Psychological Concept Distinct From the Self. *Perspectives on Psychological Science*, *12*(4), 551–560. https://doi.org/10.1177/1745691616689495

Strohminger, N., & Nichols, S. (2014). The essential moral self. *Cognition*, *131*(1), 159–171. https://doi.org/10.1016/j.cognition.2013.12.005

Syed, M., & McLean, K. C. (2015). The future of identity development research: Reflections, tensions, and challenges. In K. C. McLean & M. Syed (Eds.), *The Oxford handbook of identity development* (pp. 562–573). Oxford University Press.

Tangney, J. P. (1990). Assessing individual differences in proneness to shame and guilt: development of the self-conscious affect and attribution inventory. *Journal of Personality and Social Psychology*, *59*(1), 102–11.

Tangney, J. P. (1995). *Shame and guilt in interpersonal relationships.* In J. P. Tangney & K. W. Fischer (Eds.), *Self-conscious emotions: The psychology of shame, guilt, embarrassment, and pride* (p. 114–139). Guilford Press.

Tangney, J. P., Wagner, P. E., Gavlas, J., & Gramzow, R. (1991). *The test of self- conscious affect for adolescents (TOSCA-A)*. George Mason University.

Tarbetsky, A. L., Collie, R. J., & Martin, A. J. (2016). The role of implicit theories of intelligence and ability in predicting achievement for Indigenous (Aboriginal) Australian students. *Contemporary Educational Psychology*, *47*, 61–71. https://doi.org/10.1016/j.cedpsych.2016.01.002

Turiel, E., & Wainryb, C. (2000). Social life in cultures: Judgments, conflict, and subversion. *Child Development, 71*(1), 250–256. https://doi.org/10.1111/1467-18624.00140

Wainryb, C. (2006). *Moral development in culture: Diversity, tolerance, and justice.* In M. Killen & J. G. Smetana (Eds.), *Handbook of moral development* (p. 211–240). Lawrence Erlbaum Associates Publishers.

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: II. The present study: research strategy and methods. *Monographs of the Society for Research in Child Development, 70*(3), 19–30. https://doi.org/10.1111/j.1540-5834.2005.00351.x

Wainryb, C., & Pasupathi, M. (2017). *"I hurt him." From morally relevant actions to moral*

development, by way of narrative. In C. C. Helwig (Ed.), *New perspectives on moral development* (p.105-120). Routledge. https://doi:10.4324/9781315642758-7

Wainryb, C., Pasupathi, M., Bourne, S., & Oldroyd, K. (2018). Stories for all ages: Narrating anger reduces distress across childhood and adolescence. *Developmental Psychology, 54*(6), 1072–1085. https://doi.org/10.1037/dev0000495

Weiner, B. (1986). Attribution, emotion, and action. In R. M. Sorrentino & E. T. Higgins (Eds.), *Handbook of motivation and cognition: Foundations of social behavior* (pp. 281–312). Guilford Press.

Whitley, B. E., & Frieze, I. H. (1985). Children's causal attributions for success and failure in achievement settings: A meta-analysis. *Journal of Educational Psychology, 77*(5), 608–616. https://doi.org/10.1037/0022-0663.77.5.608

Wurthmann, K. (2017). Implicit theories and issue characteristics as determinants of moral awareness and intentions. *Journal of Business Ethics*, *142*(1), 93–116. https://doi.org/10.1007/s10551-015-2714-1

Yeager, D. S., & Dweck, C. S. (2012). Mindsets that promote resilience: When students believe that personal characteristics can be developed. *Educational Psychologist, 47*(4), 302-314. https://doi.org/10.1080/00461520.2012.722805

Yeager, D. S., Trzesniewski, K. H., & Dweck, C. S. (2013). An implicit theories of personality intervention reduces adolescent aggression in response to victimization and exclusion. *Child Development*, *84*(3), 970–988. https://doi.org/10.1111/cdev.12003

Yeager, D. S., Trzesniewski, K. H., Tirri, K., Nokelainen, P., & Dweck, C. S. (2011).

Adolescents' implicit theories predict desire for vengeance after peer conflicts: correlational and experimental evidence. *Developmental Psychology*, *47*(4), 1090–107. https://doi.org/10.1037/a0023769

Appendix A

Overview of Data Collection Procedure in Sequential Order

Adolescent	Mother
Assent (See Appendix H)	Consent (see Appendix G)
Moral values[b] (see Appendix B)	Demographic questionnaire[a&b]
Inconsistent narrative and follow-up questions[b] (see Appendix C)	Moral values (see Appendix B)
Consistent narrative and follow-up questions[b] (see Appendix C)	Inconsistent narrative and follow-up questions
Implicit theories of morality questionnaire[3]	Consistent narrative and follow-up questions
Implicit Theories of Personality questionnaire[a] (ITP; Dweck, et al., 1995)	Implicit theories of morality questionnaire
Test of Self-Conscious Affect-Adolescent[a] (TOSCA-A; Tangney et al., 1991)	Implicit Theories of Personality questionnaire (ITP; Dweck et al., 1995)
Hypothetical Vignettes[a] and Situation/Consequence Judgments[a] (See Appendix E)	Mother report of child's inconsistent narrative and follow-up questions
Self-Perception Profile -Global Self-Worth[4] (Harter, 2012)	Mother report of child's consistent narrative and follow-up questions

---

[3] The implicit theories of morality questionnaire was developed for this study but was not ultimately analyzed due to low reliability.

[4] The global self-worth scale of the self-perception profile was ultimately not analyzed due to low reliability.

Hypothetical parental feedback questionnaire	Parenting Styles and Dimensions Questionnaire-Short Version (PSDQ-S; Robinson, Mandleco, Olsen, & Hart, 2001)
Actual parental feedback questionnaire	Hypothetical parental feedback questionnaire
	Actual parental feedback questionnaire

Note: All tasks or measures marked with an [a] denote those included in study 1, whereas tasks or measures marked with a [b] denote those included in study 2 of this dissertation.

Appendix B

Moral Values Ratings and Rankings

Please rank how important each one is to you. Place them in order of importance to you from the MOST important at the top to the LEAST important at the bottom.

Being an honest person.

Being a caring person.

Being a dependable person.

Being a fair person.

Please select the most important one for you.

Being an honest person.

Being a caring person.

Being a dependable person.

Being a fair person.

Please rate how important each one is to you. From 1 (extremely unimportant) to 4 (extremely important) to you.[5]

Response Scale: extremely unimportant = 1, unimportant = 2, important = 3, extremely important = 4

CARE	Being a caring person

Response Scale: extremely unimportant = 1, unimportant = 2, important = 3, extremely important = 4

DEPENDABLE	Being a dependable person

Response Scale: extremely unimportant = 1, unimportant = 2, important = 3, extremely important = 4

FAIR	Being a fair person

Response Scale: extremely unimportant = 1, unimportant = 2, important = 3, extremely important = 4

HONEST	Being an honest person

---

[5] The moral value ratings data were not analyzed as part of this dissertation but are included for context.

Inconsistent and Consistent Narratives with Follow-up Questions

Inconsistent Narrative

"You mentioned that being a [CARING, HONEST, DEPENDABLE, FAIR], person is the most important to you.
Please take some time to think about a time when you were NOT [CARING, HONEST, DEPENDABLE, FAIR] and you think it was wrong.
Think about a time that is important to you and that you remember well.
Now that you have thought about this time when you were not [caring, honest, dependable, fair], please write it down.
Write down everything you remember about this time in the box- Please provide as much detail as you can."
Prompt: "Please write about how this experience makes you THINK and FEEL about YOURSELF."

Consistent Narrative

"Please take some time to think about a time when you were [CARING, HONEST, DEPENDABLE, FAIR] and you think it was the right thing to do.
Think about a time that is important to you and that you remember well.
Now that you have thought about this time when you were [caring, honest, dependable, fair] please write it down.
Write down everything you remember about this time in the box- Please provide as much detail as you can."
Prompt: "Please write about how this experience makes you THINK and FEEL about YOURSELF."

Follow-up questions after each narrative

When did this event happen?

- More than 5 years ago
- More than 2 years ago
- More than 1 year ago
- A few months ago
- A few weeks ago
- A few days again

Who did it involve?
- Friend
- Close Friend
- Best friend
- Sister or brother
- Parent
- Teacher
- Stranger
- Romantic partner
- Classmate
- Other family member
- Other-Write in

Appendix D

Narrative Coding Scheme (Study 2)

CODING RULES
- Code the narratives and the prompts separately[1]
- Depending on the category, responses are recorded as either a frequency (i.e., how many times the category comes up) or a score on a numerical scale. It is not presence/absence coding.
- Statements can be coded into multiple categories (not mutually exclusive).

REASON/ATTRIBUTION (WHY)
Definition: why they did the behaviors/event.
- **Internal/External:**
  - *Internal:* Actions are due to something internal/personal/intrinsic to the self. Could be due to emotions, goals, cognitions (i.e., thoughts, mindset, impressions they had or misunderstanding about something), lack of reflection or negligence, or personality.
    - Example: "I did it because I was so angry"; "I am very caring for animals"; "I just wasn't thinking"
  - *External:* Actions are due to something external/exterior to the psychology of the actor. Could be because they were provoked, influenced by someone, or due to extenuating circumstances.
    - Example: "She started it"; "he punches me and of course I'm going to fight back"; "I got upset like that because it was like she was taking away time from my electronics"

DISENGAGEMENT

Level 3: Full disengagement	The narrator does not want to discuss the event and either mentions this explicitly or does not write many details about the event (i.e., there is a lack of agency). The narrator may also avoid discussing the event and discuss something off topic or in the case of a challenging event, present the self in positive ways. The story could either not regard their moral experiences or they say they do not want to share it. Example: "When my friends are mean to me. I try to be caring all the time"
Level 2: Moderate disengagement	The narrator provides some details about the story but there are important parts that are

---

[1] Ultimately, codes in response to narratives and follow-up prompts were collapsed for analysis

	missing and/or the act that they performed is left out. Example: "There was I time I did something and I regretted it"
Level 1: Little disengagement	The narrator provides information about their actions and they are clearly the actor in the story, however they do not fully take responsibility for their actions or discuss the event in a clear manner. Example: "I tend to be biased in some situations. At a point and time in my life it was more important for people to like me and not talk bad about me instead of being fair and doing the right thing. These days I'm often not fair to myself, I feed myself negative thoughts and bring myself down and sometimes that impacts the people around me which isn't fair. I shouldn't push my personal issues onto someone else."
Level 0: No disengagement	The narrator provides information about their actions and they are clearly the actor in the story, with a clear sense of agency. There is enough information about the event for the reader to understand what happened and what they did. Example: "When I was in second grade, I sometimes cheated in gym class and didn't admit it. In dodgeball, if you hit the other person in the head, it does not count. I would say that the ball hit me in the head so as not to be eliminated from the game. It makes me feel a little ashamed about myself because I was not being honest about my defeat. Cheating is not goo and does not help you in any way shape nor form. It only showes other people that you are not an honest person ☹")

PSYCHOLOGICAL INTERPRETATIONS VERSUS FACTUAL ELABORATION
(adapted from Pasupathi, Wainryb, Bourne, & Posada, 2017)
Definition: Psychological interpretations aimed to capture internal psychological or interpretive experiences. This included thoughts, beliefs, desires, emotional responses. On the other hand, factual information aimed to capture verifiable information included in the narratives. Both are coded on a 0 to 3 scale. Zero indicates absence, 1 indicates a low level, 2 indicates a moderate level, and 3 indicates a high level.
   (1) Factual information (0, 1, 2, or 3)

(2) Psychological interpretations (0, 1, 2, or 3)

Scale (0, 1, 2, 3)	Factual Information	Psychological Interpretations/elaboration
Level 3: Refers to a "just right" amount of information	The narrator provides many factual details of the event that allow the reader to accurately know the sequence of the events and to be transported to that event. Example: "I can think of a few times but this is the most recent one. **I was sleeping over at a friends house and we were hanging out**, i was **petting his dogs** and I noticed he looked a little sad but I couldn't put my finger on why, **I decided not to ask him. I then asked him where his dog Peggy was**, he started to look a lot more sad and **he told me that she had to be put down**. I genuinely felt bad for him but I didn't show it very well, **i gave him a little; oh, sorry dude, but nothing more. We then proceeded to play video games as if nothing had happened** and i still feel bad about it."	The narrator provides many references to their psychological experience and interpretations of the event. Example: "Both of my friends were fighting. **One I was closer to, and one I had grown apart from**. Even due to the circumstances**, I knew that I had to treat them both equally.** One of the days that they had fighting, **both of them suggested different things to do** apart from each other. **I chose neither, I wanted them to stop. Even if it weren't like those obvious kid ofights**, I knew that **they had been avoiding each other, and were using me as a barricade**. On Valentine's Day, I wrote cards for both of them, using each other's names and sending it to them. **They didn't know it was me. I made them think they had both had sent each other cards.** They didn't hug or anything like that. **I just knew that from that day on, they were closer.**"
Level 2: A moderate amount of information	The narrator provides a moderate amount of facts. Example: "**I was very young when this happened** I'm not sure if it counts but i think it does so one day **i was on my dad's phone** and i wanted to hide it just to see how long can my dad go without his phone (ik how dumb that idea was)so idk how long it took for my dad to notice I wasn't on his phone anymore but **when he did** i was being HONEST **and i said that i hid it somewhere in the house** and i felt good about it	The narrator provides a moderate amount of interpretations. Example: "If my friend would usually mean to me (same friend) and he did something wrong **I wouldn't care for him** until he apologizes. Example: Once he hit me by accident and hurt really bad and **I thought he have done on purpose so I did not care for him that much** until he apologized. This experience **makes me feel ok** and **I got over it very quick**. I **think it didn't change our**

120

		friendship and we moved on from it.
	and **in the end we never found the phone** but i was being honest and felt knew i was doing the right thing"	**friendship and we moved on from it.**
Level 1: Minimal presence of information	The narrator provides very little factual information. Example**: I was in 7 grade** so this year i was lying to my mom about a lot of things and i felt really bad For all the bad things that i was lying about to my mom and for one of them my mom was so mad at me that what she said made me really sad but i know that it was my fault that she said that. It made me feel really bad about my self and ever since i'v Bine trying to change everything about me."	The narrator provides very little interpretive information. Example: "Once when i was in 4th grade I wasn't allowed to use my tablet in the bathroom and my parents asked me if i had it in there and i hid it and lied about not having it there. After school I couldn't find it and i still lied about it. **My parents knew** that I had it in the bathroom so finally i confessed that i did have it there and i got grounded for the day. **It made me tell myself to NEVER lie again."**
Level 0: Refers to a complete absence	The narrator does not provide any factual information. The narrative is told uniquely from their subjective experience. Example: "When my parents wanted to tell me something important and I didn't care at all. Something bad came out of it and that's when I realized that if I did care maybe things would be better."	The narrator does not provide any interpretive information. Example: "I was honest towards my dad when I asked my dad for help!"

SELF-EVENT CONNECTIONS (e.g., Pasupathi & Mansour, 2006)
Definition: This category involves making explicit links between the event and the self (including characteristics and capabilities). The connections made can involve change or stability.
1. **Change:** Event has produced a change in how they see themselves or they have changed because of the event (e.g., "I am different now"; "I have changed a lot and now I'm a lot more honest".
2. **Stable:** They make references to the self as stable/unchanging (e.g., "I thought I was caring the whole time"; "I am still the person I always was and still aspire to be")

MEANING-MAKING (e.g., Mclean, 2005; Mclean & Thorne, 2003)
Definition: This category involves drawing lessons and insights from the event described. Meaning-making should be coded if the narrator makes reference to any lessons they have learned or any insights they have developed since the event or because of the event.

Code lessons and insights separately.[2] Code as a frequency of statements.

1. **Lessons Learned:** Discussion of a lesson they have learned because of or since the event (e.g., "Its very important to think and care about others feelings"; I've learned to care about my work because in the future it will be good for college")

2. **Insights:** Narrator discusses any revelations/insights they have because of or since the event (e.g., "It was an experience that made me realize how important it is to talk and deal with your feelings. I realized that my feelings are my feelings and that no one could tell me they weren't"; "I wasn't being very fair towards my partners [in a school project] and i noticed that")

MORAL EMOTIONS

Definition: Emotions mentioned that could reveal feeling responsible or being affected by one's actions. Code as a frequency of statements.

1. *Guilt/shame*: Mention feeling guilty or ashamed for the behavior or actions. (e.g., "I feel so bad; It makes me feel a little ashamed about myself")

2. *Regret:* Feeling like there was something else they could have, should have done (e.g., I could have done something else instead"; "we could have been better friends if that never happened"; "I should never have done that")

3. *Pride:* Mention feeling proud or happy about their behavior or actions. (e.g., "I feel good that I did it"; "I felt proud of myself")

---

[2] Lessons learned and insights were collapsed.

Appendix E

Hypothetical Vignettes

Each participant was presented with two prosocial and two antisocial vignettes (with one recurrent and one nonrecurrent story within each valence condition). The assignment of values to conditions was counterbalanced using a Latin square design. The gender of the characters in each vignette was matched to that of the participant. Grammar was adjusted across recurrent and nonrecurrent conditions.

Value	Prosocial Condition	Antisocial Condition
Fairness	Carl, Rick and Mark all play basketball and soccer together in the after-school program. One day [Oftentimes], Rick (who is the basketball team captain) picks Mark last because he does not like him. Carl picks Mark first in soccer.	One day [Oftentimes], Sabrina tripped Jenna during a race so that Jenna would fall and Sabrina could win the race.
Dependability	One day [Oftentimes], Serena told Caroline a secret and asked her not to tell anyone. Caroline kept the secret.	One day [Oftentimes], Tommy tells Jason who, in their class, he has a crush on and asks Jason not to tell anyone. Jason tells the whole class
Honesty	One time [Oftentimes], on a group project, Kara does more than her partner, Lola. When they are asked by the teacher if they participated equally, Lola is honest and says Kara did more.	One day [Oftentimes], Bob did not do his French homework. He takes his classmate Peter's homework because Peter does well in French. He changes the name and hands it in to the teacher.
Care	One day [Oftentimes], Felicia started to cry because she is going through a hard time at home. Victoria saw her cry, gives her a hug and tries to talk to her.	One day [Oftentimes], Manuel was teased about his new shoes and cried. Lucas saw the whole thing and did not stop it or try to help him feel better.

Moral Essentialism and Incrementalism Items

Moral Essentialism Items
Items followed the presentation of each vignette; when wording varied between prosocial and antisocial vignettes, the wording for prosocial vignettes is in parentheses.

These items were rated on a six-point Likert-type scale ranging from *strongly disagree* [1] to *strongly agree* [6].

> [Name] acts this way because it is a part of who he/she is.
> [Name] is mean (nice) in other ways too.

These items were rated on a six-point Likert-type scale ranging from *very unlikely* [1] to *very likely* [6]

> Do you think [Name] has done something like this before?[6]
> Do you think [Name] will do something like this again?
> Do you think [Name] will do something like this with other people?

Moral Incrementalism Items
Items followed the presentation of each vignette; when wording varied between prosocial and antisocial vignettes, the wording for prosocial vignettes is in parentheses.

These items were rated on a six-point Likert-type scale ranging from *strongly disagree* [1] to *strongly agree* [6].

[Name] could become nicer (less nice).
[Name]'s life experiences have led him/her to act in this way.

Character and Situation Judgments
Items followed the presentation of each vignette; when wording varied between prosocial and antisocial vignettes, the wording for prosocial vignettes is in parentheses.

On four-point Likert-type scale ranging from *not okay* [1] to *okay* [4].

> "Do you think what [name] did was okay or not okay?"

---

[6] Study 2 included this item in the measure whereas Study 1 did not include this item. Given that moral transgressions and prosocial actions tend to be understood differently when they occur repetitively (e.g., Heiphetz, 2019; Ryazanov & Christenfeld, 2018), we tested recurrence in Study 1. This item was ultimately removed from the scale for that study examining contextual differences because it was deemed to overlap somewhat with the notion of behavioral repetition. However, the item was included in Study 2 (which did not examine the repetition manipulation but rather collapsed scores across all vignettes) to maximize the reliability of the scale.

On a six-point Likert-type scale ranging from *dislike a lot* [1] to *like a lot* [6].

   "How much do you think you would like [name] if you met him/her?"

On a four-point Likert-type scale ranging from *not at all* [1] to *a lot* [4] adolescents rated whether they believed the character was deserving of praise or punishment

   "If you were [Name], how much would you want [Name] to be punished (praised)?"

On a four-point Likert-type scale ranging from *not at all* [1] to *a lot* [4].

   "Do you think that he/she is a bad (good) person?"

Parental Consent Form for Parent and Child Participation

INFORMATION AND CONSENT FORM

Study Title: How Parents and their Children Think about and Deal with Positive and Negative Experiences.
Researcher: Alyssa Scirocco
Researcher's Contact Information: concordia.research.study@gmail.com

Faculty Supervisor: Dr. Holly Recchia
Faculty Supervisor's Contact Information: holly.recchia@concordia.ca **Source of funding for the study:** SSHRC

You are being invited to participate in the research study mentioned above. This form provides information about what participating would mean. Please read it carefully before deciding if you want to participate or not. If there is anything you do not understand, or if you want more information, please ask the researcher.

A. PURPOSE

The purpose of the research is to understand how mothers and their 12- to 15-year-old children think about and cope with positive and negative experiences and the factors that are linked to positive outcomes.

B. PROCEDURES

If you participate, you will be initially asked to communicate with the researcher in order to respond to a few questions regarding eligibility and to ask any questions you might have. You and your child will separately be asked to respond to questions and type out certain responses on a computer or tablet. Your child will be asked to read and respond to some hypothetical scenarios that involve positive and negative situations and will be asked to write down their own positive and negative experience. They will also be asked to answer questions about how they felt about the situation, how they dealt with it, what they think about themselves and about the situation. You will be asked to answer questions about your own and your child's positive and negative experiences and the types of feedback you give. You will also be asked to complete a brief package of questionnaires about family demographics.

In total, participating in this study will take approximately 1 to 2 hours.

C. RISKS AND BENEFITS

The risks of this study are minimal. However, you or your child might feel a little upset or uneasy thinking about or writing down a negative experience. However, these risks are similar to you or your child's normal experiences of discussing or thinking about these types of experiences. Further, this risk is minimized as you and your child will be able to answer the questions privately and online, rather than in the presence of a researcher.

This research is not intended to benefit you personally. However, there is some research to suggest that writing about real-life events can be a helpful and meaningful experience (e.g., Pennebaker, 1997).

D. CONFIDENTIALITY

We will gather the following information as part of this research: Information about how children and parents think and feel about themselves and their own and others' positive and negative experiences, and how parents respond to children's positive and negative experiences. We will also gather basic demographics information about your family.

We will not allow anyone to access the information, except people directly involved in conducting the research. We will only use the information for the purposes of the research described in this form. Ensuring your family's privacy is extremely important to us. However, it is important to note that if you or your child discloses actual or suspected abuse or neglect, we are required to report this information to the Director of Youth Protection.

The information gathered will be coded. That means that the information will be identified by a code, rather than your name. The researcher will have a list that links the code to your name.

We will protect the information by storing it on a protected online server, accessible only to the primary researcher and trained research assistants with passwords. Any physical data will be stored in a locked filing cabinet at the university.

We intend to publish the results of the research. However, it will not be possible to identify you in the published results.

De-identified data from this study will be permanently archived. The code linking family members' names to their research records will be destroyed five years after completion of the study."

F. CONDITIONS OF PARTICIPATION

You do not have to participate in this research. It is purely your decision. If you do participate, you can stop at any time. You can also ask that the information you provided not be used, and your choice will be respected. If you decide that you don't want us to use your information in any of our research reports, you must tell the researcher within two months of your participation (in your case, by [____/____/____]). You may also make a request at any time after this date, and your information will be omitted from any subsequent research reports.

As a compensatory indemnity for participating in this research, you and your child will each receive a movie gift certificate.

To make sure that research money is being spent properly, auditors from Concordia or outside will have access to a coded list of participants. It will not be possible to identify you from this list.

There are no negative consequences for not participating, stopping in the middle, or asking us not to use your information.

G. PARTICIPANT'S DECLARA TION

I have read and understood this form. I have had the chance to ask questions and any questions have been answered. I agree to participate in this research under the conditions described.

NAME (please print) _____

SIGNATURE _____

DATE _____

If you have questions about the scientific or scholarly aspects of this research, please contact the researcher. Their contact information is on page 1. You may also contact their faculty supervisor.

If you have concerns about ethical issues in this research, please contact the Manager, Research Ethics, Concordia University, 514.848.2424 ex. 7481 or oor.ethics@concordia.ca.

Assent Form for 12-15-year-olds

INFORMATION AND ASSENT FORM:

Who are we and what are we doing?
We are from Concordia University. We would like to ask if you would be in a research study. A research study is a way to find out new information about something. We are trying to learn more about how teenagers and their mothers think about and cope with their own and others' positive and negative experiences.

Why are we asking you to be in this research study?
This study can help us learn about how mothers and teenagers think about these types of experiences and about the best ways to deal with them.

What happens in the research study?
If you decide to be in this research study, this is what will happen. I will give you an Ipad so you can answer some questions and write about how you think and feel about yourself and your own and other people's positive and negative experiences. We'll also ask you to tell us about how your mom responds to these kinds of situations. The whole study will last about one to two hours. To thank you and your mom for participating in this study, we will give each of you a movie gift certificate.

Will any part of the research study hurt you?
Some kids feel a little upset when they think about negative experience. If you start feeling upset, just let us know and we will try to help you feel better. We can take a break, skip a question, or you can stop at any time you want to.

Will the research study help you or anyone else?
Being in this study won't help you directly, but it will help us to understand how moms and teenagers think about and deal with positive and negative experiences.

Who will see the information about you?
Everything that you tell me today, and everything you answer on the survey, is completely confidential. This means that the only people who see your answers are me and the people I work with at the University. We will not tell anyone else that you are in the study. All your answers to our questions will be kept locked up at the University's lab or protected by a password on the computer, so no one else can see them.
I want you to know, though, that if we find out from you or your mother that you or someone else is in danger or could be hurt really badly, then we will have to let someone know so that they can help.

What if you have any questions about the research study?
It is okay to ask questions. If you don't understand something, you can ask us. We want you to ask questions now and any time you think of them. If you or your parents have questions later that you didn't think of now, you can email Alyssa Scirocco (the researcher doing this study) at concordia.research.study@gmail.com. You can also call her faculty supervisor, Dr. Holly Recchia, at 514-848-2424 x. 2017 or email her at holly.recchia@concordia.ca.

Do you have to be in the research study?
You do not have to be in this study if you don't want to. Being in this study is up to you. Even if you say yes now, you can change your mind later and tell us if you want to stop.

Agreeing to be in the study
I was able to ask questions about this study. Signing my name at the bottom means that I agree to be in this study.

_____

 Printed Name

_____   _____

 Sign your name on this line   Date

Appendix J

University Ethics Approval

Concordia
UNIVERSITÉ
UNIVERSITY

CERTIFICATION OF ETHICAL ACCEPTABILITY
FOR RESEARCH INVOLVING HUMAN SUBJECTS

Name of Applicant: Alyssa Scirocco

Department: Faculty of Arts and Science\Education

Agency: N/A

Title of Project: How Parents and their Children Think about and Deal
                       with Negative and Positive Experiences.

Certification Number: 30009420

Valid From: April 26, 2018   To: April 25, 2019

The members of the University Human Research Ethics Committee have
examined the application for a grant to support the above-named project, and
consider the experimental procedures, as outlined by the applicant, to be
acceptable on ethical grounds for research involving human subjects.

_____

Dr. James Pfaus, Chair, University Human Research Ethics Committee