2015

Moral Identity Development in Adulthood

Lourdes Andrea Murua
Wilfrid Laurier University, muru3710@mylaurier.ca

Moral Identity Development in Adulthood

Lourdes Andrea Murua, B.A.

THESIS

Submitted to the Department of Psychology

in partial fulfillment of the requirements for the

Master of Arts in Psychology

Wilfrid Laurier University

May 2015

Abstract

Past research on moral identity development mostly focused on adolescence and early adulthood. As a consequence, little is known about developmental changes in moral identity in the adult years. The purpose of the present study was to broaden the research done on moral identity by investigating the changes in moral identity that individuals experience between adolescence and mid age. To this end, 252 participants were recruited. They ranged in age from 14 to 65 years, and were split into four age-groups: 14-18 years (N=67, 41 females) mean age 16.97; 19 to 25 years (N=52, 29 females) mean age 22.48; 26 to 45 years (N=66, 43 females) mean age 33.27 and, 46 to 65 years (N=67, 35 females) mean age 58.70. Participants were interviewed about their moral identity using a newly developed interview procedure that assesses current self-importance of moral values in three different life areas (family, school/work, and community) as well as perceived change in moral identity across time. Participants' personality traits were assessed using the NEO-FFI-3. The results indicated first, that there are age-group differences in moral identity. Second, individuals perceive an increase in their own moral identity across time. Third, age group contributes to moral identity when controlling for the personality traits of conscientiousness and agreeableness but not when also controlling for neuroticism, a third personality trait that was found to be correlated with moral identity. The findings offer insight into the changes individuals experience in moral identity across time and how growth in moral identity might trigger change in personality traits.

Acknowledgments

I would like first to express my honest gratitude to my advisor Dr. Krettenauer for his support and guidance during the process of completing my thesis. Dr. Krettenauer openly shared his knowledge and experience with me so that I could succeed in my study and take with me a valuable research experience for my future career.

I would also like that thank the two committee members, Dr. Pratt and Dr. Norris for the feedback, help and support I received from them at various times during the completion of my thesis.

It is important for me to also thank Dr. Morgenson, Dr. Nield, Dr. Sheese and Adam Celejewski for always being approachable and for encouraging me not to give up on my dreams.

Finally, I would like to express how thankful I am for their love and encouragement to my parents, Carlos and Maria del Carmen, my sister Carina and my little nephews Tomas, Horacio, Matias and Ezequiel.

Table of Contents

List of Tables

Moral Identity Development in Adulthood

The study of personality change across the human lifespan has become an important area of research in Developmental Psychology (Lapsley & Narvaez, 2004). Learning about how people's personality traits remain stable or change under certain circumstances, has driven researchers to explore, how much stability and change people experience in their personalities as they grow older and how these changes contribute to the development of their moral identity. Past research focusing on children's moral identity revealed that as individuals grow older, they gradually display stronger social acumen that leads them to act in moral terms through the use of fairness reasoning (Cooley & Shelby, 2015). Given that there is little research on the development of moral identity between adolescence to middle age, and that past findings also revealed that with age, traits related to psychological maturity and morality, including conscientiousness, agreeableness, and emotional stability increase (Roberts, Caspi, & Moffitt, 2003; Roberts & Wood, 2006), the present study was designed to test whether or not moral identity increases as people age.

Moral individuals have the capacity to reflect on, to examine, and to form judgments regarding their own desires (Frankfurt, 1971). Individuals do this by engaging in a self-reflexive evaluation that allows them to make cautious ethical discriminations about what is good or bad, well-intentioned, or contemptible (Frankfurt, 1988). They make these discriminations based on the core values that are most important to them (Taylor, 1989). As a result, the attributes and values that are at the core of these individuals, become what define them (Taylor, 1989). Feeling identified with something that is oriented with the good, the worthy, and of a fundamental value for the development of the moral self ‘‘is essential to being a functional moral agent’’ (Taylor, 1989, p.42). Moral agency is understood as the individual's ability to make moral judgments

based on notions of what is right or wrong, thus making individuals accountable for their actions (Recchia, Wainryb, Bourne, & Pasupathi, 2014).

Kohlberg (1984) assumed that distinguishing what is right from wrong requires moral reasoning. According to Kohlberg, any moral action is based on explicit moral reasons (Lapsley, 1996) making "reflections upon the self" (Kohlberg, Levine, & Hewer 1983, p. 36). Under these circumstances, individuals who act morally fully acknowledge and accept moral norms and understand their obligatory qualities (Turiel, 1983). Kohlberg argued that the age in which moral reasoning or moral judgment becomes most influential for moral action lies between adolescence and adulthood (Kohlberg, 1984). This is because individuals in that age range are more capable of reaching a higher reasoning stage (Kohlberg, 1984).

Even though Kohlberg's theory is widely known and respected (Rest, Narvaez, Bebeau, & Thoma, 1999), its strong emphasis on the role that reason plays in moral development made his theory a target of repeated criticism (Colby & Damon,1992). To begin with, critics consider that his ideas are problematic because they only focus on moral reasoning without recognizing either moral emotions or moral motivation (Lapsley, 2005). Whereas the former is understood as those emotions that arise after committing moral violations (Haidt, 2003), the latter, according to Kaplan and Tivnan (2014), is defined as a dynamic system from which moral judgment and action arise.

In addition to the aforementioned weaknesses in Kohlberg's ideas, follow up researchers also criticize that he placed a strong emphasis on moral thought but excluded issues of character, selfhood, personality, and interpersonal relationships (Lapsley & Narvaez, 2005). Moreover, his ideas are also thought to be problematic because they do not take into consideration that sometimes individuals use their reasoning as a defense mechanism for their immoral behavior

(Rest, Narvaez, Bebeau, & Thoma, 1999). Therefore, there is no assurance that an individual's moral reasoning is compatible with his/her level of moral behaviour as Kohlberg argued (Lapsley, 2005).

The weaknesses found in Kohlberg's ideas led researchers to expand the study of morality. Although researchers recognize the importance of moral reasoning, it is argued that moral reasoning alone is insufficient to explain the complexity of human moral motivation and functioning. Thus, researchers found it was necessary to move beyond Kohlberg's stage model in order to concentrate more on the moral self (Lapsley & Narvaez, 2004).

The moral identity construct: Core concepts and ideas

Augusto Blasi was one of the pioneers who, when seeking to expand the study of morality, considered the gap existing between moral thought and action (Blasi, 1983). This "judgment-action gap" (Walker, 2004, p. 1) explains the weak and inconsistent relationship between moral judgment and moral behavior (Blasi, 1983). Blasi sought to bridge the judgment-action gap through the integration of morality into the individual's sense of self (Erikson, 1964). An individual has a moral self when his moral actions are central to his self-understanding and, motivate him to behave in accordance with those notions (Jennings, Mitchell, & Hannah, 2015).

In order to fully comprehend an individual's moral self, Blasi considers that it is important to recognise the concepts of the self-model, moral identity, the core self, and moral centrality. In the following each of these concepts is discussed.

Self-Model

According to Blasi, moral identity is not a homogeneous construct (Owen, 1991). Whereas for some individuals forgiveness and trustworthiness are essential attributes that define the core of themselves, for others, compassion and acceptance can be the most salient attributes

that truly describe them (Flanagan, 1991). “Ethical goodness”, thus,” is realized in a multiplicity of ways” (Flanagan, 1991 p. 332), and results from the active processing and interpreting of information that is also known as cognitive motivation (Switzer & Sniezek, 1991).

Blasi (1983) suggests that the cognitive motivation for moral action stems from the sense of fidelity to oneself-in-action, as well as to one’s tendency toward self-consistency, which is perceived as a cognitive motive for objectivity and truth. Blasi also suggests that cognitive motivation for moral action arises from the individual's moral identity, which is deeply rooted in moral commitments that if not followed, cause the individual to experience the betrayal of the self (Blasi, 2004). Blasi describes this process of self-evaluation that the individual performs over his/her own actions as subjective self-as-agent (Blasi, 2009). He believes that those individuals who have a strong sense of the self-as-moral are more likely to act in accordance to their own moral commitments (Blasi, 1983).

Moral Identity

When individuals act in accordance with their core moral commitments, they are thought to have a solid moral identity (Blasi, 1983). Moral identity is defined as the mental representation of the individual’s moral character, which is internally held as a cognitive schema and externally expressed to others through the individuals' actions (Aquino & Reed, 2002), such as when they show motivation to act pro-socially (Winterich, Aquino, Mittal, & Swartz,, 2013). Moral identity is also understood as a dimension of individual differences and as a way of talking about the individual’s moral personality that is grounded on moral values (Blasi, 1983). The more grounded moral identity is to an individual, the more likely this identity is going to have an impact on his/her cognitions, feelings, and actions (Higgins, 1996).

The impact that moral identity has on an individual's thoughts, emotions and behaviors, gradually grows stronger once he reaches adolescence (Hardy & Carlo, 2011). It is throughout this period that individuals begin to identify themselves with moral ideals and commitments (Hardy, Bean, & Olsen, 2014). Researchers revealed that prominence of moral identity in adolescent life narratives, predicts later involvement in community service as individuals grow older (Pratt, Arnold, & Lawford, 2009). This can be attributed to the development of a moral self that is thought to strengthen the individual's sense of social responsibility (Damon & Bronk, 2007). Thus, individuals to whom morality is central, are more likely to experience a strong sense of responsibility motivating them to do the right thing. By doing so, individuals are able to keep their behaviours consistent with how they view themselves (Blasi, 1984). When individuals identify themselves as moral, moral notions and attributes such as being good, caring, just, understanding, or fair, are claimed to be at their central core (Blasi, 1983).

The Core Self

The core self involves moral values that are the ‘‘deepest, most serious convictions we have; they define what we would not do, what we regard as outrageous and horrible; they are the fundamental conditions for being ourselves, for the integrity of our characters depends upon them’’ (Kekes, 1989, p. 167). The moral values and commitments that form part of the central core, contribute to an individual's sense of personal integrity-in-action (Blasi, 1983). Failure to have those moral values and to follow those moral commitments can cause individuals to experience dissatisfaction because of the disharmony that exists between their immoral actions and the centrality of their moral commitments (Blasi, 2005).

Moral Centrality

Moral centrality has been defined as the relevance of moral values to an individual's self-concept or identity (Gibbs, 2003). Blasi refers to moral centrality as ‘‘a general moral desire that

becomes the basic concern around which the will is structured'' (Blasi, 2005 p. 82). Moral centrality involves the knowledge individuals have about themselves with regard to moral traits (Aquino, McFerran, & Laven, 2011). Indeed, Aquino & Reed (2002) defined moral centrality as a self-schema that involves the beliefs and ideas individuals have about themselves. This self-schema is organized around a set of moral trait associations (e.g., being honest, fair, kind) that are central to the self-concept. Researchers have found that moral centrality can be manifested in different ways, as for example, when it can be perceived through the influence that moral values have on individuals' attitudes and behaviours (Rorty & Wong, 1991).

Moral attitudes and behaviours such as being honest, compassionate or loyal, that result from an individual's internal motivation, refer to the side of moral centrality known as moral self-importance (Colby & Damon, 1992). On the other hand, those behaviours and attitudes that reflect the expertise individuals have in moral matters due to the special attention they have paid over the years to the moral aspects of different situations, (Narvaez, Lapsley, Hagele, & Lasky, 2006) refer to the side of moral centrality known as moral chronicity (Warren, 2008). An individual with a moral identity or character would thus, be one for whom moral constructs are chronically accessible and effortlessly activated for social information-processing. (Warren, 2008).

Moral self-importance. For individuals who are high in moral self-importance, morality is a critical objective in their life that allows them to measure how well they are doing in the world (Colby & Damon, 1992). These individuals who thoroughly follow their internal moral principles often become moral exemplars (Schnall & Roper, 2012). Exemplars are so committed to their moral values that their personal and moral goals become indistinguishable (Colby & Damon, 1992). This is because for them, achieving their moral goals is not an idea or a

project, but rather a basic need that has to be fulfilled (Blasi, 1983). Researchers believe that exemplars ignore other basic needs, such as security, if this will let them conserve and reflect the practise of their internal moral values in their daily actions (Bauman, 2012).

Moral chronicity. The moral self-image of individuals who are high in moral chronicity depends on the number of situations they encounter that require them to act morally (Lapsley & Narvaez, 2004). These individuals have a clear sense that some actions require from them a higher sense of morality than others (Cantor, 1990). Researchers suggest that moral character should be described in terms of moral chronicity (Lapsley & Narvaez, 2006) and have found that moral chronicity is an accurate predictor of moral behaviour (Colby, 2002). In other words, moral chronicity can be used to help understand how individuals interpret and react to social information (Lapsley & Narvaez, 2006). Therefore, it is believed that those individuals who are high in moral chronicity are more likely to act morally than those who are not (Narvaez, Lapsley, Hagele, & Lasky, 2006), especially when they encounter morally relevant behaviour (Lapsey, 1996). For example, researchers found that moral chronic individuals who read "the accountant assists others with no expectation of a reward" only performed better in a later cued recall task when the cue was a moral trait (e.g., kind). When the cue was a semantic associate (e.g., numbers) or a cue not related to morality, chronic individuals performed poorly in comparison to when they were given cues related to moral traits (Lapsey, 1996; Narvaez, 2006).

A subject of research for many years has been whether individuals act morally because it is their most valuable internal goal that truly defines them, or because it is their way of responding to social cues that elicit moral acts from them (Narvaez, 2006). As researchers seek to study morality in order to understand its development and functioning, they realize that the study cannot be done in isolation without considering the context of personality (Lapsley &

Narvaez, 2004) given that personality traits, like conscientiousness and agreeableness, characterize moral exemplars and predict moral actions (Matsuba & Walker, 1998)

Approaches to Moral Personality Development

An attempt to determine the differences in personality of moral exemplars from those who are low in moral self-importance, has led researchers to examine two approaches in the personality psychology area known as trait/dispositional constructs and social-cognitive constructs.

The Trait-based Approach

In the trait-based approach, individual differences are captured in terms of dispositional constructs that include the big five personality traits identified as conscientiousness, agreeableness, openness, extraversion, and neuroticism (McCrae & Costa, 1999). According to this approach, traits remain stable in the individual and are recognized as temperaments or genetic factors that are resistant to the influence of the environment or life experiences (Costa & McCrae, 1992). Indeed, the trait disposition approach considers that traits develop during childhood and that once they reach maturity in adulthood, they become stable in "cognitively intact individuals" (McCrae & Costa, 1999, p. 145).

Even though for many decades researchers who support the trait dispositional approach (McCrae & Costa, 1999) have sustained the idea that traits remain stable in individuals across their lifespans (Siegler, George, & Okun, 1979), more recent evidence suggests, on the contrary, changes in personality traits occur over time (e.g., Block & Haan, 1971; Haan, Millsap, & Hartka, 1986; Helson, Jones, & Kwan, 2002; Helson & Wink, 1992; Jones & Meredith, 1996; Szolnoki, Perc, Szabo, & Stark, 2009). For example, in one study researchers found, in a laboratory task, that older participants showed more cooperation than younger ones (Szolnoki, Perc, Szabo, & Stark, 2009). Since being more cooperative has been linked to the maturity

principle which characterizes individuals who are high in conscientiousness (Roberts & Wood, 2006), and since it has been repeatedly found that the trait of conscientiousness increases as people age (Roberts & Wood, 2006), this finding serves as an example to show the instability of traits across adulthood (Lehmann, Denissen, Allemand, & Penke, 2013).

The acknowledgment of the changeability of personality traits across the individual's lifespan does not only devalue the idea that personality traits are absolutely stable (Costa & McCrae, 1978; Siegler, George, & Okun, 1979) but also leads researchers to conclude that the trait disposition approach cannot be used to fully describe the attitudes and behaviours of an individual (McAdams & Pals, 2006). The trait disposition approach is insufficient because it does not fully explain the morality or amorality of individuals' actions (McAdams & Pals, 2006). Dan McAdams and Jennifer Pals (2006) recognize the inefficacy of using dispositional traits to thoroughly understand individuals' attitudes and behaviours. They consider that it is crucial that personality researchers look for an approach that can allow them to consider not only the big five personality traits as important to describe some aspects of the personality of an individual, but also other factors that can serve to provide a more thorough vision and understanding of the individual's whole personality (McAdams & Pals, 2006), including his/her moral and immoral behaviours. In this search, McAdams and Pals (2006) propose three levels or layers. Although they do not exclude the importance of the big five traits theory, they consider the relevance of other factors that can have an impact on individuals' internal moral values and motivations. The three levels proposed by McAdams and Pals - dispositional traits, characteristic adaptations, and life narratives – will be described in the following section.

Dispositional Traits. These are temperaments, behaviours, and attitudes that are assigned to explain consistent patterns of behaviours observed in individuals across life experiences and over time (McAdams, 2006). They are described as broad and decontextualized dimensions of human individuality (McAdams & Pals, 2006).

Researchers consider that dispositional traits provide a framework of human individuality, which incompletely signals how an individual tends to act across different situations (though not in all of them) and over time (though not necessarily forever) (Fleeson, 2001). For example, a study found that trait scores were only modest predictors of the behaviour that individuals would perform in a single laboratory-based situation (Mischel & Peake, 1982).

In spite of the criticisms launched against dispositional traits, their inclusion in the personality psychology field remains strong because they not only make it possible to summarize and organize individual differences (Church, 2000) but also because they predict important life outcomes such as work performance, psychological well-being (Diener, Sandvik, Pavot, & Fujita, 1992), and longevity (Friedman, Tucker, Tomlinson-Keasy, Schwartz, Wingard, & Criqui 1993).

In personality psychology, dispositional traits have been especially related to the big five trait theory (Digman, 1990). Although these five traits were originally thought to remain stable throughout an individual's life (Costa, McCrae, & Arenberg, 1980), much research concerned with personality has now revealed that as individuals grow older, those five traits vary in intensity depending on life experience (van Aken, Denissen, Branje, Dubas, & Goossens, 2006). For example, war time, death, illness, and interpersonal transgressions, among other conflictual situations seem to play an important role in the maturation and solidification of both, conscientiousness, which is a personality trait that describes individual differences in terms of

their propensity to self-control, to be responsible and to be law abiding (John & Srivastava, 1999) and agreeableness, which is a trait that involves pro-social actions, including behaviours such as being compassionate and considerate (Costa & McCrae, 1995). These two personality traits are known to be related to moral exemplars (Walker, 1999) who promote attributes such as responsibility, self-discipline, cooperation and altruism (Roberts & Mroczek, 2008). Repeated findings in the literature of personality psychology have shown that these two personality traits increase as people grow older, raising their sense of responsibility and concern for the welfare of others (Specht, Egloff, & Schmukle, 2011).

Characteristic Adaptations. Characteristic adaptations refer to the individuals' goals, values, virtues, self-images, mental representations of others, and several other aspects of humanity that are related to motivational, social–cognitive, and moral developmental concerns (Little, 1999). They characterize the motivational and social cognitive aspects of personality (McAdams & Pals, 2006). Researchers have described them as units in personality that are located between the dispositional traits and overt behaviours (Buss & Cantor, 1989). It is as if personality could be divided into two sides. The one side represents the role of "having", which specifically refers to individuals' dispositional traits. The other side refers to the "doing", which essentially refers to the actual behaviours individuals perform based on their own beliefs and values and in accordance with their own motivations and goals (Cantor, 1990). In fact, characteristic adaptations convey patterns of behaviour that are under the influence of both dispositional traits and situational variables (McAdams & Pals, 2006). Their assigned label responds to the fact that while characteristics represent the lasting psychological dispositional core of the individuals, adaptations represent the efforts individuals make and the strategies they use to fit into the always-changing social environment (Caspi & Roberts, 1999). Researchers

have found that characteristic adaptations differ significantly across cultures and communities at different portions of the life span (McCrae & Costa, 2006). Erikson's personality developmental stages and Kohlberg's moral reasoning stages are clear examples of characteristic adaptations.

Narratives of the Life Story. Narrative of life story is based on the idea that human individuality is better understood through the careful consideration of the individual life story (Nasby & Read, 1997). The circumstances individuals experience and the strategies and options they adopt to tackle difficult situations help them shape their behaviour and establish their identity within their family and community (Hermans, Kempen, & van Loon, 1992).

Narrative identity, an individual's life story, is an internalized and growing narrative of the self that integrates the individual's memories of the past as well as his expectations and hopes for the future. In the ongoing process, an individual experiences the consolidation of his identity based on the purpose and meaning he has for life (Habermas & Bluck, 2000). Researchers believe that the way individuals lead their lives, the plans they make to face their daily experiences, and the plans they make to tackle the difficulties of life, are fundamental for the construction of the narrative of their own identities (McAdams, 2006). The type of goals, moral values, ideas, and beliefs with which individuals identify themselves has been found to depend on the social and familial context in which they operate (Power, 2004). Past research has revealed the importance of the family and community context for the development of value socialization and moral self (Pratt, Hunsberger, Pancer & Alisat, 2003). For example, researchers suggest that having children engaged in helping activities within the community, might lead to increases in moral values (Hart, Atkins, & Ford, 1999). Likewise, adopting a parenting style characterized by demandingness (Pratt, Hunsberger, Pancer & Alisat, 2003) and supportiveness (Hart, Atkins, & Ford, 1999) also leads to the promotion of morality in the family context.

Socio-Cognitive Approach

The socio-cognitive approach proposes that the social environment in which individuals operate, increases the cognitive accessibility to their core identity (Aquino, 2009). In opposition to the traits disposition approach that emphasizes the idea that genetic factors determine an individual's personality (Costa & McCrae, 1992), the socio-cognitive approach, much as McAdam's principles, emphasizes the importance of the social context and also adds the notion of social-cognitive knowledge structures, known as schemas (Aquino & Reed, 2002). For the socio-cognitive approach, these schemas, rather than traits, are what determine an individual's readiness to operate in the environment and to interact with others (Cantor, 1990). Schemas ''demarcate regions of social life and domains of personal experience to which the person is especially tuned and about which he or she is likely to become a virtual expert" (Cantor, 1990, p. 738). Those individuals who prioritize the development of healthy interpersonal relationships as well as the well-being of others, develop a strong moral self-schema that becomes the core of their identity (Lapsley & Narvaez, 2004).

Aquino and Reed (2002) proposed a model of moral identity that is in agreement with the tenets of social-cognitive theory. They defined moral identity as a chronically accessible self-schema that is organized around a set of moral trait associations (e.g., honest, caring, accepting,), and consists of two dimensions: internalization and symbolization (Aquino & Reed, 2002). Internalization represents a private experience of moral identity centrality that reflects the individual's moral traits that are central to his/her own concept. Whereas symbolization, refers to the public expression of an individual's moral actions or the degree to which the individual's moral traits are reflected in his/her public actions (Aquino & Reed, 2002).

The internalization and symbolization of moral traits reflect the individual's deep desire for being moral and acting morally (Winterich, Aquino, Mittal, & Swartz, 2013). These moral desires arise from the importance given to identifying oneself as truly moral and from caring for, developing, and maintaining over time, strong bonds with members of different social areas or institutions including family, work/school, and community (Power, 2004).

Members of a community, family members, classmates and co-workers commit themselves to share and respect norms that reflect and highlight their moral identity (Power, 2004). In this context, moral identity is seen as a group identification and a common commitment to both value-laden norms (Lapsley & Narvaez, 2006) and internal moral values that change with time (Blasi, 1988).

Personality Development in Adulthood: Conceptions of Continuity and Change

Blasi (1988) believes that moral identity is developmental in nature. In other words, the way that individuals perceive themselves changes over time. Aside from the changes that are experienced by individuals across time (Blasi, 2009), Blasi also highlights the differences existing among them (Blasi, 2005). The centrality of morality to the self, which consists in each individual of many values and qualities that are truly important to them, may not be clear at a very young age but once developed, they differ from one individual to another and could change over time (Blasi, 1985). In a study researchers found that a group of children did not include in their self-definition any attributes that involve moral qualities (e.g. honesty and loyalty) until they became adolescents and each of them expressed their own core values (Damon & Hart, 1988).

Studies such as the aforementioned that demonstrated the experience of change in personality traits over time (Lehmann, Denissen, Allemand, & Penke, 2013) have led researchers

to distinguish four categories of personality change or continuity that include mean level change, individual level change, rank order consistency and ipsative stability. Given that age-related changes in moral identity and personality are addressed in the present study, the four categories are described in the following section in order to understand how personality change or continuity is measured.

Mean Level Change

Mean level change has been associated with normative changes in personality and shows increases and decreases in the average personality traits of the population (Roberts, Wood, & Caspi, 2008). In order to measure mean or normative change, longitudinal studies involve collecting information about the same cohorts on two or more occasions (Roberts, Wood, & Caspi, 2008). This allows researchers to perceive the changes in personality traits that the individuals experience at various ages over their lifespan (Haan, Millsap, & Hartka, 1986). For example, based on the data collected from three cross sectional studies and three longitudinal studies, researchers found evidence for significant mean change in the personality trait conscientiousness (norm-orientation) which was found to increase as people age (Helson & Kwan, 2000).

Rank Order Consistency

Rank order consistency refers to individuals' comparative situation within the population on some characteristic (Roberts, Wood, & Caspi, 2008). It measures whether individuals show uniform changes in personality levels (Ashton, 2007). It is usually measured by conducting test/ re-test correlations on specific trait dimensions (Roberts, Caspi & Moffit, 2001). In a large scale meta-analysis, test re-test correlations showed consistency of traits, increasing from 0.31 in childhood to 0. 54 in late adolescence and to 0.64 at age 30 (Roberts & Delvechio, 2000). A

plateau of approximately 0.74 was found between the ages of 50 and 70 (Roberts & Delvechio, 2000). Researchers concluded that personality consistency continues to develop across the individual's lifespan (Asendorpf & Wilpers, 1998; Roberts, Caspi & Moffit, 2001).

Individual Change

Individual change refers to the unique differences in personality change (increase and decrease) experienced by each individual over time (Roberts, Caspi & Moffit, 2001). These changes may deviate from the population mean level change (Roberts, Caspi & Moffit, 2001). Researchers have found that individual level changes in personality are attributable to their individual development towards maturity (Terracianno, Costa, & McCrae, 2006). For example, in a study of participants aged between 18 to 26, researchers found that maturity was linearly related to the degree of individual change (Roberts, Caspi & Moffit, 2001). The youngest participants who showed higher levels of maturity presented less change over time compared to those other young participants who showed lower maturity (Roberts, Caspi, & Moffit, 2001). These findings suggest that, once individuals reach maturity, understood as the "change in the direction of a desirable endpoint" (Roberts, Caspi & Moffit, 2001, p. 671), they are less likely to continue experiencing change (Roberts, Caspi & Moffit, 2001).

Ipsative Stability

Ipsative stability represents continuity in the constellation of an individual's personality characteristics across time (Roberts, Wood, & Caspi, 2008). To measure ipsative stability, correlations for each individual are conducted in two different occasions (Prinzie & Deković, 2008). For the correlation, researchers compare hierarchically organized personality traits at time 1 with the same set of personality traits at time 2. The higher the correlation, the more stability is found in those personality traits of the individual (Caspi & Roberts, 2001).

In one study, researchers found that the participants who had demonstrated in an initial profile to be high on social closeness and low on negative emotions, later presented high level of ipsative stability between adolescence and adulthood (Robin, Fraley, Roberts, & Tzreniewski, 2001). These results showed that ipsative stability was consistent over time, relative to the results shown in the initial profile of the individuals studied (Wright, Pincus, & Lenzenweger, 2012).

The four above described categories of personality change and continuity demonstrate that in regard to average trait levels (mean or normative change) and individual trait levels (rank order consistency), there is a partial increase in personality traits across lifespan that might decrease later in life as people age. In regard to the degree of change shown by individuals on specific traits (individual level change) and the degree of stability shown on individuals' profile (ipsative stability), there is increased consistency as individuals grow older (Roberts, Wood, & Caspi, 2008).

The increase, decrease, and stability of certain personality traits is common among the general population over time (Blonigen, Carlson, Hicks, Krueger, & Iacono, 2008). However, it has been shown that the magnitude of trait changes as well as the consistency of trait stability differs from one individual to another (Roberts, Walton, & Viechtbauer, 2006). For example, while some individuals may perceive the experience of a particular trait or moral value stronger as they grow older, others individuals may perceive, as they age, those same traits or moral values as either remaining stable or losing strength (Baltes, 1997).

The increase or decrease in strength and importance of a particular trait or value that a person possesses, might be the result of different factors that cause individuals to either change (van Aken, Denissen, Branje, Dubas, & Goossens, 2006) or to retain continuity (Caspi & Robers, 2001).

The continuity of certain personality traits in adulthood can be attributed to both genetic factors (McGue, Bacon, & Lykken, 1993) and person-environment transactions (Plomin, DeFries, & Loehlin, 1977). The genetic factor theory for continuity, supports the existence of inborn genetic traits that remain stable across people's life span (Plomin & Caspi, 1999). In contrast, the person-environment transactions theory states that the unconscious way in which individuals filter their daily experiences, elicits verbal and behavioural responses from others. Also, the way they choose their own paths in life is thought to be closely inter-related with their inborn personality traits (Plomin, DeFries, & Loehlin, 1977). Thus, continuity results from this person-environment interrelation (Caspi & Roberts, 2001).

Other researchers have explained the continuity of personality traits through the concept of role continuity of the environment (Roberts, Wood, & Caspi, 2008). According to this concept, when individuals have a constant perception of the environment in which they operate, they experience continuity in their personality traits (Roberts, Wood, & Caspi, 2008). The prolonged roles the individuals have in society, strongly influence the continuity of the personality traits they display (Hill & Roberts, 2010).

The causes that explain the continuity of personality traits clarify why certain individuals' characteristics remain stable over time. However, based on the existing evidence of the occurrence of change in personality traits over time (Haan, Millsap, & Hartka, 1986; Helson, Jones, & Kwan, 2002; Helson & Wink, 1992; Jones & Meredith, 1996; Szolnoki, Perc, Szabo, & Stark, 2009), researchers consider that it is necessary to also analyze its causes. Certainly, they assume that "during development, and at all stages of the life span, both continuous (cumulative) and discontinuous (innovative) processes are at work" (Baltes, 1987, p. 613). This means that as people age, although they become more consistent (Caspi & Roberts, 2001), especially at age 50

when individuals reach a plateau for consistency (Roberts & DelVecchio, 2000), they still retain their potential for change in their older years (Caspi & Roberts, 1999). Thus, the causes of change should be understood as well. In an attempt to explain what causes personality traits to change as people age, some researchers state that "age itself is an empty variable, for it is not merely the passage of time, but the various biological and social events that occur with the passage of time that have relevance for change" (Neugarten, 1977, p. 633). Evidence of the changes that people underwent over the years as they experienced a variety of life circumstances, was found in a study that revealed a significant increase of the personality traits of conscientiousness and agreeableness in individuals who were in their old age (Field & Millsap, 1991).

Processes of Change

Four primary processes (Caspi & Roberts, 2001) have been distinguished in past research on the causes of changes in personality traits, and these will be discussed as potential factors that account for age-related changes in individuals' moral identities.

The process of responding to contingencies

According to this process, individuals change in response to the contingencies they experience throughout their life course (Roberts, 1997). The types of contingencies to which individuals respond can be both explicit and implicit (Sarbin, 1964). Explicit contingencies refer to concrete incidents that are directly applied to the individual's behaviours. For example, being reprimanded for a maladaptive behaviour can cause an individual to change his/her attitude and behaviour in order to avoid future conflicts (Caspi & Roberts, 2001). Contrarily, the implicit contingencies are indirect or subtler, unspoken expectations and demands that often come with the acquisition of new social roles that people gain across their life span (Sarbin, 1964), and

which often call for a bigger sense of responsibility and thoroughness (Blasi, 2009). Two examples might include getting married and becoming a parent.

The process of watching one's own behaviour

This approach proposes that reflecting on one's own actions can lead to change (Caspi & Roberts, 2001). When people reflect on their own behaviour, they realize that they need to change certain behaviours that are maladaptive and prejudicial for the self, as well as for the maintenance of constructive interpersonal relationships (Lewis, 1998). By gaining insight about oneself, individuals are able to think about the kind of person they want to be and direct their efforts towards behaving in the way they truly want to be identified (Deci & Ryan, 1990).

The process of watching others

This approach highlights the principles of the social learning perspective, which states that several information processing mechanisms are involved in the acquisition of new behaviour (Bandura, 1986). Observational learning is the most important information processing mechanism that gains strength through relationships with mentors (Chao, 1997). One of the most important functions of mentors is to set an example by demonstrating role-appropriate behaviours that will serve to teach how to behave appropriately in the different life contexts in which individuals operate (Caspi & Roberts, 2001). In the family, school/work place, and community contexts, those who teach others not only through their accomplishments but also through their mistakes can also be thought of as mentors that show the consequences of good and bad actions through their own example (Kram, 1985). As a result, observing others can be a strong encouragement to seek change in order to act in accordance with not only what it is approved by the community but, most importantly to act in accordance to what is truly important for the self (Blasi, 1985).

The process of listening to others

Researchers argue that the people with whom individuals interact can be an important source of information about themselves and consequently a potential source to seek change (Stryker & Statham, 1985). According to identity theory (Stryker, 1987), the feedback that people receive from other individuals can lead them to pursue change, especially when the comment received is incongruent with the individual's self-perceptions (Kiecolt, 1994). This is because the incongruence existing between other people's feedback with the individual's self-perceptions sometimes, though not always, might cause him to look for change in order to re-establish the lost harmony (Caspi & Roberts, 2001).

Supporting some of the ideas that the previously mentioned processes suggest to explain change, two different models (Kogan, 1990), the contextual and interactional, need to be described. They help us understand other factors that might also explain the causes of the changes the participants of the present study perceived over time. The contextual model stresses the influence that environmental contingencies have on people's changes throughout their life span. For example, they sometimes cause people to experience changes in their personality in accordance with the positive or negative life situations they experience as time passes (Caspi & Roberts, 2001). In contrast, the interactional model proposes that as people grow older, they experience changes that are the result of an interaction between their self-driven goals and societal and age-graded goals (Roberts, Walton, & Viechtbauer, 2006). This means that as people grow older, the goals and the expectations that the society has of them, change in accordance with their chronological age (Roberts &Wood, 2006). The engagement in different normative roles across the life span such as changing from being a student, to becoming a parent,

a worker, or group leader, brings into the life of the individuals different responsibilities that cause them to change (Helson, Kwan, John, & Jones, 2002).

The previously mentioned models and processes that explain personality change could be grouped into a category of external causes. Some researchers highlight the importance of other factors that cause change taking place within the individuals. These changes refer to the internal neuro-biological ones that the individuals undergo as they age (Rubia, Smith, Woolley, Nosarti, Heyman, Taylor, & Brammer, 2006; Steinberg, 2007). Research has shown that the progressive age-related neurocognitive change that individuals experience as they grow older (Rubia, Smith, Woolley, Nosarti, Heyman, Taylor, & Brammer, 2006) allows them to develop, for example, better goal setting and goal attainment strategies (Riediger, Freund, & Baltes, 2005). This is because the development and maturity of brain areas, which include the frontal, parietal, and cingulate brain regions, have been found to be related to an increase in the trait of conscientiousness, which has been linked to the individual's cognitive control (Steinberg, 2007).

Age Differences in Individuals' Goals

Although individuals develop stronger cognitive control as they age (Steinberg, 2007), researchers highlight that there are individual differences in the reasoning for the pursuit and selection of goals across the lifespan (Denissen & Penke, 2008).

In order to understand what factors might influence the participants of the present study on the selection of their most important goals, and moral values within the different community domains (family, school/work, and society/community), the Social Selectivity theory and Generativity will be discussed.

Social Selectivity Theory

Social selectivity theory states that the way in which individuals perceive time, has a strong influence on the selection of their goals and depends on the individual's chronological age (Reed & Carstensen, 2012). While younger individuals have more future-oriented goals that involve the gathering of information for their accomplishment in the long term (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001), older individuals perceive that their time is becoming limited. As a result, they give higher priority to the goals that have strong emotional meaning for them (Reed & Carstensen, 2012). By doing so, older individuals, contrary to younger individuals pursue, in current situations, especially what implies emotional gratification (Carstensen Gross, & Fung, 1997).

Older individuals elicit emotional satisfaction from the interactions they have with others, though they selectively choose to be more involved with those with whom they expect to experience greater emotional satisfaction (Lang, Wagner, Wrzus, & Neyer, 2013). They make this choice because they have a close and emotionally meaningful relationship with them (Carstensen, Isaacowitz, & Charles, 1999).

Generativity

The strong emotional interpersonal relationships older individuals develop with close social partners such as family members, cause them to be concerned for their future and well-being (Erikson, 1964, 1966). What "is primarily the concern in establishing and guiding the next generation" (Erikson, 1963, p. 267), is what Erikson defined as generativity.

As individuals age, they take on numerous different generative roles that require from them an increasing number of responsibilities that might include, among others, parenting or being a mentor to younger generations (Brady & McAdams, 2013). Researchers consider that the responsibilities the passage of the years bring into the individual's life, as well as their inner desire to achieve symbolic immortality through the legacy of their moral teachings to younger

generations, cause individuals to become more generative as they turn into mid-adulthood (Brady & McAdams, 2013).

Becoming a generative adult involves the integration of the experience that individuals acquire from their life stories (socialization), their moral knowledge (moral cognition and intelligence), the sense of empathy that individuals develop to promote the well-being of others, and the individual's sense of autonomy, which refers to one's willingness to truly act in accordance to their deepest moral values (Hill & Roberts, 2010). The generative inner desire, societal demands, and concern for others, help these generative individuals to create their own identity, as they develop the narrative of what they have done throughout their lifespan for the well-being of the next generations (Brady & McAdams, 2013).

Taking such findings into account, it may be concluded that the demands that imply the passing to younger generations of meaningful teachings that would help them to become exemplary individuals, denote the development of a stronger sense of generativity and thus, responsibility as individuals age (McAdams, Logan, & de St. Aubin, 1992).

When individuals develop, as they grow older, a self-identity that is committed to act responsibly and in agreement with their deepest values, they serve as a good example to others in their families and communities (Power, 2004). People's responsible actions strengthen the traits that are related to maturity, which are: agreeableness, conscientiousness and emotional stability (Roberts, Caspi, & Moffitt, 2003). In addition, they also strengthen the individuals' commitment to achieve their personal, familial and communal goals for the welfare of the whole community (Power, 2004).

The notion that as people age they experience changes in their personality that lead them to reach maturity in their actions (e.g. Becoming more responsible, considerate of others in the

community and emotionally stable) raises the question of whether the maturity they experience as they age (Roberts, Walton, & Viechtbauer, 2006) also leads to changes in their moral identity.

The Present Study

At present, the only existing research done on moral identity development primarily focuses on the moral self in childhood (Krettenauer, Campbell, & Hertz, 2013), adolescence, and early adulthood (Hardy, Walker, Olsen, Woodbury, & Hickman, 2014). Little is known about the development of moral identity from adolescence to the adult years. It is the purpose of the present study, to extend the literature on moral identity in order to find answers to the questions of whether, as individuals grow older, reaching late mid-adulthood, they develop a stronger moral identity that may cause them to increase their commitment to the institutions in which they are involved (Onat, & Kulaksizoglu, 2014), including their community, family and work/school place. The selection of these three contexts stems from past findings that showed that individuals form their moral identity in correspondence with the community to which they belong (Power, 2004). Individuals also form their moral identity as a consequence of identifying themselves with the groups with whom they interact (Horn, Daddis, & Killen, 2008) (e.g. family and work/school-place members), and create social norms (Hart, Atkins, & Ford, 1999), (for example, community members).

Given that as people age they experience a greater number of encounters that require them to act morally (Lapsley & Narvaez, 2004), and that as they grow older they also become more conscientious (Roberts & Wood, 2006) and committed to fulfill their individual goals for their own welfare and for the good of their families and community (Power, 2004), the researcher of the present study formulated the following three hypotheses:

The first hypothesis was that there are age-group differences in moral identity. It was expected that the older age groups would score significantly higher on moral identity than younger groups. In the analyses, it was also explored whether these age-related increases were general or context-specific (family, community, school/work). Second, from individuals' subjective point of view there would be an increase in moral identity as they age. Finally, as a third hypothesis, age-related differences in moral identity were expected to be consistent with, but not fully attributable to, changes in conscientiousness and agreeableness as the two major moral personality traits (Matsuba & Walker, 1998; Walker, 1999).

Method

Participants

In total, 252 participants (148 women) were recruited. Most participants were from the Waterloo Region and a few from the Greater Toronto Area. 74% of the participants were born in Canada. The rest of the participants represented a wide range of ethnicities that included Chinese (1.6%), English (1.2%), Indian (2%) and, American (1.6%). Some of the other participants' ethnicities included Polish, Egyptian, Brazilian, Colombian, Afro-American, Iranian, Philippino, Ukrainian, German, French and, Israeli. Participants were recruited through online postings of the study, ads in local newspapers, flyers and personal communication. Participants received a compensation of $50 for participating in an interview and filling out a questionnaire.

Participants ranged in age from 14 to 65 years, and were split into four age-groups: adolescence (N=67, 41 females), 14-18 years (M = 16.97, SD = 1.56); emerging adulthood (N=52, 29 females), 19 to 25 years (M= 22.48, SD = 2.34); early adulthood (N=66, 43 females), 26 to 45 years (M = 33.27, SD= 5.55) and middle age (N=67, 35 females), 46 to 65 years (M= 58.70, SD= 6.45). Gender was equally divided across age groups, X^2 (3, 252) = 2.54, p = .45.

In order to assess participants' educational background, participants were asked to indicate the highest level of education they attained in the past. Seven options were given: *1-Some high school studies*, *2- Completed high school*, *3- Some college or university studies, 4-Completed college diploma, 5- Completed undergraduate degree, 6-Some postgraduate studies and, 7-Completed graduate or professional degree*. Those participants who were students at the time of the interview were asked to specify from the above mentioned seven options, their parents' highest educational level so that it could be taken as an indicator of students' educational background.

An ANOVA revealed that there were no significant differences in educational background among the four age groups F (3, 234) =1.02, p>.05. The average education level for each of the four age groups was: 14 to 18 years old (M= 4.52, SD= 1.45); 19 to 25 years old (M=4.36, SD = 1.59); 26 to 45 years old (M =4.64, SD =1.77); and 46 and 65 years old (M= 4.89, SD= 1.86). Participants' average education level involved the completion of a college diploma.

Participants were asked to indicate their occupation in order to assess their socio-economic status. Those who were students, at the time of the interview, were asked to indicate their parents' occupation. Participants' descriptions were later coded in accordance to the Standard International Socio-Economic Index of Occupational Status (ISEI) that is a well-validated measure of socio-economic status (Ganzeboom, De Graaf, & Treiman, 1992). ISEI scores range from 10 to 90 with a midpoint of the scale at 50. For the present study, the scores of students' mothers and fathers were averaged. In the present sample, the overall ISEI score was M= 51.10, SD= 15.58. These results indicated that the sample SES, in the present study, was average.

Measures

The study consisted of a 1.5 hour interview and a questionnaire that took about 30 minutes to complete. The interview was audio-recorded. Open-ended and standardized response formats were used. In the context of the present study only standardized responses were analyzed. Thus, coding of responses was not required. The interview was used to assess individuals' current moral identity in three different social contexts (family, school/work, community), as well as perceived change in moral identity within the last 15 to 20 years. The questionnaire was used to assess personality traits, demographic information and social desirability response bias.

Moral Identity. At the beginning of the interview was a warm up period in which participants were asked to freely describe a highly moral person. It was intended that the participants expressed in their own words how they would define a highly moral person.

Participants were then asked if they knew people who met most or some of those characteristics they mentioned. Subsequently, participants were given 80 attributes, which had been repeatedly identified as important descriptors of individuals' prototypical conceptions of a highly moral person in previous research (Lapsley & Lasky, 2001; Smith, Smith, & Christopher, 2007; Walker & Pitts, 1998). Attributes covered a broad range of value domains from benevolence and universal concerns for fairness and tolerance to rule conformity. Examples of those 80 attributes include: being accepting, benevolent, considerate, cooperative, empathic, just, non-judgmental, reliable, tolerant, truthful and law-abiding (for a full list of all attributes see Appendix A). Participants were asked to rate these attributes according to how well they described a highly moral person using a 5 point scale from 1 = *not at all* to 5 = *extremely well*. Participants were also encouraged to add and rate other attributes that they thought should be

included as an additional descriptor of a highly moral person. However, only 16 out of 252 participants felt the need to add another attribute to the list.

After participants rated the list of 80 attributes, together with their own self-nominated attributes (if added), they were asked to narrow that list to a number of 12 or 15 attributes that according to their own viewpoint, define "the core of a highly moral person". For the following part of the interview, participants were asked to locate the same 12 to 15 selected moral attributes on each of three diagrams that represented the contexts of family, community, and either school (for those participants that were students at the time of the interview) or work (for non-students). Participants were asked to sort the moral attributes according to the level of importance that those selected moral attributes had for them in each of the three different life contexts. Participants placed those attributes on each of the three diagrams along three nested circles labelled with different levels of importance from *1=not important at all to me, 2=somewhat important to me, 3=important to me, to 4=very important to me*. Participants were instructed that the circle in the center represented the most important attributes for them, those that were at their core self, the middle circle represented the attributes that were important but not very important to them, whereas the largest circle represented the attributes that were only somewhat important to them. The outside area of the circles represented qualities that were not important for them at all. Participants located their selected 12 or 15 attributes on the diagrams thinking how important each of those attributes was for them in the three contexts, including family, community and school/work. For details see example of diagram and interview schedule in the Appendix B and C.

The measure used in the current study to assess moral identity is similar to the Good Self-Assessment scale developed by Arnold (1994). Participants' sortings of moral attributes

according to their self-importance were averaged for each context separately, yielding three moral identity scores, one in the context of family (M=3.34, SD=0.38), one in the context of school/work (M=3.25, SD=0.33) and one in the context of community (M=3.28, SD=0.33). Besides these differences in mean levels that signal the family context as the most important for the participants, followed by the community context and lastly by the context of school/work; significant correlations between the three context-specific moral identities were found. Moral identity in the context of family was significantly correlated with work/school, r (250) =.571, p <.001; and community r (250) =.680, p <.001. Likewise, a significant correlation between moral identity in the context of work/school and community was found, r (250) = .663, p<.001. Because of these high correlations an overall score of moral identity was calculated by averaging the three moral identity variables (M=3.29, SD=0.30). This overall score will be used in all analyses where context differences in moral identity are not focal.

Perceived change in moral identities. For participants who were 19 years old or older, after sorting moral attributes according to their self-importance in the context of family, work/school and community, the interview turned to the question of how moral identity has changed in the participant's past. This part of the interview, again, started with a brief warm up where participants were invited to reflect on the changes in moral identity they have experienced since they were 15 years old (to those participants who were between 19 and 34 years old) or in the last twenty years (to those participants who were 35 years in age or older).

After reflecting during the warm up on the changes they have experienced, participants were asked to re-sort the same 12 or 15 attributes they had selected at the beginning of the interview, in accordance, this time, to the importance that those moral attributes had for them when they were 15 years old (to those participants who were between 19 and 34 years old) or

when they were twenty years younger (to those participants who were 35 or older). Those participants who, at the time of the interview, were employed but in the past were students were asked to place the 12 or 15 attributes on the diagram involving school rather than work since they would be reflecting about the time when they were students. After re-sorting the values, participants were asked to describe the most salient changes they perceived in their moral identity and encouraged to describe what life events from their view might have contributed to the changes they have experienced during those years. Since the participant's responses about the events that might have caused them to change over the years were a small part of a larger study, a more thorough investigation of these findings will be done in a future qualitative study.

Participants' past moral identities for each of the contexts were also separately averaged, yielding past moral identity scores for the family context (M=3.08, SD=0.50), for the work/school context (M=3.01, SD=0.51) and, for the community context (M= 2.95, SD=0.56).

Personality traits. After participants finished the interview, they filled out a questionnaire in which they completed the NEO-FFI-3 inventory (Costa, McCrae & Martin, 2008) to assess personality traits. The questionnaire was either presented online or as a paper-and pencil version, depending on what format participants' preferred.

The NEO-FFI measure is a 60-item questionnaire for the measurement of the Big Five personality traits (McCrae & Costa, 2004). The five dimensions are openness, agreeableness, conscientiousness, neuroticism and, extraversion. Openness to experience refers to the individuals' imagination, curiosity and, intellectual independence. Agreeableness describes individuals' cooperativeness, altruism, empathy, and truthfulness. Conscientiousness describes individuals' organization, self-discipline, and dutifulness. Neuroticism involves the degree in which individuals normally experience negative affects such as sadness, anger, embarrassment,

and guilt. Finally, extroversion involves behaviors that seek social stimulation, and affiliation with other as for example, being sociable, talkative, and assertive (Rosellini, & Brown, 2011). Each dimension is represented by 12 items that are rated on a 5-point Likert-scale (1 = '*strongly agree*' to 5 = '*strongly disagree'*). A sample item for each of the five dimensions includes: for openness, "I am intrigued by the patterns I find in art and nature ", for agreeableness, "I sympathize with others' feelings.", for conscientiousness, "When I make a commitment, I can always be counted on to follow through", for neuroticism, "I often get angry at the way people treat me" and, for extraversion, "I really enjoy talking to people". Cronbachs' alphas for the five dimensions ranged from .75 to .83 in previous studies. In the present study, the mean levels and standard deviations for the five personality traits were: Agreeableness (M=3.71, SD=0.52), conscientiousness (M=3.68, SD=0.56), neuroticism (M=2.89, SD=0.62), openness to experience (M=3.55, SD=0.51), and extraversion (M=3.47, SD=0.51).

Results

Preliminary analyses

An ANOVA was run to test if there were age group differences in the three moral-related personality traits of agreeableness, conscientiousness and neuroticism. Significant age group differences were not found for the personality trait of agreeableness, F (3, 248) = 1.34, p >.05. However, significant age differences were found for conscientiousness, F (3, 248) =5.52, p<.001 and neuroticism, F (3, 248) = 11.39, p<.001. The age group means (see Table 1) showed that whereas the personality trait of conscientiousness increased with participants' age, the personality trait of neuroticism decreased.

To test if there were gender differences in moral identity, a multivariate analyses of variance was run. The result showed that there were no significant gender differences, Pillai's

trace, F (3, 247) =1. 42, p >.05, η^2 =.017, and no significant interaction between gender and age group in moral identity, Pillai's trace, F (9, 729) = .81, p >.05. A linear regression equation was also run to test whether gender predicts moral identity (overall score). The results indicated that gender did not significantly predict moral identity, β= -.09, t (250) =-1.44, p = .15, F (1, 250) = 2.07, p=.15.

In an ANOVA, differences among the age groups in Social Desirability Response were not significant, F= (3, 242) = 1.56, p>.05. A linear regression equation evidenced that Social Desirability Response predicted moral identity (overall score), β = .23, t (244) = 3.78, p < .001, F (1,244) =14.28, p < .001. Social Desirability Response predicted moral identity in the three contexts, including family β = .16, t (244) =2.67, p<.001, F (1,244) =7.15, p=.008; work/school β = .24, t (243) =3.87, p<.001, F (1,243) = 15.01, p<.001, and community β = .20, t (244) = 3.29, p < 001, F (1,244) = 10.83, p < .001.

A regression was run to test whether level of education predicted moral identity. The results revealed that level of education did not predict moral identity (average score of the three life contexts), β = .08, t (236) = 1.33, p = .185, F (1, 236) = 1.76, p=.185. Education did not predict moral identity in the family context β = .04, t (236) = 0.66, p = .50, F (1, 236) =.44, p=.50 or in the community context, β = .05, t (236) = 0.89, p = .37, F (1, 236) =.80, p=.37. However, the results revealed that education marginally predicted moral identity in the context of work/school, β = .12, t (235) = 1.99, p = .047, F (1, 235) = 3.99, p=.047.

A linear regression equation revealed that SES did not predict moral identity in the context of the family β= -.05 t (221) = -.74, p= .45, F (1, 221) = .55, p=.45 in the context of school/work β= .01 t (220) = .21, p = .82, F (1, 220) = .04, p = .82 or in the context of the community β= -.004 t (221) = -.06, p = .95, F (1, 221) = .004, p=.95.

Age-related differences in moral identity

The first hypothesis of the study was that there are age group differences in moral identity in that older participants should score higher on moral identity than young participants. To test this hypothesis, a multivariate analyses of variance was run using as dependent variable moral identity in the three life contexts (community, school/work and family) and age group as the independent factor. This analysis yielded a significant effect of age-group F (9, 741) = 3.13, $p < .001$ η^2=.037. Follow up univariate F-tests, evidenced that age groups were significantly different in the family context, F (3, 247) =5.48, $p < .001$ $\eta^{2=}$.062, in the context of work/school, F (3, 247) =5.62, $p < .001$ η^2 =.064 and, in the context of the community, F (3, 247) = 3.10, p= .027, η^2=.036. There was an increase of moral identity in the three contexts across the four age groups (see Figure 1). A MANCOVA revealed that there were also age-group differences in moral identity when controlling for Social Desirability, F (9, 720) =2.90, p = .002 η^2 =.035 (for details see Table 2)

Based on the mean distribution of the multivariate analyses of variance (see Figure 1), it could be observed that across the four age groups moral identity in the family context scored the highest, showing a strong increase in the two oldest age groups (26-45 and 46-65). Moral identity in the context of school/work was the least strong among the three contexts in the three first age groups (14-18, 19-25 and, 26-45). However, in the oldest age group (46-65) it became the second strongest of the three contexts, scoring higher than moral identity in the community context. Finally, also based on the mean distribution, it could also be observed that moral identity in the community context, showed a strong increase in the third age group (26-45) and that although it decreased in the last age group (46-65), it remained higher than in the first two age groups (14-18 and 19-25).

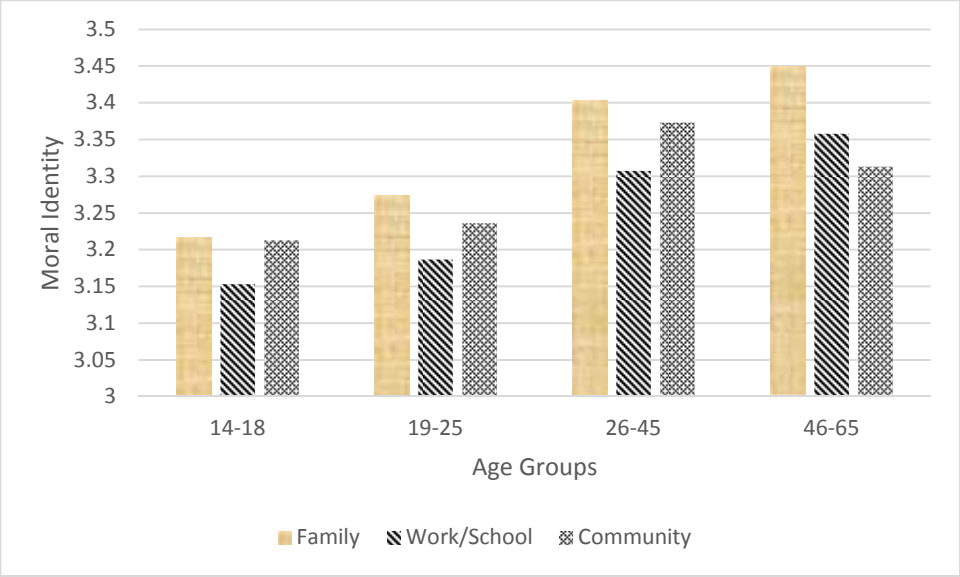


Figure 1. Moral identity by age-group

For Hypothesis 1, it was expected to find that that older participants would score higher on moral identity than young participants. Planned comparisons revealed that there were significant age differences in moral identity between the youngest age group (14-18) and the oldest age group (45-65) in the family context, p<.001, as well as in the work/school context *p*<.001, but not in the community *p* > .05 context. It was also found that there were significant age differences in moral identity between the second age group (19-25) and the oldest age group (45-65) in the family, *p*<.05, and work/school, *p*<.05, contexts, but again, not in the community context, *p*>.05. Likewise, a Scheffe post hoc comparison indicated that there were significant differences in moral identity, *p*<.05 (two-tailed), between the youngest age group (14-18) and the oldest age group (45-65), in the family and in the school/work contexts (see Table 3).

In the present study, the age groups were not equidistant. Whereas the average difference between the two youngest age groups (14-18 and 19-25) was 5.5 years, the average difference between the two oldest age groups (26-45 and 46-65) was 25 years. Due to these differences, a linear regression equation was run to test whether exact age in years predicts moral identity. For

this analyses, the overall score of moral identity averaged over the three contexts (family, community and work/school) was used. Age in years was also found to predict significantly the overall score of moral identity $\beta = .22$, t (250) = 3.61, $p < .001$, F (1, 250) = 13.04, $p < .001$. However, when testing moral identity individually in the three contexts, it was found that age in years significantly predicted moral identity only in the context of family $\beta = .23$, t (250) = 3.85, $p < .001$, F (1, 250) =14.85, $p < .001$ and, in the context of school/work $\beta = .23$, t (249) =3.77, $p < 001$, F (1, 249) = 14.26, $p < .001$. Age in years did not significantly predict moral identity in the community context, $\beta = .11$, t (250) = 1.78, $p = .076$, F (1, 250) = 3.17, $p = .076$.

Thus, findings using participants' exact age in years as a predictor of moral identity largely converged with analyses focused on differences between the age-groupings.

Paired t tests run across the whole sample (including the four age-groups) revealed that the family context scored in moral identity significantly higher, compared to the context of the community, t (252) =2.83, $p = .005$, and, to the school/work context, t (251) =3.98, $p < .001$. The results did not reveal significant differences in moral identity between the contexts of community and school/work, t (251) =1.77, $p = .077$.

Perceived change in moral identity across time

The second hypothesis was that individuals perceive an increase in their moral identity as they grow older. In order to test the hypothesis a repeated measures analysis was conducted. For the analysis, the youngest age group (14-18) was excluded since they were not interviewed about their past moral identity. The analyses included moral identity scores in the three life contexts (community, family and, work/school) as dependent variables, time (past/present) and life context as within subject factors, as well as age-group as a between subject factor. Results are summarized in Table 4.

Context and time evidenced significant effects on moral identity. This findings indicated that individuals reported a significant increase in their moral identity from past (*M*= 3.0, *SD*=0.02) to present (*M*=3.32, *SD*=0.03). At the same time, as indicated by a significant interaction between Time and Context, the three contexts differed in perceived moral identity change (see Table 5). Whereas the community context was participants' largest perceived change, the context of school/work was participants' lowest perceived change.

Finally, the repeated measures analysis also indicated a significant interaction between time and age group. A closer inspection of group means revealed that the two younger age-groups (19-25 and 26-45) reported greater increases in their moral identities than the oldest age-group (46-65) over time (see Table 6)

Moral identity and personality traits

The last hypothesis was that age-related differences in moral identity would be consistent with, but not fully attributable to, changes in conscientiousness and agreeableness as two major moral personality traits (Matsuba & Walker, 1998; Walker, 1999). For this analyses, a multivariate analyses of variance was run, controlling for the personality traits of conscientiousness and agreeableness. As expected, it was found there were significant age related differences in moral identity even when controlling for agreeableness and conscientiousness, Pillai's Trace, F= (9, 735) =2.14, p = .025 η^2 = .026 (for details see Table 7).

This result supported the hypothesis. Age-group contributes to moral identity even when controlling for conscientiousness and agreeableness. Further analyses showed that correlations, between all five personality traits and the moral identity score, evidenced significant positive associations between the personality traits: conscientiousness and agreeableness and moral identity. The results also revealed a significant negative correlation between moral identity and

neuroticism (see Table 8). Thus, people with higher moral identities also tended to be lower in neuroticism (or higher in emotional stability).

Based on this finding, a second multivariate analyses of variance was run, controlling, this time, for all three personality traits that were found to be correlated with moral identity (conscientiousness, agreeableness, and neuroticism).When controlling for the three personality traits in the multivariate analysis of variance, the age-groups then did only marginally differ with regard to moral identity, Pillai's Trace, F (9, 732) =1.88, p = .052, η^2 = .02. Refer to Table 9 to see the effects of age-group and the three moral traits: Agreeableness, conscientiousness and, neuroticism.

In an attempt to deepen the knowledge about the relationship between moral identity and the three moral-related personality traits: conscientiousness, agreeableness and neuroticism, a linear regression was also run to investigate how personality traits together with age (in years) predicted moral identity. To this end, the overall score of moral identity (averaged across context) was used.

The results confirmed the results of the multivariate analyses since age in years was only found to be a marginally significant predictor of moral identity (averaged across context) β = .123 t (247) = 1.95, p = .053, F (1, 247) = 11.60, p <.001 when controlling for the three moral related personality traits of conscientiousness, agreeableness and neuroticism. This regression equation also revealed that moral identity was significantly predicted by conscientiousness and, agreeableness, but not by neuroticism (see Table 10)

Discussion

Past research on moral identity development has mostly focused on the early life span development of individuals' moral identity. Although there was a great deal of previous research

that mostly investigated the moral identity development of children, adolescents and young adults, no research had been done on the developmental changes that individuals continue to experience in their moral identity in their adult years.

The purpose of the present study was, thus, to extend the existing literature on moral identity development by conducting a study that included an age range from 14 to 65 years old. The study is unparalleled since it distinguished moral identity in three contexts: family, community and school/work.

For the study, individuals were recruited from four age groups. The four group samples were chosen in order to determine if there are age differences in moral identity considering the transitions from adolescence or school time (14 to 18) to early adulthood (19 to 25) or time of independence (e.g., moving out from parents' house or getting a job). Likewise, it was also a purpose of the study to learn about the transition from mid-adulthood (26 to 45) or time for the consolidation of certain aspects of life such as building a family or having a job/profession, to late mid-adulthood (46 to 65), that is related with the time in which individuals have been found to become both more conscientious (Roberts & Wood, 2006) and more interested in the goals and communal domains that have a strong emotional meaning for them (Reed & Carstensen, 2012).

In the study three hypotheses were tested. Hypothesis 1 predicted that there are age group differences in moral identity. In line with the hypothesis, multivariate analyses of variance revealed that there are age-group differences in moral identity and, that individuals scored increasingly higher across the four age groups.

Results of paired *t* tests run across the whole sample indicated that there were significant differences in moral identity in the family context when it was compared to the community and

to the school/work contexts. These results explained the mean distribution observed from the multivariate analysis which showed the family context as the most important variable in determining moral identity in all age groups. This could be explained considering the different social roles that individuals develop within their own families, as they grow older. Young individuals, in most of the cases, perceive support and protection from their parents. The feeling of protection and safety they experience within the family context, might explain the higher score in moral identity revealed in this context compared to the context of the community and to the school/work context. With regard to the older age groups, they not only have more extensive life experience than younger individuals, but they are also generally committed to social roles within their family that imply increasing responsibilities. These are the individuals who, contrary to the youngest individuals, mostly are responsible for those who are dependent on them (e.g., partners, offspring, etc.). It might be that the roles in which older individuals perceive themselves, as a provider of and exemplar for their families, lead them to prioritize the family context as the most important one to be committed to act in moral terms.

With regard to the context of school/work, the mean distribution observed from the multivariate analysis revealed that for the individuals who were in the oldest age group (46 to 65 years old), the context of work was considered the second most important one of the three contexts (preceded by the family context). It seems that as time passes, individuals grow in knowledge and experience with regard to what needs to be done in order to maintain a favorable position in the field in which they develop or are employed. For example, those individuals who have been working for many years in the field of education have learned, throughout their careers, how important it is for them and for others, to commit themselves to perform their tasks professing moral values. Moreover, the oldest age group knows, from their own experience, that

although sometimes immorality can become tempting, and this is especially true for younger individuals who lack experience, in the end it does not pay off since it can endanger their survival in the field they are engaged in, and hurt their inner selves, especially if they are committed to moral values.

Finally, the mean distribution from the multivariate analysis revealed that the context of the community was considered the second most important for the three youngest age groups (14 to 18, 19 to 25 and, 26 to 45 years old). It might be that the community is a context that is valued from a young age since it ensures the survival of individuals within the community at least until they reach professional stability (e.g. have stable job or profession) and emotional stability (e.g. build a family, have a stable group of friends, etc.).

The second hypothesis of the study predicted that individuals perceive an increase in their moral identity as they grow older. The results supported this hypothesis. As individuals grew older, they perceived an increase in their moral identity in the three contexts over time.

The repeated measures analyses also revealed that the two younger age groups (19 -25 years and 26- 45) perceived over the years, a higher increase in moral identity than the oldest age group (46-65). Perhaps, younger individuals might want to highlight all the changes they have experienced over the years. For example, a participant in her thirties during the interview reflected the following when asked about the changes she had experienced over the years:

"Over time, I've learned that again, these core things, being honest and genuine, ethical, are very important for me. But when I was much younger, I wasn't as dependable. I was different. These attributes weren't as important as they are now"

On the contrary, older individuals expressed not to have perceived big changes throughout the last 20 years. It might be that once individuals solidify their roles within the

different contexts of the society including family, work and community, they are less likely to experience changes in their core values. For example, one of the participants who, at the time of the interview was in her early sixtieth responded the following to the question of whether she had perceived changes in her core values in the last 20 years:

"You could change in your twentieth, a lot of people do. Probably I did too. And thirtieth is still very young, you have a lot of changes, but after you hit 45 or 50, you pretty stay the same"

Another participant who also belonged to the oldest age group (45-65) responded:

"The only think that I can say is that now I am more independent. But nothing has changed much. I still have the same core values. There is really not much difference between then and now".

The general responses of the participants about the perceived changes in their moral values revealed that when they reflected on their younger years they recalled as important those attributes that mostly helped them socialise and develop good inter-personal relationships, as for example being tolerant and accepting. When talking about their present, participants acknowledged that after learning from their own life experiences they realized the importance of also valuing attributes that imply self-discipline (e.g. integrity, responsibility). The passage of time seems to have taught them that possessing as core values, attributes that are necessary to get along well with others is not enough to reach the plenitude of the moral self.

A possible explanation for the positive subjective perception about the moral growth that participants mentioned to have experienced over the years could be that, as shown in past research, individuals are generally prompted to recall and reconstruct evidence from the past that makes them feel good about their present (Wilson, 2001). For example, a participant in her

forties mentioned that when she was 20 years younger she would spend most of the time hanging around with her friends and getting involved in irresponsible behaviors like doing drugs without having any sense of responsibility. However, when looking back to those days she realized how much her life had changed over the years, since at the time of the interview, she described herself as a responsible woman who works hard and cares for others.

The final hypothesis of the study predicted that age-related differences in moral identity would be consistent with, but not fully attributable to, changes in conscientiousness and agreeableness as two major moral personality traits (Matsuba & Walker, 1998; Walker, 1999). The results of the multivariate analyses showed that when controlling for those two moral-related personality traits (agreeableness and conscientiousness), there are still age-group differences in moral identity. This result could be a first step in comprehending the existing overlap between moral identity and the moral-related personality traits. Perhaps, based on the significant results obtained in the analyses, it could be interpreted, although it should not be confirmed, that moral identity could be a trigger of the moral-related personality traits of conscientiousness and agreeableness. When the individuals grow older they experience an increase in their moral identity that might lead them to display throughout their daily actions these two moral-related personality traits: conscientiousness and agreeableness.

In contrast to our expectations, the results were not significant when the same multivariate analysis was run controlling in addition for neuroticism, a third personality trait that, together with agreeableness and conscientiousness, was found to be significantly correlated with moral identity. The analyses of the multivariate analyses indicated that there were only marginally significant age-groups differences with regard to moral identity when controlling for the three moral related personality traits. This finding could just have been the result of having

added a third variable to the covariate analyses. Based on this assumption and on the finding obtained from the correlation analyses which indicated a significant negative correlation between neuroticism and moral identity, it could be assumed, although again it should not be confirmed, that moral identity might also cause changes in individuals' emotional stability. The increase in moral identity that individuals experience as they age might trigger them to experience a decrease in the morally related personality trait of neuroticism. Thus, as individuals grow older they become more moral and perhaps this leads them to become more emotionally stable.

The main conclusions that can be drawn from the present study are, first, that there are age-group differences in moral identity, with older age-groups scoring higher than the younger age-groups. This is thought to be related to the social roles individuals have throughout their lives as well as to the load of responsibilities to which they are committed as they age. Second, as time passes, individuals perceive growth in their moral identity. This might lead individuals to act more under moral terms with others and in accordance with their inner moral self. Third, there are age group differences in relation to moral identity when controlling for the moral related personality traits. Although with not sufficient certainty, the present study brought to light the possibility of considering moral identity as a trigger of the changes individuals experience in their three moral related personality traits (conscientiousness, agreeableness and low neuroticism) as they age. However, as the data of the present study were correlational in nature this interpretation remains speculative and needs to be corroborated by future studies that allow for causal conclusions.

Three findings that should be mentioned include, first, there are age group differences in moral identity, even when controlling for Social Desirability. Second, moral identity was not

found to be predicted by the individuals' educational level. Third, contrary to what it could have been assumed, the study revealed that there were no gender differences in moral identity.

Important implications arise from the present study. Paired *t* test analyses run across the whole sample revealed that the family context scored significantly higher in moral identity when it was compared to the community context and to the school/work contexts. These findings might lead to the consideration of the family context as the one that especially strengthens the sense of morality in individuals. Activities that promote family reunion and sharing (e.g. having dinner and breakfast together, going together on vacation, etc.) should be frequently programmed in order to ensure the legacy of the importance of developing a strong moral identity to the younger generations.

In the same way, due to the significant lower score in moral identity presented by the contexts of the community and school/work, when each of them was compared to the family context, it is considered that it is also necessary to program activities that serve to gradually increase individuals' moral identity in these two contexts (community and school/work). Programming communal activities, as for example, music festivals or community tree planting events, might serve to stimulate the development of strong and positive interpersonal relationships among members of the community. It is considered that these communal activities in time, could lead to increases in moral identity. In the same way, moral identity could, perhaps, be promoted in the school/work contexts through the establishment of ethics codes or values statements. For example, if a school or work place adopted and emphasized as part of their ethics codes, moral values such as honesty, fairness and integrity, school' and work' members would be prompted to achieve their goals honestly, trying to stablish truthful communication among all parties.

Finally, given that Scheffe post hoc comparisons revealed that the oldest age group scored significantly higher in moral identity than the youngest age group, it should be highlighted the crucial role that the oldest generations might have in the teaching to younger individuals about the importance of developing strong moral values. The oldest generations, far from being left aside and ignored, should be taken as examples to follow in order to be able to grow older following the path of the moral realm.

Although the present study on moral identity had several strengths, such as the unprecedented inclusions of the three most common contexts in which individuals daily develop (family, community and work) and, the recruiting of a large sample with a scope from age 16 to age 65, some limitations should be acknowledged. The first limitation might be related to confounding variables that were not considered in the resent study. One example of the potential confounding variables of the present study is religion. Since participants were not asked to report if they had a religious belief, it is unknown if the increase in morality revealed in the study was the result of age development or of the religious beliefs individuals could have grown stronger as they aged. Other confounding variables could have also had an effect on the results.

The results of the study could have also been influenced by cohort effects. Given that the age-groups that were compared did not only differ in age but also in the kind of social and cultural circumstances each of them experienced in their past, the age-group differences found in moral identity could, thus, have been the result not of age developmental factors but of unique characteristics that distinguished each of the age-groups. The oldest age-group (46 to 65) grew up at a time when the world was slowly recovering from the negative consequences of the Second World War, where people were fighting to reach gender and racial equality and, especially at a time when there was no online social media (ex. internet). Thus, they were only

able to build face to face inter personal relationships or do so over the phone. The closeness to a world war, the participation in or witnessing of movements that fought for gender and racial equality and, the enforcement of human rights, together with the greater emphases on face to face interpersonal relationships are among others, unique social characteristics that distinguished the lives of the oldest age-groups. These social characteristics might explain why the oldest age group (46-65) scored higher in moral identity than the younger age-groups.

Another limitation of the study is that the sample was culturally homogenous. Only 26% of the participants were not born in Canada. The results could have been different if there had been more equal-sized random samples representing the different ethnic groups. Cultural differences could have led to different results but this could not be studied because of the high percentage of participants who were born in Canada. Finally, because the participants knew in advance the nature of the study, one should consider the possibility of the existence of a systematic selection bias in participants.

In spite of its limitations, the present study brought to light important findings that clearly enlarged what had been known about moral identity in the Psychology Developmental research area. Nevertheless, these findings should be extended to learn more about the development of morality as individuals grow older. Future research, should be devoted to the continuing investigation of the overlap between moral identity and morally related personality traits. Since the present study revealed with a marginal statistical significance that age might contribute to moral identity independently from the individuals' moral related personality traits, more research is needed to confirm this finding and, to clarify the true nature of moral identity. If moral identity is not the result of the individuals' moral related personality traits, it is important to expand the

research to understand what factors promote the development of moral identity and how much it is interconnected to individuals' moral related personality traits.

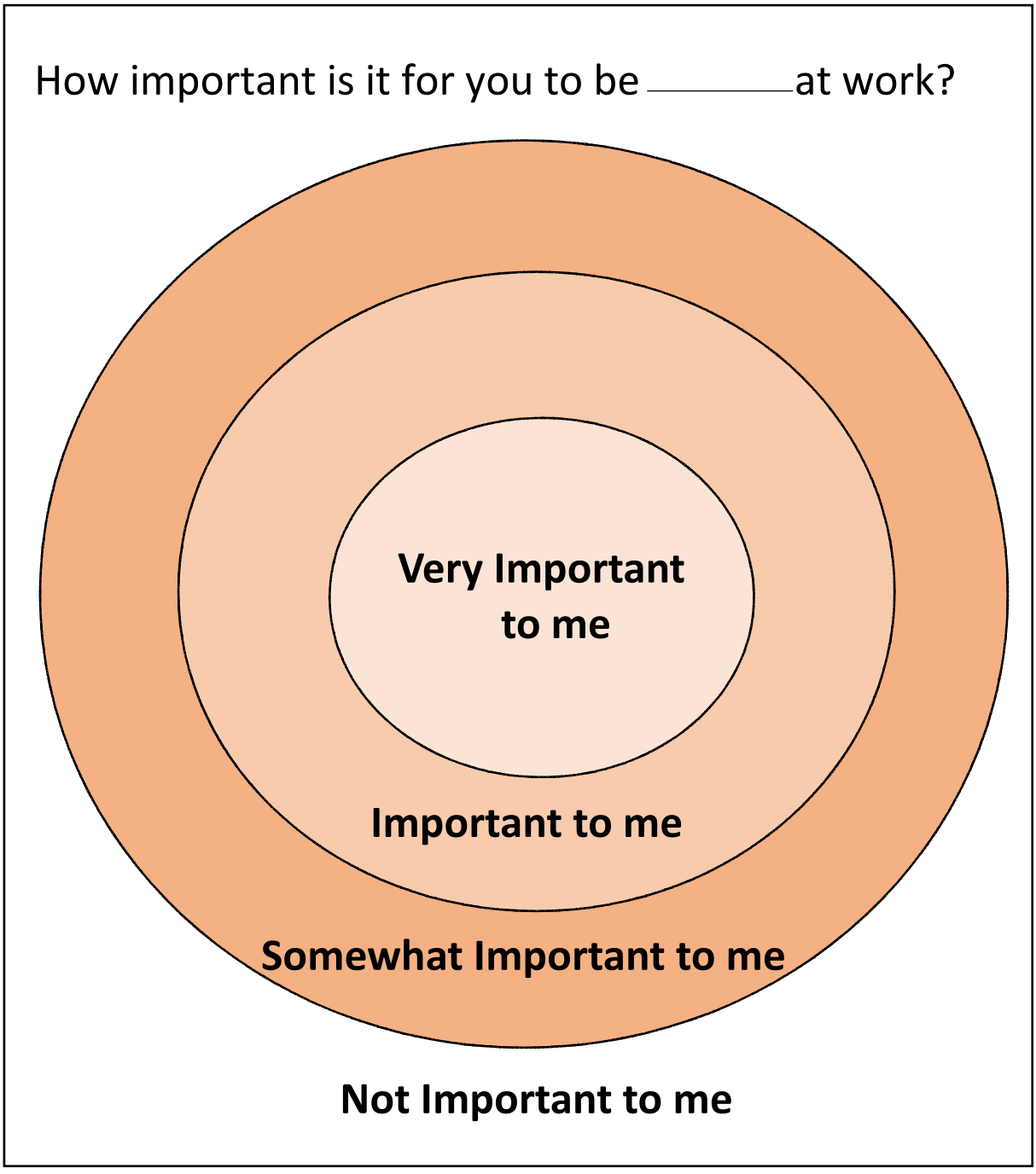
Appendix A

List of Attributes

accepting	faithful	just	reliable
altruistic	follows the rules	kind	religious
benevolent	forgiving	knowledgeable	respectful
caring	friendly	knows what is right/wrong	responsible
cheerful	fun	law-abiding	righteous
clean	generous	listens	self-assured
compassionate	genuine	loving	self-disciplined
confident	good	loyal	selfless
conscientious	grateful	makes the right choices	sharing
considerate	happy	modest	sincere
consistent	hard-working	nice	sociable
cooperative	has high standards	non-judgmental	strong
courageous	has integrity	obedient	thrifty
courteous	healthy	open-minded	tolerant
dependable	helpful	optimistic	trustworthy
educated	honest	patient	truthful
empathic	honorable	perseveres	understanding
ethical	humble	proper	upstanding
exemplary	independent	proud	virtuous
fair	intelligent	rational	wise

Appendix B

Diagram of Contexts



Appendix C

Project: Moral Identity in Adulthood

- Interview Schedule

Intro

Before we start with the interview let me briefly explain what we are going to do in the following. This study has two parts, an interview and a questionnaire. We will first do the interview, and then the questionnaire.

The interview is about the importance of values in different situations of your life. I understand that this topic can be quite personal, at least for some people. Let me therefore assure you that whatever you are going to say, is kept completely confidential. I am going to record the interview and assign a personal identification code to the recording. However, this code will be known only by you and no-one else.

You also should know that no-one is going to judge your answers as good or bad, right or wrong. So, just say what you personally think and feel because this is what the interview is about.

Before we start, we need to create your personal identification code. This code consists of letters and numbers that are known only to you. Tell me: What are the first two letters in your mother's first name? What day of the month is your birthday? And what are the first two letters in your father's first name?

So, this is your personal code [XX99YY]. You will need this code when you fill out the questionnaire.

-There is one more general question I need to ask.

How old are you?

Do you have any questions right now? Are you ready to start?

Warming up.

Turn on recorder.

Let me start this interview with a general question. As we all know, people are different. There are good and bad guys out there. Moreover, we do not always agree what characteristics make a person good or bad. There are certain characteristics in people you may admire but others may not.

Therefore I would like to ask you, from your personal point of view, what characterizes a highly *moral* person?

If interviewee does not come up with any descriptors, ask what makes it difficult to answer the question. If interviewee expresses difficulties with the term 'moral' ask: What characterizes a good or virtuous person?

Do you know a particular person who has all or most of these characteristics? Who is it?

Nominated person does not have to be personally acquainted with participant.

Part I. - Rating and Selection of Qualities

These were qualities of a highly moral person you spontaneously came up with. As said, people do not always agree on what makes a highly moral person. I compiled a list of qualities other people might bring up when asked to describe a highly moral person.

Turn laptop to participant.

I would like you to go through this list and rate each single quality for how well it characterizes a highly a moral person from extremely well to not at all.

Two more important things:

If you do not understand the meaning of a particular word, just skip it.

Also, at the end of this list you see a few blank lines. If you feel there is one or more important quality missing on this list, you can add it there.

Let participant work on list. Make clear that there is no rush.

Great. Now that you have rated all the qualities I want you to select those 12-15 qualities that define the core of a highly moral person.

Select envelopes with labels from box. Ask whether participant is fine with selection. If less than 12 attributes are selected ask for more, if more than 15 are selected ask to narrow selection down.

Part II. Importance of attributes in different social contexts

In the next step, I want to talk a about how important these qualities you selected are in different situations of your own life.

Put magnetic board in front of participant. Take the context that appears first in the interview protocol.

So far we have talked about what characteristics make a moral person, in general. I now would like to learn from you how important these characteristics are for **you** in **your** personal life.

Imagine this is a diagram of you. The middle area is the most central part of you, your core self. All qualities that are very important to you belong to this area. The next circle is still important, but it is a less central part of you. Then we have somewhat important qualities. In the outside area are qualities that are unimportant to you.

Imagine this is diagram of yourself in the context of your family/school-work/your community-the larger society.

Here are all the qualities you selected to describe a highly moral person. I want you to take the labels and put them in the diagram according to where they belong. Perhaps all labels you selected would fit into the center area. Nevertheless, feel free to distribute them across the diagram and even use the area outside the circle.

Hand out magnetic labels to participant. Distribute labels on the remaining two boards. Once participant appears to have finished sorting the labels, verify if he/she is fine with the diagram.

You put _____, _____, _____, _____ at the center of the diagram. All these qualities are very important to you. Why are these qualities very important to you in the context of _____.

Always ask follow up questions. This is particularly important when respondent says "You want to be ____", "You have to be _____", "You need to be _____", "I want others to be ____. In this situation, always ask why is it important for YOU to be _____.

If it happened that you failed to be _____ or _____ or _____ or _____ in the context of _____. How would you feel about this? What makes you feel [bad] about it?

Ask follow up questions. If participant compares his/her feelings in the present context with feelings in other contexts, ask why he/she would feel less bad or worse.

You put _____, _____, and _____ closer to the outer area. They are still somewhat important/important, but less important than the core qualities.

Why is it less important to be _____, _____, _____, _____ in the context of _____?

Thank you. So this was you in the context of _____. Lets now turn to you in the context of _____.

Select next context as listed in interview protocol. While participant works on sorting task enter data in interview protocol.

Repeat questions for the other two contexts.

Part III. Core Qualities

We have looked into the importance of different qualities in the context of family, school and community/society. In the next step, I would like to talk about the three diagrams together.

Put all magnetic boards in front of participant.

Are there any qualities you consider most important across all three contexts? If yes: what is it? If no: Why not?

Check selection of core qualities with results from sorting tasks. If there is a particular quality that received higher ratings than the selected ones, ask respondent for explanation.

Ask the following question for all selected qualities.

What does ____ mean to you? [If participant has difficulties to respond to this question: What would make you a _____ person?]

If there are two or more core attributes: Do these attributes describe the same quality, or do they describe different qualities? In other words, is being _____ the same as being _____? What is the difference?

Why is it so important for you to be _____ across all three contexts?

Part IV. Change over time

The final part of this interview is about change in our life.

All the questions we have discussed so far were about your current life. Let's imagine, I would have asked you the same questions 20 years ago, that is when you were XX years of age. (Participants 35 and younger are all asked 15 years of age).

Would you have answered these questions differently at that time? In what way?

If answer is negative: Challenge by saying, many things changed in your life, why did these things not change?

Let's imagine, I would have asked you to sort these labels when you were XX of age. What would these diagrams look like?

Move all labels to the edge of diagrams. Ask participant to sort labels one more time, assuming he/she were XX years old. Once participant has finished a particular diagram enter data into

interview protocol. Then discuss each diagram separately, take same order as in Part II of the interview.

Let's first talk about you in the context of ____. What is the difference between you now and when you were XX years of age?

How come that this quality, _____, became more/less important?

Explore reasons for change in depth. If responses remain vague (e.g., I matured) ask for further elaborations (e.g., What does it mean to mature? Why did you mature?)

Compare responses with interview protocol. Discuss all changes in personal importance of at least 2 points.

When changes in all three contexts have been discussed, address stability.

Are the any qualities that did not change? How come that you did not change with regard to these qualities?

Do you expect any changes in these diagrams for your future life? What exactly do you think will change? Why? If no change: Why not?

Closing

This was the interview. Thank you very much. This was very helpful.

Do you have any questions you would like to ask?

References

Aquino, K., Freeman, D., Reed, A. I. I., Lim, V. K. G., & Felps, W. (2009). Testing cognitive model of moral behavior: The interaction of situational factors and moral a social identity centrality. *Journal of Personality and Social Psychology, 97,* 123–141

Aquino, K., McFerran, B., & Laven, M. (2011). Moral identity and the experience of moral elevation in response to acts of uncommon goodness. *Journal of Personality and Social Psychology*, *100*, 703-718.

Aquino, K. & Reed, A., II (2002). The self-importance of moral identity. *Journal of Personality and Social Psychology*, *83*, 1423–1440

Arnold, M. (1994). The place of morality in the adolescent self. *The Sciences and Engineering*, *54*, 5407

Baltes, P. B. (1987). Theoretical propositions of life-span developmental psychology: On the dynamics between growth and decline. *Developmental Psychology, 3,* 611–626.

Baltes, P. B. (1997). On the incomplete architecture of human ontogeny. *American Psychologist, 52,* 366–380

Bandura, A. (1965). Influence of models' reinforcement contingencies on the acquisition of imitative response. *Journal of Personality and Social Psychology, 1,* 589–595.

Bandura, A. (1986). *Social foundations of thought and action*. Englewood Cliffs, NJ: Prentice-Hall.

Bauman, D. (2012). Integrity, identity, and why moral exemplars do what is right. *Humanities and Social Sciences*, *72*, 2424.

Baumeister, R. F., Bratslavsky, E., Finkenauer, C., & Vohs, K. D. (2001). Bad is stronger than good. *Review of General Psychology, 5*, 323–370

Blasi, A. (1983). Moral cognition and moral action: A theoretical perspective. *Developmental Review, 3* (2), 178-210

Blasi, A. (1984). Moral identity: Its role in moral functioning. In W. M. Kurtines, & J. J. Gewirtz (Eds.), M*orality, moral behavior and moral development* (pp. 128–139). John Wiley & Sons, New York.

Blasi, A. (1985). The moral personality: Reflections for social science and education. In M. W. Berkowitz, & F. Oser (Eds.), *Moral education: Theory and application* (pp. 433–443) Wiley, New York.

Blasi, A. (1988). Identity and the development of the self. In D.K. Lapsley, & F. C. Power (Eds.), *Self, ego and identity: Integrative approaches*, (pp. 226–242). Springer-Verlag, New York

Blasi, A. (2004). Moral functioning: Moral understanding and personality. In D. K. Lapsley, & D. Narvaez (Eds.), *Moral development, self, and identity* (pp. 335-347). Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers.

Blasi, A. (2005). Moral character: A psychological approach. In D. K. Lapsley, & F. C. Power (Eds.), *Character psychology and character education* (pp. 18–35). University of Notre Dame Press, Notre Dame, IN

Blasi, A. (2009). The moral functioning of mature adults and the possibility of fair moral reasoning. In D. K. Lapsley, & D. Narvaez (Eds.), *Personality, identity, and character: Explorations in moral psychology* (pp.396-440). New York, NY, US: Cambridge University Press.

Block, J., & Haan, N. (1971). *Lives through time*. Berkeley, CA: Bancroft Books

Blonigen, D. M., Carlson, M. D., Hicks, B. M., Krueger, R. F., & Iacono, W. G. (2008). Stability and change in personality traits from late adolescence to early adulthood: A longitudinal twin study. *Journal of Personality, 76* (2), 229-266.

Brady, J. K., & McAdams, D. P. (2013). Becoming generative: Socializing influences recalled in life stories in late midlife. *Journal of Adult Development*, *20* (3), 158-172.

Buss, D. M., & Cantor, N. (1989). Introduction. In D. M. Buss & N. Cantor (Eds.), *Personality psychology: Recent trends and emerging directions* (pp. 1–12). New York: Springer-Verlag

Cantor, N. (1990). From thought to behaviour: "Having" and "doing" in the study of personality and cognition. *American Psychologist, 45,* 735-750.

Carstensen, L. L., Gross, J., & Fung, H. (1997). The social context of emotional experience. In M. P. Lawton & K. W. Schaie (Eds.), *Annual review of geriatrics and gerontology* (pp. 325–352). New York, NY: Springer.

Carstensen, L. L., Isaacowitz, D., & Charles, S. T. (1999). Taking time seriously: A theory of socio-emotional selectivity. *American Psychologist*, *54*, 165–181.

Caspi, A., & Roberts, B. W. (1999). Personality change and continuity across the life course. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality theory and research* (pp. 300–326). New York: Guilford Press.

Caspi, A. & Roberts, B. W. (2001). Personality development across the life course: The argument for change and continuity. *Psychological Inquiry*, *12* (2), 49-66.

Chao, G. T. (1997). Organizational socialization: Mentoring phases and outcomes. *Journal of Vocational Behavior, 51,* 15–28.

Church, A. T. (2000). Culture and personality: Toward an integrated cultural trait psychology. *Journal of Personality, 68,* 651–703.

Colby, A. (2002). Moral understanding, motivation, and identity. *Human Development*, *45*, 130–135

Colby, A., & Damon, W. (1992). *Some do care: Contemporary lives of moral commitment.* New York: Free Press.

Costa, P. T., & McCrae, R. R. (1978). Objective personality assessment. In M. Storandt, I. C. Siegler, & M. Elias (Eds.), *The clinical psychology of aging* (pp. 119–143). New York: Plenum Press

Costa, P. T., & McCrae, R. R. (1995). Domains and facets: Hierarchical personality assessment using the revised NEO personality inventory. *Journal of Personality Assessment*, *64*, 21–50.

Costa, P. T. McCrae, R.R., & Arenberg, D. (1980). Enduring dispositions in adult males. *Journal of Personality and Social Psychology*, *38* (5), 793-800

Costa, P. T., Jr., & McCrae, R. R. (1992). *Revised NEO personality inventory (NEO-PI-R) and NEO five-factor inventory (NEO- FFI) professional manual*. Odessa, FL: Psychological Assessment Resources, Inc.

Costa, P. T., McCrae, R. R, & Martin, T. A. (2008). Incipient adult personality: The NEO-PI 3 in middle-school-age children. *British Journal of Developmental Psychology*, *76* (5), 71-89.

Cooley, S. & Shelby, K. M. (2015). Children's evaluations of resource allocation in the context of group norms. *Developmental Psychology*, *51* (4), 554-563.

Damon, W., & Bronk, K. C. (2007). Taking ultimate responsibility. In Gardener, H. (Ed.), Responsibility *at work: How leading professionals act (or don't act) responsibly* (pp. 21-42). San Francisco, CA, US: Jossey-Bass, 2007.

Damon, W., & Hart, D. (1988). *Self-understanding in childhood and adolescence*. New York, NY: Cambridge University Press

Deci, E. L., & Ryan, R. M. (1990). A motivational approach to self: Integration in personality. In R. A. Dienstbier (Ed.), *Perspectives on motivation: Nebraska symposium on motivation.* (pp. 237–288). Lincoln: University of Nebraska Press.

Denissen, J. J. A. & Penke, L. (2008). Motivational individual reaction norms underlying the Five-Factor model of personality: First steps towards a theory-based conceptual framework. *Journal of Research in Personality*, *42* (5), 1285-1302.

Diener, E., Sandvik, E., Pavot, W., & Fujita, F. (1992). Extraversion and subjective well-being in a U.S. probability sample. *Journal of Research in Personality, 26,* 205–215

Digman, J. M. (1990). Personality structure: Emergence of the five-factor model. *Annual Review of Psychology*, *41*, 417-440.

Erikson, E. H. (1963). *Childhood and society* (2nd ed.). New York: Norton.

Erikson, E. H. (1964). *Insight and responsibility.* New York: Norton.

Erikson, E. H. (1966). Ontogeny of ritualization in man. *Philosophical Transactions of the Royal Society of London*, *251*, 337-349.

Field, D., & Millsap, R. E. (1991). Personality in advanced old age: Continuity or change? *Journals of Gerontology, 46,* 299–308.

Flanagan, O. (1991). *Varieties of moral personality: Ethics and psychological realism*. Cambridge, MA, US: Harvard University Press

Fleeson, W. (2001). Toward a structure- and process-integrated view of personality: Traits as density distributions of states. *Journal of Personality and Social Psychology, 80,* 1011–1027.

Frankfurt, H. (1971). Freedom of the will and the concept of a person. *Journal of Philosophy*, *68*, 5–20.

Frankfurt, H. (1988). *The importance of what we care about*. Cambridge University Press, New York.

Friedman, H. S., Tucker, J. S., Tomlinson-Keasy, C., Schwartz, J. E., Wingard, D. L., & Criqui, M. H. (1993). Does childhood personality predict longevity? *Journal of Personality and Social Psychology, 65,* 176–185.

Ganzeboom, H. B. G., De Graaf, P. M., and Treiman, D. J. (1992). A standard international socio-economic index of occupational status. *Social Science Research*, *21*, 1–56.

Gibbs, J. C. (2003). *Moral development and reality*. Thousand Oaks, CA: Sage

Haan, N. (1975). Hypothetical and actual moral reasoning in a situation of civil disobedience. *Journal of Personality and Social Psychology*, *32*, 255- 270.

Haan, N., Millsap, R., & Hartka, E. (1986). As time goes by: Change and stability in personality over fifty years. *Psychology and Aging, 1,* 220–232.

Habermas, T., & Bluck, S. (2000). Getting a life: The emergence of the life story in adolescence. *Psychological Bulletin, 126,* 748–769.

Hardy, S. A., Bhattacharjee, A., Reed II, A., & Aquino, K. (2010). Moral identity and psychological distance: The case of adolescent parental socialization. *Journal of adolescence, 33*, 111-123.

Hardy, S. A., Bean, D. S., & Olsen, J. A. (2014). Moral identity and adolescent prosocial and antisocial behaviors: Interactions with moral disengagement and self-regulation Journal of Youth and Adolescence. *Journal of Youth and adolescence*. DOI 10.1007/s10964-014-0172-1.

Hardy, S. A.; Walker, L. J., Olsen, J. A., Woodbury, R. D., & Hickman, J. R.(2014). Moral identity as moral ideal self: Links to adolescent outcomes. *Developmental Psychology*, *50*, (1), 45-57.

Hart, D., Atkins, R., & Ford, D. (1999). Family influences on the formation of moral identity in adolescence: Longitudinal analyses. *Journal of Moral Education*, *28* (3), 375-386.

Helson, R., Jones, C., & Kwan, V. S. (2002). Personality change over 40 years of adulthood: Hierarchical linear modeling analyses of two longitudinal samples. *Journal of Personality and Social Psychology*, *83*, 752–766.

Helson, R., & Kwan, V. S. Y. (2000). Personality development in adulthood: The broad picture and processes in one longitudinal sample. In S. Hampson (Ed.), *Advances in personality psychology* (pp. 77– 106). London: Routledge

Helson, R., Kwan, V. S. Y., John, O. P., & Jones, C. (2002). The growing evidence for personality change in adulthood: Findings from research with personality inventories. *Journal of Research in Personality, 36,* 287–306

Helson, R., & Wink, P. (1992). Personality change in women from the early 40s to the early 50s. *Journal of Personality and Social Psychology*, *7*, 46–55.

Hermans, H. J. M., Kempen, H. J. G., & van Loon, R. J. P. (1992). The dialogical self: Beyond individualism and rationalism. *American Psychologist, 47,* 23–33.

Higgins, E. T. (1996). Knowledge activation: Availability, applicability and salience. In E. T. Higgins, & A. E. Kruglanski (Eds.), *Social psychology: Handbook of basic principles* (pp. 133-168). Guilford, New York.

Hill, P. L., & Roberts, B. W. (2010). Propositions for the study of moral personality development. *Current Directions in Psychological Science*, *19*, 380-383.

Hogan, R. (1982). A socio-analytic theory of personality. In M. Page (Ed.), *Nebraska symposium on motivation, 1982*: *Personality- current theory and research* (pp. 55–89). Lincoln: University of Nebraska Press.

Horn, S. S., Daddis, C., & Killen, M. (2008). Peer relationships and social groups: Implications for social and moral education. In L. Nucci & D. Navarez (Eds.) *Handbook on Moral and Character Education*. Mahwah, NJ: Lawrence Erlbaum Associates

Jenning, P.L., Mitchell, M.S., & Hannah, S. T. (2015). The moral self: A review of the literature. *Journal of Organizational Behavior*, *36*, 104-168

Jerry, M. L. (1988). For better or worse: Interpersonal relationships and individual outcome. *Journal of Psychiatry*, *155*, *582-589.*

John, O. P., & Srivastava, S. (1999). The Big Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (pp. 102–138). New York: Guilford Press

Jones, C., & Meredith, W. (1996). Patterns of personality change across the life span. *Psychology and Aging*, *11*, 57–65.

Kekes, J. (1989). *Moral Tradition and Individuality*. Princeton, NJ: Princeton University Press

Kiecolt, K. J. (1994). Stress and the decision to change oneself: A theoretical model. *Social Psychology Quarterly, 57,* 49–63.

Kogan, N. (1990). Personality and aging. In J. E. Birren & S. W. Schaie (Eds.), *Handbook of the psychology of aging* (pp. 330–346). San Diego: CA. Educational Publishing Foundation

Kohlberg, L., & Candee, D. (1984). The relationship of moral judgment to moral action. In W. M. Kurtines & J. L. Gerwitz (Eds.), *Morality, moral behavior, and moral development*. New York: Wiley

Kohlberg, L., Leyine, C., & Hewer, A. (1983). *Moral stages: A current formulation and a response to critics*. New York: Karger.

Kram, K. E. (1985). Mentoring alternatives: The role of peer relationships in career development. *Academy of Management Journal, 28,* 110–132.

Krettenauer, T., Campbell, S., & Hertz, S. (2013). Moral emotions and the development of the moral self in childhood. *European Journal of Developmental Psychology*, *10* (2), 159-173.

Lang, F. R., Wagner, J., Wrzus, C., & Neyer, F. J. (2013). Personal effort in social relationships across adulthood. *Psychology and Aging*, *28*, 529–539.

Lapsley, D. K. (1996). *Moral psychology*. Boulder, CO: Westview Press

Lapsley, D. K. (2005). Moral stage theory. In M. Killen, & J. Smetana, (Eds.), *Handbook of moral development* (pp. 37–66). Lawrence Erlbaum Associates, Mahwah, NJ.

Lapsley, D. K., & Lasky, B. (2001). Prototypic moral character. Identity. *An International Journal of Theory and Research, 1*, 345-363.

Lapsley, D. K. & Narvaez, D. (2004). A social-cognitive approach to the moral personality. In D. K. Lapsley, & D. Narvaez (Eds.), *Moral development, self and identity* (pp. 189–212). Lawrence Erlbaum Associates, Mahwah, NJ.

Lapsley, D. K., & Narvaez, D. (2005). Moral psychology at the crossroads. In D. Lapsley & C. Power (Eds.), *Character psychology and character education* (pp. 18–35). University of Notre Dame Press, Notre Dame, IN

Lapsley, D. K., & Narvaez, D. (2006). Character education. In A. Renninger, & I. Siegel (Eds.), *Handbook of child psychology* (pp. 248–296). Wiley, New York

Lehmann, J. J. A. Denissen, M. Allemand, & L. Penke (2013). Age and gender differences in motivational manifestations of the big five from age 16 to 60. *Journal of Developmental Psychology*, *49* (2), 365–383.

Little, B. R. (1999). Personality and motivation: Personal action and the conative evolution. In L. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research* (pp. 501–524). New York: Guilford Press

Markus, H. (1977). Self-schemata and processing information about the self. *Journal of Personality and Social Psychology*, *35*, 63–78.

Matsuba, M. K. & Walker, L. J. (1998). Moral reasoning in the context of ego functioning. *Merrill-Palmer Quarterly*, *44* (4), 464-483.

McAdams, D. P. (2006). *The person: A new introduction to personality psychology*. New York: Wiley.

McAdams, D. P., Logan, G, & de St. Aubin, E. (1992). Generativity among young, middle-aged, and older adults. *Psychology and Aging*, *8*, 221-230

McAdams, D., & Pals, J. L. (2006). The new big 5: Fundamental principles for an integrative science of personality. *American Psychologist*, *61*, 204–217.

McCrae, R. R., & Costa, P. T., Jr. (1999). A five-factor theory of personality. In L. Pervin & O. John (Eds.), *Handbook of personality: Theory and research* (pp. 139–153). New York: Guilford Press.

McCrae, R. R., & Costa, P. T. (2004). A contemplated revision of the NEO five-factor inventory. *Personality and Individual Differences*, *36*, 587-596.

McCrae, R. R., Costa, P. T. (2006). Perspectives of the theory of the five factors. Traits and culture. *Psychologie Française*, *51* (3), 227-244.

McCullough, M. E., Kurzban, R., & Tabak, B. A. (2010). Evolved mechanisms for revenge and forgiveness. In P. R. Shaver, & M. Mikulincer (Eds.), *Understanding and reducing aggression, violence, and their consequences* (pp. 221-239). Washington, DC: American Psychological Association

McGue, M., Bacon, S., & Lykken, D. T. (1993). Personality stability and change in early adulthood: A behavioural genetic analysis. *Developmental Psychology, 29,* 96–109.

Mischel, W., & Peake, P. K. (1982). Beyond de´ja` vu in the search for cross-situational consistency. *Psychological Review, 89,* 730–755

Narvaez, D., Lapsley, D.K., Hagele, S., & Lasky, B. (2006). Moral chronicity and social information processing: Tests of a social cognitive approach to the moral personality. *Journal of Research in Personality, 40*(6), 966-985.

Nasby, W., & Read, N. (1997). The inner and outer voyages of a solo circumnavigator: An integrative case study. *Journal of Personality, 65,* 785–1068.

Neugarten, B. L. (1977). Personality and aging. In J. E. Birren & K. W. Schaie (Eds.), *Handbook of the psychology of aging* (pp. 626–649). New York: Van Nostrand Rienhold.

Onat, K. O., Kulaksizoğlu, A. (2014). A qualitative survey examining the moral identities of young adults. *Kuram ve Uygulamada Eğitim Bilimleri*, *14*, (3), 851-858.

Ongley, S. F., & Malti, T. (2014). The role of moral emotions in the development of children's sharing behavior. *Developmental Psychology, 50*(4), 1148-1159.

Pinker, S. (1997). *How the mind works.* New York: Norton.

Plomin, R., & Caspi, A. (1999) Behavioral genetics and personality. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality theory and research* (pp. 251–277). New York: Guilford

Plomin, R., DeFries, J. C., & Loehlin, J. C. (1977). Genotype-environment interaction and correlation in the analysis of human behavior. *Psychological Bulletin, 84,* 309–322

Power, F. C. (2004). Moral Self in Community. In D. K. Lapsley, & D. Narvaez (Eds.), *Moral development, self and identity* (pp. 47–64). Lawrence Erlbaum Associates, Mahwah, NJ.

Power, F. C., & Higgins-D'Alessandro, A. (2008). The just community approach to moral education and the moral atmosphere of the school. In L. Nucci, & D. Narvaez (Eds.), *Handbook of moral and character education* (pp. 230–248). Lawrence Erlbaum Associates, Mahwah, NJ.

Pratt, M. W., Arnold, M. L., & Lawford, H. (2009). Growing towards care: A narrative approach to prosocial moral identity and generativity of personality in emerging adulthood. In D. Narvaez, & D. Lapsley (Eds.), *Personality, identity and character: Explorations in moral psychology* (pp.295-315). New York, US: Cambridge University Press

Pratt, M. W., Hunsberger, B., Pancer, S. M., & Alisat, S. (2003). A longitudinal analysis of personal value socialization: Correlates of a moral self-ideal in adolescence. *Social Development*, *12*, 563-585.

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.

Reed, A. E. & Carstensen, L. L. (2012) The theory behind the age-related positivity effect. *Frontiers In Psychology*, *3*, 3-39

Riediger, M., Freund, A. M., & Baltes, P. B. (2005). Managing life through personal goals: Inter-goal facilitation and intensity of goal pursuit in younger and older adulthood. *The Journals of Gerontology, 60* (2), 84-91.

Rest, J., Narvaez, D., Bebeau, M. J. & Thoma, S. J. (1999). *Post-conventional moral thinking: A neo-Kohlbergian approach.* Mahwah, NJ, US: Lawrence Erlbaum Associates Publishers.

Roberts, B. W. (1997). Plaster or plasticity: Are work experiences associated with personality change in women. *Journal of Personality, 65,* 205–232.

Roberts, B. W., Caspi, A., & Moffit, T. (2001). The kids are alright: Growth and stability in personal development from adolescence to adulthood. *Journal of Personality and Social Psychology*, *81*, 670-683.

Roberts, B. W., Caspi, A., & Moffitt, T. (2003). Work experiences and personality development in young adulthood. *Journal of Personality and Social Psychology, 84,* 582–593

Roberts, B. W., & DelVecchio, W. F. (2000). The rank-order consistency of personality from childhood to old age: A quantitative review of longitudinal studies. *Psychological Bulletin, 126,* 3–25.

Roberts, B.W., & Mroczek, D. (2008). Personality trait change in adulthood. *Current Directions in Psychological Science*, *17* (1), 31-35

Roberts, B. W., Walton, K. E., & Viechtbauer, W. (2006). Patterns of mean-level change in personality traits across the life course: A meta-analysis of longitudinal studies. *Psychological Bulletin*, *132*, 1-25.

Roberts, B. W., & Wood, D. (2006). Personality development in the context of the neo-socioanalytic model of personality. In D. Mroczek & T. Little (Eds.), *Handbook of personality development* (pp. 11–39). Mahwah, NJ: Erlbaum.

Roberts, B.W., Wood, D., & Caspi, A. (2008). In Oliver J., P. Robins, W. Richard, & P. Lawrence (Eds), *Handbook of personality: Theory and research* (pp. 375-398). New York, US: Guilford Press.

Robin, R. W., Fraley, R. C., Roberts, B. W., & Tzreniewski, K. H. (2001). A longitudinal study of personality change in young adulthood. *Journal of Personality*, *49* (4), 617-640.

Rorty, A., & Wong, D. (1991). Aspects of identity and agency. In W. Flanagan & A. Rorty (Eds.), *Identity, character, and morality* (pp. 19–36). Cambridge, MA: MIT Press.

Rosellini, A. J. & Brown, T. A. (2011). The NEO Five-Factor inventory: Latent structure and relationships with dimensions of anxiety and depression disorders in a large clinical sample. *Assessment*, *18*(1), 27-38

Rubia, K., Smith, A. B., Woolley, J., Nosarti, C., & Heyman, I. (2006). Progressive increase of frontostriatal brain activation from childhood to adulthood during event-related tasks of cognitive control. *Human Brain Mapping***,** *27*(12), 973-993.

Sarbin, T. R. (1964). Role theoretical interpretation of psychological change. In P. Worchel & D. Byrne (Eds.), *Personality change* (pp. 176–219). New York: Wiley.

Schnall, S., & Roper, J. (2012). Elevation puts moral values into action. *Social Psychological and Personality Science*, *3* (3), 373-378

Siegler, I. C., George, L. K., & Okun, M. A. (1979). A cross-sequential analysis of adult personality. *Developmental Psychology*, *15*, 350–361.

Smith, K. D., Smith, S. T., & Christopher, J. C. (2007). What defines the good person? Cross-cultural comparisons of experts' models with lay prototypes. *Journal of Cross-Cultural Psychology*, *38*, 333-360.

Specht, J., Egloff, B., & Schmukle, S. C. (2011). Stability and change of personality across the life course: The impact of age and major life events on mean-level and rank-order stability of the big five. *Journal of Personality and Social Psychology*, *101* (4), 862-882.

Steinberg, L. (2007). Risk taking in adolescence: New perspectives from brain and behavioral science. *Current Directions in Psychological Science*, *16* (2), 55-59.

Stryker, S., & Statham, A. (1985). Symbolic interaction role theory. In G. Lindzey & E. Aronson (Eds.), *Handbook of social psychology* (pp. 311–378). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

Stryker, S. (1987). Identity theory: Developments and extensions. In K. Yardley & T. Honess (Eds.), *Self and identity: Psychosocial perspectives* (pp. 89–103). Chichester, England: Wiley

Switzer, F.S., & Sniezek, J. A. (1991). Judgment processes in motivation: Anchoring and adjustment effects on judgment and behavior. *Organizational Behavior and Human Decision Processes*, *49* (2), 208-229.

Szolnoki A., Perc M., Szabó G., & Stark. H. U. (2009). Impact of aging on the evolution of cooperation in the spatial prisoner's dilemma game. *Physical Review*, *80* (2), 021901

Taylor, C. (1989). *Sources of the self: The making of the modern identity.* Cambridge, MA: Harvard University Press.

Terracciano, A., Costa, P. T., & McCrae, R. R. (2006). Personality plasticity after age 30. *Personality and Social Psychology Bulletin*, *32*(8), 999-1009.

Turiel, E. (1983). *The development of social knowledge: Morality and convention.* Cambridge University Press

van Aken, M. A. G., Denissen, J. J. A., Branje, S. J. T., Dubas, J. S., & Goossens, L. (2006). Midlife concerns and short-term personality change in middle adulthood. *European Journal of Personality*, *20*, 497–513

Walker, L. J. (1999). The perceived personality of moral exemplars. *Journal of Moral Education*, *28*, 145–162.

Walker, L. J., & Pitts, R. C. (1998). Naturalistic conceptions of moral maturity. *Developmental Psychology*, *34*, 403.

Warren, E. A. (2008). Modeling moral personality: Moral chronicity, moral identity, and moral cognition. *Humanities and Social Sciences*, *69* (1), 117

Wilson, A. E. (2001). How do people's perceptions of their former selves affect their current self-appraisals? *The Sciences and Engineering*, *61*, 5627

Winterich, K., Aquino, K., Mittal, V., & Swartz, R. (2013). When moral identity symbolization motivates prosocial behavior: The role of recognition and moral identity internalization. *Journal of Applied Psychology*, *98* (5), 759-770.

Wright, A. G. C., Pincus, A. L., & Lenzenweger, M. F. (2012). Interpersonal development, stability, and change in early adulthood. *Journal of Personality, 80* (5), 1339-1372.

Table 1

Means and Standard Deviations for the four Age Groups of the Personality Traits of Conscientiousness, Neuroticism and Agreeableness

Age Groups	Conscientiousness	Neuroticism	Agreeableness
14-18	3.49 (0.59)	3.13 (0.59)	3.66 (0.48)
19-25	3.59 (0.50)	2.98 (0.43)	3.64 (0.47)
26-45	3.78 (0.54)	2.91 (0.67)	3.80 (0.57)
46-65	3.83 (0.54)	2.56 (0.59)	3.71 (0.52)

Table 2

Multivariate analysis controlling for Social Desirability

Factor/Covariate	dv	SS	*df*	MS	*F*	*p*	η^2
Age Group	Family	2.21	3	.73	5.35	.001	.063
	School/Work	1.62	3	.54	5.34	.001	.063
	Community	.89	3	.29	2.81	.040	.034

Table 3

Means of the age groups in moral identity in the three contexts: Family, community and work/school

Contexts	Family	Community	Work/School
Age Groups	Mean (SD)	Mean (SD)	Mean (SD)
14-18	3.21 (0.35)	3.21 (0.33)	3.15 (0.29)
19-25	3.27 (0.35)	3.23 (0.32)	3.18 (0.31)
26-45	3.40 (0.37)	3.37 (0.31)	3.30 (0.33)
46-65	3.44 (0.39)	3.31 (0.35)	3.35 (0.36)

Table 4

Moral Identity by Time (Past/Present), Context and Age

Variables	*df*	*F*	*p*	η^2
Context	2, 179	13.83	.000	.13
Time	1, 180	97.13	.000	.35
Context*Age Group	4, 360	.96	.42	.01
Time*Age Group	2,180	9.35	.000	.09
Context*Time	2, 179	4.65	.013	.49
Context*Time*Age Group	4, 360	.74	.56	.00

Table 5

Context by Time Interaction

Context	Time	
	Past	Present
	Means (*SD*)	*Means* (*SD*)
Family	3.06 (0.03)	3.37 (0.02)
Work/School	3.00 (0.03)	3.28 (0.02)
Community	2.94 (0.04)	3.30 (0.02)

Table 6

Time by Age Group interaction

Age Group	Time	
	Past	Present
	Means (*SD*)	*Means* (*SD*)
19-25	2.79 (0.06)	3.22 (0.04)
26-45	2.96 (0.05)	3.36 (0.03)
46-65	3.25 (0.05)	3.37 (0.03)

Table 7

Multivariate analysis controlling for the two Personality Traits: Agreeableness and conscientiousness

Factor/Covariate	dv	SS	*df*	MS	*F*	*p*	η^2
Agreeableness	Family	1.11	1, 245	1.11	8.60	0.004	.034
	School/Work	.96	1, 245	.96	9.84	0 .002	.039
	Community	.98	1, 245	.98	9.42	0 .002	.037
Conscientiousness	Family	.90	1, 245	.90	7.01	0 .009	.033
	School/Work	.82	1,245	.82	8.35	0.004	.033
	Community	.29	1,245	.29	2.83	0.094	.011
Age group	Family	1.19	3, 245	.39	3.09	0.028	.036
	School/Work	.90	3, 245	.30	3.06	0.029	.036
	Community	.62	3, 245	.20	1.99	0.116	.024

Table 8

Correlations between Moral Identity and the Big Five Personality Traits

	Openness	Conscientiousness	Agreeableness	Extraversion	Neuroticism
Moral Identity	-.010	.29**	.30**	.11	-.26**

Note. **p<.01

Table 9

Multivariate analysis controlling for the three Personality Traits: Agreeableness, Conscientiousness and, Neuroticism

Factor/Covariate	dv	SS	*df*	MS	*F*	*p*	η^2
Agreeableness	Family	.1.038	1, 244	1.038	8.00	0.005	.032
	School/Work	.734	1, 244	.734	7.56	0 .006	.030
	Community	.824	1, 244	.824	7.88	0.005	.036
Conscientiousness	Family	.774	1,244	.774	5.96	0.015	.024
	School/Work	.462	1, 244	.462	4.76	0.030	.019
	Community	.162	1, 244	.162	1.54	0.215	.006
Neuroticism	Family	.015	1, 244	.015	.11	0.732	.000
	School/Work	.471	1, 244	.471	4.85	0.028	.020
	Community	.189	1, 244	.189	1.80	0 .180	.007
Age group	Family	1.069	3, 244	.356	2.74	0.044	.033
	School/Work	.586	3, 244	.195	2.01	0.113	.024
	Community	.598	3, 244	.199	1.19	0 .129	.023

Table 10

Linear regression of Age in years and the Personality Traits of Conscientiousness, Agreeableness and Neuroticism on Moral Identity

	β	*df*	*t*	*p*
Age	.123	247	1.95	.053
Conscientiousness	.156	247	2.40	.017
Aggreeableness	.208	247	3.42	.001
Neuroticism	-.095	247	1.41	.160