

Running head: ADOLESCENTS' EMOTIONS AND MORAL DECISION MAKING

Do Moral Choices Make Us Feel Good?

The Development of Adolescents' Emotions Following Moral Decision Making

Tina Malti¹, Monika Keller², & Marlis Buchmann³

¹ Department of Psychology, University of Toronto

² Max Planck Institute for Human Development

² Jacobs Center for Productive Youth Development, University of Zurich

This research was funded by the Swiss National Science Foundation. The authors would like to express their sincere thanks to the children and parents for participating in the study. Moreover, the authors are grateful to all the interviewers and undergraduate students for their help in data collection and coding.

Correspondence concerning this article should be addressed to Tina Malti, Department of Psychology, University of Toronto, 3359 Mississauga Road North, Mississauga, ON L5L1C6, Canada. Electronic mail may be sent to tina.malti@utoronto.ca.

This is the peer-reviewed version of the following article: Malti, T., Keller, M., & Buchmann, M. (2013). Do moral choices make us feel good? The development of adolescent's emotions following moral decision-making. *Journal of Research on Adolescence*, 23(2), 389-397. doi: 10.1111/jora.12005, which has been published in final form at: <http://dx.doi.org/10.1111/jora.12005>. This article may be used for non-commercial purposes in accordance with Wiley Terms and Conditions for Self-Archiving: <http://olabout.wiley.com/WileyCDA/Section/id-820227.html>

Abstract

Some people believe that making the morally right decision makes people feel good.

However, until now, there has been no empirical evidence in support of this belief. In a representative two-wave longitudinal study of 995 15-year-old adolescents followed for three years (until the age of 18) in Switzerland, adolescents were asked about their decisions and emotions following hypothetical dilemmas involving moral obligations versus self-interest.

Adolescents predominantly made moral decisions and reported feeling good following these decisions. With age, participants reported more positive emotions following moral decisions.

A small number of adolescents made selfish decisions and reported feeling good following these decisions.

Keywords: emotions, moral decision-making, adolescents, longitudinal study

Do Moral Choices Make Us Feel Good? The Development of Adolescents' Emotions

Following Moral Decision Making

The happy life for a man is a life of the conscious following of a rule.

Aristotle

Both in popular belief and in science, moral choices and positive emotions do not necessarily go together. Nevertheless, many people agree that making decisions about moral conflicts evokes emotional reactions (Drummond, 2009). For example, Aristotle (1984) assumed that making good (i.e., moral) choices and acting in accord with moral principles, such as fairness or care, make a person feel good (see Nussbaum, 2001).

Psychological theories on morality have proposed that making a moral decision leads to an increased sense of consistency with one's ideals about the self (Feshbach, 1978; Hoffman, 2000; Krettenauer & Johnston, 2010) and that this is likely to cause positive feelings in the self (Kristjánsson, 2010). Specifically, moral identity theory explains the link between moral emotions, decisions, and morally relevant behaviour; according to Stets and Carter (2012), an individual is likely to anticipate moral emotions when s/he thinks that there is a discrepancy between one's moral identity standard meanings and how s/he thinks others perceive her/him in a conflict situation (see Frankfurt, 1993; Krettenauer, 2011). In turn, the anticipation of moral emotions in, and the awareness of moral meanings of, a situation are important for adolescent moral development, as they are likely to relate to morally relevant behavior (see Blasi, 2004; Krettenauer, 2011).

In support of this notion, previous research has provided empirical evidence for a link between the moral emotions of guilt and sympathy and adolescents' aggressive behavior (e.g., Arsenio, Adams, & Gold, 2009; Krettenauer & Eichler, 2006; for a review, see Arsenio, Gold, & Adams, 2006) and prosocial behavior (e.g., Carlo, Mestre, Samper, Tur, & Armenta, 2010; for a review, see Eisenberg, Spinrad, & Sadovsky, 2006). Similarly, research has shown that

values of equality and fairness norms predict less violence in adolescence (Knafo, Daniel, & Khoury-Kassabri, 2008).

Despite this current theorizing and the significance of moral emotions and decision making for adolescent's morally relevant behavior, very little research has investigated the links between moral decision making and emotions. In addition to the scarcity of this research, the few available studies have focused predominantly on negative emotions following hypothetical moral transgressions and are limited to cross-sectional designs with small samples (Arsenio et al., 2006).

Emotions provide key information about how young people construe the affective consequences of their own decisions in moral conflict situations (Malti & Latzko, 2010). Thus, investigating both positively and negatively valenced emotions in moral dilemma situations provides a new way to conceptualize human moral development. The present research is the first to investigate both positive and negative emotions following moral decision making in a large, nationally representative sample of adolescents followed longitudinally over a time span of three years. Using two different contexts, we examined adolescents' emotions and decision making in moral dilemmas in which personal desires conflicted with moral norms and obligations.

Previous research on moral emotions has shown that, with age, children are more likely to attribute negative emotions after moral transgressions (Arsenio et al., 2006); in contrast, younger children tend to attribute positive emotions after transgressions (the so-called happy victimizer phenomenon; Krettenauer, Malti, & Sokol, 2008). Extending this research, we examined the emotions of adolescents presented with a morally relevant dilemma; adolescents had to reflect on the emotional consequences of a decision they had made that was either consistent with or which violated a moral obligation (Malti & Keller, 2010). Related research has shown that adolescents can feel unhappy about a decision that is consistent with a moral norm because they acknowledge the negative consequences for the third party involved in the

moral dilemma (unhappy moralist; Oser, 2010), or, in neglecting these consequences, adolescents can feel happy about the decision because they decided to act in accordance with a moral norm (happy moralist). Nevertheless, most 15-year-olds report feeling happy when acting in accord with a moral norm. Hence, with age, adolescents increasingly coordinate moral decisions and consequential positive emotions, supporting the idea that cognitions and emotions in moral situations are increasingly integrated into the self, leading to happiness about making the right (i.e., moral) choices (Keller, 2004).

However, little is known about the development of these emotions and decision making from mid to late adolescence. A study on adult decision making and emotions showed that moral decisions can lead to a wide range of anticipated emotional consequences (Mellers & McGraw, 2001). Yet, a study by Krettenauer, Jia, and Mosleh (2011) documented only few age-related differences in moral emotions and related decision making from mid to late adolescence. Thus, we still know little about how these positive and negative emotions develop throughout adolescence and early adulthood, and if they depend on the situational circumstances. Since research has shown that, with age, morality becomes more integrated into the self (Blasi, 2004), we expected that from mid to late adolescence, participants would increasingly attribute more positive emotions when making moral decisions. Based on previous research (Arsenio et al., 2006), we expected that a minority of participants would attribute positive emotions to the self when making selfish decisions, independent of age.

We also tested if adolescents' emotions and decision making would differ with respect to situational contexts. Whereas one of our dilemmas was concerned with a moral obligation to a close friend, the other involved a fairness norm. These dilemmas were chosen because researchers have emphasized that everyday obligations and responsibilities in interpersonal relationships, such as promise-keeping, are of central relevance for adolescent moral development (e.g., Keller, 1996, 2004). Previous research in the cognitive-developmental tradition, as well as in social domain research, indicates that daily moral obligations and

fairness issues in close friendships and in peer relationships yield central socialization experiences for adolescents' moral development (e.g., Bukowski & Sippola, 1996; Keller, 1996; Killen, Lee-Kim, McGlothlin, & Stangor, 2002). The questions of how interests should be pursued, and whether these interests should sometimes not be pursued, in relationships are closely related to how a person is perceived in terms of her/his reliability and trustworthiness, central constructs that typically develop in adolescence (Emmet, 1966; Keller, 1996; Rotenberg, 2010). Therefore, issues of promise keeping and fairness in interpersonal relationships are suitable everyday moral situations for studying emotions and decision making with respect to morality in adolescence.

As research indicates that friendship is central to the self in mid adolescence (Rubin, Bukowski, & Laursen, 2011), we hypothesized that in 15-year-old adolescents, there would be more consistency between decision making and moral obligations in situations involving moral obligations to a close friend than in situations involving a fairness norm involving a neutral other.

We controlled for sex and socioeconomic status in the analyses because these variables have been found to be related to differences in moral development (Malti & Buchmann, 2010; Nunner-Winkler, Meyer-Nikele, & Wohlrab, 2007).

Method

The data were taken from the first and second waves of a representative longitudinal survey of children and adolescents living in Switzerland. Specifically, we investigated the life course and the development of social competence and morality in three age groups (6-year-olds, 15-year-olds, and 21-year-olds). The present analysis was based on the data from the 15-year-olds, surveyed in the spring of 2006 (Time 1) and in the spring of 2009 (Time 2). A representative random sample was drawn from the German- and French-speaking parts of Switzerland. There were 131 communities selected, broken down by size and type. The choice of this research design was guided by our interest in

assessing moral and social development at a representative population level, as this allows for high generalizability of findings across the population while at the same time enabling the collection of both qualitative and quantitative information. The group members residing in the selected communities were then randomly sampled, based on information provided by the official register of residents. The final response rate at Time 1 was 63 percent.

Participants

Participants were 995 adolescents with an average age of 15.3 years ($SD = 0.21$; 54% girls) at the first assessment (T1). Among these 15-year-olds, 80% were Swiss, 18% were of other European nationality, and 2% were non-European. At the second assessment (T2; three years later), data from 757 interviews (76%) were available.

Procedure

Written informed consent for participation was obtained from the participant at T1 and T2, and from the participant's primary caregiver at T1 only.

At the first assessment, all participants were given a computer-assisted personal interview (CAPI) in a quiet room in their home. During the adolescent interview, the primary caregivers were given a questionnaire on adolescent social development, which was filled out and mailed back to the research institute. At the second assessment (three years later), a computer-assisted personal interview (CAPI) was conducted with the adolescents.

Both adolescent interviews lasted approximately 45 minutes and contained questions regarding the participants' social development and the most important socialization conditions. Forty-two interviewers conducted the interviews at T1 (i.e., when the adolescents were 15 years old) and forty-one interviewers conducted the interviews at T2 (i.e., when the adolescents were 18 years old). The interviewers had been recruited from a professional research institute specializing in social science interviews and were trained by the research team in the interview techniques.

Measures

All measures were translated from German into French by bilingual French and German speakers, and then retranslated and modified by the research team, if necessary. A pilot study with 236 15-year-olds confirmed the validity of the moral vignettes.

Moral decision making and emotions. Moral decision making and emotions were assessed using a measure consisting of two hypothetical moral dilemmas of medium gravity (Malti & Buchmann, 2010). These dilemmas have been validated in previous research (e.g., Keller, 2004; Nunner-Winkler, 2007).

The dilemmas involved the temptation to transgress well-known moral rules for personal benefit and were based on the following criteria: First, the structure of the conflict had to be familiar to the participants. Second, the story had to involve clear moral issues. Third, the immoral action decision had to be easily justified; the participant could refer to the normality of the transgression (e.g., maximizing personal profit is common in the business world; Nunner-Winkler et al., 2007, p. 33). Finally, the characters and events in the stories had to be ones that both sexes could identify with equally and that did not evoke gender stereotypes. For example, neither story could involve the conflict between a prosocial moral duty and the accumulation of power. The characters in the stories were always of the same sex as the participant and the order of the stories was counterbalanced to avoid order effects.

The first dilemma involved a fairness norm. This dilemma involved the temptation to break a verbal agreement (i.e., a fairness norm) for selfish reasons (i.e., getting more money). Participants were read the following text: “Imagine you offered your bike for sale. You want to sell it for 500 Swiss Francs. A young man is interested. He bargains with you and you agree on 420 Swiss Francs. Then he says: ‘Sorry, I don’t have the money on me; I’ll quickly run home to get it. I’ll be back in half an hour.’ You say: ‘Agreed, I’ll wait for you.’ Shortly after he is gone, another customer shows up who is willing to pay the full price.” The second dilemma concerned a moral obligation towards a friend. This dilemma

involved the temptation to break a promise to a friend (i.e., a moral obligation) for selfish reasons (i.e., seeing a movie). Participants were told to imagine that they had promised to visit their (same-sex) best friend at a particular time. At precisely this time, they receive an interesting offer to go to the movies by a newcomer in the class. The close friend had expressed a special need to see him/her and did not particularly like the new child.

After reading each story, participants were asked: (a) what they would do (decision); (b) how they would feel about doing it (emotion); and (c) why they would decide this way and feel this way about it (reasons for decision and emotion).

Next, we coded the qualitative data in categories in order to proceed with multivariate data analysis. The coding scheme for decisions, emotions, and reasons for both hypothetical moral dilemmas is displayed in Table 1. For the 15-year-olds, 90 of the 995 interviews were coded by two independent coders, yielding an interrater reliability of $\kappa = .90$. For the 18-year-olds, based on 50 of the 757 interviews, the interrater reliability was $\kappa = .91$. The raters discussed disagreements with each other until a consensus was reached and the consensus was then coded.

In a next step, decisions, emotions, and reasons were combined to create the different patterns of decision making and emotions (Malti & Keller, 2010). The *happy victimizer* pattern applied to participants who based their decision on selfish reasons and attributed positive emotions to the self for selfish reasons. The *unhappy victimizer* pattern applied to participants who based their decision on selfish reasons, but who attributed negative emotions to the self for moral reasons. The *happy moralist* pattern applied to participants who based their decision on moral reasons and attributed positive emotions to the self for moral reasons. The *unhappy moralist* pattern applied to participants who based their decision on moral reasons, but who felt unhappy due to moral reasons (e.g., empathy for the new child because he/she is left alone, or empathy for the new customer because he/she is not getting the bike).

Participants who opted for the moral decision, but who felt regret due to selfish reasons, were very rare; thus, this pattern was not considered further.

SES. As a control variable, the socioeconomic status (SES) of primary caregivers was assessed via primary caregiver education scores at Time 1. Of the primary caregivers, 32% had secondary education or less, 44% had vocational training or college, 15% had a higher vocational diploma, and 9% had a university degree. Higher scores indicated higher SES.

We analyzed sample attrition with respect to the main study variables at the first assessment (T1) by comparing adolescents who participated in the interviews at T1 ($N = 995$) with adolescents who did not participate in the interviews at the second assessment (T2; $N = 238$). None of the primary study variables (i.e., emotions and moral decision making) were associated with attrition.

Results

The frequencies (%) of the patterns of decision making and emotions by age group and story context are displayed in Table 2. Because participants were nested within data waves, we had a nested design in which participants were a “random” effect. We therefore used three-level hierarchical linear models (HLM Version 7) to evaluate patterns of decision making and emotions over time. Data waves comprised the unit of observation for the first level, story contexts comprised the unit of observation for the second level, and participants comprised the unit of observation for the third level. Since the outcome variables were binomial (i.e., the respective pattern versus the combined rest of the sample), three-level Bernoulli HLM models were run (see Table 3). The independent variables were time (coded 0 = age 15, 1 = age 18), story context (coded 0 = dilemma involving fairness norm, 1 = dilemma involving moral obligation toward a friend), sex (coded 0 = female, 1 = male), and socioeconomic status.

Preliminary missing data analysis indicated that 19% of the data points were missing and randomly distributed in the database. Because Little’s MCAR test was not significant, χ^2

(69) = 87.14, *ns*, multiple imputation was not necessary to replace missing values (Allison, 2002). Data that are missing completely at random (MCAR) will produce unbiased estimates, even with rather primitive analysis strategies (Hox, 1999).

Central to the expectations of the study, the *happy moralist* pattern increased from Time 1 to Time 2, $OR = 1.50, p < .001$. The *unhappy moralist* pattern decreased from Time 1 to Time 2, $OR = .41, p < .001$. As expected, the *unhappy victimizer* pattern decreased from Time 1 to Time 2, $OR = .60, p < .001$. In contrast, there was no effect of time on the *happy victimizer* pattern, $OR = 1.15, ns$.

There were also several effects of story context on patterns of moral decision making and emotions. To elaborate, both the *happy moralist* pattern and the *unhappy victimizer* pattern were more frequent in the dilemma involving fairness than in the dilemma involving friendship, $OR = .82, p < .01$ and $OR = .79, p < .001$. In contrast, the *unhappy moralist* pattern was more frequent in the dilemma involving friendship relationships than in the dilemma involving fairness, $OR = 5.26, p < .001$.

Furthermore, there were Time x Story Context interactions. Specifically, both the *happy victimizer* pattern and the *unhappy victimizer* pattern were more frequent in the fairness dilemma than in the dilemma involving close relationships at Time 1 only, $OR = 1.29, p < .01$ and $OR = 1.42, p < .01$. The *happy moralist* pattern was more frequent in the context of the fairness dilemma than in the dilemma involving close friendship relationships at Time 2 only, $OR = .81, p < .01$.

Finally, male participants, compared to female participants, were significantly overrepresented in the *happy victimizer* category, $OR = 1.78, p < .001$. In contrast, there were significantly more female than male participants in the *unhappy moralist* category, $OR = .45, p < .001$. Participants who were from families with higher SES were more likely to be represented in the *unhappy victimizer* pattern, $OR = 1.19, p < .001$.

Discussion

This study investigated adolescents' emotions following decision making with respect to moral dilemmas. Investigating this question is important, as we know that emotions evoked by decision making play a key role in motivating cooperative, moral behaviors and in impeding aggressive, immoral behaviors in adolescence (Eisenberg et al., 2006; Malti & Krettenauer, in press). Despite the current theorizing on a link between emotions and moral decision making (Kristjánsson, 2010), this is the first study to systematically examine adolescents' positive and negative emotions following moral decision making in a representative longitudinal sample. We asked adolescents to report on their own decisions and emotions following the presentation of everyday moral dilemmas involving selfish choices versus moral norms. By utilizing qualitative interview data on morality in a nationally representative sample, this study was also methodologically innovative. Thus, these findings add new knowledge to the old question on moral choices and emotions in young people.

One major finding was that participants predominantly made moral decisions and reported positive feelings at both assessment points, supporting the theoretical notion that moral decisions lead to positive emotions. This is particularly interesting because research on adult decision making and emotions has indicated that moral decisions can lead to a wide range of anticipated emotional experiences (Mellers & McGraw, 2001). Our findings indicate that in younger populations, these decisions primarily lead to positive emotions. Future research is needed to investigate how moral decision making and emotions are increasingly integrated into the self-concept in adolescence in order to further elucidate the role of moral meaning and associated emotions to identity development.

However, a small number of adolescents based their decisions on selfish reasons and reported feeling positive emotions. This resonates with the finding that young children often feel happy after moral transgressions (Arsenio et al., 2006). In the present study, we showed that even adolescents sometimes make selfish decisions and feel good about these decisions. This finding suggests that there may be stable inter-individual differences in moral decision

making, as well as in the associated emotions (Malti & Krettenauer, in press). Future studies employing longitudinal designs would be particularly helpful in further disentangling the impact of individual differences on the development of emotions and moral decision making in adolescence.

This research also contributes novel knowledge regarding developmental change in adolescents' emotions following moral decision making; our results showed that with age, adolescents more often reported feeling positive emotions when making moral decisions. Therefore, with age, adolescents may increasingly coordinate moral decisions and consequential positive emotions. This supports the idea that cognitions and emotions in moral situations are increasingly integrated into the self, leading to happiness about making the right (i.e., moral) choices (Keller, 2004; see Saelen & Markovits, 2008). Nonetheless, a minority of adolescents felt unhappy when making decisions about moral obligations in friendship relationships (i.e., the *unhappy moralist*). This implicates that moral decisions may evoke negative emotions in situations in which close relationships are involved, as these can be interpreted as conflicting moral obligations rather than conflicting moral and non-moral concerns (Oser, 2010). This finding supports our expectation that emotions following decisions about moral obligations in close friendship relationships differ partly from those about fairness (see Edelstein, 1990).

In addition, we found that 15-year-old adolescents, compared to 18-year-old adolescents, more frequently made selfish decisions in the context involving fairness than in the context involving moral obligations to friends. Thus, in mid adolescence, our participants already knew about the binding character of moral obligations in the context of close friendship relationships (Blum, 1980). This finding resonates with research showing that in mid adolescence, individuals typically differentiate between judgments about fairness and exclusion based on group membership (i.e., friends; Killen et al., 2002). Furthermore, adolescents may perceive moral obligations in friendship relationships as more binding than

fairness norms, particularly in mid adolescence, when friendship is central to the self and social development (Rubin et al., 2011).

The sex differences found in the present study provide additional information about the emotional consequences of moral decision making in adolescence. Although both sexes predominantly reported feeling good after moral decisions, females more often reported feeling unhappy about this decision than males. In contrast, males more often made selfish decisions and felt positive about them compared to females. Sex differences in moral development continue to be discussed controversially in the literature (Walker, 2006). One explanation for sex differences in young people's morality has been that these differences may relate to sex differences in terms of how adolescents anchor morality in their identity development (Nunner-Winkler et al., 2007) and in how they prioritize moral over non-moral desires and concerns. For example, female adolescents with a high sex-role orientation may display high levels of moral emotions and often make moral choices because identifying with female role expectations (e.g., nurturance) is compatible with morality. In contrast, males who identify with typical male attributes that become more important in adolescence, such as success and power, may be less concerned with morality and social justice than other males (Charles, 2011). Relatedly, clinical scientists have argued that females may be more concerned with issues regarding interpersonal relationships, such as belonging, empathy, and trust, than males in the developmental period of adolescence (Noam, 1999), which may be related to gender-specific socialization practices in the family (McHale, Crouter, & Whiteman, 2003). Alternatively, Turiel (2002) has proposed that differences in morality may be related to differences in males' and females' standing in the social hierarchy. In the Swiss context, sex differences in social status can be observed in the labour market. Specifically, girls are outperforming boys in educational attainment; yet, subsequent labour market outcomes for young women still lag behind those of young men. This occupational segregation by sex is responsible for women's lower pay, lower occupational status, and

lower social status (Buchmann & Malti, in press). These social inequalities may explain why females may respond differently to issues of unfairness than males. However, as all of these explanations are speculative, future research is needed to further investigate how social status differences and societal inequality affect female and male adolescents' moral development (see Arsenio, Preziosi, Silberstein, & Hamburger, in press).

This study is not without limitations. First, only two vignettes were used to assess adolescents' emotions and moral decision making. Given the large-scale character of our study, we had to restrict the qualitative measures of morality to a realistic number with respect to later coding. As social domain researchers have shown that moral development depends on context (e.g., Smetana, 2006), the reliability of this methodological approach is restricted. Nevertheless, Nunner-Winkler (2007), overall, obtained rather similar results using a wider range of contexts to measure moral decision making. As well, the two vignettes were carefully chosen and tested in a pilot study with 256 participants. Further, our previous studies have provided evidence for the reliability of using only two vignettes to assess moral development (e.g., Malti & Buchmann, 2010). Second, our dilemmas were hypothetical in nature, potentially limiting the generalizability of our findings. However, our dilemmas were carefully chosen to represent prototypical experiences of everyday moral conflict in adolescence, adding to the ecological validity of the approach. Third, we only focused on positively valenced versus negatively valenced emotions following adolescents' moral decision making, in line with previous research in this area. Nonetheless, this approach may be limited in that adolescents experience a wide array of complex emotions in real-life moral settings. Yet, preliminary analyses revealed that adolescents in the present study attributed mostly good or bad feelings and, therefore, it is unlikely that our coding did not capture the affective experiences of adolescents that they reported to feel in the dilemmas. Future studies that further differentiate qualitatively distinct emotions (e.g., pride versus happiness) are warranted to provide additional information on how various emotions in the context of moral

decision making develop. Fourth, the responses to the emotion attribution question were qualitatively assessed and subsequently dichotomously coded. A quantitative emotional intensity assessment may have yielded important additional information on adolescents' affective experiences in moral conflict situations of everyday life. Fifth, our dilemma involving the fairness norm may have been sensitive to the adolescents' socioeconomic background, as it dealt with a conflict between gaining more money or keeping a promise, potentially limiting generalizability of the findings. However, our data did not indicate strong SES differences in adolescents' decision making and associated emotions. Sixth, the present study assessed two time points only; future longitudinal research with more time points is warranted to model trajectories of moral decision making and associated emotions. Relatedly, our findings do not allow for the drawing of conclusions concerning what makes adolescents who display a "happy victimizer pattern" different from adolescents who decide morally. Nevertheless, related research with at-risk populations has shown that adolescents with externalizing symptoms tend to report feeling happy following transgressions (Arsenio et al., 2009). Therefore, this pattern of positive emotion attribution following transgressions may perhaps indicate an atypical developmental process, which may be part of an externalizing syndrome in adolescence; future research on its causes, antecedents, and consequences is warranted. Lastly, future research investigating identity development, decision making, and moral emotions from an integrative perspective may facilitate an understanding of how emotions and judgments are integrated into the development of young people's moral identity (Stets & Carter, 2012).

Despite these limitations, this research provides new insights into how emotions in the context of moral decision making develop from mid to late adolescence. As moral emotions are a key element of human morality and behavior (Carlo et al., 2010; Tangney, Stuewig, & Mashek, 2007), these findings contribute to a better understanding of the affective antecedents of morally relevant behavior.

References

- Allison, P. D. (2002). *Missing data*. Thousand Oaks, CA: Sage Publications
- Aristotle (1984). Nicomachean ethics and politics. In J. Barnes (Ed.), *The complete works of Aristotle*. Princeton, NJ: Princeton University Press.
- Arsenio, W., Adams, E., & Gold, J. (2009). Social information processing, moral reasoning and emotion attributions: Relations with adolescents' reactive and proactive aggression. *Child Development, 80*, 1739-1755. doi:10.1111/j.1467-8624.2009.01365.x
- Arsenio, W., Gold, J., & Adams, E. (2006). Children's conceptions and displays of moral emotions. In M. Killen & J. Smetana (Eds.), *Handbook of moral development* (pp. 581-610). Mahwah, NJ: Lawrence Erlbaum.
- Arsenio, W. F., Preziosi, S., Silberstein, E., & Hamburger, B. (in press). Adolescents' perceptions of institutional fairness: Relations with morally-relevant reasoning, emotions, and behavior. *New Directions for Youth Development*.
- Blasi, A. (2004). Moral functioning: Moral understanding and personality. In D. K. Lapsley and D. Narvaez (Eds.), *Moral development, self, and identity* (pp. 335-349). Mahwah, NJ: Lawrence Erlbaum.
- Blum, L. A. (1980). *Friendship, altruism, and morality*. London, UK: Routledge & Kegan Paul.
- Buchmann, M., & Malti, T. (in press). The future of young women's economic role in a globalized economy: New opportunities – persisting constraints. *New Directions for Youth Development*.
- Bukowski, W. M., & Sippola, L. K. (1996). Friendship and morality. In W. M. Bukowski, A. F. Newcomb, & W. M. Hartup (Eds.), *The company they keep: Friendship during childhood and adolescence* (pp. 238-261). New York, NY: Cambridge University Press.

- Carlo, G., Mestre, M., Samper, P., Tur, A., & Armenta, B. A. (2010). Feelings or cognitions? Moral cognitions and emotions as longitudinal predictors of prosocial and aggressive behaviors. *Personality and Individual Differences, 48*, 872-877.
doi:10.1016/j.paid.2010.02.010
- Charles, M. (2011). A world of difference: International trends in women's economic status. *Annual Review of Sociology, 37*, 355-371. doi:10.1146/annurev.soc.012809.102548
- Drummond, J. J. (2009, September). *Feelings, emotions, and Wertnehmungen*. Invited plenary address at the meeting of the Deutsche Gesellschaft fuer phaenomenologische Forschung.
- Edelstein, W. (1990). The emergence of morality in personal relationships. In T. E. Wren (Ed.), *The moral domain: Essays in the ongoing discussion between philosophy and the social sciences* (pp. 255-282). Cambridge, MA: MIT Press.
- Eisenberg, N., Spinrad, T. L., & Sadovsky, A. (2006). Empathy-related responding in children. In M. Killen & J. Smetana (Eds.), *Handbook of moral development* (pp. 517-549). Mahwah, NJ: Lawrence Erlbaum.
- Emmet, D. M. (1966). *Rules, roles, and relations*. London, UK: Macmillan.
- Feshbach, N. D. (1978). Studies of empathic behavior in children. In B. A. Maher (Ed.), *Progress in experimental personality research* (Vol. 8, pp. 1-47). New York, NY: Academic Press.
- Frankfurt, H. G. (1993). On the necessity of ideals. In G. Noam & T. E. Wren (Eds.), *The moral self* (pp. 16-27). Cambridge, MA: MIT Press.
- Hoffman, M. L. (2000). *Empathy and moral development. Implications for caring and justice*. New York, NY: Cambridge University Press.
- Hox, J. (1999). A review of current software for handling missing data. *Kwantitatieve Methoden, 62*, 123-138.

- Keller, M. (1996). *Moralische Sensibilitaett: Entwicklung in Freundschaft und Familie* [Moral sensibility: Development in friendship and family]. Weinheim, Germany: Psychologie Verlags Union.
- Keller, M. (2004). Self in relationship. In D. K. Lapsley & D. Narvaez (Eds.), *Moral development, self, and identity* (pp. 267-298). Mahwah, NJ: Lawrence Erlbaum.
- Keller, M., Brandt, A., & Sigurdardottir, G. (2009). "Happy" and "unhappy" victimizers: The development of moral emotions from childhood to adolescence. In W. Koops & A. Sanders (Eds.), *The development and structure of conscience* (pp. 253-267). Hove, UK: Psychology Press.
- Killen, M., Lee-Kim, J., McGlothlin, H., & Stangor, C. (2002). How children and adolescents evaluate gender and racial exclusion. *Monographs for the Society for Research in Child Development, 67*, 1-119.
- Knafo, A., Daniel, E. & Khoury-Kassabri, M. (2008). Values as protective factors against violent behavior in Jewish and Arab high schools in Israel. *Child Development, 79*, 652-667. doi:10.1111/j.1467-8624.2008.01149.x
- Krettenauer, T. (2011). The dual moral self: Moral centrality and intrinsic moral motivation. *The Journal of Genetic Psychology, 172*, 309-328. doi:10.1080/00221325.2010.538451
- Krettenauer, T., & Eichler, D. (2006). Adolescents' self-attributed moral emotions following a moral transgression: Relations with delinquency, confidence in moral judgment, and age. *British Journal of Developmental Psychology, 24*, 489-506. doi:10.1348/026151005X50825
- Krettenauer, T., Jia, F., & Mosleh, M. (2011). The role of emotion expectancies in adolescents' moral decision making. *Journal of Experimental Child Psychology, 108*, 358-370. doi:10.1348/026151010X508083
- Krettenauer, T., & Johnston, M. (2010). Positively versus negatively charged moral emotions expectancies in adolescence: The role of situational context and the developing moral

self. *British Journal of Developmental Psychology*. Advance online publication.

doi:10.1348/026151010X508083

Krettenauer, T., Malti, T., & Sokol, B. W. (2008). Development of moral emotions and the happy-victimizer phenomenon: A critical review of theory and application. *European Journal of Developmental Science*, 2, 221-235.

Kristjánsson, K. (2010). *The self and its emotions*. New York, NY: Cambridge University Press.

Malti, T., & Buchmann, M. (2010). Socialization and individual antecedents of adolescents' and young adults' moral motivation. *Journal of Youth and Adolescence*, 39, 138-149.
doi:10.1007/s10964-009-9400-5

Malti, T., Gummerum, M., Keller, M., & Buchmann, M. (2009). Children's moral motivation, sympathy, and prosocial behavior. *Child Development*, 80, 442-460.
doi:10.1111/j.1467-8624.2009.01271.x

Malti, T., & Latzko, B. (2010). Children's moral emotions and moral cognition: Towards an integrative perspective. *New Directions for Child and Adolescent Development*, 129, 1-10. doi:10.1002/cd.272

Malti, T., & Latzko, B. (in press). Moral emotions. In V. Ramachandran (Ed.), *Encyclopedia of human behavior*. Maryland Heights, MO: Elsevier.

Malti, T., & Keller, M. (2010). Development of moral emotions in cultural context. In W. Arsenio & E. Lemerise (Eds.), *Emotions, aggression, and morality in children: Bridging development and psychopathology* (pp. 177-198). Washington, DC: American Psychological Association.

Malti, T., & Krettenauer, T. (in press). The role of moral emotion attributions in children's and adolescents' prosocial and antisocial behavior: A meta-analysis. *Child Development*.

- McHale, S. M., Crouter, A. C., & Whiteman, S. D. (2003). The family contexts of gender development in childhood and adolescence. *Social Development, 12*, 125-148. doi:10.1111/1467-9507.00225.
- Mellers, B. A., & McGraw, A. P. (2001). Anticipated emotions as guides to choice. *Current Directions in Psychological Science, 10*, 210-214. doi:10.1111/1467-8721.00151
- Noam, G. G. (1999). The psychology of belonging: Reformulating adolescent development. In L. Flaherty & H. Horowitz (Eds.), *Adolescent psychiatry* (Vol. 24, pp. 49-68). New York, NY: Analytic Press.
- Nunner-Winkler, G. (2007). Development of moral motivation from childhood to early adulthood. *Journal of Moral Education, 36*, 399-414. doi:10.1080/03057240701687970.
- Nunner-Winkler, G., Meyer-Nikele, M., & Wohlrab, D. (2007). Gender differences in moral motivation. *Merrill-Palmer-Quarterly, 53*, 26-52. doi:10.1007/s10964-009-9400-5
- Nussbaum, M. (2001). *Upheavals of thought: The intelligence of emotions*. Cambridge, MA: Cambridge University Press.
- Rotenberg, K. J. (2010). (Ed). *Interpersonal trust during childhood and adolescence*. New York, NY: Cambridge University Press.
- Rubin, K. H., Bukowski, W., & Laursen, B. (Eds.) (2011). *Handbook of peer interactions, relationships, and groups*. New York, NY: Guilford.
- Saelen, C., & Markovits, H. (2008). Adolescents' emotion attributions and expectations of behavior in situations involving moral conflict. *Journal of Experimental Child Psychology, 100*, 53-76.
- Smetana, J. G. (2006). Social domain theory: Consistencies and variations in children's moral and social judgments. In M. Killen & J. G. Smetana (Eds.), *Handbook of moral development* (pp.119-154). Mahwah, NJ: Erlbaum.
- Stets, J. E., & Carter, M. J. (2012). A theory of the self for the sociology of morality. *American Sociological Review, 77*, 120-140. doi:10.1177/0003122411433762

Tangney, J. P., Stuewig, J., & Mashek, D. J. (2007). Moral emotions and moral behavior.

Annual Review of Psychology, 58, 345-372.

doi:10.1146/annurev.psych.56.091103.070145

Turiel, E. (2002). *The culture of morality: Social development, context, and conflict*.

Cambridge, UK: Cambridge University Press.

Walker, L. J. (2006). *Gender and morality*. In M. Killen & J. G. Smetana (Eds.),

Handbook of moral development (pp. 93-115). Mahwah, NJ: Erlbaum.

Table 1

Coding Scheme for Decisions, Emotions, and Reasons for the Two Hypothetical Moral Dilemmas

Construct	Coding Category	Coding Example
Decision	Promise	“I would wait for the first customer.” “I would go to the friend.”
	Alternative	“I would sell to the second person.” “ I would go to the movies.”
Emotion	Positive	“I would feel good.”
	Negative	“I would feel sad.”
Reasons for Decision and Emotion	Moral: Reference to moral concerns of fairness or empathy/ altruism	“One should always keep a promise.” “It is otherwise unfair.” “The other is sad.”
	Selfish: Exclusive interest in personal profit	“He profits greatly from that; it is more fun to go to the movies.”

Table 2

Frequencies (%) of Patterns of Moral Decision-making and Emotions by Assessment Point and Story Context

	Assessment Point			
	Time 1: 15 years		Time 2: 18 years	
	FA	FR	FA	FR
Happy victimizer	168 (17)	119 (12)	115 (15)	119 (16)
Unhappy victimizer	166 (17)	101 (10)	60 (8)	64 (9)
Happy moralist	620 (63)	622 (63)	571 (75)	487 (67)
Unhappy moralist	36 (3)	153 (15)	11 (2)	56 (8)
Total	990 (100)	995 (100)	757 (100)	726 (100)

Note. FA = Dilemma involving fairness. FR = Dilemma involving moral obligations toward a friend.

Table 3

*Parameter Estimates (Standard Errors) of Independent Variables on Patterns of Moral Decision Making and Emotions:
Three-level HLM Bernoulli Model Analyses*

Parameter	Patterns											
	Happy Victimizer			Unhappy Victimizer			Happy Moralist			Unhappy Moralist		
	β (SE)	t	OR	β (SE)	t	OR	β (SE)	t	OR	β (SE)	t	OR
Time	0.14 (0.09)	1.61	1.15	-0.52 (0.10)	-5.01***	0.60	0.40 (0.07)	5.97***	1.50	-0.88 (0.18)	-4.87***	0.41
Story Context	-0.16 (0.09)	-1.73	0.85	-0.24 (0.11)	-2.11*	0.79	-0.20 (0.08)	-2.63**	0.82	1.66 (0.18)	9.19***	5.26
Time x Story Context	0.25 (0.09)	2.92**	1.29	0.35 (0.11)	3.29**	1.42	-0.21 (0.07)	-2.98**	0.81	0.08 (0.18)	0.46	0.09
Control Variables												
Sex	0.66 (0.10)	6.79***	1.94	-0.19 (0.11)	-1.75	0.83	-0.05 (0.08)	-0.68	0.95	-0.89 (0.14)	-6.25***	0.41
SES	-0.06 (0.04)	-1.49	0.94	0.17 (0.04)	3.99***	1.19	-0.06 (0.03)	-1.86	0.94	0.00 (0.04)	0.09	1.03

Note. OR = Odds Ratio.

* $p < .05$. ** $p < .01$. *** $p < .001$.