

Emotion and Social Motivation in University Students' Real Life Moral Dilemmas

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Studied the relationship between social motivation and approaches to moral decision making, and also the emotions people experience in real life moral dilemmas. 44 students were interviewed about a moral dilemma that they had faced in the past. Social motivation was measured with Emmons' (1989) idiographic personal strivings method. Intimacy motivation was related to a preference for making decisions after having consulted others and to being open to their values and norms, whereas achievement motivation was related to consequence-oriented moral reasoning and a concrete construal of moral problems. When asked to think of and relive their moral dilemma, participants scored significantly lower than their baseline level on a mood questionnaire, females scoring significantly lower than the males. Possible implications of negative emotion on the cognitive processes involved in solving moral dilemmas are discussed.

Keywords: moral dilemmas, decision making, motivation, emotion.

Moral functioning is a fundamental aspect of human behavior. However, as a consequence of the entire field following the lead of Lawrence Kohlberg's (e.g. 1984) pioneering cognitive-developmental paradigm, with its "cold cognition" emphasis on how people solve hypothetical dilemmas concerning justice-related morality, the vast majority of psychological research on moral functioning has been restricted to the development of moral reasoning. The current study investigates three particularly neglected aspects of how people make moral decisions in the real world.

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The first aspect concerns the strategies that people use to come to a decision - their decision making approach. Do they make a list of pros and cons in order to maximize rationality or preference satisfaction? Or do they try to involve friends and family in the decision process, in order to get their advice? Although cognitive-developmental research has taught us much about how hypothetical dilemmas are resolved, this may not generalize entirely to the moral dilemmas we experience in real life. The second aspect of moral functioning studied here is the link between personality, particularly motivational aspects, and moral decision making. What can a person's motivational profile tell us about how he or she will go about solving the moral dilemma? The third aspect concerns the emotions that we experience when facing a moral dilemma, which would appear to be a central part of moral functioning, as theorized by thinkers ranging from Hume (1739/1992) to Haidt (2001).

Reasoning in Hypothetical vs. Real Life Moral Dilemmas

The justice-related hypothetical moral dilemmas used in psychological research typically describe a conflict between an individual and an authority figure. In the most famous example, a man called Heinz confronts the dilemma of whether he should steal an overpriced drug from a doctor in order to save his dying wife. In an effort to make the best choice between two mutually exclusive alternatives, one of which would have fundamental impact on the rights or personal well being of another person, and another action that would have such impact on the protagonist, participants often employ principles of justice.

Clearly, the use of standardized hypothetical dilemmas has psychometrical advantages. In yielding reliable scores they allow testing of theoretical models, assessing effects of intervention, and probing individual differences in moral reasoning ability. However, researchers have argued that hypothetical dilemmas do not capture the full range of moral problems typically encountered in real life, and that their disproportionate use in research poses problems of validity for our current knowledge of moral functioning. For example, it has been pointed out that all of the dilemmas in Kohlberg's *Moral Judgment Interview* (Kohlberg, 1984, described in Colby & Kohlberg, 1987) and Rest's *Defining Issues Test* (Rest, Narvaez, Bebeau & Thoma, 1999) may be categorized as hypothetical moral problems in which others occupy the central positions. Yussen (1977) suggested that a major drawback associated with this approach to moral reasoning is that there has been little effort to discover the characteristics of moral dilemmas that people themselves deem important. On a similar

note, Lickona (1978) argued that whereas research on moral development has advanced our understanding of how people analyze moral issues and justify hypothetical choices, we know less about how personal moral decisions are made and how they are affected by situational factors. Haan et al (1977, 1985) also argued that hypothetical dilemmas have limited generalizability, since they focus on issues that may be unfamiliar and even irrelevant to the individual tested and therefore may minimize identification and emotional involvement. Subsequent studies have showed empirically that hypothetical dilemmas, because of their abstracted nature and dearth of contextual information, tend to elicit justice oriented reasoning rather than care oriented reasoning (Wark & Krebs, 1996). A final problem with standard dilemmas is that the conflict involved has been unambiguously preconstructed (e.g. whether to save a life or obey the law), and that the participant cannot freely reinterpret the situation or introduce other constraints. The moral problems faced in real life are often ambiguous and our construal of them would seem crucial for the subsequent information processing and attempts to solution. For these reasons, and the fact that similar approaches have been successfully used in the past (Skoe et al; Walker, Pitts, Hennig, & Matsuba, 1995; Wark & Krebs, 1996), participants in the current study were asked to report real-life moral dilemmas from their own personal experience.

Social Motivation and Real Life Moral Decision Making

It can be assumed that people vary systematically in the strategies they adopt for solving moral dilemmas, and that individual differences in motivation explain some of this variance. In the *personal strivings* approach Robert Emmons (e.g. 1986) has developed an innovative and fruitful way of measuring motivation. Originating in Allport's (1937) theory of motivation, personal strivings are defined as "...relatively enduring, idiographically coherent patterns of goals that represent what an individual is typically trying to do" (Emmons & King, 1992, p. 79). For example, a person may be trying to "avoid conflicts with people", "overcome shyness among strangers", or "not procrastinate". Since the level of abstraction of personal strivings is natural to the individual they are easy to report. They are more abstract than tasks, projects and concerns, but more concrete than the kind motive dispositions traditionally studied in psychology (Emmons, 1989). Strivings are also relatively stable over time, and are generally consistently expressed across various situations. They are similar to traditional measures of motivation in that they refer to a person's goals rather than actual success in achieving these goals (Emmons & King, 1992).

In the current study the personal strivings approach is used as a measure of individual differences in motivation. Strivings, representing individualized instantiations of nomothetic motives, are coded with regard to their correspondent motive dispositions. This is possible since, according to the personal-striving perspective, personality is organized into idiographically coherent patterns of goal strivings. In other words, motives can be seen as clusters of recurrent prototypical goals in a fashion analogous to conceptualizing traits as clusters of prototypical behaviors (Emmons & McAdams, 1991). For example, a person with a high need for achievement may have separate strivings of trying to do a good job, trying to get things accomplished, or trying to get attention from others, and believes that achieving something is the best way to attain those objects.

In spite of the lack of previous research linking motivation to moral decision making approaches it seems reasonable to make some general predictions. For example, achievement, the motivation to develop skills or to accomplish goals that one has set for oneself, can be expected to be related to an “internal” decision making approach, based on one’s personal norms and values, rather than to an “external” approach, which leaves more room for influence from others. Along similar lines, achievement should be related to an “academic”, reasoning-based, approach rather than an intuition-based one. Intimacy motivation should, almost by definition, be related to a preference for making decisions together with others. Motivation for self-sufficiency should lead to the opposite tendency, reliance on oneself in moral decisions.

Emotion in Real Life Moral Dilemmas

The last goal of this study is to explore the emotions that people experience when facing real life moral dilemmas. It can perhaps be argued that without appraisal information (such as whom a person is angry with and why the actor feels guilty) emotions cannot contribute to the explanation of a particular moral judgment or decision. However, the goal here is primarily descriptive in finding out what emotions are typically elicited in moral dilemmas, and also to compare quantitative ratings of participants’ baseline emotional level with how they feel when facing a moral dilemma. In their surveys, using several different samples including two nationally representative Swedish samples, Berit Scott and her collaborators (Scott & Melin, 1998; Scott, Brandberg & Öhman, 2001) found that women, especially the younger, report experiencing higher stress and more negative mood than men do. Apparently, these gender differences hold both when participants are asked to report how they feel in general and when they are

asked to report their typical emotional reactions when under pressure. Based on these findings, it was predicted that women would report experiencing more negative emotion than men, both in general and when facing moral dilemmas. Given the very nature of moral dilemmas, situations where one has to choose between two incompatible alternatives where neither alternative can be taken as truly satisfactory, it was further predicted that confronting one activates primarily negative emotion and that this effect is independent of gender.

Method

Participants

A convenience sample consisting of 44 volunteering university students (22 female and 22 male) was recruited by use of posters on the Lund University social science campus (Eden). The mean age was 23.6 ($SD = 2.6$) and did not differ significantly across gender.

Measures

Emmons' (1989) personal strivings method was used as a measure of motive dispositions. Participants were informed that a personal striving is an objective that one is typically trying to accomplish, and given the following examples; "trying to seek new and exciting experiences", "trying to be physically attractive", "to be competent at work". They were then asked to generate a list of as many personal strivings as possible. After completing the list they were asked to pick out the 15 strivings that describe them best.

In order to enable comparison of participant's emotional status in the moral decision making situation with their baseline, the Mood Adjective Check List (MACL; Sjöberg, Svensson & Persson, 1979) was used. This paper-and-pencil test consists of 71 different mood adjectives and the participant is asked to on a 4-point Likert scale, ranging from "agree completely" to "do not agree at all", indicate the extent to which each adjective is descriptive of their mood (or emotion, the terms "mood" and "emotion" are used interchangeably in the present article). Although the MACL consists of six subscales: *hedonic tone* (happy-sad), *extraversion* (extroverted-introverted), *social orientation* (friendly-hostile), *activity* (alert-tired), *calmness* (relaxed-tense), and *confidence* (assured-shy), one can also use the overall mean of the scale as an indicator of positive vs. negative mood, which will be the case in this study. Ratings are averaged across

items so that the maximum test score is 4, indicating a highly positive mood scale value, whereas the lowest possible score is 1, indicating a highly negative value.

Design and Procedure

Participants were interviewed individually in a laboratory. They were promised anonymity, and informed that only researchers would have access to the interview data. Before the interview began participants were asked to choose a moral dilemma that they had faced in the past, if possible one that they remembered clearly and that was typical for their life and way of functioning. Adopting a manipulation similar to that developed by Velten (1968) they were then asked to try to “relive” the situation in as much detail as possible, by imagining the thoughts and feelings that they had experienced in the dilemma situation. Immediately after this manipulation they were given the MACL, and a single-item Likert scale measure of memory clearness, which served as a manipulation check. The clearness scale ranged from 1 (*extremely vague*) to 7 (*perfectly clear, as the experience itself*). The mean memory clearness was quite high ($M = 5.61$, $SD = .99$). In accordance with previous findings of gender differences in episodic memory (Herlitz, Nilsson, & Bäckman, 1997) the females reported a significantly clearer memory of the situation than the males (5.91 vs. 5.32), $t(42) = 2.05$, $p < .047$.

After the MACL for the moral dilemma situation, the actual interview started. The questions regarded the thoughts and feelings that participants had experienced in the dilemma situation, and the approach they had adopted in order to come to a decision. This interview lasted for about 20 minutes and was recorded on audiotape. To enable comparison between participants' normal affective status and that of their typical moral decision situation, each participant filled in another MACL questionnaire, with the instruction to indicate one's general mood. The two MACLs were always separated in the experimental design by the interview and the personal strivings procedure. To minimize order effects participants were randomly assigned to one of two conditions; either Velten manipulation, moral MACL, interview, personal strivings, and the baseline MACL last, or baseline MACL, personal strivings, Velten manipulation, moral MACL, and the interview last.

Content Analyses of Dilemmas

Two separate content analyses were conducted, repeatedly revising the rating categories in an effort to derive as unambiguous and conceptually distinct categories as possible (both content analyses following the directions given by Smith, 2000). First the

dilemmas were analyzed in terms of social relationships. Depending on the relationship of the participant to the person(s) involved, each dilemma was classified as belonging to one of four categories. The *partner* category included dilemmas involving a romantic partner, whereas *family* dilemmas concerned one or several family members. The *friend* category included dilemmas regarding persons to which one had a relatively close non-romantic relationship (other than family), dilemmas that could not be otherwise classified being categorized as *other*. Rating in terms of social relationship was found to be a simple task, and the interrater reliability, based on independent scoring of all dilemmas by two raters using coding instructions devised by the author, reached perfect agreement (Cohen's $\kappa = 1$).

The second content analysis focused on moral content, in an attempt to identify the most salient moral issue or concern for each of the dilemmas. Although some real life dilemmas may be complex, involving several different moral issues, each dilemma was coded into the one category that corresponded to its most prominent concern. Eight such categories were identified. The first category dealt with issues related to *honesty*, or more specifically, the choice of whether to tell the truth or to lie/withhold the truth. The second category dealt with *transgression*, in the sense of whether to violate the law or not. In contrast to transgression, in which a person faces the temptation of illegal behavior, the category *snitching* referred to the issue of whether or not to inform on a person or a group that has already committed a crime. Further, *promise keeping* referred to dilemmas having to do with keeping or breaking an explicitly made promise. *Loyalty* concerned the question of which party to support in a conflict where their inconsistent demands makes a choice necessary. The *altruism* category regarded one's perceived duty to provide help for others, dilemmas occurring when the relevant prosocial act involves a high cost to oneself. Finally, the question of whether or not to continue a relationship with a romantic partner or a friend, was called *end relationship*. Issues that could not be classified in any of the seven categories above were labeled *other*. Independent rating of all 44 dilemmas by two raters produced a satisfactory level of agreement ($\kappa = .81$). Rating disagreement existed for seven of the dilemmas and was resolved through discussion.

Coding of Decision Making Approach

By means of a content analysis of the interview data, prominent characteristics of participants' approaches to moral decision making were turned into dichotomous variables. Repeated revisions were made until the material could be organized in a satis-

fyng way, with conceptually distinct and unambiguous variables, after which a coding manual describing the variables and how to score them was written. The first variable concerned the level of abstraction in participants' thinking and mental representation of the dilemma, and was coded as *concrete vs. abstract*. Some participants construed their moral dilemmas in a very concrete manner, discussing specific details about the situation and the persons involved, whereas others showed a higher level of construal, describing fewer features of the situation and making more general observations and claims. The *intuition vs. reason* distinction indicates whether one relies primarily on hunches and "gut feelings" or on systematic reasoning to come to a decision. *Duty vs. consequence* orientation concerned differences in how the decisions are justified. A duty orientation primarily involves moral principles that are expressed as duties and rights, whereas a consequence orientation primarily considers the possible consequences for the persons involved. Another variable concerned whether in coming to a decision the person was *alone vs. with others*. A participant who reported visiting an empty church before making the decision in order to contemplate on it in peace, exemplifies the alone approach, as opposed to participants reporting that they actively contacted parents, friends or a romantic partner. Another variable had to do with an *internal vs. external* approach to decision making, that is, the extent to which the person relied on internalized norms and rules as opposed to being influenced by others. The participants' sense of the relative importance of moral decisions as compared to other decisions was coded as *sensitive vs. insensitive*. For some people morality is an extremely important aspect of life, but this is not true for everyone. Two independent raters coded the interview data, obtaining an acceptable interrater reliability (for all variables $r > .77$), resolving disagreements through discussion.

Coding of Personal Strivings

Using the procedure described in the Personal Striving Coding Manual (Emmons, 1996) strivings were coded by two independent raters into six broad thematic content categories; achievement, power, intimacy, affiliation, self-sufficiency/independence, and personal growth/health. To give a few examples, the striving "meet new people and get to know them" was coded as affiliation, whereas the striving "to have a relationship that works and develops over time" was coded as intimacy. The number of strivings in the relevant category indicates the extent to which a person can be described as having a particular motive. The interrater agreement was satisfactory (Cohen's $\kappa = .82$) and disagreements were resolved through discussion.

Results

Table 1 shows that, in contrast to the hypothetical dilemmas used in the Moral Judgment Interview (Kohlberg, 1984; Colby & Kohlberg, 1987), none of which involves friendship, a majority of the moral problems reported in this study concerned social relationships, either to one's partner or a friend. There were no gender differences in the social relationship categories, men and women reporting equally many dilemmas of each type. The broad range of moral issues reported is in stark contrast with the focus on justice related issues in most previous moral judgment research.

Table 1

Frequency of Dilemma Issues reported, Across Type of Social Relationship

| <i>Dilemma issue</i> | <i>Social relationship</i> | | | | <i>Total</i> |
|----------------------|----------------------------|---------------|---------------|--------------|--------------|
| | <i>Partner</i> | <i>Family</i> | <i>Friend</i> | <i>Other</i> | |
| Honesty | 2 | 2 | 5 | 1 | 10 |
| Transgression | | | 1 | 2 | 3 |
| Snitching | | | 4 | 1 | 5 |
| Promise keeping | 1 | | 1 | 1 | 3 |
| Loyalty | 2 | 2 | | | 4 |
| Altruism | | 1 | 1 | 2 | 4 |
| End relationship | 8 | | 3 | | 11 |
| Other | | 2 | | 2 | 4 |
| Total | 13 | 7 | 15 | 9 | 44 |

The single particular dilemma most frequently reported was that of whether or not to break up with one's partner. Among the friendship-related dilemmas, the issues of lying to and snitching on one's friend were the most common, followed by concerns of whether to end the friendship or not. The latter category, coupled with the problems related to romantic relationships, formed the most common moral issue category – end relationship, which together with honesty constituted about one half of the moral problems reported.

Decision Making Approach

Most participants (86%) construed their moral dilemma in a concrete rather than an abstract way. A slight majority (57%) reported relying on intuition rather than reason in

the decision process. In justifying one's decision, it was more common to point to the expected consequences than it was to reason in terms of duties (77%). Further, there was a slight preference in the sample for making moral decisions on one's own (59%), and it was by far most common to rely on one's own internalized norms and rules (86%). A slight majority of the participants found moral decisions to be important in comparison to other kinds of decisions (*sensitivity*, 57%). There were no significant gender differences on the moral decision variables. Calculation of the Phi-Coefficients between the moral decision approach variables revealed three significant intercorrelations. It was found that abstract thinking goes with a duty-oriented rather than a consequence-oriented justification of moral decisions ($\phi = .417, p < .006$), but that a consequence-orientation goes with reason rather than intuition ($\phi = .363, p < .016$). Sensitive persons, who find moral decisions important relative to other kinds of decisions, preferred to make decisions on their own rather than seeking help from others ($\phi = .301, p < .046$).

Motivation Variables

The most important motive disposition overall was achievement, more than a third of the strivings reported belonging to this category (35%). The second most important motive was personal growth and health (30%), followed by intimacy (11.5%), and affiliation (11.2%). Self-sufficiency (8.3%), and power (3.9%) were the least important motives in this sample. As for intercorrelations between the motivation variables, achievement was negatively correlated with both intimacy ($r = -.309, p < .041$), self-sufficiency ($r = -.486, p < .001$), and personal growth and health ($r = .541, p < .001$). Some stereotypical observations of gender differences were also made, men scoring higher than women on achievement, $t(42) = 2.20, p < .033$, and on power motivation, $t(42) = 2.28, p < .028$, whereas women were higher in affiliation, $t(42) = 2.26, p < .029$.

Motivation – Decision Making Approach

Regarding the relationship between motivation and morality, the results were largely in the predicted direction, yet seldom reaching significance (Table 2). Achievement was moderately strongly related to consequence oriented justifications of decisions in moral dilemmas ($r_s = .407, p < .006$), and to a concrete construal of moral problems ($r_s = .452, p < .002$). But contrary to predictions it was rather weakly related to an internal decision approach ($r_s = .209, p < .174$) and even more weakly linked to reason ($r_s = .134, p <$

.387). Intimacy was as predicted related to a preference for making decisions with others ($r_s = .448, p < .002$), and to being open to other values and norms than one's own ($r_s = .310, p < .034$). Intimacy motivation was also related to being insensitive to moral problems ($r_s = .320, p < .034$). Surprisingly, self sufficiency was not significantly related to making decisions alone ($r_s = .212, p < .166$). Two unexpected findings were made, self-sufficiency being related to an abstract construal of moral problems ($r_s = .299, p < .049$) and personal growth and health being related to duty oriented justifications ($r_s = .377, p < .012$). Since this part of the study was primarily explorative, no adjustment was made to the alpha level in order to control for mass significance.

Table 2

Spearman Correlations between Motivation Variables and Decision Making Approach

| <i>Decision approach</i> | <i>Motivation variable</i> | | | | | |
|--------------------------|----------------------------|-------|----------|-------------|------------------|-----------------|
| | Achievem. | Power | Intimacy | Affiliation | Self-sufficiency | Personal growth |
| Concrete/abstract | .452** | .035 | -.024 | -.280 | -.299* | -.177 |
| Intuition/reason | -.134 | .145 | -.170 | -.122 | .122 | .224 |
| Duty/consequence | -.407** | .171 | -.022 | .184 | -.073 | .377* |
| Alone/with others | .042 | .152 | -.448** | -.086 | .212 | -.096 |
| Internal/external | .209 | .035 | -.310* | -.025 | .158 | -.257 |
| Sensitive/insensitive | -.035 | -.054 | -.320* | .114 | .136 | .145 |

Note: * significant at $p < .05$, ** significant at $p < .01$

Emotions

As can be seen in the dilemma frequency columns of Table 3, the kinds of moral problems reported were similar across gender, with two noteworthy exceptions: seven of ten honesty dilemmas were reported by women and four of five snitching dilemmas were reported by men (the small N in each category precluding further analysis).

Although the small number of dilemmas in each category prevents the use of inferential statistics in analyzing whether the moral issues affect emotion differentially, the left-hand part of Table 3 gives an idea of how they vary. Since low scores indicate more negative emotion, one could perhaps argue that dilemmas concerning loyalty, which have the lowest mean score on the MACL ($M = 1.91$) involve lower emotional well-

being than dilemmas that concern snitching, which have the highest mean score ($M = 2.54$).

Table 3

Mean Moral MACL Scores and Dilemma Frequency, Across Gender and Issue

| <i>Dilemma issue</i> | <i>MACL score</i> | | | <i>Dilemma frequency</i> | |
|----------------------|-------------------|--------|------|--------------------------|--------|
| | <i>Gender</i> | | | Male | Female |
| | Male | Female | Both | | |
| Honesty | 2.23 | 2.16 | 2.18 | 3 | 7 |
| Transgression | 2.65 | 1.93 | 2.41 | 2 | 1 |
| Snitching | 2.72 | 1.83 | 2.54 | 4 | 1 |
| Promise keeping | 2.69 | 1.87 | 2.14 | 1 | 2 |
| Loyalty | 2.02 | 1.80 | 1.91 | 2 | 2 |
| Altruism | 2.38 | 1.98 | 2.28 | 3 | 1 |
| End relationship | 2.54 | 2.14 | 2.32 | 5 | 6 |
| Other | 2.07 | 1.79 | 1.93 | 2 | 2 |

More interestingly, when comparing across gender it appears that the females scored lower than the males on each of the eight dilemma issue categories. As it was suspected that memory clearness may be mediating these differences, and perhaps other findings of gender differences in this study as well, the relevant correlation coefficients were calculated and found to be far from significant, ruling out memory clearness as a possible confound.

To analyze the potential gender difference in emotion in a more systematic way, and to compare people's emotions in a moral decision situation with their own baseline, a 2 (situation: baseline vs. moral dilemma) x 2 (gender: female vs. male) mixed ANOVA with Repeated Measures on the first factor was performed on the MACL scores (Figure 1). There was a significant main effect of situation. Thinking about a moral decision situation that one had experienced in the past made participants score significantly lower on the MACL, as compared to the baseline, $F(1, 41) = 152.36, p < .001, \eta^2 = .784$. The main effect of situation was qualified by a significant gender x situation interaction, $F(1, 41) = 13.52, p < .001, \eta^2 = .243$, the main effect of gender being non-

significant, $F(1, 41) = 3.60$, $p < .065$, $\eta^2 = .079$. In other words, females scored significantly lower than the males only on the moral decision situation MACL.

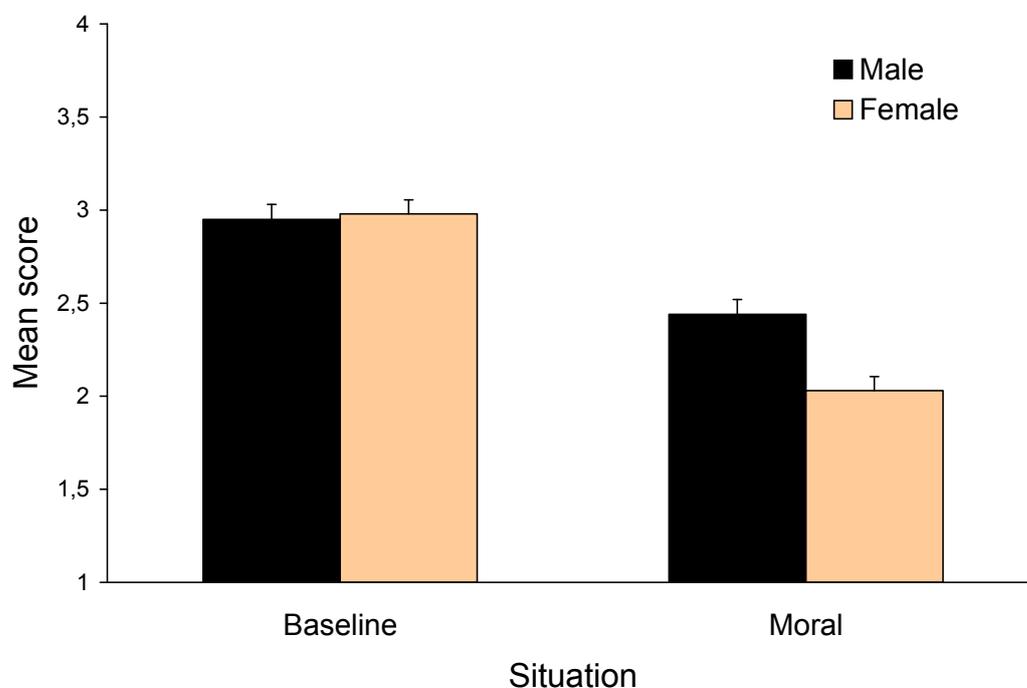


Figure 1. Mean MACL Score (+SE) as an Effect of Gender and type of Situation.

The impression that moral dilemmas give rise to negative emotion was strengthened by the fact that the by far most frequently mentioned emotion in the interviews was guilt. Almost all other emotions mentioned were negative too, and appeared to concern either worries about what will happen or lack of control (agony, anger, anxiety, fear, frustration, insufficiency, sorrow, stress, sympathy, uncertainty, worry, resignation, and feeling lost, split or powerless).

Discussion

This study concerned the relationship between motivational structure and approaches to moral decision making, as well as the emotional experiences of the decision maker, in Swedish university students' real-life moral dilemmas. Since the main purpose of the study was an explorative one, and since a mixed qualitative/quantitative approach was adopted, results must be interpreted with appropriate caution. This said, it appears as

predicted that mainly two kinds of social motivation, achievement and intimacy, affect the moral decision making process (noting the caution needed in interpreting correlational data). One might speculate that there are two “main roads” to naturalistic moral decision making emerging in the current data. The first one is the achievement related road. Although only weakly related to the approach of relying primarily on one’s own values and norms and to relying on reason rather than intuition, it is characterized by a concrete and detailed construal of moral problems and an emphasis on the possible consequences of the decision. The second, more intimacy related, has to do with relationships - making moral decisions together with others and being open to the norms and values that they embrace - and interestingly also with making less of a distinction between moral problems and other kinds of problems.

On the surface, and in accordance with Cross and Madson’s (1997) observation that men view themselves as being independent of others whereas women view themselves as being interdependent, this distinction appears gender stereotypic, the achievement-orientation being male and the intimacy-orientation female. However, although the men were higher in need for achievement than the women, the fact that there were no gender differences in any of the decision approach variables studied here undermines an explanation simply in terms of gender. Although Gilligan’s concepts of justice and care orientation were not measured explicitly in this study, the lack of gender differences, not only in approaches to moral decision making but also in the kinds of moral issues reported and in the kinds of social relationships they involved, is not easily explainable in terms of her (1982) theory of gender driven moral orientations. A couple of unexpected findings regarding motivation and moral decision making approach may be worth mentioning. First, self-sufficiency, or the motivation for establishing and maintaining independence, was found to be related to an abstract construal of moral problems. Perhaps abstraction can be characterized as allowing oneself to maintain independence by distancing oneself from other’s situations while still being able to solve moral problems in a way that appears fair both to oneself and to others. Second, the motivation for personal growth and health was related to duty oriented justifications of decisions in moral dilemmas. This finding could perhaps be explained in terms of the spiritual aspect of the growth and health motivation, or in terms of its focus on being good and doing the right thing.

Interestingly, participants’ reports indicate that they experienced significantly more negative emotion when facing a moral dilemma than what they normally do. There are several possible explanations for this, some of which were mentioned by participants

themselves during the interviews. They range from the feelings of guilt and insufficiency that one may experience when considering a morally suboptimal solution to a problem, to the feelings one may experience after having performed an act that one is not proud of and/or is debating whether or not to reveal. Even in cases where one's own moral norms are not threatened to be violated, which could then cause a discrepancy between the ideal and the ought self which Higgins (1987) showed leads to negative emotion, one may face the risk of violating the norms of others. In some cases simply revealing a consideration of acting in a particular way may upset others, and mere anticipation of their reactions may elicit negative emotion. Yet another explanation of the negative emotions regards the very nature of moral dilemmas. Having to choose between mutually exclusive non-satisfactory solutions to problems with possibly far-reaching and not easily foreseeable consequences to oneself and others may elicit many of the emotions participants reported experiencing, such as for example agony, anxiety, frustration, and insufficiency. In fact, there is evidence to suggest that expectations of future negative events may be the strongest determinant of present mood (Taylor, 1991).

Further, there was a gender difference in the magnitude of negative emotion experienced when confronted with a moral dilemma, the women experiencing more negative affect than the men. Scott et al (1998, 2001) argued that, as an alternative interpretation of their data, gender differences in mood may be due to differences in role expectancy patterns, females perhaps feeling more free to express mood-fluctuations. However, neither Scott et al's studies nor this study included a direct measure of self-presentation concerns, and the research literature does not provide any clear answers concerning the role of gender in self-presentation/response bias (Davis, 1996; Paulhus & John, 1998). In the present data there was no effect of gender on baseline emotional status, differences appearing only in reports concerning moral dilemma situations. In order to explain this finding in terms of response bias one would have to claim that, and subsequently explain why, it is more important for men than for women to avoid giving an impression of emotional vulnerability when facing a moral dilemma, or vice versa, that it is important for women to appear emotionally vulnerable in the same situation. Although the stereotypical gender differences in this study, men scoring higher on achievement and women scoring higher on affiliation, could possibly reflect the underlying motivations of such a response bias, sensitivity, i.e. how important one considers moral problems to be in comparison to other kinds of problems, did not vary across gender and accordingly fails to support the response bias interpretation, unless, of

course, one assumes that morality is equally important for men and women but in different ways. It simply seems more reasonable to interpret the data as reflecting true differences in emotion, perhaps mediated by differences in coping style.

Another possible explanation of the finding of gender differences in emotion would be that the men and the women reported different kinds of moral issues, and that a gender difference in the perception of what a moral problem is underlies the differences in emotion. But in this study the moral problems reported and the social relationships involved were in fact quite similar across gender. Regrettably, since the moral issue data and the MACL data are of two different kinds (nominal versus continuous) the adequate mediational analysis for inferring the influence of issue on emotion cannot be performed. But such research may be worth pursuing in the future, and could then also include an individual difference measure of empathy, another possible mediator in that women to a greater extent than men may experience the (negative) feelings of others as their own. A mediational approach could also provide interesting information regarding the much debated (but less researched) question of the influence of emotional versus cognitive processes in moral judgment and decision making. Authors like Haidt (2001) and Pizarro (2000) have recently claimed in reviewing the literature that “hot cognition”, such as the influence of motivation and emotion on reasoning processes, are relatively neglected fields in modern moral psychology, and report no studies regarding the role of negative emotion in moral dilemmas.

Given that moral dilemmas elicit primarily negative affect, what are the effects on the cognitive processes involved in coming to a decision? Previous research in other fields of psychology (Taylor, 1991, for a review) indicates that when we are in a positive mood we tend to think broadly and use heuristics, whereas when in a negative mood we think more slowly and elaborately. Negative mood generally produces more gathering of diagnostic information, more complex processing strategies, and less use of heuristics. Since people in a negative mood engage in more elaborate processing, they also respond differently to persuasive communication and are persuaded only by strong arguments. Isen (1987) showed that happy mood is associated with more creative and innovative problem solving, and Bless (2000), reporting similar results, argued that it is since people in a happy mood rely more on general knowledge structures (heuristics) that processing resources are made free for creative problem solving. Capability of creative problem solving would seem to be crucial in a moral dilemma situation. In the only study reporting mood-effects on moral reasoning (Olejnuk & LaRue, 1980) it was found that an induced positive mood indeed was associated with more advanced moral

reasoning, as measured by the Defining Issues Test. If this finding generalizes to the real world, where facing a moral dilemma may almost invariably involve negative emotion, lower levels of moral reasoning should result. The women, if they experience more negative emotion than the men, may be the worst off in this regard. However, it is important to keep in mind that neither gender experienced positive emotion in this study, only different degrees of negative emotion, and also that no gender differences were observed in Olejnik & LaRue's study.

Feelings can also, in line with the "affect-as-information" hypothesis (e.g. Clore, Gasper, & Garvin, 2001), be used as a direct source of information. In cases where we are unaware of the source of our current negative affect we run the risk of misattributing it as being a reaction to a moral transgression. Failing to properly discount morally irrelevant negative affect may lead to exaggerated condemnation of people's choices and actions. But these propositions still remain to be tested empirically.

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