EMOTIONAL COMPONENTS OF UNETHICAL DECISIONS:
AN EXPLORATORY STUDY

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ABSTRACT
The role of emotions in decision-making has been explored by others and has revealed that both “immediate emotions”, those present at the time of the decision, and “expected emotions”, those expected to result from a decision, effect which alternative will be chosen (Lowenstein, 2001). The significance of emotions in behavior decisions has also been estimated as it relates to product and service choice (Morris, 2002). This research employs a mixed-method design to understand the role emotions play in making decisions regarding ethical behavior. The research applies a validated technique for measuring human emotions to determine whether there is an emotional reaction to the mere consideration of unethical behavior and which emotions, if any, respond to the thought of unethical behavior.

EMOTIONS AND ETHICAL DECISION-MAKING
Emotions direct our attention to important events that demand a decision, they provide useful information about the desirability of alternative courses of action and they often provide the motivation necessary to implement a chosen course of action. In this way emotions pull us into and through the decision-making process and the implementation of our decisions (Priesmeyer, 2008). As Rajeev has stated, “numerous ethical decision-making models have succeeded in integrating person-specific, issue-contingent, and organizational contributors to ethical decisions, the need now is to probe further into specific causalities” (Rajeev, 2007).

Lowenstein provides a useful model which guides this inquiry. His identification of immediate and expected emotions in a decision-making model suggest that we must take into account the emotional state of an individual immediately prior to considering a decision and we can expect there will be a change in an individual’s emotional state as a consequence of considering the decision. Specifically, his model states that “Immediate emotions” influence the “decision/behavior” and that the “decision/behavior” results in “Expected Consequences” which subsequently result in “Expected emotions”. Feedback loops allow these expected consequences and emotions to affect the immediate emotions and the decision directly (Lowenstein, 2001).

An examination of current ethical decision-making models reveals a predominance of cognitive processes with little attention to affective influences. The “literature reveals that ethical decision making represents a fixed sequence of stages – comprising moral perception, reasoning (or evaluation), judgment, intention, behavior, behavioral
evaluation – and includes the underlying constructs [of] attitudes and values” (Katharina J. Srnkaz, 2004). While it is understandable that decisions with difficult ethical issues and substantial consequences might need to be addressed in a logical, defendable way, it is unreasonable to exclude emotions entirely from such models. Given the known importance of affect in decision-making, it seems some effort to include them in ethical decision-making models needs to be made. The first logical step is to determine the extent to which emotions play a role in decisions pertaining to ethical behavior.

Measuring Emotions
Emotions are measured in this study by the use of a clinical research tool called Emogram. Emogram is an interactive computer program which measures eleven basic emotions. The metrics it provides have been validated in doctoral research dissertations (Mudge, 2003; McGinnis, 2008). It has been used in other doctoral studies to measure the efficacy of EMDR treatments (Capps, 2005) and client responses to domestic violence issues (Edralin, 2010). Emogram is an approved method for counseling by the counseling division of the Central Police of the Netherlands.

Developed for clinical applications, Emogram uses a series of thirty-three photographs of facial-expressions which are consistent with the Facial Action Code (Ekman, 1978) and it measures a set of emotions supported in the literature (Darwin, 1897; Izard, 1994; Plutchik, 1994; Shalif, 1991). The subject is asked to review the series of photographs and to respond by indicating the level of personal concordance with each image. The program then computes a score for each of the eleven emotions along with certain indices created by combining emotion scores in various ways.

Interpreting Emotional Responses
When applied to decision-making, the interpretation of an increased strength in each emotion can be described as shown in Table 1 (Priesmeyer, 2008).

<table>
<thead>
<tr>
<th>Emotion</th>
<th>Interpretation of an increase in the emotion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Happiness</td>
<td>The targeted alternative is congruent with subject’s desires</td>
</tr>
<tr>
<td>Interest</td>
<td>Subject seeks additional information regarding the targeted alternative</td>
</tr>
<tr>
<td>Surprise</td>
<td>The targeted alternative relates to unexpected consequences or actions</td>
</tr>
<tr>
<td>Disgust</td>
<td>Subject seeks to avoid the targeted alternative or persons, places, or activities associated with the targeted alternative</td>
</tr>
<tr>
<td>Contempt</td>
<td>Subject assigns blame to persons, places, or activities related to the alternative</td>
</tr>
<tr>
<td>Anger</td>
<td>Subject seeks to change or eliminate the targeted alternative or persons, places, or activities associated with the targeted alternative</td>
</tr>
<tr>
<td>Fear</td>
<td>The targeted alternative presents a specific, identifiable threat to the subject</td>
</tr>
<tr>
<td>Anxiety</td>
<td>The target alternative relates to multiple, non-specific threats that suggest ominous conditions or events</td>
</tr>
<tr>
<td>Shame</td>
<td>Subject associates failures or shortcomings to the targeted alternative and assigns blame to self for these perceived failures</td>
</tr>
<tr>
<td>Distress</td>
<td>Subject associates vulnerability and a need for help with the targeted alternative</td>
</tr>
<tr>
<td>Sadness</td>
<td>Subject associates an irretrievable loss and helplessness with the alternative</td>
</tr>
</tbody>
</table>
Interpretations of the meanings for the emotions are context specific. For this reason Emogram can apply different knowledge bases to the emotion scores based on the subject of study. The interpretation of Fear, for example, is different when applied to the recall of a traumatic even, a workplace scenario, a product or a decision. Emogram has been used to test the emotions associated with anticipated events. It can, therefore, be used to identify the emotions associated with a proposed behavior.

One will note that only the first three emotions in Table 1 are generally pleasant while the remaining eight are unpleasant. An Emotional Quality measure that reflects an individual’s overall emotional state is obtained by combining all these emotions mathematically. Specifically, the difference between an average of the first three emotions and an average of the remaining eight can be placed on an Emotional Quality scale that ranges from +100 to -100. Scores above zero on the Emotional Quality scale indicate positive emotional states in which the first three emotions dominate while scores below zero indicate an overall negative emotional state that is unpleasant to the individual.

Because the immediate emotions of individuals differ considerably, emotional responses to any stimulus are determined by measuring the difference between a baseline assessment of a subject’s emotions and an assessment after exposure to the stimulus under study. It is the change in the emotions that occurs from the pre-test to the post-test that is of interest. Likewise, the changes in the Emotional Quality scores for test subjects provide the metrics for testing various hypotheses about emotional responses to ethical behavior.

**RESEARCH DESIGN**

This research applies Emogram to measure changes in emotions as a result of focusing on a decision to engage in an unethical act. The sample for this exploratory study is a small set of students drawn from first-semester freshmen classes at a private four-year university. These entry-level students were chosen for the fact that they had not yet participated in required ethics classes that are a part of their curriculum. The following mixed method design which seeks to capture quantitative and qualitative data from a small sample received institutional review board approval and was used to collect data from individual subjects.

1. Subjects were scheduled for 30-minute sessions in which they met individually with a research investigator;
2. Subjects completed a consent form and a baseline Emogram was administered;
3. Each subject was presented with the prospects of using another student’s paper as his/her own so as to receive a research award;
4. A second Emogram assessment was administered;
5. The changes in emotions reported in the second assessment were discussed with the participant to collect qualitative data;
6. The participant was debriefed and the session concluded.
The unethical behavior described above was presented in a very specific way to the subject. The investigator, in the role of a professor, described the emphasis placed on undergraduate research at the institution and that it would be quite commendable for both the student and the professor if the student would submit a paper and present it at a conference. The investigator then provided the student with a call for papers from “The National Conference on Undergraduate Research 2011” issued by Ithaca College in Ithaca, New York and told the subject that “this conference would be ideal; the only problem is the deadline is too close to write a new paper”. The investigator then provided the student with a student paper titled “Emotional Reactions to the Apple iPhone” and said “it would be OK to send in this paper because the students who wrote it have already graduated and don’t care what we do with it.” The subject was then asked to imagine sending in the paper.

This scenario was chosen because it introduces an authority figure into the decision-making. The behavior being considered is not only plagiarism; it is a conspiracy in which one individual, the professor, uses his authority to compel a subordinate to act in an unethical way supposedly for their mutual benefit. The situation is not unlike the position an employee is placed in when asked by a supervisor to act in an unethical manner.

Three hypotheses are proposed and tested in this exploratory study; they are provided below in their alternate form.

**Ha₁**: The Emotional-Quality score associated with the consideration of an unethical act will be significantly less than a baseline score.

**Ha₂**: Measures of certain selected emotions will be significantly higher when considering an unethical act. These emotions are: Fear, Anxiety, Shame and Distress.

**Ha₃**: The measure of Happiness will be significantly lower when considering an unethical act.

Of primary importance in this study is the determination as to whether there are emotional reactions to decisions regarding unethical behavior. The Emotional Quality scores for each individual, when measured under the scenario describe above, provided suitable metrics to test the first hypothesis. Rejection of the null hypotheses with a one-tail Student’s t-test of the Emotional Quality scores will supply support for the first alternate hypotheses (Ha₁). The question as to which emotions change in response to consideration of an unethical act is addressed by the other two hypotheses. Hypotheses two (Ha₂) will be accepted if one-tail t-tests of increases in measures for Fear, Anxiety, Shame, and Distress individually are significant. Hypothesis three (Ha₃) will be accepted if a one-tail test of decreases in Happiness is significant. Because the hypotheses address only five of the eleven basic emotions, two-tail tests for significance are conducted on the remaining six emotions to determine if they are part of the subjects’ emotional response to the proposed behavior.
RESULTS

Results were calculated based on an initial group of five students in this exploratory study. Table 2 provides the eleven emotion scores for each subject. The scores are reported on a scale of one through six with six being a stronger expression of each emotion. Included in the table is the overall Emotional Quality score (E-Quality), the means (µ) for the pre-tests and post-tests, and the computed Student’s t-score and p-value for each emotion.

Table 2: Emotional responses to a decision regarding unethical behavior

<table>
<thead>
<tr>
<th>Subject</th>
<th>Happiness</th>
<th>Interest</th>
<th>Surprise</th>
<th>Contempt</th>
<th>Disgust</th>
<th>Shame</th>
<th>Fear</th>
<th>Anxiety</th>
<th>Anger</th>
<th>Distress</th>
<th>Sadness</th>
<th>E-Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6.0</td>
<td>5.5</td>
<td>3.5</td>
<td>2.5</td>
<td>1.8</td>
<td>2.0</td>
<td>2.0</td>
<td>2.3</td>
<td>1.9</td>
<td>2.2</td>
<td>2.0</td>
<td>57.7</td>
</tr>
<tr>
<td>2</td>
<td>4.3</td>
<td>5.0</td>
<td>2.7</td>
<td>2.0</td>
<td>2.3</td>
<td>2.0</td>
<td>2.0</td>
<td>2.0</td>
<td>2.2</td>
<td>2.0</td>
<td>2.3</td>
<td>37.9</td>
</tr>
<tr>
<td>3</td>
<td>5.0</td>
<td>2.5</td>
<td>2.0</td>
<td>3.2</td>
<td>2.4</td>
<td>2.2</td>
<td>2.0</td>
<td>2.2</td>
<td>2.8</td>
<td>3.2</td>
<td>3.1</td>
<td>10.2</td>
</tr>
<tr>
<td>4</td>
<td>5.5</td>
<td>3.0</td>
<td>1.8</td>
<td>1.7</td>
<td>1.0</td>
<td>2.8</td>
<td>1.0</td>
<td>1.8</td>
<td>1.5</td>
<td>2.0</td>
<td>2.0</td>
<td>34.2</td>
</tr>
<tr>
<td>5</td>
<td>4.0</td>
<td>4.2</td>
<td>4.3</td>
<td>2.5</td>
<td>2.0</td>
<td>3.8</td>
<td>1.5</td>
<td>3.2</td>
<td>3.0</td>
<td>3.0</td>
<td>2.8</td>
<td>29.1</td>
</tr>
</tbody>
</table>

| µ       | 5.0       | 4.0      | 2.9      | 2.4      | 1.9     | 2.6   | 1.7  | 2.3     | 2.3   | 2.5      | 2.4      | 33.8      |

<table>
<thead>
<tr>
<th>Pre-tests</th>
<th>Happiness</th>
<th>Interest</th>
<th>Surprise</th>
<th>Contempt</th>
<th>Disgust</th>
<th>Shame</th>
<th>Fear</th>
<th>Anxiety</th>
<th>Anger</th>
<th>Distress</th>
<th>Sadness</th>
<th>E-Quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject 1</td>
<td>2.0</td>
<td>2.0</td>
<td>5.0</td>
<td>4.3</td>
<td>4.2</td>
<td>4.8</td>
<td>5.0</td>
<td>5.0</td>
<td>3.0</td>
<td>4.2</td>
<td>4.2</td>
<td>-26.9</td>
</tr>
<tr>
<td>2</td>
<td>2.2</td>
<td>2.8</td>
<td>4.0</td>
<td>5.0</td>
<td>3.2</td>
<td>3.5</td>
<td>4.0</td>
<td>3.5</td>
<td>3.5</td>
<td>4.3</td>
<td>3.5</td>
<td>-15.7</td>
</tr>
<tr>
<td>3</td>
<td>1.5</td>
<td>3.6</td>
<td>5.5</td>
<td>4.0</td>
<td>5.2</td>
<td>4.2</td>
<td>5.0</td>
<td>4.8</td>
<td>3.5</td>
<td>4.8</td>
<td>3.5</td>
<td>-20.8</td>
</tr>
<tr>
<td>4</td>
<td>2.8</td>
<td>4.8</td>
<td>5.0</td>
<td>2.5</td>
<td>2.0</td>
<td>3.5</td>
<td>4.2</td>
<td>4.3</td>
<td>2.5</td>
<td>3.9</td>
<td>4.0</td>
<td>16.2</td>
</tr>
<tr>
<td>5</td>
<td>2.3</td>
<td>3.9</td>
<td>3.3</td>
<td>4.2</td>
<td>3.0</td>
<td>4.0</td>
<td>2.0</td>
<td>4.0</td>
<td>2.5</td>
<td>4.0</td>
<td>3.5</td>
<td>-4.4</td>
</tr>
</tbody>
</table>

| µ         | 2.2       | 3.4      | 4.6      | 4.0      | 3.5     | 4.0   | 4.3  | 4.3     | 3.3   | 4.2      | 3.7      | -10.3     |

| p-value   | .001*     | .016**   | .017**   | .017*    | .005*   | .003* | .010* | .000*   | .021**  | .001*    |          |          |

*significant at p=.05, one tail; **significant at p=.05, two tail

Support for all three hypotheses was found. As expected, there was a significant decrease (p=.001) in the Emotional Quality scores as a result of exposure to the proposition of submitting another student’s paper to a conference as one’s own. Specifically, the Emotional Quality score decreased from +33.83 to -10.34 to accept the first hypotheses. Hypotheses two proposed significant increases in select emotions and, indeed, significant increases in each of these were found. Fear, Anxiety, Shame, and Distress each increased significantly (p<.05) suggesting these specific emotions are components of the emotional reaction one experiences when considering this unethical proposal. The third hypothesis was also accepted as the Happiness score decreased significantly (p=.001) from an average of 4.95 to an average of 2.15.

Three emotions which were not in the proposed hypotheses were also found to change significantly; Contempt, Disgust, and Sadness each increased significantly (p<.05). There were no significant changes in the remaining three emotions; Interest, Surprise, and Anger.
The interpretations for each emotion in Table 1 can be used to add meaning to these results. If we combine the interpretations of the eight emotions found to be significant we obtain the following description of a person’s emotional reaction to the proposed unethical behavior.

The proposal presents a specific, identifiable threat (Fear) to the individual as well as multiple, non-specific threats that suggest ominous conditions or events (Anxiety). The individual assigns blame to persons, places, or activities associated with the proposal (Contempt) and will seek to avoid the activities associated with it (Disgust). The individual also associates failures or shortcomings to the alternative and assigns blame to self for these perceived failures (Shame). Further, the individual feels vulnerability and in need of help with the proposal (Distress) and associates an irretrievable loss and a sense of helplessness with it (Sadness). Overall, the proposal is not congruent with the individual’s desires (Happiness).

The qualitative data collected from the individual subjects provides more insight into these specific emotional responses. When asked to describe her emotional responses, one subject explained her Fear by saying “How would I ever explain the paper at the conference since I didn’t write it?” Another said she was afraid of “all the trouble I would get in if it was ever found out.” When asked about Anxiety, which is a non-specific threat, one subject said “I just knew it wasn’t right”. The significant increase in Sadness was not hypothesized and may relate to the context in which the study was administered. These students attend a values-based Catholic university and one student, when asked about Sadness, stated “I didn’t think we did things like that around here”; a comment consistent with the interpretation of Sadness as “a sense of loss”.

The increases in both Contempt and Shame are also noteworthy. These two emotions relate to the allocation of blame; Contempt is blame of others and Shame is self-blame. Typically, increases in these two emotions are mutually exclusive as an individual commonly allocates blame to either others or to oneself. Concurrent increases in Contempt and Shame are associated with extremely high levels of dissonance as the individual has no release for the perceived blame. In fact, these two emotions, when combined with Anger and Fear, constitute an Emogram measure called “Impetuosity” which is defined as “the propensity to act spontaneously (usually in unsafe ways) as a result of having limited Fear while Anger, Shame, and Contempt are elevated” (Priesmeyer, 2003). This suggests a linkage between unethical behavior which appears to elevate these emotions and some cases of violent acting out (e.g., injury to self or others).

**DISCUSSION**

While the sample size is limited and highly restricted in scope, the quantitative results along with the qualitative comments of the subjects provide strong evidence of substantial emotional reactions to the thought of unethical behavior even in a hypothetical context. The implications are considerable because they open an entirely new window on the subject of ethical behavior. These findings suggest that research into ethics requires
attention to the emotional components embodied in a decision and that fostering sensitivity to ethical issues may require much work on understanding emotions.

The recorded changes in emotions along with the cognitions revealed in the subjects’ comments suggest that emotional responses occur concurrently with the recognition of consequences rather than as a result of expected consequences. This modification to Lowenstein’s decision-making model has been made to provide the Affect-Cognition Decision Model shown in Figure 1.

We can add considerable detail to this model by relating our findings to it. The “Immediate Emotions” are the baseline measures for the eleven basic emotions. The “Considered Behavior” in this case is the plagiarism/conspiracy proposal described in the research design. The “Emotional Responses” are a decrease in Happiness and increases in Fear, Anxiety, Distress, Contempt, Disgust, Shame, and Sadness. The “Cognitions” are those thoughts of the subjects quoted above like “I knew it wasn’t right”.

Figure 1: Affect-Cognition Decision Model

The Affect-Cognition Decision Model suggests that immediate emotions do influence how one interprets a proposed behavior. It also suggests that simply considering a behavior results in both an emotional response and a set of cognitions associated with that behavior. The actual decision will be influenced by the interplay of these emotional and cognitive responses and the relative weight of them. The result is a “Decision Bias” which is a propensity to act or to not act on the “Considered Behavior”.

We have some evidence of the relative weight emotions and cognitions play in decision-making. In a large study (n=23,168) Morris and others estimated the degrees of association between cognitive measures, measures of emotions, and purchase intent. The objective of the study was to test a model which included determining the extent to which purchase intent was associated with cognitive effort and affect. While purchase intent is not the same as “Decision Bias” as conceived above, it can be argued that they are both decision-based and are probably similar. Morris’s results reveal a dominant role for emotions when it comes to decision-making. The correlation coefficient between cognitive attitude and “conative attitude” (their measure of purchase intent and brand
interest) was measured at $r=.28$ while the association between affective attitude (emotions) and “conative attitude” was measured at $r=.49$ (Morris, 2002). These results are summarized across a broad range of product and services and, if they approximate the roles of emotions and cognitions in ethical decision-making, they suggest that emotions may by nearly twice as important as cognitions when it comes to decisions regarding unethical behavior.

If emotions do play a significant role in ethical decision-making, as these results suggest, then studies of ethical behavior may need to explore the emotional development and immediate emotional state of individuals prior to those decisions. Instructions in ethics may incorporate some forms of “resource installation” now practiced by counselors and psychologists. The broad spectrum of basic emotions could become a research domain that seeks to associate specific emotional responses to certain behaviors.

Being able to propose and test hypotheses regarding individual emotional responses may prove particularly valuable in understanding what we currently cannot explain of ethical behavior. Which basic emotions are associated with different types of ethical issues? Are emotional responses similar across different populations? Do individuals differ in the relative importance they place on emotions and cognitions when making a decision? The model above and the methods applied here suggest an approach to these questions.

That behavioral decisions are driven by some combination of emotions and cognitions may be no surprise. The reason individuals make poor behavioral choices may be because, in this day, few apply a Stoic-like philosophy to consciously manage the influence these two forces have on their decisions. Philosophers have long offered advice on how to control the interplay of affect and cognition and perhaps it is time to give more attention to them. Quoting Epictetus: “Where shall I seek the Good and where the Evil? Within me- in all that is my own” (Epictetus, c. 135).

**REFERENCES**


