Are Happy People Ethical People? Evidence from North America and Europe

Harvey S. James, Jr.*
Assistant Professor of Agribusiness

Agribusiness Research Institute
University of Missouri-Columbia
146 Mumford Hall
Columbia, MO 65211-6200
Phone: 573-884-9682
Fax: 573-882-3958
E-mail: hjames@missouri.edu

March 12, 2003

Abstract: This paper contributes to the growing literature on happiness research by examining whether happiness affects the ethical decisions of individuals. First, a recursive model of ethical decision making is developed in which an agent's utility is assumed to be a function of money, ethical decisions, and happiness, where happiness is defined as the agent's utility obtained at the end of the previous period. Second, the model is tested using data from North American and European respondents in the 1995-1997 wave of the World Values Survey. The findings suggest that happiness affects ethical judgments consistent with the recursive model.

Keywords: Happiness economics, ethics, utility theory
JEL categories: D63, D99, Z13

* I am grateful for helpful comments from Tawni Ferrerini, Joe Parcell, Farhad Rassekh, Michael Sykuta, and Yin Xia. An earlier version of this paper was presented at the 2003 meetings of the Missouri Valley Economic Association. This research was supported in part by the Missouri Agricultural Experiment Station.

Are Happy People Ethical People? Evidence from North America and Europe

Introduction

Over 2000 years ago, Plato (2000) argued that people should be just and ethical because that is the only source of true and lasting happiness. That is, ethical people are happy people. The objective of this paper is to determine whether the reverse is also true: Are happy people more likely to be just and ethical than unhappy people?

There have been few studies examining how happiness impacts the ethical values and behaviors of individuals, the findings of which Veenhoven (1984, pp. 320-324) argues to be inconclusive. On the one hand, there is evidence that happiness is positively correlated with individual concerns about "moral problems" and "matters of value." On the other hand, there is no clear evidence of differences in the "value orientation" of happy and unhappy people. Veenhoven speculates that these findings are the result of the involvement of multifarious effects that are not fully controlled for in empirical studies. Simply, many factors affect one's happiness and the ethical values and behaviors individuals.

This paper improves upon these studies through the presentation of a theoretical and empirical investigation of the link between happiness and ethics. First, a recursive model of personal ethics is developed, based on theoretical work of Hermalin and Isen (1999), in which an agent's time t utility is assumed to be a function of ethical judgments, money, and the utility obtained at the end of the previous period. From this formulation one can show how an increase in happiness (modeled as time $t-1$ utility) affects the ethical behavior of the agent. Second, the impact of happiness on preferences for ethical behavior is examined empirically using data from the 1995-97 wave of the World Values Survey (WVS) (see Inglehart et al, 2000). The WVS

contains data on individual self-reports of subjective well-being, perceptions of ethical conduct, income, and other measures and is therefore ideal for examining empirically the relationship between happiness and ethical values. The empirical analysis is based on an examination of the self-reported well-being and ethical preferences of survey respondents from North America and Europe. The results reveal that happiness impacts ethical behavior consistent with the recursive model, even after controlling for income and other factors.

This paper contributes to a growing economic literature on happiness research, particularly with respect to the impact of happiness on values and behavior (see Frey and Stutzer, 2002). This paper also has important policy implications. Corruption is seen by many to be a serious impediment to economic development, particularly in third world countries (Kaufmann and Wei, 1999; see also Bardhan, 1997). Typical solutions to corruption involve, in part, greater transparency and more effective laws and enforcement mechanisms. If happiness is related to ethical conduct (and thus, by implication, to corruption), then "quality of life" factors that improve subjective well-being might also play an important role in reducing the aggregate burden of improbity worldwide.

Model

Suppose an agent's utility, *u*, is an increasing function of ethical judgments (*e*) and money (*m*). Suppose further that society has established an ethical standard of $\bar{e}$. We would say the agent is ethical if she chooses *e* such that $e \geq \bar{e}$; conversely, if $e < \bar{e}$, then we would say the agent is behaving unethically. In this model the agent is assumed to derive satisfaction from ethical behavior; that is, her utility increases as *e* increases. However, this does guarantee that the agent will always choose $e \geq \bar{e}$. Even though utility is increasing in *e*, the agent might be willing

to select $e < \bar{e}$ if doing so corresponds to an increase in money (e.g., from the receipt of a bribe payment) sufficient to "compensate" the agent for the reduction in utility associated with behaving unethically.

In this paper the terms "behaving ethically," "being ethical," "having preferences for ethical activities," "valuing personal ethics" and "making ethical judgments" are used interchangeably to denote the same thing – choosing *e* so that $e \geq \bar{e}$. Additionally, it is assumed that ethical judgments can be identified along a continuum (e.g., ranging from "low" to "high"). For example, deception is widely considered to be an ethical problem. Nevertheless, there are different types of lies and different motivations for lying that range from altruistic to individualistic to exploitive (Linskold and Water, 1983). Moreover, societies and cultures differ as to the acceptability of specific types of deception (Seiter, Bruschke, and Bai, 2002). Suppose *e* represents the degree of honesty chosen by the agent in a particular context, where honesty is understood to be the inverse of deception or the telling of lies. A low *e* might represent the telling of exploitive lies, with increasing *e*'s representing the telling of individualistic lies, then altruistic lies, and finally no lies, respectively. Suppose further that society places the ethical standard for honesty, $\bar{e}$, between altruistic and individualist lies such that altruistic lies are acceptable but individualistic and exploitive lies are not. An individual who tells no lies or who tells only altruistic lies would be choosing $e > \bar{e}$ and thus would be judged as behaving ethically (i.e., "is honest"). Conversely, a person who tells individualistic or exploitive lies would be choosing $e < \bar{e}$ and thus would be considered acting unethically (i.e., "is dishonest").

We are interested in understanding how happiness might affect an agent's decision to engage in ethical behavior. In particular, if there is a financial incentive to engage in unethical conduct, will an agent with a higher level of utility be more or less willing to select $e \geq \bar{e}$, other

things being equal? Suppose an agent's time *t* utility, u_t, is a function of the ethical conduct chosen, e_t, the agent's utility obtained at the end of the previous period, u_{t-1}, and money, such that

$$u_t(e_t, u_{t-1} \mid \alpha, \delta, m) = 2\alpha e_t - \frac{e_t^2}{u_{t-1}} + 2\delta m(\bar{e} - e_t) + 2m. \quad (1)$$

In this model, an increase in one's ethics is assumed to increase utility but at a decreasing rate, where $\alpha \in (0,1)$ determines the marginal benefit of ethical choices. Moreover, the impact of happiness is assumed to decrease the marginal cost of behaving ethically (see Hermalin and Isen, 1999), in the sense that an agent's time $t-1$ utility affects how "bad" the agent feels at having to make increasingly ethical judgments. In essence, a happier person is assumed to feel "less bad" about choosing a particular *e* than a less happier person. The parameter $\delta \in (0,1)$ controls the degree to which unethical conduct, denoted as $(\bar{e} - e_t)$, is rewarded, while the parameter *m* controls the amount of money an agent receives. If the agent behaves unethically by choosing $e < \bar{e}$, then the agent will receive money equal to $2m$ plus a premium of $2\delta m(\bar{e} - e_t)$. This premium represents the reward from unethical behavior. However, if the agent's choice of ethics is such that $e \geq \bar{e}$, then the agent receives $2m$ but also incurs an opportunity cost equal to $2\delta m(\bar{e} - e_t)$. The opportunity cost represents what could have been appropriated had the agent behaved unethically.

The optimal level of ethical behavior at time *t* is

$$e_t^* = (\alpha - \delta m)u_{t-1}, \quad (2)$$

which is an increasing function of the agent's time $t-1$ level of utility. That is, the happier the agent is at the end of period $t-1$, the higher will be the level of ethical behavior chosen, other things being equal. In other words, happier people are expected to be more ethical people.

According to equation (2), ethical behavior is increasing in α but decreasing in δ and *m*. That is, the greater is the marginal benefit of behaving ethically, the higher is the desired level of ethical behavior. Conversely, the greater is the marginal increase in money received from unethical behavior, the lower is the optimal amount of ethical conduct desired. This last result, interestingly, is independent of the actual ethical standard of society. In other words, it does not matter how high or low the ethical standard of society is – a larger δ or *m* will increase the incentive for the agent to behave unethically.

Equation (2) depicts the optimal level of ethical behavior chosen at a particular time, *t*. However, we can also examine how changes in the parameters affect the long term, steady-state level of the agent's ethical behavior. In order to ensure that the model is tractable and that equation (2) is positive rather than negative (because we're modeling ethical rather destructive behavior), assume that $0 < \alpha - \delta m < 1$. Given equation (2), equation (1) becomes the difference equation

$$u_t = (\alpha - \delta m)^2 u_{t-1} + 2m(\delta\bar{e} + 1),$$

the solution of which is

$$u_t = (\alpha - \delta m)^{2t} u_0 + 2m(\delta\bar{e} + 1)\left(\frac{1-(\alpha - \delta m)^{2t}}{1-(\alpha - \delta m)^2}\right). \tag{3}$$

Using equation (3), the optimal level of ethical behavior denoted in equation (2) is now

$$e_t^* = (\alpha - \delta m)\left\{(\alpha - \delta m)^{2(t-1)} u_0 + 2m(\delta\bar{e} + 1)\left(\frac{1-(\alpha - \delta m)^{2(t-1)}}{1-(\alpha - \delta m)^2}\right)\right\}$$

$$= (\alpha - \delta m)^{2t-1} u_0 + 2m(\delta\bar{e} + 1)\left(\frac{\alpha - \delta m - (\alpha - \delta m)^{2t-1}}{1-(\alpha - \delta m)^2}\right). \tag{4}$$

Observe that as $t \to \infty$, $e_t^* \to 2m(\delta\bar{e}+1)\left(\frac{\alpha-\delta m}{1-(\alpha-\delta m)^2}\right)$. In other words, in the long-run the steady-state level of ethical conduct, e^s, is

$$e^s \equiv 2m(\delta\bar{e}+1)\left(\frac{\alpha-\delta m}{1-(\alpha-\delta m)^2}\right). \tag{5}$$

Using equation (5) we can now determine how an agent's personal ethic changes over the long run given changes in the parameters defined in the model. First, consider the impact of an increase in the marginal benefit of ethical behavior, determined by α, on the steady-state level of ethical behavior. The partial derivative of equation (5) with respect to α is

$$\frac{\partial e^s}{\partial \alpha} = \frac{2m(\delta\bar{e}+1)}{[1-(\alpha-\delta m)^2]^2}[1+(\alpha-\delta m)^2]. \tag{6}$$

Given the assumptions of the model, this expression is always positive, indicating that an increase in the marginal benefit derived from improved personal ethics results in an increase in ethical behavior, other things being equal. This is intuitive. Greater rewards from acting ethically should result in greater ethical conduct.

The effect on ethical conduct of an increase in the marginal gain derived from behaving unethically, determined by δ, is found by calculating the partial derivative of equation (5) with respect to δ, as follows:

$$\frac{\partial e^s}{\partial \delta} = \frac{-2m}{[1-(\alpha-\delta m)^2]^2}[2m(\delta\bar{e}+1)-(\alpha\bar{e}+m)(1-(\alpha-\delta m)^2)]. \tag{7}$$

Equation (7) is negative when $2m(\delta\bar{e}+1) > (\alpha\bar{e}+m)(1-(\alpha-\delta m)^2)$, or when the utility of money is sufficiently important to the agent. In this case an increase in the marginal gain from unethical conduct will lower the steady-state level of ethical behavior over time. In other words, the more important money is to the utility of an agent, the stronger will be the temptation to

engage in unethical activities when the marginal gain from unethical conduct increases, thus reducing the agent's steady-state level of ethical behavior.

The effect of changes in money, *m*, on the long-term level of ethical behavior can be examined by calculating the partial derivative of equation (5) with respect to *m*, resulting in

$$\frac{\partial e^s}{\partial m} = \frac{-2(\delta\bar{e}+1)}{[1-(\alpha-\delta m)^2]^2}[2\delta m - \alpha(1-(\alpha-\delta m)^2)]. \tag{8}$$

The sign of equation (8) is indeterminate because $2\delta m - \alpha(1-(\alpha-\delta m)^2)$ could be positive or negative, depending on the values of α, δ and *m*. However, if $\delta = 0$, then equation (8) becomes

$$\frac{\partial e^s}{\partial m} = \frac{2\alpha}{1-\alpha^2} > 0. \tag{8a}$$

That is, if there is no reward for behaving unethically, then an increase in money increases ethical conduct in the long run. The reason is that increases in money increase one's happiness, which in turn increases the desire for ethical conduct. If $\delta > 0$, or if there is a positive reward from acting unethically, however, then equation (8) is negative for at least the extreme cases of $\alpha = 0$ and $\alpha = 1$. Specifically, if $\alpha = 0$, then equation (8) becomes

$$\frac{\partial e^s}{\partial m} = \frac{-4\delta m(\delta\bar{e}+1)}{(1-\delta^2 m^2)^2} < 0, \tag{8b}$$

and if $\alpha = 1$, then equation (8) becomes

$$\frac{\partial e^s}{\partial m} = \frac{-2(\delta\bar{e}+1)}{(2-\delta m)^2} < 0. \tag{8c}$$

Therefore, if there is a potential reward for behaving unethically (i.e., $\delta > 0$), then increases in money will lower the steady-state level of ethical behavior not only when there is no expected marginal benefit from ethical behavior (i.e., $\alpha = 0$), but also when the marginal benefit from

ethical behavior is complete (i.e., $\alpha = 1$). This result illustrates the potential disincentive that the presence of money could have on ethical judgments.

The effect of an increase in the ethical standard, $\bar{e}$, on the steady-state level of ethical conduct is determined by differentiating equation (5) with respect to $\bar{e}$, resulting in

$$\frac{\partial e^s}{\partial \bar{e}} = \frac{2\delta m(\alpha - \delta m)}{1-(\alpha - \delta m)^2}. \tag{9}$$

This expression is positive because $0 < \alpha - \delta m < 1$ by assumption. Thus, increases in the ethical standard of society increases the steady-state level of ethical conduct of the agent. This suggests that agents will respond positively to improved social norms for ethical conduct.

From the analysis of the recursive model developed above, we may draw the following conclusions. First, greater happiness will result in an increased desire for ethical behavior. Second, greater perceived benefits from behaving ethically will result in increased preferences for ethical behavior. Third, greater perceived rewards from behaving unethically will result in a decrease in personal ethics. Fourth, greater wealth might result in a decreased desire for ethical behavior. Finally, increases in society's ethical standards will increase ethical conduct.

Data

The relationship between personal ethics and happiness is examined empirically using data from the third (1995-97) wave of the World Values Survey (see Inglehart et al, 2000). The World Values Survey (WVS) is a compilation of over 60 surveys conducted in more than 50 countries around the world. The surveys involved face-to-face interviews with adult citizens ages 18 and older, and they were conducted in the respondent's native language. According to the research team responsible for designing and administering the world-wide surveys, interview

subjects were selected randomly "from all administrative regional units after stratification by region and degree of urbanization" (Inglehart et al, 2000, p. 7).

The focus of this paper is on the sample drawn from North America and Europe. The reason for limiting the empirical analysis to these regions of the world is that North America and Europe possess a relatively common Judaic-Christian heritage and have reasonably well-developed, if not uniform, economic structures and systems of government. This is necessary in order to control for the possible variations in the development of social norms and ethical standards across different societies. For instance, respondents in Latin America or Africa might have different perspectives vis-à-vis American on the ethics of bribing government officials. This is because government services might be incomplete or inefficient in Latin America and Africa, and bribery might be accepted as necessary in order for citizens to persuade government officials to perform their lawful duties.

The sample used in this study consists of approximately 11,000 total observations with the following characteristics: roughly 49 percent of respondents were male, 47 percent were employed, 11 percent had completed a college education, 56 percent were married, and the average respondent was between 35 and 44 years of age. During the interviews, respondents were asked a variety of questions regarding their personal finances, familial and social relationships, and opinions on politics, the economy, and various religious, social and moral topics. Respondents were also asked to give their opinions on various ethical scenarios and to evaluate their subjective well-being or happiness. According to Frey and Stutzer, "reported subjective well-being is a satisfactory empirical approximation of individual utility" (2002, p. 403). Therefore, the data provided by the WVS can be used as the basis for determining whether happiness affects ethical preferences as modeled above.

The dependent variable of interest is ETHICAL, which takes on the value of one if the respondent made ethical judgments and zero otherwise. This variable was created from the answers survey respondents provided to statements describing several hypothetical ethical scenarios. Specifically, respondents were asked, "Please tell me for each of the following statements whether you think it can always be justified, never be justified, or something in between." The following statements were then presented to the respondents:

- "Claiming government benefits to which you are not entitled."
- "Avoiding a fare on public transport."
- "Cheating on taxes if you have a chance."
- "Buying something you knew was stolen."
- "Someone accepting a bribe in the course of their duties."

For each of these scenarios, respondents were asked how they would rank each statement, using a scale ranging from 1 to 10, such that 1 indicated "never justifiable" and 10 indicated "always justifiable." If a respondent ranked each scenario less than five, then the respondent was coded as having a preference for ethical conduct (i.e., ETHICAL=1; zero otherwise). This coding was based on the assumptions that each statement represented an unethical action and that a ranking of less than five would indicate a greater preference for ethical rather than unethical conduct. As shown in Table 1, which gives the definition, mean, standard deviation, and number of observations for each variable used in this study, the mean value for ETHICAL is 0.7214, indicating that slightly more than 72 percent of respondents gave each ethical statement a ranking less than five.

In addition to the ethical judgment variable, measures of subjective well-being (happiness), income, and other variables are required in order to examine the relationship

between the respondent's ethics and happiness. Two measures of subjective happiness are provided in the WVS data. The first, defined as HAPPY, is based on the following question: "Taking all things together, would you say you are very happy, quite happy, not very happy, or not at all happy?" For this study "very happy" was coded as 4, "quite happy" was coded as 3, "not very happy" was coded as 2, and "not at all happy" was coded as 1. The second measure of happiness, labeled SATISFIED, is based on the following question: "All things considered, how satisfied are you with your life as a whole these days?" For this question the respondent was asked to indicate on a scale of 1 to 10, with 1 representing "dissatisfied" and 10 representing "satisfied," how satisfied he felt his life was. Both measures of happiness were used in the analysis in order to test for consistency of responses and robustness of the model. The mean of HAPPY is 3.2090, suggesting the average respondent assessed himself as slightly more than "quite happy;" for the SATISFIED variable, the average is 7.4368 (see Table 1).

Tables 2 and 3 show how the dependent variable ETHICAL varies with respect to HAPPY and SATISFIED. The data reveal that ethical judgments generally increase as the level of happiness or satisfaction increases. However, the fact that ethical judgments and well-being are positively correlated does not necessary mean that ethics affects happiness within a recursive framework. Is this evidence consistent with the model presented above in that increases in perceived happiness increase personal ethics even after controlling for the effects of income and other factors expected to affect individual ethical beliefs? To answer this question, a Probit analysis of ETHICAL is conducted to determine whether happiness and satisfaction influence personal ethics, with income and other factors included to control for individual heterogeneity.

According to the recursive model presented above, we expect HAPPY and SATISFIED to be positively correlated with ETHICAL. However, because ethical behavior enters directly

into the agent's utility function, happiness and satisfaction will be jointly endogenous with ethical judgments. Therefore, in order to obtain consistent estimates of the effect of happiness on ethics, a two-stage regression procedure is required. In the first stage, a regression equation is estimated in which HAPPY and SATISFIED, respectively, are regressed on a set of explanatory variables that also include variables expected to be correlated with happiness and satisfaction but not with ethical judgments. Predicted values for HAPPY and SATISFIED are then obtained from this regression stage. In the second stage, ETHICAL is regressed on a set of explanatory variables that include the predicted values of happiness and satisfaction (see Greene, 2000). We expected the coefficients on the instrumental variables for HAPPY and SATISFIED to be positive.

The model of ethical behavior predicts that money might be negatively correlated with ethical judgments. Empirically, money is proxied by the variable INCDECILE, which represents individual self-reports of where the respondent's household income falls within a 10-point scale of national average household income (i.e., which decile household income falls in), such that a 1 indicates the first or lowest decile and a 10 represents the tenth or highest decile. Other variables expected to affect ethical judgments and incorporated within the empirical model include a measure of the respondent's religious beliefs, the amount of education obtained by the respondent, the socio-economic status of the respondent, the respondent's current marital status, the age group and gender of the respondent, and the respondent's nationality.

The respondent's religious belief is captured by the variable BELIEVE, which takes the value of one if the respondent believes both in God and hell. Individuals who believe in God and hell might also believe that ethical behavior would ultimately be rewarded while unethical behavior will be punished. Indeed, research indicates that religious people have greater ethical

sensitivities than non-religious people (see Collins, 2000). Therefore, the coefficient for BELIEVE is expected to be positive.

The educational level of respondents is represented by the dummy variable EDUCATED, which takes on the value of one if the respondent completed a college education. Research on the effect of education on ethical sensitivities and behavior shows mixed results. The teaching of economics, for instance, seems to produce a tendency for students to cheat in a one-shot play of the prisoner's dilemma (Frank, Gilovich, and Regan, 1993). Furthermore, increased education has been shown to lower the ethical tendencies of individuals (Fullerton, Kerch, and Dodge, 1996). However, research also indicates that graduate students have a higher level of moral development compared to undergraduate students (Davis and Welton, 1991) and that increases in the years of college education increases the likelihood that students will cooperate in a prisoner's dilemma experiment (James and Cohen, forthcoming). Accordingly, the sign on the coefficient for EDUCATED cannot be readily predicted.

Respondents who view themselves as members of the working and lower classes may perceive themselves as inferior to members of higher social classes, thus resulting in a greater sense of entitlement to engage in unethical conduct. Therefore, the sign of the coefficient for LOWERCLASS, which equals one if the respondent identifies himself as a member of either the lower or working classes, is expected to be negative. Respondents who are married might suppose that unethical conduct would have a negative effect on their marriage and family, thus resulting in a greater preference for ethical behavior. Therefore, the coefficient for the dummy variable MARRIED, which takes the value of one if the respondent is currently married, is expected to have a positive sign. The variable AGEGROUP identifies the age of the respondent within one of six specified age groups (see Table 1 for specific classification). The variable

MALE is a dummy variable taking on the value of one if the respondent is a male. Research indicates that older rather than younger, and female rather than male, individuals have higher ethical sensitivities (see Collins, 2000). Therefore, we expect the sign for AGEGROUP to be positive and the sign for MALE to be negative.

The nationality of the respondent is controlled by the dummy variable NoAM, which takes on the value of one if the respondent is from the United States and Canada and zero if the respondent is from a European nation. Research suggests that nationality plays an important role in the ethical tendencies and preference of individuals, with Americans showing greater ethical sensitivities than other nationalities (see Collins, 2000). Therefore, the sign on the coefficient for NoAM is expected to be positive in that North Americans are more likely to recognize and prefer ethical conduct than Europeans.

Results

Table 4 presents the results of regressions in which HAPPY and SATISFIED are regressed on income, marital status, age and gender, as well as the variables HEALTH and EMPLOYED. HEALTH is a variable indicating the respondent's reported state of health, and it ranges from a high of five (very good health) to a low of one (very poor health). The dummy variable EMPLOYED takes the value of one if the respondent is employed full-time, part-time, or self-employed, and zero otherwise. These last two variables are expected to be correlated with happiness and satisfaction but not with ethical judgments. As seen in Table 4, increases in income and perceived health, as well as the marital status and age of the respondent, are positively correlated with both measures of happiness. Employment has no significant effect on self-reported well-being. However, men report lower levels of happiness and satisfaction than

women, other things being equal. From the regression of HAPPY and SATISFIED, predicted values for these variables are obtained, denoted as HAPPY_HAT and SATISFIED_HAT, respectively, which are used as explanatory variables in a regression analysis of ethical judgments.

Because ETHICAL is a dichotomous variable, a Probit analysis is conducted in order to determine whether happiness and satisfaction positively impact ethical judgments. Table 5 presents the results of this analysis. The results reveal that happiness and satisfaction increase the likelihood that respondents will make ethical judgments; the coefficients of the happiness and satisfaction proxies (HAPPY_HAT and SATISFIED_HAT, respectively) are positive and significant. In order to determine the degree to which changes in the explanatory variables affect one's personal ethics, slope values (given in brackets in Table 5) were calculated by multiplying the estimated coefficients with the average density function of the standard normal distribution. For instance, for each one unit increase in HAPPY (e.g., from "not at all happy" to "not very happy," or from "quite happy" to "very happy"), the probability of not justifying various unethical practices increases nearly 10 percent (see column 3 of Table 5). In the case of the variable SATISFIED, a one-unit increase in the respondent's answer to the question of how satisfied they were with life, on a scale ranging from 1 to 10, increases the probability of ethical judgment by between three and four percent (see column 5 of Table 5). Thus, it appears that happiness does affect ethical activity, in support of the recursive model developed above.

The analysis presented in Table 5 further indicates that all other explanatory variables have the predicted signs, with the exception of the variable capturing socio-economic status (LOWCLASS). In the case of an increase in income, personal ethics is reduced, but only marginally. Each decile increase in household income reduces the probability of ethical

preferences by less than one percent. Additionally, a belief in God and hell increases the likelihood of ethical judgments by approximately five percent. Marriage increases ethical judgments by between six and seven percent. The age of the individual also has an impact on ethical judgments, as indicated by the positive and significant sign on the variable AGEGROUP. And, males are five percent less likely to make ethical judgments, relative to females, other things being equal. Interestingly, having a college education increases the likelihood of ethical judgments by three percent, a small though positive amount. Furthermore, identifying oneself as a member of the low or working classes does not result in lower ethics, as predicted, but rather increases the probability of choosing an ethical action by approximately two percent.

As expected, nationality plays an important role in one's personal ethics. In fact, nationality is a more important factor affecting ethical judgments than happiness, income and all other factors examined in this study. Specifically, North Americans are 12 percent more likely than Europeans to make ethical judgments, other things being equal. Thus, while an individual's sense of well-being and personal assessment of happiness play important roles in determining whether that individual makes ethical judgments, culture and social context, as embodied by nationality, appear to be particularly important.

Summary

The idea that happiness and ethics are related is not new, because philosophers have argued for at least two millennia that happiness is improved when individuals behave ethically. This paper has shown that the reverse is also true. There is theoretical and empirical evidence indicating that happiness impacts ethical behavior in a recursive framework. Ethical behavior increases one's satisfaction with life, which in turn increases the propensity for ethical conduct.

How important is happiness as a factor influencing ethical judgments? The empirical evidence suggests that the relevance of happiness to ethics is significant, although not more so than social context, as represented by nationality. Nevertheless, improvements in ethical judgments could be obtained by expanding a people's sense of well-being. These improvements in turn could have significant consequences on society. For example, one study estimated the annual cost of crime in 1997 in the United States at more than $1.1 trillion (Anderson, 1999). If the average self-reported satisfaction of individuals on a scale ranging from one to ten could be increased by only one point (e.g., from four to five), resulting in a full three percent reduction in unethical (i.e., illegal) conduct, the resulting savings from criminal activity would be $33 billion per year, which is more than half of the total expenditures for police protection at all levels of government in the United States in 1997 (see *Sourcebook of Criminal Justice Statistics*, 2001, Table 1.2).

Clearly, the ethical behavior of agents is a function of many factors. Personal happiness, as this study has shown, is one factor, but individual characteristics and socio-economic environmental factors are also germane. An important question that remains unanswered involves an understanding of the tradeoffs that exist among the various factors influencing ethical behavior. How happy must a person be in order to counter the negative influences of culture or environmental surroundings on ethical behavior? An additional question concerns how the impact of happiness on ethics varies across societies with dramatically different cultures and social norms. Is the expected improvement in ethical behavior resulting from a unit increase in self-reported happiness of U.S. citizens the same for citizens of, say, South Africa or Bangladesh? These and other questions probing the causes of unethical behavior must continue to be explored within the social sciences.

References

Anderson, David, "The Aggregate Burden of Crime," *Journal of Law and Economics*, 42(2), 1999, pp. 611-642.

Bardhan, Pranab, "Corruption and Development: A Review of Issues," *Journal of Economic Literature*, vol. 35 (September), 1997, pp. 1320-46

Collins, Denis, "The Quest to Improve the Human Condition: The First 1,500 Articles Published in the *Journal of Business Ethics*," *Journal of Business Ethics*, 26(1), 2000, pp. 1-73.

Davis, James R., and Ralph E. Welton, "Professional Ethics: Business Student's Perceptions," *Journal of Business Ethics*, 10, 1991, pp. 451-463.

Frank, Robert H., Thomas D. Gilovich, and Dennis T. Regan, "Does Studying Economics Inhibit Cooperation?" *Journal of Economic Perspectives*, 7(2), 1993, pp. 159-171.

Frey, Bruno S., and Alois Stutzer, "What Can Economists Learn from Happiness Research?" *Journal of Economic Literature*, 40(June), 2002, pp. 402-435.

Fullerton, Sam, Kathleen B. Kerch, and H. Robert Dodge, "Consumer Ethics: An Assessment of Individual Behavior in the Market Place," *Journal of Business Ethics*, 15, 1996, pp. 805-814.

Greene, William H., *Econometric Analysis*, fourth edition, Upper Saddle River, NJ: Prentice-Hall, 2000, chapter 16.

Hermalin, Benjamin E., and Alice M. Isen, "The Effect of Affect on Economic and Strategic Decision-Making," University of California-Berkeley Department of Economics working paper no. E99-270, 1999; accessible at http://iber.berkeley.edu/wps/econ/E99-270.pdf (downloaded November 19, 2002).

Inglehart, Ronald, et al. World Values Surveys and European Values Surveys, 1981-1984, 1990-1993, and 1995-1997 [Computer file]. ICPSR version. Ann Arbor, MI: Institute for Social Research [producer], 1999. Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor], 2000.

James, Harvey S., Jr., and Jeffrey P. Cohen, "Does Ethics Training Neutralize the Incentives of the Prisoner's Dilemma? Evidence from a Classroom Experiment," *Teaching Business Ethics*, forthcoming.

Kaufmann, D and Wei, S.J., "Does 'Grease Money' Speed Up the Wheels of Commerce?" NBER Working Paper No. 7093, April 1999.

Linskold, S., and P.S. Walters, "Categories for Acceptability of Lies," *Journal of Social Psychology*, 120, 1983, pp. 129-136.

Plato, *The Republic*, translated by T. Griffith, Cambridge, UK: Cambridge University Press, 2000.

Seiter, John S., Jon Bruschke, and Chunsheng Bai, "The Acceptability of Deception as a Function of Perceiver's Culture, Deceiver's Intention, and Deceiver-Deceived Relationship," *Western Journal of Communication*, 66(2), 2002, pp. 158-180.

Sourcebook of Criminal Justice Statistics, Bureau of Justice Statistics, Department of Justice, 2001, accessible online at http://www.albany.edu/sourcebook/ (downloaded February 5, 2003).

Veenhoven, Ruut, *Conditions of Happiness*, Dordrecht, Holland: D. Reidel Publishing Company, 1984.

Table 1. Variable names, definitions, means, standard deviations, and number of observations, with the corresponding World Values Survey question number identified in brackets.

Variable Name	Definition	Mean	Stand Dev	Num of Obs
ETHICAL	Binary variable indicating the percent of respondents who ranked the justifiability of various ethical statements less then 5, with "never justifiable"=1 and "always justifiable"=10. [V192-V196]	0.7214	0.4483	11001
HAPPY	Variable ranging from 1 to 4 based on the question: "Taking all things together, would you say you are very happy, quite happy, not very happy, or not at all happy?" with "not at all happy"=1, "not very happy"=2, "quite happy"=3, and "very happy"=4. [V10]	3.2090	0.6233	10937
SATISFIED	Variable ranging from 1 to 10 based on the question: "All things considered, how satisfied are you with your life as a whole these days?" with 1 being dissatisfied and 10 being satisfied. [V65]	7.4368	1.9430	10953
INCDECILE	Variable representing respondent's self report of household income, selected from a scale of incomes divided into deciles (e.g., lowest income=1 and highest income=10). [V227]	5.0070	2.5927	8300
HEALTH	Variable representing respondent's state of health, ranging from a high of 5 (very good) to a low of 1 (very poor). [V11]	3.9768	0.8757	9887
EMPLOYED	Dummy variable equal to 1 if the respondent was employed full-time, part-time, or self-employed; zero otherwise. [V220]	0.4717	0.4992	11001
BELIEVE	Dummy variable equal to 1 if the respondent indicated affirmatively that he believed in God and hell; zero otherwise. [V183 and V187]	0.2808	0.4494	11001
EDUCATED	Dummy variable equal to 1 if the respondent had completed at least some primary schooling; zero otherwise. [V217]	0.1136	0.3174	11001
LOWCLASS	Dummy variable equal to 1 if the respondent identified himself as a member of either the working class or lower class; zero otherwise. [V226]	0.3407	0.4740	11001
MARRIED	Dummy variable equal to 1 if the respondent was currently married; zero otherwise. [V89]	0.5590	0.4965	11001
AGEGROUP	Variable identifying the age group of the respondent, where ages 18-24=1, 25-34=2, 35-44=3, 45-54=4, 55-64=5, and 65 and older=6. [AGEGROUP]	3.4184	1.6427	10968
MALE	Dummy variable equal to 1 if the respondent was a male; zero otherwise. [V214]	0.4852	0.4998	11001
NoAM	Dummy variable equal to 1 if the respondent was from the USA or Canada; zero otherwise. [V2]	0.1402	0.3472	11001
Europe	Dummy variable equal to 1 if the respondent was from France, Britain, West Germany, Italy, the Netherlands, Denmark, Norway, Sweden, Iceland, Finland, Belgium, Spain, Ireland, Northern Ireland, Switzerland, Portugal, Austria, or Andalusia; zero otherwise. [V2]	0.8598	0.3472	11001

Table 2. Relationship between preferences for ethical behavior and happiness.

HAPPY[a]	Mean ETHICAL[b]	Number of Observations
1	0.6917	120
2	0.6895	860
3	0.7172	6571
4	0.7416	3386

[a] Based on response to WVS question 10: "Taking all things together, would you say you are very happy, quite happy, not very happy, or not at all happy?" with "not at all happy"=1, "not very happy"=2, "quite happy"=3, and "very happy"=4.
[b] Percent of respondents who ranked the justifiability of various ethical statements less than 5, with "never justifiable"=1 and "always justifiable"=10.

Table 3. Relationship between preferences for ethical behavior and satisfaction.

SATISFIED[a]	Mean ETHICAL[b]	Number of Observations
1	0.5926	108
2	0.6458	96
3	0.6327	245
4	0.6503	346
5	0.7151	1109
6	0.7403	1005
7	0.7223	1930
8	0.7417	2795
9	0.6829	1599
10	0.7581	1720

[a] Based on response to WVS question 65: "All things considered, how satisfied are you with your life as a whole these days?" with 1 being dissatisfied and 10 being satisfied.
[b] Percent of respondents who ranked the justifiability of various ethical statements less than 5, with "never justifiable"=1 and "always justifiable"=10.

Table 4. Stage one ordinary least squares regression used to obtain predicted values for measures of happiness and satisfaction.

Dependent Variable:	**HAPPY**	**SATISFIED**
Variable	**Coefficient (Stand Error)**	**Coefficient (Stand Error)**
INTERCEPT	2.1897 [a]	3.9411 [a]
	(0.0386)	(0.1214)
INCDECILE	0.0243 [a]	0.0988 [a]
	(0.0028)	(0.0088)
HEALTH	0.2057 [a]	0.6552 [a]
	(0.0078)	(0.0245)
EMPLOYED	-0.0148	0.0561
	(0.0147)	(0.0464)
MARRIED	0.1610 [a]	0.1774 [a]
	(0.0139)	(0.0437)
AGEGROUP	0.0050	0.1057 [a]
	(0.0044)	(0.0139)
MALE	-0.0290 [b]	-0.1493 [a]
	(0.0129)	(0.0407)
No. of Obs.	8229	8244
Adj. R^2	0.1267	0.1219
Mean of Predicted	3.2165	7.4654
Stand Dev of Predicted	0.2203	0.6793
Minimum	2.3860	4.8134
Maximum	3.6527	9.0726

[a] significant at 1%, [b] significant at 5%

"Mean of Predicted" and "Stand Dev of Predicted" are mean and standard deviation of the predicted value of HAPPY (to be labeled HAPPY_HAT) and SATISFIED (to be labeled SATISFIED_HAT), respectively.

Table 5. Stage two Probit analysis of ethics, with predicted values of happiness, satisfaction, and other explanatory variables.

	Model 1	**Model 2**	**Model 3**	**Model 4**
Variable	**Coefficient (Stand Error) [Slope]**	**Coefficient (Stand Error) [Slope]**	**Coefficient (Stand Error) [Slope]**	**Coefficient (Stand Error) [Slope]**
INTERCEPT	-0.4121 [b] (0.2110) [-0.1435]	-1.0503 [a] (0.2780) [-0.3436]	-0.3498 [b] (0.1591) [-0.1216]	-0.7395 [a] (0.1950) [-0.2412]
HAPPY_HAT	0.2895 [a] (0.0655) [0.1008]	0.3062 [a] (0.0891) [0.1002]	--	--
SATISFIED_HAT	--	--	0.1165 [a] (0.0213) [0.0405]	0.0927 [a] (0.0277) [0.0303]
INCDECILE	--	-0.0169 [b] (0.0074) [-0.0055]	--	-0.0192 [a] (0.0077) [-0.0063]
BELIEVE	--	0.1507 [a] (0.0353) [0.0493]	--	0.1510 [a] (0.0353) [0.0494]
EDUCATED	--	0.0989 [b] (0.0475) [0.0324]	--	0.0991 [b] (0.0475) [0.0324]
LOWCLASS	--	0.0708 [b] (0.0328) [0.0232]	--	0.0710 [b] (0.0328) [0.0232]
MARRIED	--	0.1818 [a] (0.0356) [0.0595]	--	0.2147 [a] (0.0329) [0.0702]
AGEGROUP	--	0.1530 [a] (0.0102) [0.0500]	--	0.1451 [a] (0.0098) [0.0475]
MALE	--	-0.1601 [a] (0.0300) [0.0524]	--	-0.1563 [a] (0.0301) [-0.0511]
NoAM	--	0.3809 [a] (0.0489) [0.1246]	--	0.3812 [a] (0.0489) [0.1247]
No. of Observations	8269	8269	8269	8269
% ETHICAL=1	69.78	69.78	69.78	69.78
% correctly predicted	51.8	66.5	52.7	66.5
Likelihood ratio (DF)	19.3669 (1)	602.7725 (9)	29.7675 (1)	602.1344 (9)
Average density	0.3481	0.3271	0.3477	0.3271

[a] significant at 1%, [b] significant at 5%

Estimated slope in brackets calculated by multiplying coefficient with average density.