An Empirical Study of Ethical Predispositions

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ABSTRACT. Using a two-part instrument consisting of eight vignettes and twenty character traits, the study sampled 141 employees of a mid-west financial firm regarding their predispositions to prefer utilitarian or formalist forms of ethical reasoning. In contrast with earlier studies, we found that these respondents did not prefer utilitarian reasoning. Several other hypotheses were tested involving the relationship between (1) people's preferences for certain types of solutions to issues and (2) the forms of reasoning they use to arrive at those solutions; the nature of the relationship between utilitarian and formalist categories; and the possibility of measuring ethical predispositions using different methods.

The distinction between formalistic and utilitarian reasoning has been a well-known and long-standing contrast in ethical theory for perhaps two hundred years or more. In fact, this may be the single most important distinction in the history of the development of ethical theory. This is not to say that there are no alternative

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approaches to ethics; indeed, there are. But the distinction between formalistic and utilitarian reasoning has had foundational importance for much of the ethical theory in this century. Nozick says, for example, that all of substantive ethics has been fitted or poured into these two powerful and appealing molds (1981, p. 494).

This distinction has been frequently employed in behavioral models in business ethics. The concepts of utilitarian reasoning and formalistic reasoning have gained attention as important components of behavioral models (Hunt and Vitell, 1986; Ferrell and Gresham, 1985; Stead et al., 1990). Other writers have tended to ignore this distinction (Trevino, 1986; Bommer et al., 1987). When incorporated into behavioral models, ethical theory is usually employed as elements of individual decision making systems, while other internal and external factors act to influence the decision maker.

In the field of business ethics, a few researchers have shown interest in the examining the empirical usefulness of ethical theory (Boal and Peery, 1985; McDonald and Morris, 1993; Fritzsche and Becker, 1984; Cherrington and Cherrington, unpublished). Psychologists have also appealed to ethical theory to explain their studies (Kohlberg, 1969; Hogan, 1970; Forsyth, 1980). A large amount of work has been done using a variety of additional theoretic categories, such as "justice", "rule utilitarianism", "egoism", "caring", and so on. Oddly, none of these studies, to our knowledge, has specifically focused on the distinction between formalism and utilitarianism to see whether this contrast bears empirical weight. It seems that considerable work has gone forward at the expense of neglecting one of the most fundamental empir-

ical questions in ethics: "What degree of empirical usefulness is born by the basic distinction between formalism and utilitarianism in ethics?"

Therefore, our present study might appear to be retreating rather than advancing the study of business ethics; but we feel a crucial task has been neglected, and we propose here to give it at least some of the attention it deserves.

Some definitions

We note at the outset that some explanation may be needed regarding our choice of the terms "formalistic" and "utilitarian". This distinction has not always been referred to using the same terminology, however; some highly related terms are frequently used interchangeably. For example, "utilitarianism" is often thought to be roughly synonymous with "teleology", "results-based ethics", "ethics of social responsibility" (Hogan, 1970, p. 206), "proportionalism" (Finnis, 1983), and "end-point ethics" (Pastin, 1986, p. 80). "Formalism", likewise, is often used almost interchangeably with "Kantian ethics", "deontology", "rights-based ethics" (Cavanagh et al., 1981), "rule ethics" (Pastin, 1986, p. 110), and "ethics of personal conscience" (Hogan, 1970, p. 206).

Any terms that we would choose carry decades (if not centuries) of connotations and other linguistic baggage with which we do not want to take issue in this paper. We have simply selected the terms "utilitarian" and "formalistic" to represent families of positions, each of which has had strong influence, we think, on the way managers think. "Utilitarian" refers to the tendency to assess ethical situations in terms of their consequences for people. It does not specify kinds of consequences; it does not identify which persons are relevant. It circumscribes a cluster of philosophical positions, all of which are more closely related to each other than they are to ethical formalism, with which they are contrasted. (Although "consequentialism" might be a more accurate choice of terms, "utilitarianism" seems more commonly used, so we have chosen to use it throughout the paper.)

Similarly, the term "formalism" represents the human tendency to assess ethical situations in terms of their consistent conformity to patterns or rules or some other formal features. It does not specify whether those patterns are laws, ideals, principles, customs, mores, or anything else. But again, it does seem to capture a family of positions, all of which seem to be contrasted with utilitarian thinking.

General outline of our study

The study that provided the starting point for our own research is a work by Fritzsche and Becker in 1984. They used the basic concepts of ethical theory to analyze the responses of business managers to a series of vignettes with ethical content. Their explicit interest was to see if ethical theoretic categories were relevant for thinking about ethical dilemmas. They constructed five vignettes representing the following topics: (1) coercion and control, (2) conflicts of interest, (3) physical environment, (4) paternalism, and (5) personal integrity. Fritzsche and Becker used these categories because they seemed to represent a set of problems that were meaningful for their target population. For each of the vignettes, respondents were asked to provide a written description of their solution to the problem and an explanation or rationale for their preferred behavior. The responses to these open-ended questions were then aggregated into common response categories that closely reflect major subdivisions of thought within ethical theory outlined by Cavanagh et al. (1981): utility, rights, and justice. Fritzsche and Becker concluded that practitioners relied almost totally on utilitarian philosophy.

One purpose of conducting the present study was to investigate a problem mentioned by Fritzsche and Becker: The strong utilitarian results they observed may have been due in part to biases in the vignettes. Unless one takes great care to design vignettes free from bias, the vignettes themselves may influence the results of the study. As Brady indicated a year later (1985), ethical issues themselves can dictate the form of thinking used to assess them. Some issues require utilitarian analysis, while others demand a more

formalistic response. Still other issues, which he called "Janus-Headed", seem accessible to both forms of ethical reasoning. Therefore, one concern of this study was to try to construct vignettes that were "Janus-Headed" and free from bias toward either form of reasoning.

At the same time, we were less concerned than Fritzsche and Becker about constructing vignettes that were targeted at managerial, or even business, populations. The underlying assumption of this whole study was that the utilitarianism-formalism distinction applies to *people*, and we did not want to restrict that assumption needlessly. Rest's "Defining Issues Test", which has been used extensively in studies in business ethics, does not restrict itself to managerial, or even business, populations (Rest, 1979). The same is true for Forsyth's (1980) "Ethical Data Questionnaire" and Hogan's (1970) "Survey of Ethical Attitudes." We think these instruments are good models to emulate. Furthermore, targeting a managerial population with vignettes prevents later comparative studies across different types of populations. Therefore, we constructed vignettes on a wide range of possibilities: personal, one-on-one encounters; individuals confronting the organization; public policy issues; organizational policy issues; even popular issues about which people may have thought considerably. By beginning with vignettes that apply to people generally, we retain the ability to do comparative studies of different occupational types, e.g. business persons, artists, engineers, nurses, high school math teachers, etc.

Assuming that it is possible to construct relatively neutral vignettes, our second purpose was identical to Fritzsche and Becker's: to study the extent to which ethical theory influences behavior. Therefore, the next task was to decide on the most appropriate empirical technique for studying that possible influence. Fritzsche and Becker assumed, we think, that the influence of ethical theory upon behavior was reflected in persons' open-ended responses to vignettes, inviting an expression of a rationale for action. Our own assumption is less simple. One's response to a vignette may either reflect his/her actual feelings about an issue, or it may be more strategic—anticipating objections from other

points of view. For example, a person might prefer a utilitarian solution to some problem but offer a formalist rationale, knowing that persons who have a preference for formalistic solutions would find that a more convincing reason. Therefore, the second purpose of the current study was not only to determine if ethical theory influenced behavior, but to separate the preferred action from the rationale for the action as two possible forms of such influence.

For this reason, we decided against open-ended responses to vignettes and proceeded to construct a range of responses to which each participant would be asked to respond. Again, Rest *et al.* are our models here. If the responses had been left open-ended, we might have received strategic responses rather than first-order responses. By asking for responses to four types of possibilities for each vignette, we avoid the problem.

The study simultaneously observed two forms of response to the vignettes: (1) the preference for a particular kind of solution and (2) the preference for a rationale in support of that solution. Either kind of choice could arguably represent the influence of ethical theory on actual behavior. If a particular ethical predisposition is operating in both the behavioral realm and the reasoning realm, a person, when faced with a choice, should prefer both an action and a reason that fit the predisposition. For instance, a utilitarian should prefer both utilitarian actions and utilitarian reasons for the actions. The utilitarian should least prefer formalistic actions and formalistic reasons. Ethical theory would suggest that people make decisions that are consistent with their way of thinking, and that the rationale should tend to dictate the solution. We proposed to test this idea by comparing the relative strength of rationale preferences and solution preferences.

Even more fundamentally, we were interested in just how the ethical theoretic concepts of utilitarianism and formalism may be related to each other: Are they independent concepts to be assessed on different scales, or are they concepts that belong to the same scale and vary inversely? Many psychological constructs have been shown to be multidimensional. For example, intelligence

is thought to be composed of several relatively independent dimensions, such as verbal aptitude, mathematical aptitude, and mechanical reasoning aptitude. In the area of affect, psychologists might study a "goodness-badness" scale and a "masculinity-femininity" scale, positioning certain stimuli on both. Are "utilitarian" and "formalist" opposite ends of one scale, or might they be two dimensions? Brady's "Janus-headed model of ethical theory" (1985) suggests the former. Therefore, we proposed testing the nature of the scale or scales.

The use of vignettes is based on the assumption that the predisposition toward the use of ethical theory is manifested in solution choices and reasoning processes. An alternative measurement involves the assumption that ethical theoretic predispositions influence the preference for character traits in individuals. For example, a utilitarian might be more disposed to value or prefer the character trait "effective" while the formalist might show a stronger preference for the trait "principled", and so on. If this assumption is true, then it would be possible to design a very simple test for ethical theoretic predispositions by observing people's preferences for character traits that are (in theory, at least) associated more with one form of ethical reasoning than the other. We did this in the second part of the study.

By administering both instruments to the same people, we hoped to gain two additional insights:

(1) By testing for ethical theoretic influence in two different ways, we may achieve greater insight into the question of validity. If the two methods produce results that are highly correlated, this provides evidence that the measurement of the influence of ethical theory on behavior is not method-dependent. Conversely, if the two methods produce differing results, then the issues for further research are more focused and we will have learned to question more carefully the methodological assumptions that underlie this general research issue.

(2) One on-going hope is that a simple, valid paper-and-pencil test can be designed to measure utilitarian and formalistic tendencies. The character traits part of the study provides the potential for developing such an instrument.

Hypotheses

Fritzsche and Becker's (1984) study and the above discussion led us to the following testable hypotheses:

H_1: People will exhibit a utilitarian bias in solution preferences and rationale preferences.

H_2: Ethical predispositions will manifest themselves more through rationale than through solutions.

H_3: Utilitarianism and formalism are opposite ends of a single scale.

H_4: There will be a strong correlation between ethical predispositions measured by preference for character traits and ethical predispositions measured through vignette option ratings.

Method

Respondents

The sample consisted of 141 employees of the headquarters of a large financial institution in the midwest. Thirty-six were male, 102 were female, and 3 did not report their gender. Forty per cent identified themselves as "professional or technical", while forty-five per cent reported themselves as "staff and clerical," with the remaining fifteen per cent scattered among "blue collar," "managerial," and "other." Their ages were quite varied, with thirty-three percent in their 20s, twenty-six per cent in their 30s, and thirty-nine per cent over 40.

Questionnaire

Vignettes. The survey instrument consisted of two major parts. The first part included eight

vignettes with ethical content. These vignettes were selected from an original group of eighteen vignettes which were pilot tested among graduate and undergraduate management students at two different universities. The final eight vignettes were selected because they elicited the greatest variation in responses during pilot studies. The high variability in responses indicated that those vignettes were less inclined than others to lead people into a particular type of response. One vignette was latter dropped from analysis because the utilitarian-formalist distinction was unclear.

Following each vignette were four statements, each of which represented a different way of thinking about the situation. Respondents were asked to rate each statement on a scale of 1 to 7 indicating the extent to which the statement would fit (or would not fit) their way of thinking.

Each of the four statements was constructed to represent one of four options. For each vignette, both utilitarian and formalist solutions were possible; therefore, two statements supported a utilitarian solution, and two statements supported a formalist solution. But because both utilitarian and formalist reasons can be given for solutions of either type, the design of the four statements conformed to the four possible combinations of solution preferences with rationale preferences, as seen in Table I.

TABLE I

Vignette rating statements: Rationale and solution preference combinations

Solution preference	Rationale preference	
	Utilitarian	Formalist
Utilitarian	A	B
Formalist	C	D

Therefore, each statement represents one of four possible solution-rationale configurations. For example, the following vignette was typical:

One of your employees has accidentally come across a copy of your chief competitor's product price changes for next month. The booklet is on your desk in a manila envelope . . .

(a) The price guide will give you a temporary advantage over your competitor.

(b) You owe it to your company and employees to use all legally obtained information to its best advantage.

(c) You may need your competitor's cooperation on a couple of joint projects in the future. You should not jeopardize that relationship now.

(d) Using the information would be basically unfair and dishonest.

The other seven vignettes were constructed around other ethical incidents, ranging from private, one-on-one episodes to broad social issues. Appendix A lists the complete set of vignettes.

Character traits. The second part of the instrument was designed to study the same ethical constructs but in a different way. This part assumed that the ethical predispositions might be associated with particular character traits and that persons would judge character traits to be important based on their ethical theoretic predispositions. For example, a formalist might judge the trait "principled" to be important, while a utilitarian might attribute more importance to the trait "results-oriented".

From an initial list of thirty character traits, we selected twenty that best seemed to reflect ethical predispositions: innovative, principled, benevolent, dependable, resourceful, trustworthy, effective, honest, influential, dutiful, independent, dedicated to cause, results-oriented, good-intentioned, productive, noted for integrity, compassionate, financially secure, law-abiding, and a winner. We asked respondents to rate each trait on a scale of 1 to 7 according to its importance to them.

Demographics. The final section of the questionnaire requested information on the respondent's age, gender, and job category.

Validity and reliability studies

One concern of the researchers was the question of the validity of the instrument. To validate the

statements, the researchers scrambled the order of the statements for each vignette, then gave the questionnaire to nine graduate students who had been students in an ethics class in which they had had a short module dealing with the utilitarian/formalist framework. The students were asked to identify for each statement whether its rationale was utilitarian or formalist and whether it tended toward a solution that was utilitarian or formalist. The judgements were not totally independent for any given vignette because the students knew that every vignette supposedly had one statement from each of the four rationale/ solution combinations. The vignette concerning capital punishment elicited some confusion regarding both the solution and the rationale, and was dropped from all subsequent analyses. For the remaining vignettes, there were 28 possible judgements (4 statements per vignette). Of the 252 total judgements made (9 students × 7 vignettes × 4 statements), 94% were correct. Five of the judges made no errors; the most made by any judge was 6. This high level of consistency in the sorting task gave the researchers confidence that the statements used with the vignettes were in fact the combination of rationale and solution that we had been trying to create.

A second issue concerned the reliability of the instrument. We chose to use the test–retest approach to see if respondents would be consistent in their attitudes as measured by the questionnaire. Students in a mid-career Master of Public Administration program were asked, with minimal explanation, to fill out the questionnaire during one class period. The students were told that although their responses were to be anonymous, later in the semester the instructor would need to match their questionnaire with another exercise. They were instructed to choose a 4-digit number that they could remember and write it on the questionnaire. Two weeks later the students repeated the exercise. That time period was chosen in the belief that it was sufficiently long that the students would not remember their responses from the first administration, yet short enough that their underlying attitudes toward the issues would not have changed. The course that they were taking had nothing to do with the formal study of ethics,

and there had been no discussion of the issues either prior to the first administration or between the first and second administrations. There were 33 students who filled out the questionnaire both times. For each respondent we created a scale for each rationale/solution combination, consisting of the respondent's average score on the appropriate statements for the seven remaining vignettes. For instance, all "A" statements represented the combination of utilitarian solution and rationale. We then ran Pearson correlations between the Time 1 scores and the Time 2 scores. Table II shows the results. The two "pure" statement combinations (utilitarian rationale and solution or formalist rationale and solution) had fairly high correlations (0.78 and 0.80 respectively), indicating that most respondents were quite consistent in their ratings over the two time periods. The two "mixed" combinations (utilitarian rationale, formalist solution and formalist rationale, utilitarian solution) had lower correlation coefficients (0.56 and 0.67 respectively). This is not particularly surprising, since people may not be too sure about their attitudes when only one aspect of the statement fits their personal predisposition toward formalism or utilitarianism.

We also created a utilitarian trait scale and a formalist trait scale for each person. (The description of those scales is in the Results section.) The test–retest correlations for those two scales are also displayed in Table II. They were 0.73 and 0.74, respectively. For both the

TABLE II
Test-retest correlations

Solution type	Rationale type	r
Vignettes		
Utilitarian	Utilitarian	0.776**
Utilitarian	Formalist	0.670**
Formalist	Utilitarian	0.564**
Formalist	Formalist	0.796**
Trait Scales		
Utilitarian		0.733**
Formalist		0.738**

** p < 0.01.

vignette scales and the trait scales the test–retest reliabilities are at a moderate level, probably as good as could be expected given the highly subjective nature of the task.

Survey administration

The researchers worked through a contact person in the respondents' company. The contact arranged for a cover letter and a copy of the questionnaire to be delivered to all employees in the headquarters region. Employees were told to complete the questionnaire at any time that was convenient for them. As an incentive to complete the survey, respondents received a nice roller ball pen when they returned their questionnaires. Drop boxes were provided in several locations, each of which was near the desk of an employee who was authorized to give out the gift pen after the respondent had placed the questionnaire in the box. Most respondents completed the questionnaire in less than 10 minutes.

Results

The first issue of concern was whether or not the vignettes were sufficiently neutral that they elicited a wide range of responses. Descriptive statistics on the 28 statements (4 statements for each of 7 vignettes) indicated that every statement received at least some responses over the entire 1–7 range. Mean responses ranged from a low of 3.7 to a high of 6.2, with 50% of the statements having means between 4.4 and 5.5. Standard deviations ranged from a low of 1.2 to a high of 2.4. Because of the bounded nature of the 7-point scale, the maximum possible standard deviation was 3.0, and that could only occur if half of the respondents chose "1" and half chose "7." A uniform distribution of responses across all 7 choices would result in a standard deviation of 2.0; 13 of the statements (including at least one from each vignette) had standard deviations greater than 2.0. So, although we cannot claim that every vignette was perfectly unbiased, it was clear that there was great diversity in responses to the total set and at least reasonable diversity in each.

Hypothesis 1

H₁: People will exhibit a utilitarian bias in solution preferences and rationale preferences.

In order to test the solution bias and rationale separately, Hypothesis 1 was split into two sub-hypotheses:

H₁.₁: People will exhibit a utilitarian bias in solution preferences.

H₁.₂: People will exhibit a utilitarian bias in rationale preferences.

First, each respondent's total tendency toward a particular solution-rationale combination was computed. We did this by constructing, for instance, a utilitarian solution-utilitarian rationale score that was the average of the person's responses to the utilitarian solution, utilitarian rationale choice for all seven vignettes. Similar scores were computed for each remaining combination. Then we conducted paired *t*-tests as shown in Table III.

The table indicates that in every comparison, there was a significant bias, but it was toward formalism rather than utilitarianism. This was the opposite of what was expected. In order to see if the results were universal or vignette-specific, similar tests were conducted on each vignette. Here the results were more complex, and indicated that biases were vignette-specific. Paired *t*-tests comparing solution preferences while holding rationale constant showed that of 7 tests for utilitarian rationale, all were significant (*p* <

TABLE III
Mean utilitarian and formalist preference scores and paired *t*-tests comparing them

Solution	Rationale		2-tail	*p*
			t	
	Utilitarian	Formalist		
Utilitarian	4.41	4.95	−7.53	0.000
Formalist	4.99	5.28	−3.26	0.001
2-tail *t*	−3.78	−2.19		
p	0.000	0.030		

0.01), with 5 favoring formalist solutions and 2 favoring utilitarian solutions. For the 7 tests using formalist rationale, 4 were significant ($p < 0.01$), with 3 favoring formalist solutions, 1 favoring a utilitarian solution, and 3 showing no preference. Paired t-tests comparing rationale preferences while holding solution constant showed that of the 7 tests for utilitarian solutions, 4 were significant with $p < 0.01$ and one was borderline significant ($p < 0.06$); 4 showed preference for formalist rationale, 1 for utilitarian rationale, and 2 indicated no rationale preference. For the 7 tests with formalist solutions, 3 were significant at $p < 0.05$ and 1 was significant at $p < 0.10$; 3 favored formalist rationale, 1 favored utilitarian rationale, and 3 indicated no measurable bias.

The results thus provided evidence to reject Hypothesis 1. For this particular set of vignettes, there was an overall preference for both formalist solutions and formalist rationales. When looked at on an individual vignette basis, there was enough variability in the test results to cast doubt on the idea of a universal bias at all; the biases seemed to be situation-specific.

Hypothesis 2

H$_2$: Ethical predispositions will manifest themselves more through rationale than through solutions.

If Hypothesis 2 is true, then one would expect that a person who had formalist predispositions would tend to rate more highly those choices that used a formalist rationale than those choices that used a utilitarian rationale, regardless of the solution type. Similarly, a person with utilitarian tendencies would rate more highly those choices that used a utilitarian rationale, regardless of the solution type. We looked at the correlation matrix of scores for each choice type (utilitarian solution-utilitarian rationale, utilitarian solution-formalist rationale, etc.). Table IV illustrates the results.

The table shows that the evidence did not support Hypothesis 3, but in fact strongly supported its antithesis. The two correlations pairing consistent rationales with varying solutions were

TABLE IV

Correlations comparing strength of rationale preference to strength of solution preference

Solution	Rationale		r	2-tail p
	Utilitarian	Formalist		
Utilitarian	4.41	4.95	0.673	0.000
Formalist	4.99	5.28	0.590	0.000
r	−0.182	−0.309		
2-tail p	0.043	0.000		

both negative (and significant: $p < 0.05$). The two correlations pairing consistent solutions with varying rationales were both positive (and significant: $p < 0.001$). This pattern of correlation coefficients indicated that respondents were consistent in their solution ratings under either rationale, but they had a tendency to reverse their rationale ratings under the two solution conditions. This indicates that, overall, solution preference is a stronger determinant of vignette responses than rationale preference.

To see if this finding was consistent among the vignettes, a similar analysis was done for each vignette. For the 14 correlations that held constant the solution type while correlating two rationale types, all the correlations were positive (12 of them significant with $p < 0.05$). Of the 14 correlations holding constant the rationale type while correlating two solution types, 13 were negative (8 of them significant with $p < 0.01$), and 1 was positive (significant with $p < 0.05$). So although there were some differences among vignettes, the pattern was overwhelmingly consistent; solution preference was stronger than rationale preference.

Hypothesis 3

H$_3$: Utilitarianism and formalism are opposite ends of a single scale.

The character traits section of the questionnaire was used to study this hypothesis. The way that we chose to test this hypothesis was two-fold: first we conducted a principal components

factor analysis on the twenty traits, using varimax rotation; and then we conducted Cronbach alpha reliability tests on the resulting scales. If the twenty character traits were all part of a single general "goodness" factor, the principle components analysis would have resulted in a major single factor and several minor factors. The factor analysis instead resulted in five orthogonal factors, of which the first two accounted for a total of 42.8% of the variability in the data (26.0% for Factor 1 and 16.7% for Factor 2, with a bit of rounding error). The remaining three factors each accounted for less than 9% of the variance. In the reliability analyses we tested a number of scales, based in part on our interpretation of the traits and in part on the factor analysis. We created the final scales after including in each scale every variable that increased the scale's Cronbach alpha (a measure of internal consistency) and eliminating any variable that decreased the alpha.

The resulting uncorrelated scales indicated that utilitarianism and formalism may in fact be two separate dimensions. Factor 1, which accounted for 26% of the score variance, included the following traits: innovative, resourceful, effective, influential, results-oriented, productive, a winner. We think this factor represents traits commonly associated with utilitarian thinking. Factor 2, accounting for 16.7% of the variation, consisted of the following traits: principled, dependable, trustworthy, honest, noted for integrity, law-abiding. We think this factor represents traits that are commonly associated with formalist thinking. The reliability test for Factor 1 produced an alpha

score of 0.856; for Factor 2 the alpha was 0.749. Because the focus of this study was on the utilitarian-formalist dichotomy, we did not use the minor factors, but created a utilitarian trait score and a formalist trait score for each respondent by averaging the person's responses to the items belonging the scale.

Hypothesis 4

H_4: There will be a strong correlation between ethical predispositions measured by preference for character traits and ethical predispositions measured through vignette option ratings.

To test this hypothesis, we computed correlations between respondents' scores on the utilitarian trait scale and their scores on the four vignette scores, then did the same thing using their formalist trait scores. Table V shows the results.

We would expect a strong positive correlation between the utilitarian trait score and the vignette score for utilitarian solution, utilitarian rationale. Both parts of the vignette statement are utilitarian, so a person with utilitarian predispositions should feel very comfortable with the statement and should have a high utilitarian trait score; meanwhile, a formalist should score low on both measures. Similarly, we would expect a strong positive correlation between the formalist trait score and the vignette score for formalist solution, formalist rationale. Both predictions

TABLE V
Correlations of character trait scales and vignette option ratings

Vignette option		Character trait scale	
Solution type	Rationale type	Utilitarian	Formalist
Utilitarian	Utilitarian	0.623***	−0.177*
Utilitarian	Formalist	0.277**	0.078
Formalist	Utilitarian	0.313**	0.457**
Formalist	Formalist	0.003	0.708***

$* \ p < 0.05; \ ** \ p < 0.01; \ *** = p < 0.001.$

were verified, with positive correlation coefficients significant at $p < 0.001$. Furthermore, these two correlations (0.623 and 0.708) were stronger than any others in the table.

Predictions are not so clear for those correlations that involve mixed-characteristic vignette options. Because the work on Hypothesis 3 indicated that solution preference was stronger than rationale preference, it was reasonable to predict that there would be a positive correlation between the utilitarian trait scale score and the utilitarian solution, formalist rationale vignette score. Similarly, there should be a positive correlation between the formalist trait score and the formalist solution, utilitarian rationale vignette score. Those two hypotheses were supported; both correlations were positive, and both were at significance level $p < 0.01$. One might predict a weak positive correlation between the trait scale scores and the other mixed vignette choice score because there is part of the vignette score that matches the trait direction; however, it is the rationale part, which is weaker than the solution part. The results showed a fairly strong positive correlation in the one case and a non-significant positive correlation in the other.

Finally, if utilitarianism and formalism are separate scales and not opposite ends of a single scale, it is not clear that there should be any significant correlation between scores on the trait scales and scores on the "opposite" vignette options. Specifically, utilitarian trait scale scores should not necessarily be correlated at all with formalist solution, formalist rationale vignette scores. Nor should formalist trait scale scores be correlated with utilitarian solution, utilitarian

rationale vignette scores. For this data set, one of the correlations was very close to zero (0.003), and the other was small but negative (–0.177).

The obtained correlations from the pairing of trait scale scores with vignette scores supported Hypothesis 4. There *was* evidence that measuring people's predispositions toward formalist or utilitarian theory could be done with both methods. The results were consistent with the two methods.

Demographic effects

Age. The demographic variables for which data was gathered were sex, age, and job. Of the three, we found age to be the most significant variable influencing our results. The mean score on the "A" (utilitarian solution and rationale) responses to the vignettes became consistently lower with increasing age, while means of the "D" (formalist solution and rationale) responses became increasingly and consistently higher with increasing age. See Table VI. In our analyses, we ignored the youngest age group, group 1, because it contained only three responses.

A one-way analysis of variance on the mean "A" responses indicated a significant effect ($p = 0.0042$). A least significant differences (LSD) comparison showed age groups 2 and 3 to be significantly different from groups 5 and 6. One-way ANOVAs on the means of the "B" and "C" responses were insignificant. A one-way ANOVA on "D" responses was significant ($p = 0.0019$) with groups 5 and 6 being significantly different from group 3, and group 2 being significantly

TABLE VI
Means of vignette responses by age and response category

Age category	N	Vignette response category			
		A	B	C	D
2	18	5.0982	5.1260	4.5357	4.4642
3	28	4.6455	5.1640	5.0219	5.0109
4	17	4.4000	5.0420	4.9464	5.2773
5	19	3.9248	4.6111	5.2100	5.6541

different from groups 4, 5, and 6, with almost perfect ascending order.

Likewise, a one-way ANOVA of the formalist traits scale was significant ($p = 0.0097$), and with perfect order of increasing formalism with age. The LSD test showed age group 6 to be significantly different from groups 2 and 3. A one-way ANOVA of the utilitarian traits scale with age indicated no significant effects.

Gender. Appropriate tests on both the vignettes responses and traits scales showed no significant influence of gender upon these scores.

Job. The only significant influence of job type upon responses was found in the utilitarian traits scale, where managers had significantly higher scores. The managerial group had a mean of 5.7983, while the staff and clerical group had a mean of 5.0329 and the professional and technical group had a mean of 5.0184. A one-way ANOVA of the utilitarian traits scale by job produced a p value of 0.0047, with managers being a significantly different group from the other two groups, who were not significant different from each other.

Discussion

Our study reports only modest support for the main findings of the Fritzsche and Becker study regarding the ethical predispositions of managers. Their reported utilitarian bias of managers revealed itself in our own study only in a positive response to utilitarian character traits, but not in anything else. But the current study was of 141 largely non-managerial personnel (only 18 managers), while the Fritzsche and Becker study was of 124 marketing managers. Regarding members of organizations more generally, we found no preference at all for utilitarian reasoning; quite the contrary, their preferences seemed to be clearly in the formalistic direction. These combined results of both studies suggest differences in ethical dispositions that are associated with position: managers think differently from employees in general.

The differences in results, however, might also be accounted for in the design of the vignettes. In our study, we were careful to design vignettes that allowed for maximum variability in types of responses. Although the use of ethical reasoning does seem to be content dependent, it is possible to design vignettes where the bias is sufficiently reduced to allow for respondents' predispositions to be measured. Having done so, we found that respondents preferred formalist thinking rather than utilitarian thinking.

Second, we found that people's ethical predispositions regarding issues are strongly biased toward solutions, as opposed to kinds of reasons in support of those solutions. Empirically, then, this implies that utilitarianism and formalism are not best understood as forms of reasoning but as general behavior-orientations that can be independently rationalized. People tend to behave before they think.

Third, we found that utilitarian and formalistic reasoning seem to be independent concepts that are measured on different scales. Evidently, people's preferences for utilitarian and formalistic reasoning can be developed independently. Given this finding, there may be other dimensions of reasoning future studies might want to investigate.

Fourth, our study shows that consistent and correlated results are achieved whether ethical predispositions are measured with responses to vignettes or with preferences for character traits. This implies that the measurement of ethical predispositions is method-independent and supplies evidence for the validity of our study.

Finally, our study suggests strongly that age is a powerful determinant regarding people's ethical predispositions, while gender is not. This is true for all employees except managers: Whereas our study showed that people in general display strong formalist dispositions with increasing age, managers (despite their increasing average age) were more likely to think in utilitarian terms.

Future studies are now under way involving populations very different from the present study. With greater variation in demographic characteristics, the data from these studies should enable us to get a better feel for the capacities of the instrument used here.

Appendix A

Part 1: Vignettes

Below are several vignettes representing common ethical dilemmas or issues. Following each vignette is a set of four statements, each of which represents a different way of thinking about the situation. Please rate each statement on a scale of 1 to 7 indicating the extent to which it would fit your way of thinking about the situation.

1 = Not at all like my way of thinking
2
3
4
5
6
7 = Very much like my way of thinking

1. In front of the cafeteria on a major university campus is a busy two-lane road with a cross walk and a traffic light. There is no intersection, but the light can be controlled by a pedestrian button on each sidewalk.
   When there is little traffic, a person could either press the button and wait for the light or just walk across without the light . . .

   ____ a) No harm is done just to go ahead; it's inconvenient to wait when there is little or no traffic.

   ____ b) In these matters one ought to be reasonable, not extreme; one ought to obey the spirit rather than the letter of the law.

   ____ c) It's better to be safe than sorry.

   ____ d) One should obey all traffic laws.

2. You are the instructor of an evening class which meets every Wednesday night. One part of the course is a library tour, in which you acquaint the students with various materials and sources for study. Unfortunately, you have just received a memo from the library director which notifies you that the tour must be conducted on the following Thursday night. When you take the proposed change to the students, all are still very interested in going on the new date except for two students who are unable to attend. Both have previous commitments, but it would be valuable for all to attend. The tour has always been part of the course . . .

   ____ a) The class would be better off if a majority went on the tour than if none did.

   ____ b) The tour is in the course syllabus; you should do all you can to fulfill listed course assignments.

   ____ c) You can probably find other ways to help the students learn about the library.

   ____ d) Not even one student should be treated unfairly.

3. Many people think that abortions should be allowed; others think they should largely be prohibited . . .

   ____ a) Thousands of children are born into homes where they are unwanted and where they add to existing financial and emotional problems.

   ____ b) It's the right of a woman to choose what she will do with her own body.

   ____ c) Often, women who have abortions feel guilt and remorse; it's better to bear the child and allow for its adoption.

   ____ d) Aborting a fetus is equivalent to (or very close to) the taking of a human life.

4. You are a sales representative for an electronics manufacturing firm. You have scheduled dinner with an important client for tomorrow and would very much like to impress him. A good friend of yours is a member of an exclusive country club near town. You could really impress your client if you took him to dinner at the club. Your consider asking your friend to loan you his membership card . . .

   ____ a) The product you are selling is good, and everyone would win if the deal goes through.

   ____ b) Friends ought to help each other.

   ____ c) You might be discovered and lose the client.

   ____ d) People should never ask their friends to be dishonest.

5. One of your employees has accidentally come across a copy of your chief competitor's product price changes for next month. The booklet is on your desk in a manila envelop . . .

   ____ a) The price guide will give you a temporary advantage over your competitor.

_____ b) You owe it to your company and employees to use all legally obtained information to its best advantage.

_____ c) You may need your competitor's co-operation on a couple of joint projects in the future. You should not jeopardize that relationship now.

_____ d) Using the information would be basically unfair and dishonest.

6. You are middle aged and have been out of work for nearly two months. You need a job to support your family, and you have just been notified that you have a promising interview in three days with a company for which you would very much like to work. Unfortunately, you are well aware that youth is favored in today's job market and you are afraid that your age might work against you. So, you are thinking of dying your hair to get rid of some of the gray and temporarily reporting your age as several years younger than your true age. After all, you are vigorous, healthy, and highly competent, and you have often been told you look young for your age . . .

_____ a) You need the job to support your family, and you would be good for the company.

_____ b) Employers should be concerned only with how well an employee can do the job.

_____ c) Deception is risky; you can get into serious trouble if it is discovered.

_____ d) One should always be honest.

7. You work for a state auditor's office which has a policy against accepting gifts from anyone with whom the state may have business. Your birthday is in one week, and a very good friend of your father's has just dropped by with a pair of fine leather gloves and a birthday card. This person also works for a construction firm which has built city facilities in the past . . .

_____ a) Both the person and your father might be upset if you do not accept the gift.

_____ b) One should respect another's good intentions.

_____ c) The general welfare of the public is best served if you and other state employees remain independent of outside influences.

_____ d) Employees have an obligation to follow state policy.

8. Some people believe in capital punishment; others do not . . .

_____ a) There is always the possibility that a mistake was made in convicting him/her.

_____ b) Capital punishment may be approved by the state, but it is still killing; two wrongs don't make a right.

_____ c) Capital punishment is a significant deterrent; furthermore, imprisonment is expensive.

_____ d) Justice requires the death of the murderer; anything less is unfair to the victim and the victim's family.

References

Boal, K. B. and N. Peery: 1985, 'The Cognitive Structure of Corporate Social Responsibility', *Journal of Management* **11**(3), 71–82.

Bommer, M., C. Cratto, J. Gravander and M. Tuttle: 1987, 'A Behavioral Model of Ethical and Unethical Decision Making', *Journal of Business Ethics* **6**(4), 265–280.

Brady, F. N.: 1985, 'A Janus-Headed Model of Ethical Theory: Looking Two Ways at Business/Society Issues', *The Academy of Management Review* **10**(3), 568–576.

Cavanagh, G. F., D. J. Moberg and M. Velasquez: 1981, 'The Ethics of Organizational Politics', *Academy of Management Review* **10**(4), 363–374.

Cherrington, D. J. and J. O. Cherrington: 'Honesty vs Expediency: The Ethics of Business Leaders', (unpublished manuscript).

Ferrell, O. C. and L. G. Gresham: 1985, 'A Contingency Framework for Understanding Ethical Decision Making in Marketing', *Journal of Marketing* **49**, 87–96.

Finnis, J.: 1983, *Fundamentals of Ethics* (Georgetown University Press, Washington, D.C.).

Forsyth, D. R.: 1980, 'A Taxonomy of Ethical Ideologies', *Journal of Personality and Social Psychology* **39**, 175–184.

Fritzsche, D. J. and H. Becker: 1984, 'Linking Management Behavior to Ethical Philosophy – An Empirical Investigation', *Academy of Management Journal* **27**, 166–175.

Hogan, R.: 1970, 'A Dimension of Moral Judgment',

Journal of Consulting and Clinical Psychology **35**, 205–212.

Hunt, S. D. and S. Vitell: 1986, 'A General Theory of Marketing Ethics', *Journal of Macromarketing* (Spring), 5–16.

Kohlberg, L.: 1969, 'Stage and Sequence: The Cognitive-developmental Approach to Socialization', in D. A. Goslin, (ed.), *Handbook of Socialization: Theory and Research* (Rand-McNally, Chicago), pp. 347–480.

McDonald, R. A. and S. A. Morris: 1993, 'Refining Brady's (1990) Utilitarian/Formalist Aptitude Scale', presented at the Annual Meeting of the International Association for Business and Society, March 21, 1993, San Diego, CA.

Nozick, R.: 1981, *Philosophical Explanations* (Harvard University Press, Cambridge, MA).

Pastin, M.: 1986, *The Hard Problems of Management: Gaining the Ethics Edge* (Jossey-Bass, San Francisco).

Rest, J. R.: 1979, *Revised Manual for the Defining Issues Test: An Objective Test of Moral Judgement Development* (Minnesota Moral Research Project, Minneapolis, MN).

Stead, W. E., D. C. Worrell and J. G. Stead: 1990, 'An Integrative Model for Understanding and Managing Ethical Behavior in Business Organizations', *Journal of Business Ethics* **9**(3), 233–242.

Trevino, L.: 1986, 'Ethical Decision-Making in Organizations: A Person-Situation Interactionist Model', *Academy of Management Review* **11**(3), 601–617.

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