

A Multimethod Approach to Identifying Norms and Normative Expectations Within a Corporate Hierarchy: Evidence from the Financial Services Industry

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We use an incentive-compatible economic experiment and surveys in the field at a large financial services firm to identify the norms for on-the-job behavior among financial advisers and their leaders, and the normative expectations each group has of the other. We examine whistle-blowing on a peer, an incentive clash between serving the client and earning commissions, and a dilemma about fiduciary responsibility to a client. We find patterns of agreement among advisers, among leaders, and between the two groups, that are consistent with company guidelines identified ex ante. However, we also find measurable differences between what leaders expect and the actual norms of advisers. When there is such a mismatch we are able to distinguish miscommunication from ethical disagreement between leaders and advisers. Finally, we show that when advisers' personal ethical opinions do not match group norms, this mismatch is correlated with job dissatisfaction and lying for money in a second experiment.

Key words: ethics; norms; vignette; survey; coordination game; incentive compatible; financial services; financial adviser; whistle-blowing; fiduciary responsibility; organizational fit

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1. Introduction

Much has been made of the influence of ethical norms on behavior in organizations (Akerlof and Kranton 2010, Donaldson 2000, Gino and Bazerman 2009, Jones 1991, Kohlberg 1981, Treviño et al. 2008, Victor and Cullen 1988) and, as a result, their cultivation has been embraced as a legitimate business goal (see, for example, Lennick et al. 2011) and an important topic of social scientific study. Identifying ethical norms together with linking them to behaviors in business settings presents a sizable challenge to the research community. Eliciting truthful responses to inquiries about ethically sensitive behaviors (such as cheating, stealing, lying, or engaging in illegal behavior) is a significant methodological hurdle. This hurdle is not dwarfed by the task of convincing members across an organizational hierarchy to participate in a study that might expose the organization's ethical lapses. However, the potential gains to the scientific and management communities are sizable, because success would help create the basis for the development of

a more systematic economic theory of ethical norms and assist in explaining the role that norms play in organizational behavior.

We present results from the analysis of data about on-the-job ethical norms collected at several work sites of a large financial services firm. Our study participants are key personnel in this industry: the financial advisers and corporate leaders of a company that provides advising, planning, and investment services to individual clients and has annual revenues of more than \$1 billion per year. Using a novel research design that includes two behavioral economic experiments as well as more conventional survey instruments, we demonstrate the value of combining multiple methods so that we can elicit ethical norms, personal ethical opinions, and related behavior. Specifically, we adapt a new method of identifying ethical norms using an economic experiment that is incentive compatible (Krupka et al. 2011, Krupka and Weber 2008) to a field setting, and extend this method to capture the manner in which norms and beliefs about norms

vary within a corporate hierarchy. We then combine the norm-elicitation technique with a separate experiment measuring advice-giving behavior, and a survey, with the same subjects in the same field setting.¹ Our design is shaped by both the strengths and the weaknesses of the existing literature.

2. Related and Existing Work

The question of whether cultivating high ethical standards in a business setting influences behavior has been a source of speculation as far back as Bernard Mandeville (1670–1733) and Adam Smith (1723–1790) (Braques 2005; Donaldson 2000, 2005; Friedman 2008; Orlitzky 2001; Orlitzky et al. 2003; Smith 1982 [1759]). Research in this area consistently documents a correlation between individual behavior and individual perceptions about the ethical climate of the organization (Cullen and Bronson 1993, Victor and Cullen 1988), the degree to which leaders are perceived to behave ethically (Brown et al. 2005, Schwartz et al. 2005, Treviño et al. 2008), the actions of peers (Gino et al. 2009, Mazar and Ariely 2006), and the external rewards to the misdeed (Gneezy 2005).

A long tradition in psychology distinguishes between injunctive norms that describe prescriptions/proscriptions for what one ought to do, descriptive norms that describe what is regularly done, and personal ethical opinions (Cialdini et al. 1990, Deutsch and Gerard 1955, Schwartz 1973). We follow this literature and focus on injunctive norms and secondarily on personal ethical opinions.² Specifically, we define injunctive ethical norms as shared agreements regarding the appropriateness or inappropriateness of a particular behavior in a situation where another's welfare is directly affected. This definition is a synthesis of many available definitions and implies three properties that guide our norm elicitation approach (Boulding 1966, Church et al. 2005, Jones 1991, Krupka and Weber 2008, Saul 1981, Victor and Cullen 1988).

First, an ethical norm is a social construct that involves the joint recognition by group members that a particular behavioral rule exists and is to be applied to the relevant situation (Bicchieri 2006). The norm elicitation protocol we use (see Krupka and Weber

2008) captures this joint recognition by using a specific behavioral economic experiment—a coordination game. Because social norms reflect “collective perceptions,” this is an effective way to identify such socially held judgments.³ From a game-theoretic point of view, coordination games have a number of equilibria and nothing intrinsic to the game makes one equilibrium favored (or focal) over the other. However, Schelling (1960) theorized and Mehta et al. (1994) and Sugden (1995) demonstrated that prominence derived from common culture and shared experiences can create focal points. In our experiment, the shared ethical norms of a particular group create focal points in our coordination games.⁴

The second property implied by the definition is that “personal norms” or “personal ethical opinions” may differ from the views that are understood by group members to constitute the collective norm (Bicchieri 2006, Young 2008). Schwartz and Fleishman (1982, p. 81) define a personal norm or a personal ethical opinion as “self expectations for behavior constructed in specific situations on the basis of generalized internalized values” (see also Elster 1989a, b; Posner and Rasmusen 1999).⁵ In this paper, henceforth, we will refer to injunctive ethical norms as “ethical norms” and personal norms as “personal ethical opinions.”

The third property of ethical norms is that they vary from group to group (Krupka et al. 2008). In a corporate setting there is a natural potential for a variation in norms between two relevant reference groups that are at different levels of the corporate hierarchy—corporate leaders and financial advisers. As soon as we permit norms to vary by group, it follows that the beliefs of each group about the normative expectations of the other group may also vary. Our method will identify those differences, when they exist, by varying the reference group from which a subject's partner is drawn when playing the coordination game.

³ Camerer and Fehr (2004) note that coordination games can be paired with economic incentives to reveal the dimensions of shared understanding within a group. For other research using coordination games to identify social norms, see Leider et al. (2009), Gintis (2009), and Gächter et al. (2010).

⁴ Using coordination games to elicit injunctive norms, Krupka et al. (2011) demonstrate that the responses obtained from the matching task are relatively insensitive to variations in three of the most likely alternative focal points for coordination: a subject's beliefs about what others actually do, beliefs about what they themselves would do, or observing the choices of several other subjects.

⁵ Upon distinguishing between personal (or “private”) norms and social norms, Elster (1989a, p. 100) writes that “private norms . . . are not shared with others.” Bicchieri (2006, p. 22) differentiates social from personal norms (our “personal ethical opinions”) by the fact that social norms “have no reality other than our beliefs that others behave according to them and expect us to behave according to them.”

¹ The use of multimethod and multitask approaches to identify complex phenomena has been growing. Gächter et al. (2010) combine the Krupka and Weber (2008) norm elicitation protocol with a laboratory experiment to tease out social preferences separately from norm compliance. For other examples of multimethod and multitask approaches in different domains, see Burks et al. (2009), Cox (2004), Harrison and List (2008), and Karlan (2005).

² Injunctive norms are different from customs or actions that people regularly take, which are often called descriptive norms (Bicchieri 2006, Deutsch and Gerard 1955). Both kinds of norms influence behavior (Bicchieri and Xiao 2009, Cialdini et al. 1990, Herrbach and Mignionac 2007).

Social scientists have approached the measurement of norms in several ways. An important and significant body of research uses surveys to elicit ethical norms from individuals, groups, or organizations (Cullen and Bronson 1993, Kanazawa and Still 2001, Perkins and Wechsler 1996, Schwartz 1973, Victor and Cullen 1988).⁶ Although the strength of a survey is that it can be adapted to ask about norms in different settings for different situations, and do so in a cost-effective and scalable manner, this format is not incentive compatible with the revelation of true beliefs or preferences by respondents (Auger and Devinney 2007, Friedman and Sunder 1994, Furnham 1986).⁷ When questions about one's opinions or behaviors are sensitive (such as asking about bribing or whistleblowing practices), then direct questioning regarding those activities has been shown to lead to biases in many domains (Harrison and Rutström 2008, Kagel and Roth 1995, McFadden 2009, Schulze et al. 1996, Smith 1991).⁸ A second problem with survey methods is that they often connect the norms they identify with reported behaviors (which are subject to recollection errors and misrepresentation) rather than observed behaviors. As a result, uncovering the influence that ethical norms may have on behavior using surveys is not always feasible.

Economists take a different approach to identifying norms and their influence on behavior, preferring to indirectly identify norms from observed behavior, as a kind of revealed preference (Andreoni and Miller 2002). They typically do so by varying experimental conditions that are likely to yield behavior that is consistent with a preference for a particular norm (Bolton and Ockenfels 2000, Fehr and Schmidt 1999). An important strength of the laboratory experiment is that it provides salient incentives to respond in a way that is compatible with revealing preferences (Friedman and Sunder 1994). A second strength is that experiments directly measure behavior. However, standard laboratory experiments only measure norms indirectly from the decisions subjects make; this approach as generally used is not only ad hoc, but

it cannot distinguish between collective habits and shared norms, and between preferences for specific outcomes versus preferences for norm compliance.⁹

A further shortcoming that is shared by many survey and laboratory approaches is that they often do not (or cannot) distinguish between norms with respect to different reference groups, or between personal opinions and group norms. Norms relevant to complex social settings are frequently associated with specific roles (or "identities") and reference groups (Akerlof and Kranton 2010). Different groups within an organization can, and frequently do, have differing social norms for the same decision-making context (Harris 1990, Schminke et al. 2005).¹⁰ The most intuitive example of this, and the one we examine in this paper, is when there exists a norm held by peers at one level of an organizational hierarchy (such as the employees) and a different ethical norm about the same behavioral context may be held at another level of the organization (such as by those in leadership positions).

We argue that when seeking to relate ethical norms to behavior in an organizational context, it is pertinent to identify not only what the norms are, but whose norms influence behavior. This is relevant because, as an example, considerable evidence points to a positive correlation between ethical leadership and ethical behavior among subordinates (Brown et al. 2005, Gatewood and Carroll 1991, Smith et al. 2007, Treviño et al. 2008). In addition, other literature suggests that one's own ethical behavior may also be correlated with the ethical behavior of one's peers (Brass et al. 1998, Jones and Kavanagh 1996, Zey-Ferrell and Ferrell 1982, Zey-Ferrell et al. 1979).

Distinguishing between collectively held norms and personal ethical opinions is equally important (Elster 1989a, b; Schwartz 1973).¹¹ Often one's personal norms and those of the group overlap, but they need not. The ability to measure, in an incentive compatible manner, when and to what degree norms at the employee level overlap with (a) management's desired norms in an organizational hierarchy and (b) personal ethical opinions is a distinctive advance in the empirical tools available for exploring norms and behavior in an organizational setting, or for testing conjectures that arise from previous empir-

⁶ There are important exceptions to this. Cialdini et al. (1990), for example, use experiments to observe how behavior changes when particular norms are made more or less salient in an actor's mind. However, the initial identification of the relevant norms is done in a prestudy that uses a survey format.

⁷ As Smith (1991) notes in his paper that contrasts psychology and economics, the lack of discourse on incentive compatibility among psychologists likely stems from a difference in (historical) research focus. However, insofar as social scientists are interested in beliefs and behaviors (rather than the cognitive processes that give rise to them), incentive compatible elicitation techniques for eliciting beliefs and measuring behavior ought and need to be developed.

⁸ See also the "Bradley Effect," the hypothesized reluctance of white respondents to tell African-American surveyors that they prefer not to vote for African-American candidates (Elder 2007).

⁹ Using behavior to infer norms also fails to identify norms that prohibit behavior (because the behavior that the norm governs is rarely observed). See Bicchieri (2006, Chap. 1) for a longer discussion of how using behavior to infer norms can sometimes lead one astray.

¹⁰ In the context of safety norms, see Zohar and Luria (2005).

¹¹ But see also Bicchieri (2006).

ical work (Damon 1984) or predictions that arise from theory (Akerlof and Kranton 2010).¹²

Our growing knowledge of the interplay between norms and behavior is expressed in the constructs themselves (such as the distinction made between group norms and personal ethical opinions) and in theory. Both demand measurement techniques and research designs that generate appropriate data. As an example, a typical theory (found in economics and in organizational psychology) that models the relationship between group norms, personal opinions, and behavior characterizes the individual as caring about both the payoff $\pi(a_k)$ produced by the selected action a_k , and the degree to which the action is compliant with a norm.¹³ This is written in reduced form as follows:

$$u(a_k) = V(\pi(a_k)) + N_i(a_k) + \gamma_i N_g(a_k). \quad (1)$$

The function $V()$ represents the value the individual places on the monetary payoffs and is increasing in $\pi(a_k)$. The personal norm function, $N_i(a_k)$, is defined by an individual's personal opinions about the appropriateness of a particular a_k , and assigns $N_i(a_k) > 0$ to actions that constitute "personally value consistent" behavior and $N_i(a_k) < 0$ to actions that are "personally value-inconsistent." Similarly, the group norm function, $N_g(a_k)$, assigns to each action a degree of appropriateness or inappropriateness that reflects the norm of the relevant reference group g . Thus, if there is collective recognition that action a_k constitutes "norm consistent" behavior, $N_g(a_k) > 0$, whereas $N_g(a_k) < 0$ if there is joint recognition that a_k constitutes "norm inconsistent" behavior. For an individual who cares to adhere to the group ethical norm, $\gamma_i > 0$.¹⁴ In studies of organizational fit ("fit" meaning the degree of matching between a person's values and those of the organization), personal ethical opinions and those of the organization are treated as distinct concepts (see Schneider 1987 as an example).¹⁵ Both

$N_g(a_k)$ and $N_i(a_k)$ affect utility, and when the valence (positive or negative value) of both normative terms is the same, the effect of ethical considerations on the utility derived from a particular action a_k is stronger, and when they are opposite the effect is weaker. Models of this type predict, as an example, that an individual who perceives his or her personal ethical opinion to be similar to that of the group's norm will have higher utility for the same job than someone whose personal ethical opinions do not overlap with that group norm. Thus, we would expect that the former will express greater job satisfaction or a greater desire to remain with the firm.¹⁶

3. The Experimental Design

Our experimental design consists of three modules. The first module elicits norms and beliefs about normative expectations. In the second module, subjects play an "advice game" in which they have material incentives to give bad advice by lying (Gneezy 2005). The third module elicits basic demographic information and related variables of interest, such as job satisfaction. The order in which subjects see these modules is always the same. In all cases, subjects are informed of their individual earnings only after all three modules are completed.

3.1. Identifying Ethical Norms Using Coordination Games (Module 1)

Our technique builds on the previous literature in which ethical norms are elicited using hypothetical vignettes (some recent examples include O'Fallon and Butterfield 2005, and Conroy and Emerson 2006) by adding the coordination game structure first developed by Krupka and Weber (2008). Each vignette describes a situation containing an ethical dilemma with which participants will be familiar because it could face a financial adviser in the workplace. The vignettes, along with a range of actions a financial adviser might choose to take in response to each situation, were developed with a focus group comprised of executives from our corporate partner who were not participants in our final study and did not supervise employees who were going to participate in our study, and consultants from a firm employed by the corporate partner. In addition to developing

a measure of "fit" (Ambrose et al. 2008, Cox 2004, Edwards and Cable 2009, Herrbach and Mignonac 2007, Schminke et al. 2005, Valentine et al. 2002).

¹⁶ In a more sophisticated approach one might add a second group norm term, to capture the potentially distinct effects on an individual's utility should he or she perceive distinct relevant reference groups to have different norms, such as might occur if a financial adviser believes that peers and managers have different ethical evaluations of a particular adviser action.

¹² Treviño et al. (2008) review some of the hypotheses that follow from theories where different personal identities trigger different personal norms (in economics, see also Akerlof and Kranton 2010). Although not the focus of this paper, the methodology we develop here allows the researcher to explore, as an example, what kinds of triggers would make different personal identities and associated norms salient.

¹³ This one is adapted from Krupka and Weber (2008) and Akerlof and Kranton (2010). But see also List (2007) for examples of utility functions in which social norms are separate arguments in the function.

¹⁴ Other researchers have noted that individuals care heterogeneously about norm compliance (Andreoni and Bernheim 2009, Fisher and Huddart 2008, Ostrom 2000).

¹⁵ The degree to which an employee's personal ethical opinions overlap with the norms actually held by his peers or with the ethical norms held by the corporate leadership can be thought of as

the vignettes, we asked this group to read the final vignettes and provide us with an *ex ante* ranking, according to corporate ethical policy, of the possible actions being considered.¹⁷ The experiment was carried out over a period of four days at three different offices of the cooperating firm, by the same investigators and research assistants, using paper-and-pencil forms.¹⁸ We focus initially on one of the three scenarios that is about whistle-blowing.¹⁹ The instructions explain to subjects that they will read about three different situations in which a person (“individual A”) must make a choice among several possible alternative actions. For each vignette, subjects are asked to rate the extent to which each alternative action available to individual A is “very ethically inappropriate,” “somewhat ethically inappropriate,” “somewhat ethically appropriate,” or “very ethically appropriate.” Our instructions state that by “ethically inappropriate,” we mean “inconsistent with the moral or ethical standards that are appropriate for the setting,” and by “ethically appropriate” we mean “consistent with the moral or ethical standards that are appropriate for the setting.”²⁰ Each vignette is written from the perspective of a person in the financial adviser role, and depicts a common ethical dilemma faced by financial advisers on the job. In the whistle-blowing vignette, subjects read a short story about two financial advisers who are talking at work (full text is provided in the online appendix, which is available at <http://ftp.iza.org/dp5818app.pdf>). The first adviser, David, tells the second, Tanya, that he has been working with two clients for several months to select a portfolio of investments, that they gave him a check for \$400,000, and signed the paperwork just before getting ready to go on vacation. However, because

the clients had become rather upset at how long the paperwork had taken to develop and complete, when he discovered that they had neglected to initial one of the multiple pages in the investment agreement, he initialed for them instead of asking them to delay their vacation departure to correct the problem.²¹

After reading about the scenario, subjects are asked to evaluate the ethical appropriateness of six different actions that Tanya could take after hearing David’s story. The actions are listed below in order from least to most ethically appropriate, as identified *ex ante* in the manner described above (although they were not presented in this order for the experiment).

1. Tanya nods, but does not say anything to David. She does not report him to a compliance officer.

2. Tanya tells David that she does not think that initialing for them was the right thing to do. She does not report him to a compliance officer.

3. Tanya tells David that she does not think that initialing for them was the right thing to do and that she does not want David to *tell* her about that again, or she will have to report him to a compliance officer. She does not report him to a compliance officer.

4. Tanya tells David that she does not think that initialing for them was the right thing to do and that she does not want David to *do* that again or she will have to report him to a compliance officer. She does not report him to a compliance officer.

5. Tanya nods, but does not say anything else to David. She then reports him to a compliance officer.

6. Tanya tells David that she does not think that initialing for them was the right thing to do. She tells him that she has to report him to a compliance officer. She then reports him to a compliance officer.

To capture the pattern of norms and normative expectation across the corporate hierarchy, we ask subjects to complete the rating task for the vignette three times. On the first pass through the possible actions, subjects are asked to match their ethical appropriateness judgments with those of a typical financial adviser, and they are told that their responses will be compared with the actual responses of a randomly selected financial adviser who is also taking part in the study (see Table 1).²² On the second pass through the possible actions, subjects are asked to match their ethical appropriateness judgments with

¹⁷ After developing the scenarios, we piloted the vignettes with eight subjects from a corporate office that did not participate in our final study. After the pilot, we had a debriefing discussion with the eight subjects about the vignettes; we asked them about how real the scenario felt, how typical and likely such a situation was, and whether the actions were reasonable and consisted of likely behaviors an employee might take. With minor adjustments, the pre-pilot validated our design as realistic and relevant to the financial adviser role.

¹⁸ Payments were offered in cash at the end of each session, except for one initial administration to corporate leaders that preceded the administration to the primary adviser groups; for this group we had to mail payments because we did not yet have adviser responses for matching, and so could not yet compute payoffs.

¹⁹ The other two are described in §4.1, and details are provided in the online appendix.

²⁰ The decision to have only four appropriateness categories considered the trade-off between having too few (reducing the ability to discriminate between degrees of appropriateness) and having too many (increasing the difficulty of coordinating on the social norm, perhaps encouraging the use of other focal principles). We omitted a “neutral” category because this would have been a focal point separate from the focal point due to the ethical norm.

²¹ By way of context, the firm is under a straightforward legal obligation to have the clients initial each page to show their approval. As a result, even though it is the intent of the clients to enter into the financial services agreement, if the adviser’s action of initialing for them on one page were discovered, it could affect the legality of the contract. It is the firm’s policy that it is ethically required for employees to follow the legal rules, and this in turn makes it an ethical requirement that Tanya blow the whistle on her colleague.

²² The online appendix provides an example of two lines from the table subjects used to record their responses.

Table 1 Norm and Belief Identification Using the Coordination Game Method

Who is <i>making</i> the match?	Who are the <i>targets</i> of the match?	
	Financial advisers	Corporate leaders
Financial advisers	(Cell 1) Actual adviser norms held by advisers	(Cell 2) Beliefs about leaders' desired norms held by advisers
Corporate leaders	(Cell 3) Beliefs about adviser norms held by leaders	(Cell 4) Desired norms for adviser behavior held by leaders

those of a typical corporate leader, and they are told that their responses will be compared with the actual responses of a randomly selected corporate leader who is taking part in the study (see Table 1). On the third pass, subjects are asked to provide their own personal ethical opinion, without trying to match anyone else's ratings.

Subjects are informed that the experimenters will randomly select a subset of the participants (25%) to receive payment for their responses in the matching tasks (personal ethical opinions elicited on the third pass are not financially incentivized). If an individual's response form is selected, then he or she will receive \$10 for each of his or her ratings that are identical to the ratings of the target respondent. Subjects who are among the 25% chosen to receive payment for responses can earn up to \$320 if they make correct matches on all 32 questions, in addition to the other parts of compensation that are paid to all subjects.²³

We can interpret subject responses in the following manner. If the subject is a financial adviser and his responses are matched with another financial adviser, then this technique elicits the financial adviser's belief about the normative evaluations of his peers, and in the aggregate, statistically identifies the actual norm in place among financial advisers (Table 1, cell 1). If the subject is a financial adviser who is matching with a corporate leader, then this elicits the financial adviser's beliefs about the norms corporate leaders desire for financial adviser behavior, and statistically identifies the beliefs of financial advisers about corporate leaders' normative expectations for adviser behavior (Table 1, cell 2). These two responses also measure the norm function $N_g()$ from Equation (1), because it will affect the behavior of each financial adviser, for two distinct definitions of g : first for the adviser's perceptions of the norms of his or her peers, and second for his or her perceptions of the norms corporate leaders desire advisers to have.

²³ The initial show-up fee was \$70, and the payment from the advice game (an average of \$100) raised the expected value for 32 correct matches to $\$70 + \$100 + (0.25 \times \$320) = \250 , with the maximum possible individual payout of \$540.

If the subject is a corporate leader who is trying to match ethical appropriateness ratings with another corporate leader, then this technique elicits the corporate leader's belief about the norms corporate leadership desire financial advisers to have (Table 1, cell 4), and in the aggregate identifies leadership's desired norm for adviser behavior, because our vignettes describe dilemmas and action choices faced by financial advisers. Finally, if the subject is a corporate leader who is trying to match responses with a financial adviser, then this technique instead elicits the corporate leader's beliefs about the norms held by financial advisers and, in the aggregate, it identifies corporate leader's beliefs about the ethical norms actually held by their employees (Table 1, cell 3).

Using the results from this exercise it is possible to examine the differences and similarities in the norms and beliefs of advisers and leaders, and also create summary measures of individual "misalignment." We describe several of these in more detail below.

3.2. The "Advice Game" and Demographic Questionnaire (Modules 2 and 3)

After subjects complete the norm elicitation module, but before they are told whether they have been selected for payment or how much they will receive, they participate in a decision-making experiment that confronts them with an ethical dilemma that is analogous to one they might meet in their work setting. In the "advice game" (Gneezy 2005), each participant is anonymously paired with a counterpart for a one-time interaction and all subjects are paid based on their decisions in this interaction. The module is described neutrally to both participants as an "economic choice activity," and the first mover is told that there are two options, A and B, that yield different payoffs for the two participants. The first mover is informed that the second mover will not (ever) be told the payoffs associated with the two options, but that it is the second mover who will select one of the options, which will determine the payoffs. The payoffs are \$150 for one member of the pair and \$50 for the other, with the first mover getting the higher payoff under "option A" and the reverse occurring under "option B." The first mover's only available action is to decide which of two possible messages to send to the second mover: a message that says "option A will give you the highest payoff" or a message that says "option B will give you the highest payoff." The first message would constitute a lie, but if believed and acted upon by the second mover, would increase the first mover's earnings by \$100.

After the first mover indicates which message to send to the second mover, the first mover is asked to record whether he or she believes the advice will be followed, to allow us to distinguish strategic lying

from truth telling.²⁴ After all first mover choices have been collected, the second mover receives a description of the choice faced by the first mover, with the exception that the second mover is not told what the payoffs are. The second mover then receives a message from a randomly assigned first mover. After reading the message, the second mover picks one of the two options to determine first and second mover payoffs. At no point is the second mover ever told what payments were associated with the options, or even the total amount at stake, and advice game payments to participants are made in private and aggregated with payments earned from other modules. This game gives us a direct measure of the willingness to truth tell at a significant financial cost while controlling for first mover beliefs about the likely responses of second movers.

The third and last module is a demographic and industry questionnaire. This provides information on job satisfaction as well as several important control variables for our analysis, such as age, gender, tenure with the organization, the number of clients, and the size of the adviser's portfolio.²⁵

3.3. Hypotheses

We begin by asking whether we can measure norms about on-the-job behavior and detect variations in normative evaluations of on-the-job behavior across levels in the corporate hierarchy, and we then examine the relationships between such evaluations and behavior. Hypotheses 1–5 state conjectures based on the view that the coordination game responses identify actual norms. Hypotheses 6 and 7 are about correlations between our measures of normative alignment and indicators related to individual on-the-job behavior. Specifically, Hypotheses 1–5 are as follows:

HYPOTHESIS 1 (CORPORATE LEADERS ALIGN WITH EX ANTE EVALUATIONS). *Corporate leader subjects will identify desired norms for financial adviser behavior that match the pattern in both valence (positive or negative evaluation) and intensity (of disapproval or approval) expected ex ante from the vignette construction.*

HYPOTHESIS 2 (GREATER FINANCIAL ADVISER ALIGNMENT FOR EX ANTE EXTREME ACTIONS). *Norm*

identification by financial advisers will have higher intensity (degree of positive or negative evaluation) and lower variance for actions identified ex ante as extremely inappropriate or appropriate.

HYPOTHESIS 3 (NORMATIVE ALIGNMENT ACROSS THE HIERARCHY). *We will observe a general pattern of alignment between financial adviser norms and the desired norms for adviser behavior held by corporate leaders.*

HYPOTHESIS 4 (SOME MEASURABLE MISALIGNMENT WHEN INTERESTS CONFLICT). *When the interests of financial advisers are in potential conflict with those of the firm, we will identify at least some cases in which financial adviser norms will not align with the normative expectations of corporate leaders in intensity and possibly in valence.*

HYPOTHESIS 5 (DIAGNOSIS OF MISALIGNMENT). *When misalignment is identified, there will be at least some cases in which we can distinguish between miscommunication and ethical disagreement across the hierarchy as the source.*

We also construct measures of alignment between personal ethical opinions and group norms. In a related literature, researchers use responses from (nonincentivized) questionnaires to measure specific constructs such as the climate about a particular topic within an organization and the values of each employee. In this literature "organizational fit" is a measure of how well the employee's values align with the values of the organization (Ambrose et al. 2008, Valentine et al. 2002).²⁶ Previous work has correlated organizational fit with an employee's organizational citizenship attitudes (Baker et al. 2006), turnover intentions (Herrbach and Mignonac 2007) and job satisfaction (Edwards and Cable 2009). A reduced form model such as we describe in Equation (1) captures a simple interpretation of "fit" and connects it to our definition of ethical norms and personal ethical opinions. Translating into our framework, we offer the following two conjectures in Hypotheses 6 and 7 about the predictive power of individual normative evaluations.

HYPOTHESIS 6 (MISALIGNMENT AND JOB SATISFACTION). *Differences between an individual financial adviser's personal ethical opinion and either the norms of peers or the normative expectations of corporate leaders will be correlated with job satisfaction.*

HYPOTHESIS 7 (MISALIGNMENT AND HONESTY). *Differences between an individual financial adviser's personal ethical opinion and either the norms of peers or the normative expectations of corporate leaders will be correlated with decreased likelihood of telling the truth in the advice game.*

²⁴ This belief elicitation is not incentivized.

²⁵ Because financial advisers and corporate leaders of financial services firms typically have annual incomes on the order of \$100,000 per year and potentially rising to significantly higher levels, it is relatively expensive to run economic experiments that recruit volunteers from this subject pool. The show-up fee and the incentives for choices in the experiment must be significantly larger than for student subjects. Because of the sensitive nature of the data we collected, we went to great lengths to ensure anonymity. Beyond the precautions we took during the experiment, we also used bracketed responses for all demographic questions.

²⁶ For example, Chatman (1989, p. 339) defines person-organization fit as "the congruence between the norms and values of organizations and the values of persons."

Table 2 Summary Statistics

	Financial advisers			Corporate leaders		
	Mean (%)	Median	<i>N</i>	Mean (%)	Median	<i>N</i>
Age		36–40	45		46–50	9
Male	80	Male	45	66	Male	9
Race	98	White	45	100	White	9
Grad degree		Some college	45		Post college	9
Extra certifications	20	No	45	33	No	9
Tenure		$x < 1$ year	45		1–5 years	9
Annual gross dealer commissions		\$0–\$100K	45			
Assets under management		\$1M–\$5M	45		Not asked	
Number of clients		$x < 101$	45			

4. Results

4.1. Assessing the Measures and Identifying Alignment

Table 2 summarizes the characteristics of our subjects. Our sample consists of 54 subjects in total (9 are corporate leaders and 45 are financial advisers) who are largely male and white, between the ages of 36 and 40 (financial advisers) and 46 and 50 (corporate leaders). The modal financial adviser has some college education and the modal corporate leader has postgraduate training. Based on survey responses about social ties and of business success, we find that 70% of financial advisers socialize with colleagues outside of work, 60% work with colleagues with whom they trained, and 53% share staff at work. The modal category for “annual gross dealer commissions” (a measure of income) of a financial adviser is \$1–\$100,000, the modal category for “assets under management” is \$1 million to \$5 million and the modal category for “number of clients” is between 1 and 100.

To test our hypotheses, we converted subjects’ ethical norm ratings into numerical scores. A rating of “very ethically inappropriate” received a score of -1 , “somewhat ethically inappropriate” a score of $-1/3$, “somewhat ethically appropriate” a score of $1/3$, and “very ethically appropriate” a score of 1 .²⁷ Table 3 presents summaries of subjects’ ethical appropriateness ratings for financial advisers coordinating with other financial advisers and by corporate leaders coordinating with corporate leaders. Each row corresponds to one possible action choice that individual A could take, described in the first column. For each of the subject types (financial advisers and corporate leaders), the columns of Table 3 report first the

mean of subject ethical appropriateness ratings and then the full distribution of responses. The final column reports the result of a Wilcoxon rank-sum test, a nonparametric comparison of the two distributions of responses that accounts for the ordinal nature of responses.

Table 3 is ordered in the sequence from least ethically appropriate to most, according to our focus group of corporate leaders. It is also coded in shades of gray to reflect the evaluations of each action according to company ethics policy, from the same source. All dark gray actions are very ethically inappropriate. Two actions are judged to be appropriate, but were ranked differently; the focus group rated “reporting but not saying anything” as consistent with the minimum requirements of the company’s ethics policy (lighter gray), but agreed that both verbally admonishing and reporting was the most ethically appropriate action (lightest gray). These rankings and evaluations allow us to benchmark responses from our subjects against an ex ante normative standard.

Subjects from both groups are able to anticipate ratings by their peers—the modal response for any action always receives over 40% of the responses. Consistent with Hypothesis 1, Table 3 shows that corporate leaders’ modal ratings match the evaluations of actions that we obtained from our focus group remarkably well, and the intensities of the evaluations, as indicated by the frequencies of the responses, are ordered appropriately. Consistent with Hypothesis 2, advisers have a high degree of success coordinating ratings for the more extreme actions (1 and 6), as compared to the less extreme actions (2–4).²⁸ The distributions of ratings show that advisers have less agreement and perceive a measure of ethical ambiguity with respect to less extreme actions, a perception that is not shared by corporate leaders.

²⁷ In making this assignment (which creates an equal gap of $2/3$ between each choice) we are imposing ratio scale characteristics on measurements that are initially ordinal. In some of what follows this is merely for convenience, such as when we use a rank-order test for the equality of distributions. But on other occasions it implicitly adds extra assumptions upon which our analysis is then conditional, such as when we test for the equality of variances (reported in the online appendix) or compare means.

²⁸ In the online appendix, we present a formal comparison of the variances of extreme responses with those of the more ambiguous ones. This comparison also shows a pattern consistent with Hypothesis 2.

Table 3 Evaluations When Financial Advisers Match with Financial Advisers and When Corporate Leaders Match with Corporate Leaders

Action	Financial advisers (FA) matching financial advisers						Corporate leaders (CL) matching corporate leaders						FA vs. CL rank-sum test
	Mean	-- (%)	- (%)	+ (%)	++ (%)	Std. dev.	Mean	-- (%)	- (%)	+ (%)	++ (%)	Std. dev.	
1 Do not say anything; do not report	-0.85	80	18	2	0	0.314	-1.00	100	0	0	0	0.000	1.45
2 Say: "not okay"; do not report	-0.44	33	49	18	0	0.470	-1.00	100	0	0	0	0.000	3.42**
3 Say: "not okay, do not tell me again"; do not report	-0.47	38	44	18	0	0.484	-0.93	89	11	0	0	0.222	2.72**
4 Say: "not okay, do not do that again"; do not report	-0.35	31	44	20	4	0.559	-0.56	56	22	22	0	0.577	1.05
5 Do not say anything; report	0.41	2	20	42	36	0.536	0.72	0	0	44	56	0.351	-1.51
6 Say: "not okay"; report	0.87	0	4	12	84	0.336	1.00	0	0	0	100	0.000	-1.25

Notes. Color coding gives ex ante status. Dark gray denotes very inappropriate; light gray denotes somewhat appropriate; lightest gray denotes very appropriate. Responses are "very ethically inappropriate" (--), "somewhat ethically inappropriate" (-), "somewhat ethically appropriate," (+), and "very ethically appropriate" (++); modal response is unshaded.

***p* < 0.05 (all tests two-tailed).

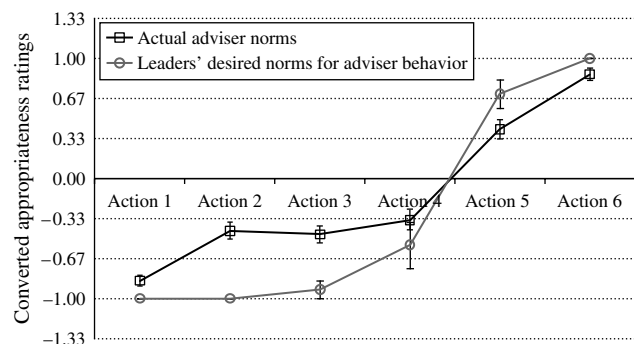
Consistent with Hypothesis 3, Table 3 shows a strong general pattern of alignment between the actual norm among financial advisers and the norm desired by corporate leaders for their advisers. The agreement is complete as to valence: the two subject groups give modal responses for each action that are either both in the positive zone or both in the negative zone. Further, both groups agree across the board on whether or not a particular action is overall ethically appropriate. On the two most extreme actions the intensity of the evaluation, as indicated by the modal response in Table 3, is identical.

However, Hypothesis 4 is also supported: there are subtle but significant indications of misalignment, and they occur for actions in between the two extremes of the ex ante ranking, where adviser loyalty to the adviser peer group and, hence, adviser ethics regarding the treatment of peers, appear to be in conflict with corporate ethics policy. Figure 1 presents a graphical display indicating the actual norms of the two groups with regard to adviser behavior; it shows the mean evaluations of financial advisers matching financial advisers (cell 1 of Table 1) as compared to those of corporate leaders matching corporate leaders (cell 4 of Table 1).

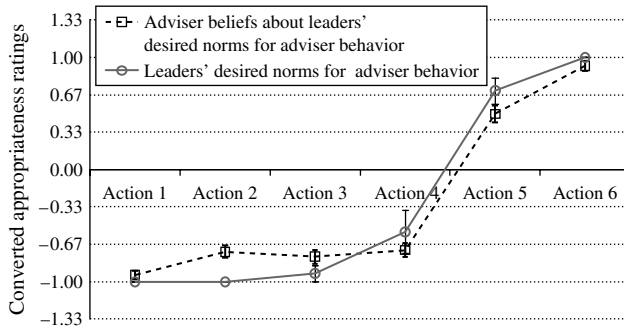
The misalignment is apparent in the gaps between the mean values in Figure 1. For example, actions that require Tanya to express some dissatisfaction but to take no action to formally report David are, on average, held to be ethically inappropriate among financial advisers, but significantly less so than they are among corporate leaders. Thus, when it comes to the

intensity of the evaluations, as indicated by the distance above or below the neutral point (depicted as the *x*-axis), what corporate leaders agree upon often differs measurably from what financial advisers agree upon. For example, corporate leaders matching with corporate leaders find that any action where Tanya does not report David is very ethically inappropriate. But financial advisers matching with financial advisers over the same actions find that not reporting David is "somewhat inappropriate" (44%–49%) to "somewhat appropriate" (18%–20%). For two of these actions the difference in ratings is statistically significant (see Table 3), and we interpret these findings as evidence of misalignment over these actions in the intensity with which financial advisers hold the norms desired by corporate leaders. Thus, although we can clearly say that the financial adviser norm is

Figure 1 Actual Adviser Norms and Leaders' Desired Norms in the Whistle-Blowing Scenario



Note. Mean evaluations with standard errors.

Figure 2 Adviser Beliefs About Leaders' Desired Norms and Leaders' Desired Norms in the Whistle-Blowing Scenario

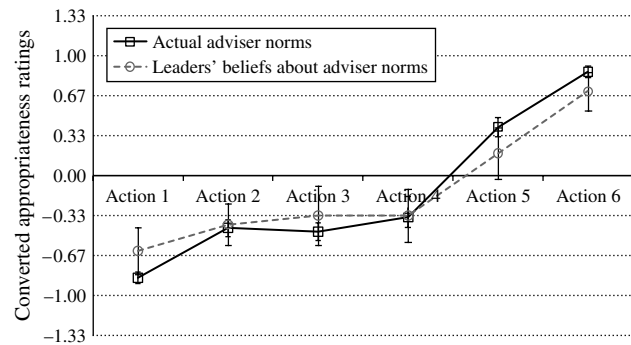
Note. Mean evaluations with standard errors.

to report David no matter what, we also observe that financial advisers are not uniform in their agreement, and the intensity with which they hold this norm as a group is below corporate leader expectations.

Our methodology allows us to investigate whether the misalignment we observe is the result of a miscommunication between leaders and employees or whether it reflects a divergence in ethical norms between employees and leadership. To explore this question we look at two different ethical appropriateness matches: financial advisers matching with corporate leaders, which identifies financial adviser beliefs about leaders' desired norms for adviser behavior (cell 2 in Table 1), and corporate leaders matching with financial advisers, which identifies leaders' beliefs about adviser norms (cell 3 in Table 1). In each case we compare the beliefs with the relevant actual norms.

Figure 2 compares mean financial adviser beliefs about the norms corporate leaders desire advisers to have (cell 2 in Table 1) to leaders' desired norms for adviser behavior (cell 4 in Table 1). We can see that the differences between these ratings are small, and specifically that they are smaller than those between actual adviser norms and those desired by leaders in Figure 1. This suggests that financial advisers understand that corporate leaders expect Tanya to blow the whistle, and that they understand that any choice that does not involve reporting David is quite ethically inappropriate according to the firm's leaders. Put differently, Figure 2 is clear evidence that financial advisers are well informed of the corporate ethics policy and its implications for the ethical appropriateness of these actions.

Figure 3 compares the actual financial adviser norms (cell 1 in Table 1) with corporate leaders' beliefs about financial adviser norms (cell 3 in Table 1) and shows that not only are advisers relatively clear on the expectations of leadership, corporate leaders also understand what the actual financial adviser

Figure 3 Actual Adviser Norms and Leaders' Beliefs About Adviser Norms in the Whistle-Blowing Scenario

Note. Mean evaluations with standard errors.

norms are. We interpret the evidence from Figures 2 and 3 as inconsistent with a miscommunication in which employees misunderstand the views of corporate leaders. Each level of the corporate hierarchy understands what the ethical position of the other is; the two groups simply hold different ethical norms. Consistent with Hypothesis 5, we diagnose this as an ethical disagreement. A parsimonious explanation is that adviser loyalty to peers makes them somewhat reluctant to fully condemn actions that include expressing disapproval of David's action but do not include reporting him, as compared to the view of leaders, who believe that reporting David is always ethically required.

This interpretation is substantially strengthened if we compare the pattern of norms and beliefs in the whistle-blowing vignette to the pattern of responses in the fiduciary dilemma vignette. The fiduciary dilemma scenario is about a client who insists on making an investment that is inherently unsuited to achieve the client's financial goals as they are stated (because the investment he wants to make is too risky).²⁹ Despite the trade being contrary to the adviser's fiduciary duty to his client, making it would generate income for the adviser and business for the firm. In order of ex ante appropriateness the actions vary from simply making the trade (very ethically inappropriate) to refusing the trade altogether (very ethically appropriate), with various increasingly strongly worded warnings to the client in between.

Though not shown here, in the online appendix we present figures for the fiduciary dilemma that are similar to those above for the whistle-blowing vignette. These show that actual adviser norms and leaders' desired norms for adviser behavior are misaligned for two nonextreme actions (one ex ante inappropriate and one ex ante appropriate) as to the intensity

²⁹ The full text of all three vignettes and action descriptions for the two not included in §3.1 are provided in the online appendix.

of the ethical evaluation. However, when we examine the pattern of beliefs, we find that adviser beliefs regarding the norms leadership desires are incorrect: on these two actions they do not match leadership’s desired norms for adviser behavior. This pattern suggests that leaders have failed to effectively communicate their ethical expectations for these two actions; consistent with Hypothesis 5, we diagnose this as a miscommunication. However, leaders’ beliefs about adviser norms are substantially correct in the fiduciary dilemma, suggesting that leaders already understand that there is a communication breakdown.

These findings from the whistle-blowing and fiduciary dilemma vignettes are further complemented by results from the “financial incentive clash” vignette (see the online appendix). In this scenario the client desires a liquid and safe investment with a secondary concern for return and, among assets that provide these characteristics, the adviser faces a trade-off between the level of compensation to the adviser and the net return to the client. In this context actual adviser norms and leaders’ desired norms are fully aligned, with the exception that corporate leaders are actually a bit too pessimistic about the norms advisers have with regard to several of the more ethically inappropriate action choices.

This evidence as a whole is consistent with the view that our method is identifying real differences. In this firm norms are substantially aligned across the hierarchy, but we can observe measurable misalignments, and where they exist, as conjectured in Hypothesis 5, we can distinguish between ethical disagreement and miscommunication between leaders and employees.

4.2. Correlation Between Our Measures and Indicators of Relevant Behavior

We construct three different kinds of misalignment measures to assess the effect of misalignment on reported and observed individual behaviors (Hypotheses 6 and 7). We examine (1) misalignment between the financial adviser’s perception of the norms of peers and the adviser’s perception of the norms desired by leaders, (2) misalignment between leaders’ desired norms and an adviser’s own personal ethical opinion, and (3) misalignment between the norms of peers and an adviser’s own personal opinion.

To create a summary measure of misalignment between an employee’s perception of the actual norm held by his or her peers and the norms corporate leaders desire, our measure takes the absolute value of the difference between the average ethical appropriateness ratings provided by corporate leaders matching with corporate leaders (cell 2 in Table 1) from the rating given by each individual financial adviser in the task of matching other financial advisers (cell 1 in

Table 1), and sums these differences for each individual over all the actions:

$$M_i^{CL,FA} = \sum_{j=1}^6 |\overline{action}_j^{CL} - action_j^{FA}|. \quad (2)$$

In a similar fashion we construct a measure of misalignment between an adviser’s personal ethical opinion and the norm desired by corporate leaders $M_i^{CL,PO}$ by subtracting ratings obtained from the personal opinion elicitation from the average ratings given by corporate leaders coordinating with corporate leaders. We construct a measure of misalignment between one’s personal ethical opinion and financial advisers’ actual norm $M_i^{FA,PO}$ by subtracting ratings obtained from the personal opinion elicitation from the average ratings given by financial advisers coordinating with financial advisers.

Table 4 reports ordinary least squares regressions in which we correlate $M_i^{CL,FA}$, $M_i^{CL,PO}$, and $M_i^{FA,PO}$ with stated job satisfaction. Job satisfaction was measured in our survey module using a four-point Likert scale in which subjects could indicate that they were “very dissatisfied” to “very satisfied.” Consistent with Hypothesis 6, we see that regardless of which type of measure of misalignment we use, an increase in the magnitude of the misalignment is significantly correlated with a decline in job satisfaction. Interestingly, the strongest correlation is for the misalignment between personal ethical opinions and the actual norms of adviser peers. This suggests an in-group identification process, in which the identification of financial advisers with their peers is important, both when it succeeds and when it fails.

Last, we turn to Hypothesis 7, the conjectured correlation between our measures of ethical norm alignment and behavior in the advice game. In our sample,

Table 4 Ordinary Least Squares Regression Correlating Measures of Normative Misalignment and Job Satisfaction

	Dependent variable		
	(1) Misalignment between perceived actual adviser norm and leaders’ desired norms	(2) Misalignment between personal opinions and leaders’ desired norms	(3) Misalignment between personal opinions and adviser actual norms
Satisfied	−0.57* [0.27]	−0.58* [0.26]	−0.46** [0.15]
Observations	45	45	45
R ²	0.21	0.21	0.27

Notes. All regressions include controls for age, gender, assets under management, number of clients, and gross dealer commission. Standard errors are in brackets.

*Significant at 5%; **significant at 1%.

Table 5 Probit Regression Correlating Measures of Normative Misalignment and Deception

	Dependent variable		
	(1) Probability of telling the truth	(2) Probability of telling the truth	(3) Probability of telling the truth
Misalignment between perceived adviser norm and leaders' desired norms	−0.04 [0.29]		
Misalignment between personal opinions and leader's desired norms		−0.10** [0.00]	
Misalignment between personal opinions and adviser actual norms			−0.17** [0.09]
Observations	28	28	28
Pseudo R^2	0.19	0.27	0.30

Notes. All regressions include controls for age and gender. Standard errors are in brackets. Regression is clustered at the branch level.

**Significant at $p < 1\%$.

25% choose to send a message that was a lie ($n = 7$).³⁰ In Table 5 we report the marginal effects for a probit regression that correlates the probability of telling the truth with our three measures of misalignment.³¹ Consistent with Hypothesis 7, we find that higher misalignment is negatively correlated with the probability of honesty. A perceived misalignment between the actual adviser norms and leadership's desired norms ($M_i^{CL,FA}$) is negatively though not significantly correlated with the probability of telling the truth (column (1) of Table 5). However, a misalignment between the personal ethical opinion held by a financial adviser and leadership's desired norms ($M_i^{CL,PO}$) is significantly correlated with a decline in the likelihood of telling the truth (column (2) of Table 5; estimated coefficient -0.10 , $p < 0.01$).

A misalignment between the personal ethical opinion held by a financial adviser and those of his peers ($M_i^{FA,PO}$) is also associated with a decline in the likelihood of telling the truth (column (3) of Table 5; estimated coefficient -0.17 , $p < 0.01$). It is worth noting that the change in the magnitude of the coefficients tells a story consistent with the literature that finds that people use peers as reference groups when deciding whether or not to engage in unethical behavior

³⁰ Of those that lie, all believe that their advice will be followed. Of those that tell the truth, 20 believe that their advice will be followed and 1 believes that his or her advice will not be followed.

³¹ Because the experiment was run with paper and pencil, each subject can play only one active role, and this reduces our number of advice game observations to 28.

ior (Gino et al. 2009, Zey-Ferrell and Ferrell 1982, Zey-Ferrell et al. 1979). These results give particular prominence to the alignment between two different norm constructs (personal ethical opinions and group norms). Previous work has looked at the correlation between ethical leadership and the ethical behavior among subordinates (Brown et al. 2005, Gatewood and Carroll 1991, Smith et al. 2007, Treviño et al. 2008) or between the ethical behavior of one's peers and one's own ethical behavior (Gino et al. 2009, Zey-Ferrell and Ferrell 1982, Zey-Ferrell et al. 1979). Our findings suggest an additional and perhaps more subtle point: that the degree to which personal ethical opinions align with the norms of one's peers and, to a lesser extent, with the norms espoused by leadership, are also potentially important influences on attitudes and behavior.

5. Conclusion

In this paper, we begin with the Krupka and Weber (2008) norm elicitation protocol, which combines the versatility of a survey using vignettes about ethical dilemmas with an incentive compatible coordination game mechanism that induces subjects to reveal their true beliefs about the norms that are relevant to the vignettes. We adapt this technique to the field setting by applying it to ethical conflicts that can face financial advisers on the job. However, our adaptation of this technique also extends it, providing a novel method for distinguishing between different norm constructs and norms among different groups in the organization. Specifically, we can distinguish between the *norms* held by distinct groups within the corporate hierarchy (in this case financial advisers and their managers), the *beliefs* that each group has about the normative views of the other, as well as the employee's own *personal* ethical opinions.³²

To achieve this, we present three vignettes, each of which describes an ethical dilemma that a financial adviser could face on the job. We ask subjects to match with (coordinate with) an anonymous other person in giving an ethical evaluation of several specific actions a financial adviser could take in response to each situation, and we pay subjects for correctly matched evaluations. By asking both corporate leaders and financial advisers to provide responses in our matching task, and by varying the identity of the matching target (an anonymous financial adviser or an anonymous corporate leader) we are able to directly observe whether there is a common pattern of ethical evaluations that indicates the presence of a norm. Where such patterns occur, our technique allows us to separately identify the actual norms held

³² See also Krupka et al. (2008).

by advisers, advisers' beliefs about the norms that corporate leaders desire advisers to have, corporate leaders' desired norms for adviser behavior, and corporate leaders' beliefs about the norms advisers have. We also ask all subjects to give their own personal ethical opinions; these opinions are asked directly (thus, no coordination game is played), and we offer no financial incentive for responses about personal opinions. This allows us to test the conjecture that personal ethical opinions, as typically elicited in a survey-only approach, might diverge from collectively held norms.

To collect data about job-relevant individual behavior we also administer a second experiment, the advice game (Gneezy 2005). In the advice game subjects reduce their personal payoff from \$150 to \$50 by giving honest advice, and although subjects are anonymous in all interactions, we can connect advice-giving behavior with norm elicitation and survey responses for each participant. The final part of the design is a survey asking for individual demographic and job-related background information, including current job satisfaction.

We utilize this novel and rich source of information about ethical beliefs and expectations within the corporate hierarchy to examine the pattern of norms and beliefs among employees, among corporate leaders, and across the leader/employee divide. We find considerable alignment of leaders and employees with corporate ethics policies identified *ex ante*, but we also find measurable differences between employees and leaders. For instance, in our whistle-blowing scenario we find that financial advisers are considerably more forgiving than are leaders of an employee who admonishes but does not report a peer who has violated a corporate policy. By comparing the patterns of belief and expectation across three different vignettes, we show that when the ethical norms of employees and the norms desired by corporate leaders are misaligned, it is possible to determine whether the mismatch is due to a failure to communicate those desired norms to employees (which we find in our fiduciary responsibility scenario) or to an underlying disagreement about what is ethical (which we find in our whistle-blowing scenario). These results afford a unique opportunity to bridge the gap between scientific knowledge and its application by sharing the statistical results with our corporate partner, because these two situations have very different implications for effective managerial intervention.

We also use the elicitation of personal ethical opinions to derive measures of misalignment at the individual level. Using these measures we find relationships between norm alignment and job satisfaction, and norm alignment and honest behavior.

In particular, we show that the influence of ethical norms on these two outcomes is correlated with the degree to which personal ethical opinions diverge from the norms of one's peers and from the norms espoused by leadership. This shows the strong complementarity between the existing methodology of vignette-based surveys for eliciting personal ethical opinions and our new incentive compatible elicitation of actual norms. Using these together produces more useful results than would be likely from separately administering them to the same subjects.

There are many obvious applications for our approach. For example, one might elicit norms from employees and corporate leaders for potential actions in response to a scenario with a clash between corporate profitability and environmental preservation. Another possibility might be a scenario involving a clash between safety practices and meeting a customer's expectations. Furthermore, one could relate the norms and ethical expectations elicited with our method to variations in corporate culture or in organizational structure. For example, one could ask whether the normative alignments are different (either collectively or at the individual level) across workplaces in an acquired firm as compared to the acquiring one, and relate differences discovered to individual and workplace outcome measures.

The recent financial crisis, as well as historical scandals like that at Enron, have together highlighted the importance of ethics in financial services for the economy as a whole. But beyond the implications for any particular industry, we believe that social scientists studying the role of a broad array of norms within organizational contexts will find this approach of use in generating new empirical regularities to be addressed by the theory of organizational behavior and in testing theoretical hypotheses about how organizations function. The incentive-compatible parallel measurement across an organizational hierarchy of the actual norms, and the beliefs of each level of the hierarchy about the normative expectations of the others, along with the personal ethical opinions and ethics-relevant behavioral choices of subjects, offers a new standard about what should be measured, and how to measure it, when norms are studied in an organizational context.

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