



# Do Wealth Managers Understand Codes of Conduct and Their Ethical Dilemmas? Lessons from an Online Survey

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Received: 7 June 2021 / Accepted: 11 February 2023 / Published online: 11 March 2023  
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## Abstract

How do wealth managers understand and comply with the social norms embedded in banks' codes of conduct (CoC), and how do they cope with ethical dilemmas? Do they have a tendency after the global financial crisis to prioritize banks' financial security over clients' interests? To answer these and related questions, we conduct a nonincentivized online survey with wealth management employees of the Swiss legal entity of a large multinational bank. We propose a method to estimate the comprehension and the level of expected adherence to the CoC principles that we test with our sample. We further show that framing questions under the label of "Financial Security" increased response accuracy and that employees' honesty helped guide their decision-making toward integrity in ethical dilemmas. Thus, in addition to validating a method for testing the level of CoC comprehension and the expected adherence to its principles, our study is among the first to show that in the wealth management business, honesty and social injunctive norms defined in the bank's CoC reinforce one another.

**Keywords** Code of conduct · Corporate governance · Client interest · Financial security · Ethical dilemmas · Honesty · Online survey · Social norms

**JEL Classification** G21 · G34 · G41

## Introduction

The study of conformity to external expectations is a cornerstone of organizational theory research (Zey, 2015).

Agency problems (information asymmetry, conflicts of interest and opportunistic agent behavior) are universal. In banking, and in wealth management in particular, the problem of moral hazard frequently arises in relations between a bank (or its employees) and its clients. Many management practices aim at instilling in a certain followership a top-down defined set of rules, and conformity with social norms is, in fact, the targeted objective of rules and codes of conduct in an organizational culture (Weaver & Treviño, 1999).

Social norms provide implicit incentives to promote certain behaviors and reduce others. Norms that inform about what is typically done are known as descriptive norms, whereas those that inform about what is typically approved/disapproved of are called injunctive norms (Cialdini & Goldstein, 2004). Injunctive norms are a way of monitoring agent behavior that is typically employed in organizations and contexts where a moral hazard may arise. An applied way of introducing injunctive norms is to codify them and communicate them in a firm's Code of Conduct (CoC), but not much research exists as to their effectiveness. Many firms, especially in the finance industry, adopt codes of conduct to express social norms of accepted and unacceptable corporate behaviors (Kaptein & Schwartz, 2007). The premise behind codes of conduct is that instilling social norms can influence behavior by guiding decision-making, especially in critical dilemma situations (Huang & Wu, 1994).

Verifying whether codes of conduct can, in fact, diminish corporate misconduct and deceptive practices in business is important, particularly in industries exposed to moral hazards such as finance or pharmaceuticals.

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The financial industry has suffered a decline in its reputation as a result of a perceived lack of ethical conduct and honesty, which culminated in a historical low in public trust (Stevenson & Wolfers, 2011) after the global financial crisis of 2008. The latter is often attributed to the pervasive greed and lack of public responsibility on the part of the bankers (Tett, 2009). In his Presidential Address, Zingales (2015) argued that in the financial sector, “fraud has become a feature and not a bug.<sup>1</sup>”

Moreover, previous experimental studies have shown that banking culture can be quite at ease with dishonest behavior (Cohn et al., 2014). Have these negative behavioral tendencies been mitigated by recent changes in the banking regulatory and compliance environments, such as the shift toward more ethical practices in the certified financial analyst (CFA) program (CFA Institute, 2017)?

In light of this negative perception of the banking industry following the global financial crisis, the first objective of this study is to conduct a nonincentivized online survey in which we measure the comprehension of and the expected adherence to the CoC among wealth managers of a large international bank based in Switzerland. The results presented in this study stem from a rare opportunity to collect data in the field with wealth manager employees of a large multinational bank. For that purpose, a novel situational judgment questionnaire was developed in collaboration with the bank’s senior compliance and wealth management officers. As a second objective of the study, we analyze the factors that affect the comprehension of the CoC and its resilience to ambiguous situations and potential framing effects. Finally, we examine how the comprehension of the CoC principles and the expected choices of the participants are influenced by individuals’ honesty. The online survey comprised two parts: first, an informed consent form, demographic information, and a set of forty situational judgment test questions followed by a ranking of criteria used in answering them. The situational part of the questionnaire was constructed in collaboration with the bank’s senior compliance management team to pose realistic compliance issues and ethical dilemmas that client-facing personnel (wealth managers) encounter in their daily wealth management activities. The questions pertained to two core principles of the CoC and were presented separately: (1) Client’s Interest and (2) Financial Security. However, we designed some of them such that they could pertain to either principle (henceforth called intersection questions) and asked them once under each principle to test for potential framing effects. The managers’ knowledge of formal rules was tested in unambiguous questions (for which there was one correct answer), while

their tendency to adopt pro-ethical choices was tested in ambiguous questions (situations without a legally prescribed correct choice). The second part of the survey was administered one week after the completion of the first part and contained validated psychometric instruments that were later used as independent variables.

The focus on the wealth management division of the bank is motivated first by the importance of wealth management for the Swiss financial sector and second by the fact that in this area of banking, the interplay between compliance and client interests is very salient and often results in inherent ethical dilemmas. Indeed, many choices a wealth manager faces involve a tradeoff between his or her client’s best interest and compliance with international or national financial regulations or between self-interest and regulatory compliance, and it may be possible that even careful wording and implementation of a CoC cannot resolve such dilemmas.

## Theoretical Background

### The Functions of Codes of Conduct

A review of codes of ethics (Helin & Sandström, 2007) conducted before the global financial crisis found “an evident lack of insights into how corporate codes of ethics influence behavior in organizations” and that “[B]ehavior related to CCEs [*corporate codes of ethics*] seems to be a question of perception, not action. [...] [W]hat is still lacking is how this process of contextualization is carried out. What kinds of problems arise? Which actors translate the Corporate Code of Ethics? How is their behavior altered?” (2007, p. 262).

Although the literature on corporate ethics has been burgeoning since, a more recent review (Babri et al., 2021) found that codes may be counteractive to moral empowerment (Helin et al., 2011) or be perceived as simultaneously good and bad (Jensen et al., 2015), resulting in variable levels of approval, comprehension and conformity. Some studies on corporate ethics and corporate social responsibility find that, in the absence of audits, codes of conduct may be more of a marketing tool than an effective implementation of social norms (López et al., 2021).

In fact, implementing and assessing the effectiveness of a CoC in a financial organization is not an easy feat, as evidenced not only by the lack of literature on the topic but also by the inevitable presence of tensions between the priorities attributed to different principles (such as promoting Client Interest (CI) vs. Compliance with Financial Security rules (FS) vs. bank profitability in the case of the banking industry, for instance). Beyond the difficulty of choice, once articulated and communicated, comprehension of the principles and moral values, and in particular of employees’ honesty, are crucial factors in explaining adherence to the CoC

<sup>1</sup> Fraud has important negative consequences for finance as well as for financial markets more generally (Dyck et al., 2010; Gurun et al., 2018; Karpoff et al., 2008).

principles. There may be situations where the code itself may not be helpful, reflecting the conflict between stakeholders' interests, ethical dilemmas and people's heterogeneity in their interpretation of the CoC guiding principles (McDonald, 2009; Schwartz, 2004). Notably, open-ended vs. precise language (Schwartz, 2004) and organizational pressure to conform may create difficulties in interpretation (McDonald, 2009). Crucially, therefore, to comply with the norms, people must understand them. Statler and Oliver (2016) argue that to understand the corporate code of ethics and to provide it with sense-giving, one should also use conversation and communication about ethical dilemmas.

### Conformity to Codes of Conduct

Our work builds first on the tenets of group conformity put forth by Feldman (1984), wherein group norms are adopted and complied with when they serve group survival and support its performance. This view suggests an important role of recognition and alignment of an individual's interests and preferences with that of the group norm. Specifically, according to Feldman (1984), one of the fundamental conditions when group norms are enforced is if they *simplify, or make predictable, what behavior is expected of group members*. Consequently, it is vital that group members (employees) understand the norms when they take the formalized form of, for example, a corporate code of conduct.

Second, our research is embedded in the psychology of conformity, notably the work of Cialdini (Cialdini & Goldstein, 2004), which emphasizes that social norms become a valuable source of information, especially in uncertain situations. Consequently, codified social norms, such as a code of conduct, should aim to provide guidance to resolve such uncertainty. For that reason, the participants in our study were asked to make a decision in ambiguous situations to test the extent of the CoC generalization to resolve ambiguity.

Cialdini emphasizes the role of cognition, i.e., sense making by the target of a request for compliance, in decision-making irrespective of whether the required behavior is aligned with one's personal goals. That is why we also measure the employees' decision-making criteria and their perception of organizational risk climate as independent variables that could confirm goal alignment and, thus, promote expected adherence with the principles stated in the CoC.

### Framing Effects

Framing effects are said to occur whenever alternative descriptions of what is essentially the same decision problem give rise to predictably different choices (Kahneman, 1984). Here, we refer to framing as accessing cognitive frames rather than framing as the social construction of

meaning. We focus on the microlevel of framing, that is, the priming<sup>2</sup> and activation of knowledge schemas, which guide individual perceptions, inferences, and actions in context (Cornelissen & Werner, 2014). Priming in judgment literature and in the context of our study creates a baseline expectation or reference point—in our case, “Client's Interest” or “Financial Security”—that provides a basis that may be specific to scenarios of decision-making and social judgments.

Studies on framing effects in judgments in ambiguous situations have shown no consistent evidence of framing (Voorhoeve et al., 2016). If the code of conduct is written in neutral language, it should not create any bias, and there should be no framing effect by either of the guiding principles. Therefore, we have no predominant reason to expect an effect of framing by Client Interest or Financial Security principles on responses in unambiguous or ambiguous moral dilemmas where we will probe the participants' tendency to make pro-integrity choices. Thus, under the null hypothesis, we expect that in intersection judgment questions that concern both financial security (FS) and client interests (CI), the respondents' choice tendency should not differ between the “CI” and the “FS” framings.

**Hypothesis 1** Framing (CI vs. FS) does not affect CoC comprehension in unambiguous situations.

The alternative to Hypothesis 1 is that framing affects decision-making in unambiguous situations.

Similarly, in the case of ambiguous situations, null Hypothesis 2 states the following:

**Hypothesis 2** Framing (CI vs. FS) does not affect CoC comprehension in ambiguous situations. The alternative to Hypothesis 2 is that framing affects decision-making in ambiguous situations.

Indeed, in business, frames are seen as the means by which organizational members sort through information (Walsh, 1995). Hence, the alternative hypotheses (i.e., confirmed framing effects) may also be interesting, as psychological experiments on conceptual priming show a response consistency effect for semantically related stimuli. This would imply that, in both ambiguous and unambiguous situations, framing (i.e., conceptual priming) may also alter expected decision-making (McNamara, 2005). However, caution should be applied because such a result could also in part be attributable to learning effects if the experimental design does not randomize the order of frames across participants.

<sup>2</sup> ‘Priming’ refers to the activation of a cognitive frame as a knowledge structure which can affect the speed with which it is accessed and directs and guides information processing.

## The Role of Honesty in Ethical Decision-Making

Recent studies in the area of ethical conduct have focused on how individual factors—such as perception, cultural values and personality traits, including moral disposition (Aquino et al., 2009; Bascle, 2016; Desai & Kouchaki, 2017; Gibson et al., 2013)—influence behavior. Given the recurring ethical scandals in society, government and corporations, behavioral ethics research is important to understand and predict ethical decision-making and conduct.

To understand the drivers of participants' decision-making, one of the important factors we examined more closely was the role of individuals' honesty. Indeed, research on protected values and deontology has challenged consequentialist claims by demonstrating that individuals endorsing protected values for honesty are often rather resistant to make tradeoffs (for instance, trading honesty for monetary benefits; Berns et al., 2012; Dogan et al., 2016). Experimental research has also confirmed that people who hold protected values for honesty are more likely to resist financial incentives (Baron & Leshner, 2000; Gibson et al., 2013). Thus, we conjecture that people with highly protected values for honesty can rely on the latter in ambiguous decision-making settings when compliance with corporate rules lies in a gray zone. Thus, we hypothesize that:

**Hypothesis 3** Protected values for honesty help guide employees' expected choices toward integrity in ambiguous situations.

### Overview of the Present Research

To summarize, in this field study, we conduct an online non-incentivized survey to assess the level of comprehension of a bank's CoC principles by the bank's wealth management employees on a set of situational judgment questions that we take as a proxy for the expected compliance with the CoC principles. Furthermore, we analyze their responses to measure the impact of heterogeneity (in role, education, seniority, level of financial literacy as well as in individuals' honesty) on the level of expected compliance. Finally, we test three hypotheses focusing on the reported expected compliance with the CoC: (1) the framing of the questions pertaining to the CoC and (2) the role played by the employees' protected values for honesty in shaping their expected decision-making. We hypothesize that participants' expected behavior will not be affected by the Client Interest versus Financial Security framing of the questions and that choices in dilemma questions will be significantly influenced by the employees' protected values for honesty.

To our knowledge, ours is among the first studies to investigate the expected compliance with the CoC in the wealth management division of a bank using realistic situation

judgment questions that were designed with and tested by the bank's senior management. However, it is important to mention that since we base our study on self-reported answers that participants provide to ambiguous and unambiguous choices in an online questionnaire, we can, strictly speaking, only capture their expected behavior and can only assess their expected compliance with the CoC.

## Methods

To measure the effectiveness of the code of conduct in guiding expected decision-making of the employees of the BNP Paribas (Suisse) SA bank along two important principles of the CoC, that is, (1) Clients' Interest, and (2) Financial Security, we devised two types of situations, namely, one in which a clear decision rule exists (unambiguous) and dilemmas where individual discretion must be applied (ambiguous). The questions in the online survey had to be realistic and describe the daily compliance challenges faced by employees.

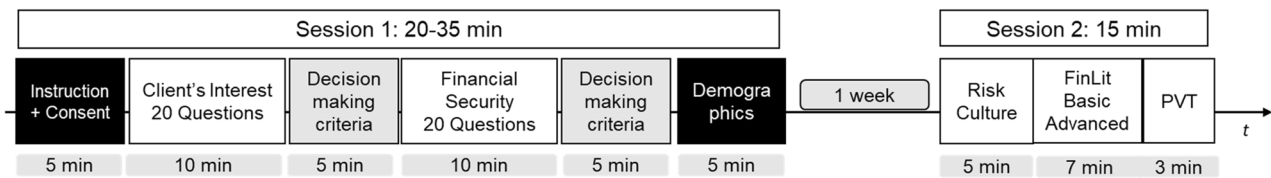
For that purpose, the content of the questionnaire was prepared by the researchers in collaboration with three members of the bank's senior management: one from compliance, one from business management and one from business innovation. Their role was to validate the actual regulatory compliance relevance of the situational questions asked in the survey and to insert them into daily problems and dilemmas faced by wealth managers. The overall design of the online questionnaire was validated by an independent academic body with expertise in online survey questionnaires (Ethics Committee of the University of Geneva).

The online survey was undertaken with 115 employees in several offices of BNP Paribas (Suisse) SA and focused on its wealth management division. The full text of the CoC referring to these two principles can be found in Appendix 2. Informed consent was obtained from all individual participants included in the study.

This study was performed in line with the principles of the Declaration of Helsinki. Approval was granted by the Ethics Committee of the University of Geneva. The identity of the participants was anonymized and thus kept unknown by the bank's management, and there were no promotion or firing consequences associated with the completion of the questionnaires.

### Sample and Procedures

BNP Paribas (Suisse) SA has branches in Basel, Lugano and Zurich, as well as wealth management subsidiaries in Monaco and the United Arab Emirates. As of 31 December 2019, BNP Paribas (Suisse) SA Group employed 1,270 employees in Switzerland and 86 abroad and managed



**Fig. 1** Study design. PVT, Protected Values for Truthfulness; FinLit, Financial Literacy questionnaire

customer assets of EUR377 billion (March 2019). The study was conceived and designed in full collaboration with the bank (business management officers and innovation officers were involved throughout the study) and was conducted from 2018 to 2019. It consisted of a survey administered online that was composed of two sets of questionnaires. The first part of the survey consisted of an informed consent form, demographic information (gender, age gap, function in bank, tenure in the industry, location, citizenship, level of education), and a set of forty situational judgment test questions followed by a ranking of criteria used in answering them. The situational part of the questionnaire was constructed to reflect realistic dilemmas that client-facing personnel (wealth managers) encounter in their daily work. The second part of the survey was administered one week after the completion of the first part and contained validated psychometric instruments that were used as independent variables. The interval of one week between the two types of questionnaires was designed to prevent contamination of the situational judgment test questionnaires by priming from the personal (trait) questionnaires.

In the second part of the survey, we implemented three questionnaires. To assess organizational risk climate perception, we used the Macquarie University Risk Climate Scale (Sheedy et al., 2017), which consists of three factors—avoidance, proactive and risk manager—and is measured on an analog scale from 1 (strongly disagree) to 6 (strongly agree). To assess the financial literacy of the respondents, we implemented the Financial Education Basic and Advanced questions (van Rooij et al., 2011). Finally, to assess the honesty of the participants, we used the Protected Values for Truthfulness (PVT) scale (Gibson et al., 2013) adapted for wealth management employees. The text of the latter questionnaire is described in Appendix 3, and the design of the study is depicted in Fig. 1.

Eighteen participants from the Geneva office, one of whom belonged to senior management, completed the two-part pilot study in March 2018. The preliminary data were analyzed, and the participants were debriefed to calibrate the questions, survey duration and compatibility. We excluded the data of compliance officers who were surveyed as pilot participants ( $n = 7$ ) from this subsample. Data from the remaining  $n = 11$  participants were added to the final dataset (relationship managers,  $n = 10$ , business manager  $n = 1$ ).

Following minor corrections and modifications, the full survey was sent out in May–July 2019 to 115 wealth management employees working in 5 different offices in Switzerland, Monaco and Dubai. Ninety-three participants completed the survey. We excluded those incomplete responses where the second part of the survey (notably, the PVT metric) was missing ( $n = 15$ ). The final dataset thus comprised  $N = 89$  complete responses ( $n = 40$  women) from 3 countries (Switzerland = 71, Dubai = 13, Monaco = 5). We verified that excluding the 11 participants from the 2018 pilot does not change the reported results. Demographic information is presented in Table 2.

## Measures

### Situational Judgment Questionnaire

For the purpose of our study, we designed thirty-two questions in collaboration with the bank's senior compliance and wealth management officers. These situational judgment questions (see Appendix 4) presented a decision and asked the question "How likely are you to...?". The respondent could choose their likelihood from 0% = "I definitely would not do that" to 100% = "I definitely would do that". The questions pertained to two principles of the CoC and were presented in separate blocks of (1) Client's Interest and (2) Financial Security. Each block was followed by a ranking question in which the respondents ranked 9 different criteria they used to make their choices in the preceding section in order of importance. The exact text of the criteria can be found in the Supplementary Information, Table S1. The criteria were presented in a randomized order within and across participants.

For each CoC principle, there were two types of questions: unambiguous questions that contained a correct response (either Yes or No, i.e., 0–10% or 90–100%) and ambiguous questions for which there were no correct answers. The ambiguous and unambiguous questions were mixed and presented in random order. To the participants, all questions had the same structure. The participants were informed that only a subset of the questions contained a single correct answer, whereas for the remainder of the questions, no correct answer existed, and they were asked to answer using the entire likelihood scale according to their



**Table 1** Study design: situational judgment question categories and counts (q)

Dependent variable (Hypothesis)	Type of question	Number of questions in client's interest (CI)	Number of questions in financial Security (FS)
Measuring comprehension through Accuracy in CI and FS	Unambiguous	8	9
Framing (H1)	Intersection Unambiguous	5	
Framing (H1)   Moral dilemmas (H2)	Intersection Ambiguous	3	
Moral dilemmas (H2)	Ambiguous	4	3

own judgment. The specific number of questions in each category is reported in Table 1.

To assess the comprehension of the CoC, we calculated the accuracy of the responses to the unambiguous questions from the CI ( $q=8$ ) and FS ( $q=9$ ) domains. To test for the effects of framing, we specifically designed 5 unambiguous and 3 ambiguous intersection questions that concerned both CoC principles (FS and CI). Intersection questions were designed not to specifically test the tension between Financial Security and Client's Interest but rather between an unethical pro-organizational choice (leading to a bonus, career advancement for the employee, or a gain for the bank; c.f. Sheedy et al., 2021) and making a choice that protects due diligence and ethical behavior (what we call a "pro-integrity" choice). Even if that latter choice means risking harming the relationship with the client. Please note that all the questions were verified by the Bank's Chief Compliance Officer to see if they met this tension. In the ambiguous intersection questions, the dilemma posed a tradeoff between a proself (or proorganizational) and a prointegrity choice. In these situations, there was no clear legal rule to decide, and we specifically designed them to probe the ethical gray zone where the respondents would be forced to make a decision based on intrinsic motivation and personal values, sometimes trading off bank interest and profit in the name of ethical disclosure of information to the client or to the compliance authorities. To study the influence of honesty on expected decision-making, we designed ambiguous questions specific to the CI ( $q=4$ ) and FS ( $q=3$ ) domains and averaged the likelihood of response each participant gave on a scale ranging from an unethical pro-organizational choice (0) to a pro-integrity choice (100).

## Variables of Interest

### Dependent Variables

To measure CoC comprehension, we first investigated the accuracy in unambiguous questions by taking the average of the responses separately in the CI and FS domain for each participant. A question was considered to be answered correctly if—for a correct choice being 'Yes'—the participant's

response was at least 90 on the analog choice likelihood scale from 0 to 100. Analogously, for a correct answer 'No', a choice of  $\leq 10$  was taken to be appropriate. We denote this as a 90/10 response confidence cutoff. Thus, we computed the following accuracy rates: accuracy in CI questions and accuracy in FS questions.

To test H1, the first framing hypothesis that applied to unambiguous questions, we computed accuracy in the same way as described above for unambiguous intersection questions that were framed as both CI and FS questions (the same questions asked in both the CI and the FS part of the survey).

To measure the effect of honesty in dilemmas as stated in H3, we introduced Ambiguous questions. The dependent variables were the average of all ambiguous questions presented in the CI and FS parts of the survey, expressing the participant's reported likelihood of prioritizing the ethical choice (favoring disclosure and honesty). We recoded the answers such that a choice of 0 represented a pro-organizational choice and a score of 100 indicated a pro-integrity choice. Integrity in this context was defined as making an ethical choice in situations in which no extrinsic punishment could be expected for taking the unethical option. For instance, a pro-integrity choice consisted of disclosing information to the client that was not explicitly required by law but is the honest thing to do or acting in the interest of the bank's financial security where a more self-benefitting option was permitted and available.

Thus, in the analyses designed to explore the role of heterogeneous factors in expected ethical decision-making, our 4 dependent variables were accuracy in the unambiguous intersection questions under the (1) CI and under the (2) FS frames and the average pro-integrity response to ambiguous intersection questions under the (3) CI and under the (4) FS frames.

For H3, we separately tested the additional explanatory power of our honesty predictor in responses to ambiguous questions administered in the CI (4 CI questions and 3 intersection questions) and FS (3 FS questions and 3 intersection questions) domains and in the accuracy of responses to unambiguous questions for comparison.

## Explanatory Variables

To examine the drivers of expected decision-making, we collected and measured various demographic, contextual and psychometric variables.

**Demographics and Employee Characteristics** According to previous research, two demographic variables may influence misconduct, namely, gender and age (Kish-Gephart et al., 2010; Peterson et al., 2001). Demographic data collected in the first part of the survey were transformed into categorical (gender) or ordinal independent variables. The following variables were entered into the regression models: Age [less than 25 years; 25–34 years; 35–44 years; 45–54 years; 55 years and above]; Gender [Man; Woman; Other]; Industry Tenure [less than 1 year (1); 1 year to less than 3 years (2); 3 years to less than 5 years (3); 5 years to less than 10 years (4); 10 years to less than 15 years (5); 15 years to less than 20 years (6); 20 years and more (7)]; Education [High School diploma; Some college but no diploma; Professional certificate; Associate degree (2 years); Bachelor's degree; Master's degree; Doctoral degree]; and Seniority [Team Member; Team Leader; Head of Area; Senior Management].

Last, we asked for the percentage of variable compensation in the participant's salary [< 10% (0); 11–30% (1); > 30% (2)].

**Financial Literacy Questionnaire** In the second part of the survey, the participants solved the basic and advanced financial literacy questions (van Rooij et al., 2011). We calculated the accuracy (ranging from 0 to 1) for the basic and advanced questions together to avoid potential multicollinearity and increase the robustness of this control variable.<sup>3</sup> Basic financial literacy questions ( $n=5$ ) pertain to general economic concepts such as inflation and the differences between a bond and a stock, whereas advanced questions ( $n=11$ ) test the understanding of concepts such as diversification of risk, financial instruments' returns and fluctuations. This independent variable is called Total FinLit in the results tables throughout the text.

**Contextual Explanatory Variables** We further collected information on the participants' function in the bank [Assistant/Service Executive; Front Manager Investment Manager/Advisory; Relationship Manager; Risk Management; Other]. For the purpose of data analysis, given our particular focus on the role of Relationship Manager (RM) as the agent of decision-making on behalf of the client, in the models, we used a dummy variable "Relationship Manager" to rep-

resent the role of RM as 1 and all other roles as 0.<sup>4</sup> In the tables reporting the regression analyses, these variables are defined as "Context".

**Risk Climate Questionnaire** The objective of the risk climate scale was to measure the shared perceptions among employees of the relative priority given to risk management, including perceptions of the risk-related practices and behaviors that are expected, valued and supported (Sheedy et al., 2017). The risk climate questionnaire consisted of three separate indices based on fourteen questions measuring the participants' judgment on a 6-point scale (1 = strongly disagree, 6 = strongly agree). The first index comprised three items that captured a tendency within the organization to ignore or avoid employees' questions about risk taking and acceptable risk, which was labeled 'Avoidance'. A second index represented by two items measuring the degree to which risk management and risk managers were valued and respected throughout the organization ('Manager'). Finally, five items measuring practices to actively address risk management were extracted as a third 'Proactive' index. The values on the three indices ranged from 1 to 6 for each participant and were entered as a scale variable.

**Protected Values for Honesty** Gibson et al. (2013) showed how the effects of economic incentives vary with individuals' moral preferences for honesty. Similarly, we measured the strength of individual commitments to honesty as a "protected value," drawing on established scales (see Gibson et al., 2013; Tanner et al., 2009). This independent variable captures the intrinsic importance of honesty for each participant and his or her willingness to make tradeoffs between honesty and monetary gains. The composite index (Gibson et al., 2013) is an average of two scales measuring 1) affective reactions to (real or anticipated) violations of honesty and 2) the more cognitive notion of an individual's unwillingness to consider tradeoffs based on an economic cost-benefit analysis of choosing between truthfulness and lying. The exact questions of each subscale and of the full protected value index adapted to the wealth management environment can be found in Appendix 3. Both scales have high Cronbach's alpha (0.9 and 0.75, respectively). Both scales take on values between 0 (for an individual with no protected values) and 6 (for an individual with maximum protected values).

<sup>3</sup> We thank an anonymous referee for this valuable suggestion.

<sup>4</sup> Results of separate analyses on a reduced dataset including solely participants with job title "relationship manager" ( $n=39$ ) and only client-facing personnel ( $n=53$ ) are available in the robustness checks presented in Appendix 1.3.2.

**Table 2** Means and standard deviations for studied variables.  $N=89$ . Gender is dummy-coded (1 = female, 0 = male). Relationship manager role is dummy-coded (1 = relationship manager, 0 = not a relationship manager)

Variable	Minimum	Maximum	Mean	Std. Deviation
1. Age bracket [0 = less than 25 years old; 1 = 25–34 years; 2 = 35–44; 3 = 45–55; 5 = over 55]	0 = Less than 25	5 = 55 and over	40	10
2. Gender (Woman = 1)	0	1	0.45	0.50
3. Seniority bracket 1 = Team Member, 2 = Team Leader, 3 = Head of Area	1 = Team Member	4 = Senior Management	1.58	0.90
4. Tenure bracket	0.00, less than 1 year	7.00, more than 25 years	4.71, ~13.25 years	1.58
5. Education bracket	0.00, High School graduate	6.00, doctoral degree	3.38	1.83
6. Variable Compensation bracket	0.00, less than 10%	2.00, > 30%	0.74	0.68
7. Role: Relationship manager	0.00	1.00	0.43	0.49
8. Protected Values for Truthfulness	3.25	7.00	5.58	0.89
9. Total Financial Literacy	0.00	1.00	0.87	0.14
10. Risk Climate scale: Avoidance	1.00	4.67	2.31	0.88
11. Risk Climate scale: Proactive	1.40	6.00	5.07	0.75
12. Risk Climate scale: Manager	1.00	6.00	5.34	0.88

## Analysis

We analyzed the dependent variables in sequential models using a general linear regression model with the following independent variables entered into three blocks. In the first block (Model 1), we entered independent variables related to basic demographic and employee characteristics as well as to financial literacy: Total Financial Literacy, Education, Seniority, Tenure in the industry, Age, Variable compensation, and Gender. Next, in Model 2, we included independent variables related to the Risk Climate questionnaire ('Proactive', 'Avoidance', and 'Manager') and the relationship manager dummy variable (RM Role). As a third block, to create Model 3, we added the participant's score on the Protected Values for honesty index. In Tables 4, 5, 6, 7, we report the three models and their respective independent variables: the standardized coefficients (betas), adjusted R square and change in R square between models where appropriate. Standardized beta coefficients are the coefficients obtained as if the variables in the regression had been converted to z scores before running the analysis. Standardized beta coefficients have standard deviations as their units, which allows an easy comparison across the variables. The models were computed using the forward entry method in the linear regression implemented in SPSS Version 28 (IBM Corp, 2021).

To compare the respondents' answers to different types of situational judgment questions, we used the Wilcoxon signed-rank test, which is nonparametric and adapted to the small sample size (Harris & Hardin, 2013). Throughout the text, we report the results of this test as the sum of positive ranks ( $W$ ), standardized test statistic ( $Z$ ), significance level  $p$  value, and effect size  $r$ , computed as  $\frac{Z}{\sqrt{n}}$ , where  $n$  is the

number of pairs compared ( $n=89$  in our sample, unless indicated otherwise). Effect size is a quantitative measure of the magnitude of the experimental effect. The larger the effect size is, the stronger the relationship between the variables. The effect size  $r$  can be gauged according to Cohen's classification as small (of 0.1), moderate (0.3) and large (0.5 and above).

Through Tables 2, 3, 4, 5, 6 and 7, we report linear regression results using the same convention reporting standardized beta coefficients, adjusted  $R^2$  and change in  $R^2$  ( $\Delta R^2$ ) between models. The number of participants is  $N=89$  for Tables 2, 3, 4, 5, 6, 7 in the main text and Tables S2 and S5 in supplementary information. The number of participants is  $N=39$  for Table S3 and  $N=53$  for Table S4. In all tables,  $q$  denotes the number of questions the dependent variable is composed of.

## Results

### Demographics of the Sample

Table 2 reports the descriptive statistics of the study's variables. Women constituted 45% of the sample. Examining the financial literacy tests, we found that the participants' financial literacy was high [ $M(\pm$  St. Dev) Basic Financial Literacy: 84% (22.3%), Advanced Financial Literacy: 89.6% (13.9)] and was significantly higher for advanced than for basic questions [Wilcoxon 2-sided signed-rank test, sum of positive ranks test statistic  $W=1333.5$ , standardized test statistic  $Z=2.508$ ,  $p=0.012$ , effect size  $r=0.266$ ]. These data confirm that our participants have advanced knowledge that



**Table 3** Pearson correlations [r] for the studied variables. \* $p < 0.05$ ; \*\* $p < 0.01$

Variable	1	2	3	4	5	6	7	8	9	10	11	
1. Age bracket	1	0.282** ( $p = 0.007$ )										
2. Gender (Woman = 1)	0.282** ( $p = 0.007$ )	1										
3. Seniority bracket	0.100 ( $p = 0.35$ )	-0.085 ( $p = 0.429$ )	1									
4. Tenure bracket	0.589*** ( $p < 0.001$ )	0.096 ( $p = 0.371$ )	0.312** ( $p = 0.003$ )	1								
5. Education	-0.132 ( $p = 0.218$ )	-0.288** ( $p = 0.006$ )	0.008 ( $p = 0.942$ )	-0.078 ( $p = 0.465$ )	1							
6. Variable Compensation bracket	-0.110 ( $p = 0.306$ )	-0.388** ( $p < 0.001$ )	0.414** ( $p < 0.001$ )	0.140 ( $p = 0.192$ )	0.224* ( $p = 0.034$ )	1						
7. Role: Relationship manager	0.045 ( $p = 0.677$ )	-0.115 ( $p = 0.283$ )	-0.146 ( $p = 0.172$ )	0.049 ( $p = 0.65$ )	-0.011 ( $p = 0.917$ )	0.136 ( $p = 0.204$ )	1					
8. Protected Values for Truthfulness	-0.045 ( $p = 0.673$ )	0.084 ( $p = 0.436$ )	-0.018 ( $p = 0.864$ )	0.035 ( $p = 0.745$ )	-0.140 ( $p = 0.191$ )	0.090 ( $p = 0.402$ )	-0.035 ( $p = 0.743$ )	1				
9. Total FinLit	0.112 ( $p = 0.295$ )	-0.255* ( $p = 0.016$ )	0.085 ( $p = 0.427$ )	0.445*** ( $p < 0.001$ )	0.169 ( $p = 0.112$ )	0.288** ( $p = 0.006$ )	0.027 ( $p = 0.801$ )	0.079 ( $p = 0.463$ )	1			
10. Risk Climate scale: Avoidance	0.025 ( $p = 0.818$ )	-0.154 ( $p = 0.151$ )	0.158 ( $p = 0.139$ )	0.131 ( $p = 0.22$ )	0.030 ( $p = 0.778$ )	-0.011 ( $p = 0.916$ )	-0.120 ( $p = 0.263$ )	-0.096 ( $p = 0.371$ )	-0.094 ( $p = 0.383$ )	1		
11. Risk Climate scale: Proactive	0.037 ( $p = 0.729$ )	0.279** ( $p = 0.008$ )	-0.044 ( $p = 0.682$ )	-0.023 ( $p = 0.832$ )	-0.115 ( $p = 0.282$ )	-0.071 ( $p = 0.509$ )	0.160 ( $p = 0.133$ )	0.112 ( $p = 0.296$ )	-0.073 ( $p = 0.496$ )	-0.512** ( $p < 0.001$ )	1	
12. Risk Climate scale: Manager	-0.095 ( $p = 0.375$ )	0.165 ( $p = 0.123$ )	-0.015 ( $p = 0.888$ )	-0.094 ( $p = 0.382$ )	-0.143 ( $p = 0.183$ )	-0.079 ( $p = 0.463$ )	0.148 ( $p = 0.167$ )	0.197 ( $p = 0.065$ )	-0.093 ( $p = 0.385$ )	-0.346** ( $p = 0.001$ )	0.676** ( $p < 0.001$ )	1

**Table 4** Regression analysis results for unambiguous questions in CI and FS. Nb of Participants = 89. \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Variables	Standardized coefficients			
	DV = Accuracy Unambiguous CI, $q = 8$		DV = Accuracy Unambiguous FS, $q = 9$	
	Model 1 Demographics	Model 2 Demographics + Context	Model 1 Demographics	Model 2 Demographics + Context
Education	-0.094	-0.058	0.099	0.114
Tenure	-0.159	-0.137	-0.073	-0.054
Seniority	-0.021	-0.005	-0.049	-0.034
Woman	0.207	0.122	0.382***	0.287**
Age	0.268*	0.256*	0.085	0.1
Total FinLit	-0.196	-0.172	-0.168	-0.164
Variable Compensation	-0.017	0.005	0.249*	0.234*
Relationship Manager Role		0.035		-0.035
Manager risk management		-0.032		0.128
Avoidance risk management		-0.178		-0.149
Proactive risk management		0.325**		0.322**
Adjusted $R^2$	0.061	0.158	0.114	0.203
$\Delta R^2$ between Model 1 and Model 2		0.105		0.096

**Table 5** Factors explaining variance in ambiguous questions. Nb of Participants = 89. \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Variables	Ambiguous questions (moral dilemmas)		
	DV = Tendency to favor integrity in CI, $q = 7$	DV = Tendency to favor integrity in FS, $q = 6$	
	Model 2 Demographics + Context	Model 1 Demographics	Model 2 Demographics + Context
Education	0.027	0.028	0.055
Tenure	-0.142	0.109	0.140
Seniority	-0.033	0.023	0.023
Woman	0.028	0.209*	0.166
Age	0.062	0.139	0.183
Total FinLit	-0.177	0.017	0.031
Variable Compensation	-0.011	0.010	0.015
Relationship Manager Role	0.011		0.028
Manager risk management	0.221		0.261*
Avoidance risk management	-0.069		-0.081
Proactive risk management	0.377***		-0.097
Adjusted $R^2$	0.133	0.033	0.089
$\Delta R^2$ between Model 1 and Model 2	0.142		0.066

is more relevant to finance (more prevalent in the Advanced Financial Literacy questionnaire) than economics (more prevalent in the Basic Financial Literacy Questionnaire).

From the linear correlation analysis reported in Table 3, we note that in our sample, women had relatively lower education, lower variable compensation, and lower accuracy in financial literacy but had a higher perception of proactive approaches in the bank's risk climate. We also observe that

those with a higher proportion of performance-dependent (variable) compensation were more likely to be male, were more senior and more highly educated. Better performance in the tests of financial literacy was positively correlated with tenure and variable compensation. Importantly, Protected Values for Truthfulness (PVT)—the metric we used to test  $H3$ —did not correlate significantly with any of the remaining explanatory variables.

**Table 6** Regression analysis on accuracy in unambiguous questions: the role of honesty (Model 3). PVT Protected Values for Truthfulness. Nb of Participants = 89. \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

Unambiguous questions Variables	Standardized coefficients			
	DV = Accuracy Unambiguous CI, $q = 8$	DV = Accuracy Unambiguous FS, $q = 9$	DV = Unambiguous questions Accuracy under CI framing, $q = 5$	DV = Unambiguous questions Accuracy under FS framing, $q = 5$
	Model 3 Demographics + Context + PVT	Model 3 Demographics + Context + PVT	Model 3 Demographics + Context + PVT	Model 3 Demographics + Context + PVT
Education	- 0.058	0.114	- 0.048	- 0.021
Tenure	- 0.137	- 0.054	- 0.043	0.163
Seniority	- 0.005	- 0.034	0.197*	0.16
Woman	0.122	0.287**	0.388***	0.226*
Age	0.256*	0.100	0.086	0.116
Total FinLit	- 0.172	- 0.164	- 0.089	- 0.048
Variable compensation	0.005	0.234*	0.028	0.121
Relationship manager role	0.035	- 0.035	0.102	- 0.002
Manager risk management	- 0.032	0.128	- 0.047	0.102
Avoidance risk management	- 0.178	- 0.149	- 0.055	- 0.216*
Proactive risk management	0.325**	0.322**	0.009	0.099
PVT	0.148	0.008	0.191*	0.185, ns. ( $p = 0.07$ )
Adjusted $R^2$	0.158	0.203	0.197	0.092
$\Delta R^2$ between Model 2 and Model 3	No change	No change	0.036	No change

**Table 7** Regression analysis on all ambiguous questions: role of honesty (Model 3).  $N = 89$  participants. \* $p < 0.05$ , \*\* $p < 0.01$ , \*\*\* $p < 0.001$

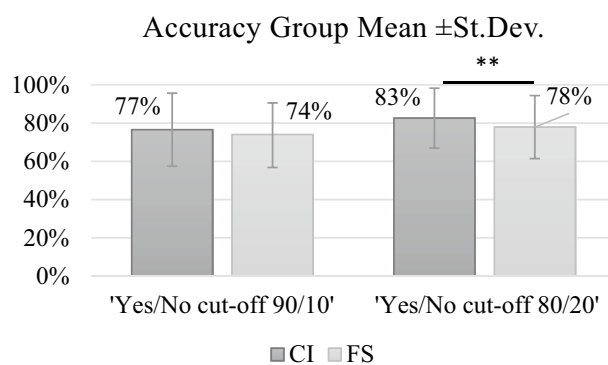
Ambiguous questions (moral dilemmas)		
Variables	DV = Tendency to favor integrity in CI, $q = 7$	DV = Tendency to favor integrity in FS, $q = 6$
	Model 3 Demographics + Context + PVT	Model 3 Demographics + Context + PVT
Education	0.075	0.089
Tenure	- 0.156	0.125
Seniority	- 0.028	0.027
Woman	- 0.007	0.150
Age	0.080	0.198
Total FinLit	- 0.211*	- 0.005
Variable Compensation	- 0.048	- 0.031
Relationship Manager Role	0.009	0.028
Manager risk management	0.143	0.204*
Avoidance risk management	- 0.05	- 0.073
Proactive risk management	0.336***	- 0.080
PVT	0.366***	0.306**
Adjusted $R^2$	0.258	0.171
$\Delta R^2$ between Model 2 and Model 3	0.132	0.09

Table 3 below shows that many originally collected explanatory variables are correlated, and one may worry that such correlation levels may, in some circumstances, cause multicollinearity issues. Thus, we thoroughly investigated the indicators of multicollinearity in all models to address the problem meaningfully.<sup>5</sup> Based on the variance inflation factor (VIF) diagnostic, multicollinearity was not present in any of the variables in any of the models. The VIF value was never above 2.3 for any of the (nonsignificant) predictors, and for the significant predictors, it oscillates between 1 and 1.3, far from the conservative cutoff point of 3, and even more so from the typically recommended cutoff of 5, which would indicate multicollinearity (Greene, 2011, p. 90; Randolph & Myers, 2013, pp. 125). Nevertheless, the nature of the demographic and psychometric data is such that many variables are correlated. To avoid potential multicollinearity, we chose to combine the scales of financial literacy questions (11 questions in the Advanced and 5 in the Basic financial literacy questionnaire). This explanatory variable is called Total FinLit and was used in the regression models to test our hypotheses.

### CoC Comprehension Measured Through Response Accuracy

We first analyzed CoC comprehension based on an objective metric of response accuracy in unambiguous situational judgment questions. For such questions, there was only one correct response (yes | no). To leave the same discretion to the participants across all questions, we used the same scale from 0 to 100 for both unambiguous and ambiguous questions. Thus, for the unambiguous questions, we calculated all responses above or equal to “90” on our likelihood scale as ‘yes’ and all those at or below “10” as ‘no’. To test the robustness of the accuracy calculation, we also conducted analyses with a lower cutoff of response confidence for computing accuracy (“80” for ‘yes’ and “20” for ‘no’). These analyses are briefly discussed in Appendix 1. We verified that accuracy was significantly different from chance [1-sample T test against 0.5 CI:  $t(88) = 13.235$ ,  $p < 0.001$ ; FS:  $t(88) = 13.190$ ,  $p < 0.001$ ]. Overall, the average accuracy was high at  $M = 78.04\%$ , St. Dev. = 16.58%. Accuracy was slightly but not significantly higher for questions in the CI domain [M(± St. Dev) in CI: 76.79% (± 16%) vs. in FS: 74.18% (16%), Wilcoxon signed-rank test, sum of positive ranks  $W = 1521$ ,  $Z = -1.506$ ,  $p = 0.132$ , ns; Fig. 2]. This difference became significant at a more lenient response confidence cutoff of 80/20 points for Yes | No response [82.84%

<sup>5</sup> We also thank Daniel Batista Da Silva and Olivier Scaillet for their valuable comments on the matter of multicollinearity.



**Fig. 2** Average accuracy percentages in unambiguous questions for Client's Interest and Financial Security.  $N = 89$ ; error bars are standard deviations,  $**p < 0.01$ . Analysis was performed on two thresholds of response confidence: 90/10 and 80/20. For more details of the 80/20 cutoff, see Appendix 1.2

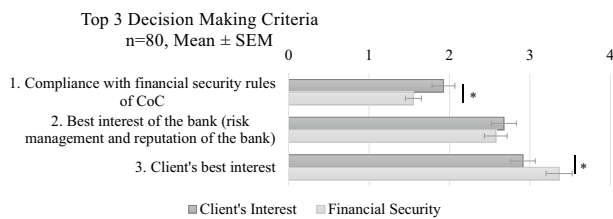
vs. 78.06%;  $W = 1250$ ,  $Z = -2.389$ ,  $p = 0.017$ , effect size  $r = 0.253$ ; Fig. 2].

With average accuracy percentages above 70% using the most conservative confidence threshold, we conclude that the level of CoC comprehension in our sample is quite high. This is not surprising after the large shift toward more compliance awareness in the financial service industry following the 2008 global financial crisis as well as considering the specific design of our online survey. First, since the employees were required by senior management to take the online survey, there was no selection bias, but it is likely that the response rate accuracy was biased upward since the employees knew which behavior—especially compliance with financial security—was deemed desirable by the bank. Second, the self-reported answers capture individuals' expected behavior with respect to their adherence to the CoC principles. This means that the accuracy we observe could be due either to their comprehension and correct application of the CoC or due to some other factors. For instance, some people may have had little understanding of the CoC principles but still be expected to behave ethically because they were guided by their moral values (see the discussion of our third hypothesis, which supports this conjecture). In contrast, one might also observe some individuals who understand the CoC well but simply do not comply with it because of a lack of ethics.<sup>6</sup>

### Exploring Drivers of Decision-Making

We next investigated what drives individuals' expected decisions in the situational judgment questions focusing on the

<sup>6</sup> We would like to thank an anonymous reviewer for highlighting this issue.



**Fig. 3** Top three decision-making criteria for Client's Interest and Financial Security questions. Lower values indicate higher importance. \* $p < 0.05$ . Eighty participants answered the ranking question for CI, and  $N = 89$  answered for the FS domain

decision-making criteria, demographics, professional role- and context-related explanatory variables. We expected that these factors might affect the ambiguous (probability of choice) and unambiguous (accuracy) situations differently.

### Decision-Making Criteria

To better understand the response differences between Client's Interest and Financial Security questions, we first asked the participants to prioritize the criteria they used to guide their expected choices. To that aim, the participants ordered 9 different criteria in order of importance. These answers refer to both ambiguous and unambiguous questions, as this differentiation was not known to the participants.

As illustrated in Fig. 3 and Table S1, the participants used the same top three criteria to answer the situational judgments questions we posed in both the CI- and FS-related situations, and the top criterion was compliance with the financial security rules of the code of conduct. The criteria ranked second and third, respectively, were 'Best interest of the bank (risk management and reputation)', and 'Client's best Interest'. Furthermore, we found that 'Compliance with financial security rules of the CoC' criterion was ranked as significantly more important in the FS than in the CI questions [Wilcoxon Signed-rank test, Test statistic  $W = 13$ , standardized test statistic  $Z = -3.53$ ,  $p < 0.001$ , effect size  $r = 0.376$ ], while 'Client's best Interest' was ranked significantly higher in the CI (compared to FS) questions [Wilcoxon Signed-rank test  $W = 452$ ,  $Z = 3.261$ ,  $p = 0.001$ , effect size  $r = 0.345$ ; Fig. 3]. 'Best interest of the bank: risk management and reputation' was ranked second in both frames [ $W = 166.5$ ,  $Z = -1.137$ ,  $p = 0.256$ , ns].

### Factors Affecting Accuracy in CoC Comprehension

To identify the drivers of the differences in accuracy between CI and FS, we further analyzed the data using regression analysis, the results of which are presented in Table 4. In the first step, we investigated the role of demographics and financial literacy (Model 1, Table 4) and found

that accuracy in CI unambiguous questions was explained only weakly ( $R^2 = 7.2\%$ ) by basic demographic data: age had a significant positive effect on accuracy ( $B = 0.268^*$ ). Adding contextual variables improved the model fit (Model 2; adjusted  $R^2 = 0.158$ ), with perceived 'Proactive risk management' being an additional highly significant predictor ( $B = 0.325^{**}$ ).

Accuracy in all FS unambiguous questions, on the other hand, was explained to a greater extent ( $R^2 = 0.134$ ) by demographic variables. Notably, being a woman was a strong positive predictor of accuracy ( $B = 0.382^{***}$ ), as was having a higher variable compensation ( $B = 0.249^*$ ). All these predictors were maintained in the expanded model (Model 2, Table 4), where we additionally found a positive influence of one of the risk culture metrics—the perception of proactive risk management ( $B = 0.322^{**}$ )—and Model 2 explained 23% of the variance.<sup>7</sup>

In summary, in our sample, older participants with greater regard for how the organization proactively handles risk management issues showed better comprehension of the CoC in both domains. In the financial security domain, participants who were women and those with higher variable compensation performed better.

### Response Patterns in Ambiguous Questions

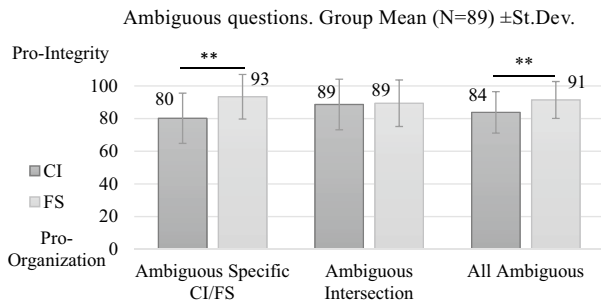
The responses to ambiguous questions represent the participants' likelihood of choosing a pro-integrity answer in dilemmas where no strict legal rule exists. Comparing the ambiguous questions that focused on one of the two CoC studied principles (3 questions in FS and 4 questions in CI), we found that the participants were significantly more likely to make a pro-integrity choice in the FS than in the CI questions [ $M (\pm \text{St. Dev})$ ; CI: 80.19 (15.38), FS: 93.36 (13.65); Wilcoxon signed-rank test,  $W = 2790$ ,  $Z = 5.614$ ,  $p < 0.001$ , effect size  $r = 0.595$ ; Fig. 4 left].

Interestingly, we note that, on average, the participants were rather certain of their decisions, as the choice was above 80% of the designated likelihood scale.<sup>8</sup> A purely

<sup>7</sup> In unreported results available upon request, we also separately investigated unambiguous questions that had been asked twice—the intersection questions. Fitting the data into our regression models, we found that being a Woman was a strong positive predictor of accuracy under both the CI ( $B = 0.404^{***}$ ) and FS frame ( $B = 0.259^*$ ), explaining on its own 15% of the variance under the CI frame, and 6.7% in the FS. Under the FS frame, the perception that risk management is not avoided in the organization was also related to greater accuracy ( $B = -0.216^*$ ).

<sup>8</sup> If the continuous scale we used were to be converted to a categorical Likert scale measuring response confidence in 5 bins, as typically recommended in the literature (Derek et al., 2018), a conservative threshold for a highly confident answer would be set at  $\geq 80\%$  for 'yes' and  $\leq 20\%$  for 'no'.





**Fig. 4** Average choice likelihood in ambiguous questions

agnostic decision would reflect an “I don’t know” answer with equal probability of choosing *yes* and *no*, i.e., a score of approximately 50. Second, we found that the responses to ambiguous questions in FS and CI were not correlated [Pearson’s  $r=0.16$ ,  $p=0.134$ ], suggesting that the average difference was not driven by a subset of participants with a general tendency to favor pro-integrity.

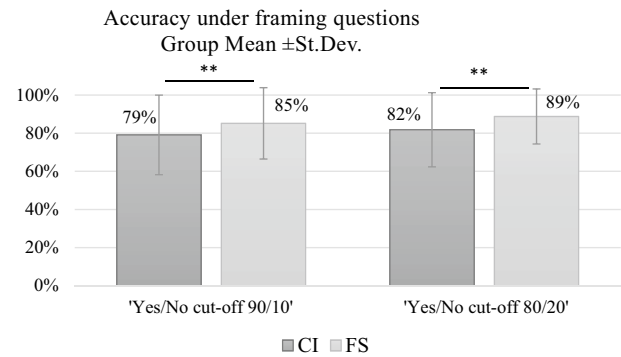
To explore the factors contributing to decision-making in ambiguous situations in a regression analysis, we decided to keep the number of questions in the dataset balanced between ambiguous and unambiguous questions. Therefore, for the regression analysis, we averaged the responses from all ambiguous questions, including those asked under framing (3 ambiguous intersection questions for each FS and CI).

The regression analysis revealed that none of the demographic variables alone could explain the variability in the tendency to favor a pro-integrity choice in dilemma situations. When contextual variables were entered into the equation, we found that 14.2% of the variance in CI questions is explained by proactive risk climate ( $B=0.377^{***}$ ,  $p<0.001$ ). In the FS questions, 4.4% of the variance is explained by being a woman ( $B=0.209^*$ ,  $p=0.049$ , Model 1), but the importance of this factor loses significance when context, notably the perceived role of managers in managing risk in the organization ( $B=0.261^*$ ,  $p=0.013$ ; Model 2 explains 11% of the variance, Table 5), is accounted for.

## Framing

Hypotheses 1 and 2 state that framing situational questions as “Client’s Interest” or “Financial Security” should not influence the respondents’ choices. We tested them by asking 5 unambiguous and 3 ambiguous questions twice: once under the CI and once under the FS frame. This was done to additionally verify the comprehension in unambiguous questions for which the accuracy should not differ between the frames, as well as to test whether the participants responded deliberately rather than automatically.

We found that accuracy for unambiguous intersection questions was higher under the FS frame [Mean ( $\pm$  St.Dev)



**Fig. 5** Accuracy in unambiguous (intersection) questions under framing

for  $N=89$ :  $M(\text{FS})=85.17\%$  ( $\pm 18.71\%$ ),  $M(\text{CI})=79.10\%$  ( $\pm 20.87\%$ ); Wilcoxon signed-rank test sum of positive ranks  $W=601.5$ ,  $Z=3.149$ ,  $p=0.002$ , effect size  $r=0.334$ ; Fig. 5], demonstrating a framing effect that rejects  $H1$ . This framing effect could be due to the greater attention the participants paid when the questions were presented under the frame of “Financial Security”, possibly due to their extensive training on compliance matters. Through the lens of the dual-system framework for morality, the words “Financial Security” become a bottom-up symbol of compliance, making ethical constructs more accessible and increasing response accuracy. However, because the order of the question block presentation was not randomized and the FS block always appeared after the CI block, learning effects cannot be excluded as an explanation for the higher level of accuracy under the FS frame.

Interestingly, framing had no effect on ambiguous questions, and the mean likelihood of choosing a pro-integrity answer was the same under the CI and FS frame [ $M(\text{FS})=89.4$  ( $\pm 14.26$ );  $M(\text{CI})=88.63$  ( $\pm 15.5$ ); Wilcoxon signed-rank test,  $W=577.5$ ,  $Z=0.678$ ,  $p=0.498$ , ns]. Thus,  $H2$ , which states that framing does not affect CoC comprehension or expected decision-making in moral dilemmas, is supported by the data.

In our interpretation, framing had no effect on the ambiguous questions because they required more deliberation and eventually had no definitive correct answer. This further affirms that the participants were not responding at random and maintained the same likelihood of choice for dilemmas, regardless of the principle of the code of conduct they were primed with.

## The Role of Honesty

In  $H3$ , we assume that honesty, as proxied by PVT, helps guide choices, specifically in ambiguous situations. To test this hypothesis, we added PVT as an explanatory variable in addition to the demographic and contextual variables in

the regression model and once again ran the analysis on the accuracy data for unambiguous questions and on the pro-integrity choice tendency data for ambiguous questions.

Protected values for truthfulness were not a significant positive predictor of response accuracy in unambiguous situations. The factors best explaining the variance in the CI domain were age ( $B=0.256^*$ ) and proactive risk management ( $B=0.325^{**}$ ), which was also a strong positive predictor in the FS questions ( $B=0.322^{**}$ ), along with variable compensation ( $B=0.234^*$ ) and the female gender ( $B=0.287^{**}$ ; Table 6 right).

Next, we examined the effect of PVT on accuracy in the intersection questions. Recall that we found a framing effect with greater accuracy for unambiguous questions framed as “Financial Security” situations. We found that protected values for honesty were a significant positive predictor of accuracy in these judgment questions only under the CI frame ( $B=0.191^*$ ; Table 6 right). This was not the case for FS questions, where the PVT was discarded as an explanatory variable due to a  $p$  value slightly above the accepted threshold of statistical significance ( $B=0.185$ ,  $p=0.07$ , ns.; Table 6 right).

In summary, we found that protected values for truthfulness were not related to accuracy in unambiguous situational judgments except for the intersection questions under the client’s interest frame. In our interpretation of this result, judgments in the financial security domain depend more on education and compliance knowledge as well as on the threat induced by the existing regulations, while taking the stance of protecting the client’s interests may rely more on honesty to curb individuals’ selfish motives.

Turning to the ambiguous questions, we found that adding the PVT variable improved the predictive power of the model ( $\Delta R^2$  CI=0.132, FS=0.09; Table 7). For Client Interest questions, the PVT explained an additional 13.2% of the variance and was a strong positive predictor of a pro-ethical judgment ( $B=0.366^{***}$ ) together with the perception of proactive risk management ( $B=0.336^{**}$ ) and total financial literacy ( $B=-0.211^*$ ). For the FS questions, PVT explained an additional 9% of the variance in the data and was also a highly significant positive predictor of a pro-integrity choice ( $B=0.306^{**}$ ) along with perception of the role of management in organizational risk management ( $B=0.204^*$ ).<sup>9</sup>

The finding that total financial literacy is a significant negative predictor of pro-integrity choice in ambiguous CI questions, including intersection questions framed as CI (results in Appendix 1.4), may appear counterintuitive. We speculate that this may be because in the case of these

dilemmas, CI framing is often viewed as colluding with the financial security interest of the bank. The respondents’ extensive education in compliance is still salient and makes them prioritize financial security in the interest of the bank over other considerations, such as loyalty to their clients.

To summarize, we found that PVT had a highly significant strong positive effect on the pro-integrity choice in moral dilemmas. Its influence, however, was null for unambiguous questions except for questions under Client’s Interest framing. We interpret these results as evidence that honesty and resistance to trade off against monetary benefits play a significant role mainly in ambiguous decision-making situations and less so in straightforward decision-making settings, especially when the impact of regulatory compliance is salient.

## Discussion

Our study investigated ethical decision-making among wealth management employees of a large international bank headquartered in Switzerland. Using a specially designed questionnaire combining situational judgment questions and demographic, contextual and moral values metrics, we found that the comprehension of the code of conduct principles was high (average accuracy in unambiguous questions  $M=78.04\%$ , St. Dev. = 16.58%) and was driven primarily by financial security considerations. Our main findings first demonstrate that postglobal financial crisis, wealth managers are strongly focused on financial security compliance as the major driver in their decision-making, even in the domain of clients’ interest. However, this high level of accuracy may also be partially driven by the fact that the online survey was mandatory and that the participants may have responded with a view to please senior management by embracing financial security as a core principle of their expected behavior.

Second, in *H1* and *H2*, we postulated that framing (Client’s Interest vs. Financial Security) should not affect the comprehension of the code of conduct and its application in decision-making. The results suggest that this is confirmed for *H2* but not for *H1* since ambiguous situational judgments were not subject to framing, while we found a significantly greater accuracy under the “FS” frame for unambiguous questions. Therefore, conceptual framing affected CoC comprehension for decisions for which a clear rule exists but not for moral dilemmas where the participants needed to exercise personal judgment. This FS-specific framing effect could be caused by the fact that “Financial Security” triggered greater attention from bank employees, which in turn may have its origin in their extensive training on compliance matters. However, we found that in ambiguous situations concerning the CoC,

<sup>9</sup> Note that for ambiguous situational judgment questions in both the CI and FS domains, Protected Values for Truthfulness was the highest coefficient in the linear regression fitting all demographic and contextual variables collected in the study (CI:  $B=0.366^{***}$ , FS:  $B=0.306^{**}$ ; Table 7).

**Table 8** Summary of main findings

Tested effect	Type of situational judgment	Results reported in	Result	
			Significant predictors client's interest	Significant predictors financial security
Factors driving accuracy	Unambiguous	Tables 4, 6 left	Age ↑, Proactive Risk Management ↑	Woman ↑, Variable compensation ↑, Proactive Risk Management ↑
H1. Framing does not affect CI and FS in unambiguous situations	Unambiguous	Figure 5 Table 6, right	Hypothesis rejected: Higher accuracy under FS frame	
H2. Framing does not affect CI and FS in ambiguous situations	Ambiguous	see section "Framing" Table S5	Seniority ↑, Woman ↑, PVT ↑	Woman ↑, Avoidance Risk management ↓
H3. Honesty helps guide decisions in morally ambiguous situations	Ambiguous	Table 7  Table S2	Hypothesis retained: no difference between CI and FS frame	
			Financial Literacy ↓, PVT ↑	Manager Risk Management ↑, PVT ↑
			PVT is a significant predictor ( $p < 0.001$ ) of pro-integrity choice in both CI and FS dilemmas	
			Financial Literacy ↓, Proactive Risk Management ↑, PVT ↑	Manager Risk Management ↑, PVT ↑
			PVT and accuracy in unambiguous questions are significant predictors of pro-integrity choice	
			Accuracy ↑, Manager ↑, PVT ↑	Accuracy ↑, PVT ↑

expected decision-making was not prone to a framing effect. Alternatively, it is possible that the greater accuracy in FS was at least partially due to learning effects since the FS question block always appeared after the CI block.

Interestingly, the participants reported using the same top three criteria in answering the questions under both the CI and the FS frames—'compliance with financial security rules of CoC' being the first one, followed by 'best interest of the bank', and third, 'client's best interest'. Combined with the fact that conceptual priming (framing) with FS increased the respondents' accuracy, the role of financial security appears very powerful in guiding wealth management employees' expected decision-making. It is possible that the words "financial security" and "compliance" already acted as moral primes (Welsh & Ordóñez, 2014) or moral symbols (Desai & Kouchaki, 2017) that increased moral awareness and ethical choices.

Third, H3 predicted that honesty, proxied by individual scores on the protected values for truthfulness (PVT) scale, helps explain the behavioral tendency toward making pro-integrity choices in dilemma situations. The results confirm that hypothesis by demonstrating that PVT was the strongest significant predictor in the regression models contributing positively to a pro-integrity choice. Higher levels of honesty may have guided some participants somewhat "mechanically" toward pro-integrity choices even if they did not fully understand the CoC when addressing the ethical dilemmas in the questionnaire.

To verify such a possibility, we next tested whether having good compliance knowledge in a given domain had an effect on pro-integrity choices in dilemma situations by introducing an additional factor, "accuracy on unambiguous questions,"

to the analysis of ambiguous questions (Model 4 in Table S2). This analysis (see Appendix 1.3.1) revealed that both protected values for truthfulness and the level of knowledge in the respective field, as proxied by "accuracy in unambiguous questions", are the strongest positive predictors of pro-integrity choices, controlling for demographic and contextual factors. Honesty, therefore, still has additional influence on the resolution of dilemmas even when compliance knowledge is high in both the client interest and financial security domains. These and other significant predictors discovered in the regression analyses are summarized in Table 8.

While many experimental studies have focused on the effects of participants' preferences for honesty on ethical decision-making (Abeler et al., 2019; Pohling et al., 2016), to our knowledge, the novelty of our study lies in the fact that it confirms the previously reported general experimental results obtained in the laboratory for a population of Swiss bank employees, particularly wealth managers. The novelty also lies in the fact that this field study used situational judgment questions specifically designed for the employees of the wealth management department of a bank.

### Theoretical Implications

In terms of theory, our findings hold implications for modeling the impact of social norms within corporations. We provided a simple way to empirically test the embedding of and expected compliance with a code of conduct (Kaptein, 2011) using responses to situational judgment questions that are unambiguous (a correct answer exists) and ambiguous (personal discretion must be applied). We conducted one of the first studies on

the determinants of expected effectiveness of a code of conduct in wealth management and found that wealth managers, in the postglobal financial crisis Switzerland, use the same principles in situations handling financial security and clients' interests, that is, regulatory compliance. One should, however, examine whether this finding can be generalized to the entire industry by conducting additional studies in which participation would not be mandatory to limit the social desirability effect that may have led some of the participants to want to please the senior management by favoring financial security (over their own or the clients' interests) in their reported choices.

Second, our study extends the literature on the application of injunctive norms in a reputation-sensitive industry by demonstrating how situational judgment questions can be used to measure their expected effectiveness when incorporated in a code of conduct and by exposing the role of honesty in guiding expected choices in areas where corporate norms are ambiguous.

Among the factors that were consistently associated with better accuracy in unambiguous situational judgment questions in both the CI and FS domains, we found the metrics of organizational risk climate (Sheedy et al., 2017). A favorable risk climate has been found to reduce unethical behaviors by focusing on the long-term adverse consequences for the organization, including fines, legal costs, reputational damage and increased regulation. It also guides employees on how to behave in relation to suspect practices. Our results are in line with the latest findings in 3 pension funds in Australia, demonstrating a significant relationship between the three subscales of risk climate and unethical pro-organizational behavior (Sheedy et al., 2021). They also echo the previously observed negative effect of benevolent and principled ethical climates on both unethical intention and behavior (Kish-Gephart et al., 2010).

Furthermore, the female gender was associated with better accuracy in unambiguous questions on financial security and in questions pertaining to both domains of the CoC (intersection questions). Previous research found that women are more sensitive to unethical behavior and less tolerant of misconduct (Ameen et al., 1996). While multiple early studies have since confirmed this effect by assigning it to the socialization of women into more communal tendencies and care for the well-being of others, it is also possible that the effect of female gender on accurate responses in our situational judgment questions is reinforced by social desirability bias (Dalton & Ortegren, 2011). Research in neuroeconomics and neuroscience of moral decision-making attributes women's higher morality in part to the biological reinforcement that stems from releases of oxytocin and serotonin when acting in caring and trustworthy ways that is higher than that of men (Kosfeld et al., 2005; Ryan, 2017). Interestingly, we do not detect a significant effect of being a woman on choices

in dilemma questions, suggesting that the other factors measured—organizational risk climate and having highly protected values for honesty, independent of gender—are the main determinants of pro-integrity decision-making.

Indeed, we find that protected value for truthfulness is the strongest predictor of a pro-integrity choice in the absence of clear extrinsic moral guidelines (legal or social norms). Thus, in legally ambiguous situations, PVT, as the main proxy for honesty, steers individuals toward pro-integrity choices. Our conclusion is that there is complementarity between the extrinsic moral codes and honesty and that the latter are most helpful in ambiguous situations. This behavior is in line with the predictions of moral utility theory, which posits increased moral utility of ethical norm conformity in individuals with high moral values (Hirsh et al., 2018).

Our findings also add to Kaptein's (2011) summary of factors that render a business code of ethics effective. Namely, we confirmed that not only familiarity with but also comprehension of the CoC is desirable. However, our results also suggest that the latter comprehension may, to some extent, and particularly in moral dilemmas, be complemented by strong ethical values of the employees.

In addition, we demonstrate in our sample that the concept of financial security automatically triggers the tendency to decide pro-compliance, even in situations that primarily emphasize the client's interest. More research is needed to extrapolate whether this increased compliance, attention and awareness is a general phenomenon in the financial services industry in the postglobal financial crisis context.

## Practical Implications

Wealth managers who participated in our study were sensitive to the framing of situations and changed their answers significantly depending on whether they were framed as "Client interest" or "Financial Security". Therefore, organizations should be aware of the language used to present the CoC principles, as rules may seem flexible in the CI frame and stricter in the FS frame. We recommend using language and tone in written and oral communication that reduces this cognitive bias when promoting CoC principles. Ideally, CoC training should encourage staff's critical and nuanced thinking and a distance from acting based on pure financial knowledge (which may be the default automatic decision-making criteria). However, framing had no impact on the choices in ambiguous situations where participants seemed to be driven by honesty. Specifically, a pro-integrity choice in ambiguous questions related to wealth management depended strongly on the individual's protected value for honesty. Thus, to enhance the effectiveness of the CoC in ethical gray zones, it is suggested that new employees' levels of honesty be assessed



(for instance, using the questionnaire on Protected Values for Truthfulness during the hiring process but blending it with other types of questionnaires to keep the employees unaware that they are being probed for their levels of integrity).

In addition, we found that accuracy in unambiguous questions had a strong positive impact on pro-integrity choices in dilemmas (Table S2, Model 4). Consequently, we recommend training personnel on unambiguous questions since this can also be beneficial for ethical dilemmas. Furthermore, two factors were consistently positively related to pro-integrity choices, in both unambiguous and dilemma situations; these are the female gender and the metrics assessing organizational risk climate, especially the proactive risk management variable. We therefore recommend that financial services companies devote more resources and monitoring to their organization's risk climate processes.

As a strategic recommendation, we observe that the omnipresent emphasis on risk mitigation and compliance has rendered Client's Interest somewhat less important than Financial Security in guiding employees' choices. The integration of CI into the CoC should emphasize that the two principles are not necessarily mutually exclusive if they are consistently understood, communicated and managed. This is important, given that wealth management as a banking activity should remain service- and, thus, client-focused.

### Limitations and Future Direction

In terms of limitations concerning the analysis of our data, we first observed that the demographic factor Woman in our sample was positively correlated with Proactive risk management, which may explain why we see these two factors coappear in the results of the regression analysis on FS comprehension. However, regardless of the response confidence threshold used, Woman remains a significant predictor of accuracy in the intersection and in financial security questions, which leads us to believe that women indeed show a better comprehension of ethical situations, corroborating previous studies on gender differences in honesty (Grosch & Rau, 2017).

As mentioned earlier, the finding that financial literacy is negatively related to ambiguous pro-integrity CI choices may reflect an effect of salient education in compliance that dominates decision-making even if the dilemma places the client's interest at stake. The CI framing is often viewed as colluding with the financial security of the bank that these highly educated participants want to protect because of their extensive education in compliance, which makes them prioritize financial security in the interest of the bank beyond other considerations such as loyalty to their clients. Alternatively, this may be due to our limited sample size and the resulting lack of power when assessing the effective relationship between pro-integrity choices and financial literacy.

Second, as we did not counterbalance the order of appearance of the sections titled "CI" and "FS" across participants in the data collection process, it is possible that framing effects observed here stem from learning in addition to actual conceptual priming.

Third, as mentioned previously, given that the participants were required to complete the online survey by senior management, the answers provided by the employees could have been biased in the direction expected by the bank. This may have inflated the levels of expected accuracy. In particular, the binding nature of our online survey most likely affected the answers to questions about the employees' self-interest that needed to be traded against regulatory compliance. However, this concern is somewhat mitigated by the high level of protected values for truthfulness identified among the participants (see discussion above in Sect. 5.1).

In terms of future research directions on the effectiveness of CoCs, we note that this is a first study of its kind, as wealth management is a sensitive area not easily accessible to researchers. Therefore, the generalizability of our findings is limited by the small sample size ( $N=89$ ) and its pioneering character, and more such studies on ethical decision-making and the effectiveness of CoCs in other areas of banking, such as trading, and in other sectors, such as the insurance industry, are needed to confirm or nuance our conclusions.

Among the issues that may open new challenges to applied ethical decision-making in the finance industry is the emerging role of digitalization. We suggest that future studies be conducted to analyze the role of honesty in neobanking and virtual services such as robo-advisory. Indeed, many studies in psychology and behavioral finance have demonstrated that the propensity to act unethically is increased as the distance between act and the representation of the consequences is increased. For instance, people are more willing to cheat to obtain "tokens" than money (Mazar et al., 2008); therefore, the question is, would we expect wealth managers to act more or less ethically in a highly digitalized service industry in which contact with the client becomes even less personal?

**Supplementary Information** The online version contains supplementary material available at <https://doi.org/10.1007/s10551-023-05372-6>.

**Acknowledgements** We are very grateful to BNP Paribas (Suisse) SA for supporting this research (during the postdoctoral work of Ewa Lombard-Miendlarzewska) and for making it possible to conduct this online experiment with their employees. We thank Isabelle Jacob-Neboud for her valuable support to this project when she was still involved at BNP Paribas (Suisse) SA. We thank Moez Bennouri for his valuable comments and the members of the MOST group at Montpellier Business School for their feedback. We also thank the anonymous referees for their insightful comments.

**Author contributions** All authors contributed to the study conception and design. Material preparation was performed by Rajna Gibson Brandon, data collection and analysis were performed by Ewa Lombard (Miendlarzewska). The first draft of the manuscript was written by



both authors and all authors participated in the revisions of the subsequent drafts of the manuscript. All authors read and approved the final manuscript.

**Funding** This study has been funded by BNP Paribas (Suisse) SA.

**Data Availability** For confidentiality reasons, the data cannot be deposited in a public repository but can be made available for other researchers upon request.

## Declarations

**Conflicts of interest** Financial interests: Author Ewa Lombard (Miendlarzewska) received a grant from BNPP to conduct this research. In September 2018, author Rajna Gibson Brandon was elected as a member of the Board of Directors of the Group of BNP Paribas, France. However, this nomination was totally independent and unrelated to the present research study.

**Ethics Approval** This study was performed in line with the principles of the Declaration of Helsinki. Approval was granted by the Ethics Committee of the University of Geneva prior to conducting the study.

**Informed Consent** Informed consent was obtained from all individual participants included in the study.

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