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Effective, but not all the time: Experimental evidence on the effectiveness of a code of ethics' design

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Abstract

Relations between society and business are increasingly characterized by the societal demand for compliance with ethical standards. Companies are held responsible for behavior of their employees, which increases the demand for effective internal governance. To assure compliance, many companies enact codes of ethics. Despite a common core of ethical standards, codes differ considerably in formal design elements. Albeit theory suggests that a code's formal design, that is, how a code's content is presented, affects its behavioral impact, there is little research on this issue. Addressing this research gap, we conducted a between-subjects experiment (factorial survey) in which we manipulated design elements of codes and examined how these elements affect behavioral intentions in various business situations. Holding the code's content constant, we manipulated its tone (positive vs. negative) and whether it was signed by the company's executive board (with vs. without signature). Our results indicate that the effectiveness of a code can be improved by using signed codes, while there is no effect for a code's tone. Our paper contributes designing internal

governance in two ways: by giving experimental evidence on the relevance of a code's formal design and by providing practical guidance how to increase code effectiveness.

KEYWORDS

code of ethics, corporate compliance, ethical decision making

1 | INTRODUCTION

Business ethics have become a highly relevant issue for companies over the course of the last decades. Stakeholders and shareholders increasingly demand corporate social responsibility, an issue which concerns all business activities. Companies are expected to pursue not only financial but also societal goals ranging from eco-friendly production to adhering to social standards, to consumer protection or responsible dealings with customer data (Abiteboul & Stoyanovich, 2019; Flammer, 2013; Perez-Batres et al., 2012; Riedl & Smeets, 2017; Treviño & Nelson, 2014). Employees are required to trade off economic and ethical considerations in all their activities. Companies are both legally and publicly held responsible for their employees, so that ensuring compliance with ethical standards has become a core element of management control (Hunoldt et al., 2020).

Codes of ethics, henceforth referred to simply as codes, are fundamental to companies' ethics and compliance programs (Kaptein & Bons, 2014). Implementing codes of ethics is, in fact, required by financial regulation (e.g., Section 406 of the Sarbanes-Oxley Act, see SEC, 2003). A code is one of the most commonly recommended and frequently used elements of compliance programs (Kaptein, 2015), which typically consist of compliance training, a compliance office (Schwartz, 2008; Weber & Wasieleski, 2013), and other compliance-related institutions, such as whistleblowing.

Codes have been subject to research for decades, and the associated research efforts can be categorized into content-, output-, and transformation-oriented studies, investigating the content of codes, their relevance for employee behavior, and their implementation in entrepreneurial practice, respectively (Babri et al., 2019; Helin & Sandström, 2007). This study contributes to our understanding of the issue of code effectiveness, by investigating an aspect of codes that has yet received little attention.

Given that codes are installed as a means to an end, that is, to ensure compliance with formal and informal rules and ethical behavior in general, what do we really know about their effectiveness? Despite their proliferation, there is mixed evidence as to whether and under what conditions codes are effective in ensuring ethical behavior. Some studies find a positive relationship between codes and ethical intentions and behavior (e.g., Kaptein, 2011; McKinney et al., 2010, as well as the majority of output-related studies reviewed in Babri et al., 2019). The meta-analysis by Kish-Gephart et al. (2010) actually reports a negative relationship between the existence of a code, ethical intentions, and behavior, while organizational features like code enforcement or the ethical climate are conducive to ethical behavior.

Clearly, situational and individual factors matter for ethical behavior (Ackert et al., 2011; Craft, 2013; Jones, 1991; Smith et al., 2007). For the case of employees in firms, Lehnert et al. (2015, p. 196) mention ego strength and locus of control as individual factors, whereas job

context and organizational culture constitute situational factors, and the authors state that both types of factors shape ethical decisions. For code effectiveness, this implies that a particular code may work for some people in some situations but not for all. Companies striving for employee compliance need to know about both problematic situations and problematic employees. Furthermore, codes differ among firms, and survey respondents may refer to something different when considering "their" code. A code's content and design matter; based on qualitative interviews, Schwartz (2004) emphasizes the potential importance of a code's tone and implementation (such as senior management support), whereas other studies deal with questions of code enforcement. Weaver (1995) points out the importance of sanctions as an element of the code, and Petersen and Krings (2009) emphasize the need for supplementary enforcement mechanisms to ensure that the code is followed in practice, particularly in situations in which the code's prescriptions and the expectations of the supervisor conflict with one another.

This ambiguity suggests that a code's effectiveness might be conditional. The question is not "Does a code work?" but "What code works in what situations?"

Considering the three sets of variables—personal features, situational features, and code features—simultaneously may account for the mixed results on code effectiveness. While there is research on the impact of situational and personal features on ethical behavior in general (Craft, 2013), and, of course, on the relevance of codes for ethical behavior (Babri et al., 2019), there is little empirical research on the role of design elements of codes, by which we refer to the more formal aspects of how a code's content is presented. In the classification of Babri et al. (2019), such formal aspects of a code are on the borderline between content and transformation. Systematic empirical research on these aspects is lacking. To fill this gap, we address the following two research questions. First, do codes have an impact on the intention to behave ethically in different situations? Second, does the formal design of a code make a difference?

We tackle these research questions using a factorial survey (Oll et al., 2018), that is, an experimental design, which is a methodological contribution to existing research. Most empirical studies on code effectiveness are survey based, asking for perceptions of effectiveness (McKinney et al., 2010; Schwartz, 2004) or behavioral intentions (Ruiz et al., 2015) of employees in companies with a particular code. In practice, the code is often embedded in a larger compliance program, which also affects ethical intentions and perceptions. Attributing an observation to a code or to features of the code in specific settings, where it co-occurs with other compliance-related institutions, is difficult for methodological reasons. Our design allows us to identify and isolate the effect of a code and of code features. A control group received no code, the experimental groups received a code, where we manipulated two design elements (positive vs. negative tone, with vs. without top-management signature), holding the actual content of the code constant. To capture situational effects, we capture behavioral intentions for two ethical–economic decision dilemmas with very different situational features, controlling for personal features.

Our results demonstrate that codes increase decision makers' intention to behave ethically, notably in a setting where personal incentives constitute a temptation to act unethically. Regarding a code's design, we find that a signed code is more effective than one without signature, while a code's tone has no significant impact. Situational elements, in particular anonymity, affect ethical behavior and code effectiveness.

Our study thus contributes to academic research and entrepreneurial practice by providing evidence that design elements can be used to increase code effectiveness. In terms of academic research, the study shifts attention to a largely neglected aspect of code implementation. Much

research is about the content of codes, how they change over time, and how they are embedded in a larger compliance program to optimize effectiveness, which is a core aspect of code usage. Our study focuses on formal aspects, tone and signature, which might, ceteris paribus, increase the effectiveness of codes. Psychological arguments indicate, for both features, that they should have an impact on code effectiveness, but up to now, there is no empirical research on this issue. The present study contributes to closing this gap. Regarding entrepreneurial practice, both features studied here come, for the company, at very low cost but potentially contribute to code effectiveness. While investing in a compliance program is costly, formal features of a code's design may offer companies the opportunity to increase compliance at low cost. But again, companies need to know whether there is such an effect and in which situations. Here too, the study provides answers.

2 | FACTORS DRIVING THE EFFECTIVENESS OF CODES OF ETHICS: WHAT WE KNOW

The importance of formal organizational elements like codes for ethical decision making in companies has been recognized in research (e.g., McKinney et al., 2010). Compared to informal elements, like ethical climate, companies have control over these formal elements, by enacting a code, by installing compliance training and supplementary enforcement mechanisms. However, whether and under what conditions codes are actually effective in inducing ethical behavior remains an open question with high relevance for both practice (e.g., Kaptein & Schwartz, 2008) and research (e.g., Helin & Sandström, 2007; Schwartz, 2004; Treviño et al., 1999). Reviews of the empirical literature on the effectiveness of codes report mixed results (see, e.g., Kaptein & Schwartz, 2008; Lehnert et al., 2015, 2016; Schwartz, 2001 and in particular, the meta-analysis of Kish-Gephart et al., 2010). Several reasons may account for these variations.

First, variation might be due to differences in the research design. Kaptein and Schwartz (2008) suggest that the underlying definition of a code, what exactly is meant by code effectiveness, sampling, and data collection methods used, can differ and affect the findings. Some studies, like Singh (2011), use the perceived effectiveness of a code as a measure of effectiveness, while others aim at capturing behavior or behavioral intentions (Kaptein, 2015). Most studies used surveys (Kaptein, 2015; Kaptein & Schwartz, 2008; McLeod et al., 2016). In the case of comparing employees from companies with a code, to those from companies without a code, using survey data faces the problem of self-selection. That is, ethically minded employees might be attracted by and self-select themselves into companies with a code. To the degree that this is the case, the code is not a driver of observed ethical behavior. Experimental research designs have no such self-selection problems, as there is a random assignment of subjects into different experimental conditions, but these are still scarce in this domain (McLeod et al., 2016).

Second, a code is typically supplemented by further elements of compliance programs (e.g., ethics training and monitoring) which also affect a person's ethical decision making. Taken to the extreme, conducting ethics training may sensitize employees to ethical issues, which affects their behavior, even if the company has no code at all. For example, a study by Kaptein (2015) investigated the impact of various components of ethics/compliance programs—ranging from pre-employment screening to accountability policies—on observed unethical behavior. Kaptein found evidence that the number of components constituting ethics and

compliance programs matters and that the number of components is negatively related to the observed unethical behavior. The more elements the compliance program has, the more ethical the behavior; see also Ruiz et al. (2015), Park and Blenkinsopp (2013), and Valentine and Fleischman (2008) for studies on compliance programs, in particular, how their components need to be arranged to improve effectiveness. As codes are part of a larger setting, it is difficult to isolate their effect, let alone the effect of specific features of the code, for instance, its tone.

Third, personal-level variables (e.g., age, gender, and education), as well as situational issues (e.g., incentives), influence ethical decision making, making a code's task easier or more difficult. Situations may differ in the temptation for misconduct, not only in the degree to which the ethical dimension of the situation is clear or vague but also in the degree to which choosing the unethical option constitutes a deviation from a rule, which may be substantial or marginal. Further, some people might be ex ante more ethically minded and thus less in need of a code. Consequently, models of ethical decision making control for situational and personal features (e.g., Jones, 1991; Rest et al., 1986), and studies on code effectiveness should do so too. As for code effectiveness, there are some consistent findings in terms of personal-level drivers of ethical behavior (Craft, 2013; Lehnert et al., 2015), but a meta-analysis conducted by Kish-Gephart et al. (2010, p. 20) "suggest either weak or null relationships between age, gender, and education level and unethical choices" (see also O'Fallon & Butterfield, 2005 who report similar findings). In terms of situational features, the review by Kish-Gephart et al. (2010) found empirical relevance of some (e.g., social consensus about what is the ethically right thing do to in a situation) but not for others (e.g., the magnitude of the consequences invoked by the unethical decision).

Fourth, many empirical studies dealt with effects of the mere existence of codes. Cross-sectional studies generally compare participants who indicate that they are bound by a company's code, with those who indicate they are not bound in such a manner (e.g., Kaptein, 2011; McKinney et al., 2010). These studies provide valuable insights into whether codes in general matter but do not take into account that codes differ and substantially so. These differences concern not only the content but also the design of the code. In terms of content, codes can vary in their behavioral prescriptions (e.g., addressing values or stipulating rules, see Kaptein & Schwartz, 2008), supplemental information (e.g., illustrative examples, see Schwartz, 2004), formulations (wording and tone, see Gaumnitz & Lere, 2004), or presentation (e.g., document structure and visual appearance, see Kaptein, 2004). A laboratory experiment with students from George et al. (2014) demonstrates that codes using a wording that implies lower degrees of obligation (e.g., when using "may" instead of "must") lead to lower compliance. Laczniak and Inderrieden (1987) studied the usage of sanctions as part of overall organizational policy and found limited relevance in the case of clearly illegal behavior. Weaver (1995) studied the role of features like sanctions on recalling the code's content, a crucial precondition for code effectiveness, but found only limited relevance. The study treating code features in most detail is the one by Schwartz (2004) who studied qualitatively how the code's content, the way a code came about, and a range of formal design elements, like usage of examples, affect whether or not respondents believe that the code is relevant. Nonetheless, beliefs about potential effectiveness are different to actual effectiveness.

Summarizing the empirical research, we see that there is very little or no experimental research on the relevance of a code's formal design. Both substance and form, content and design, define the code, and both may influence its effectiveness. Treating all codes alike ignores these differences.

3 | DESIGN ELEMENTS OF CODES OF ETHICS: POSSIBLE LEVERS TO INCREASE EFFECTIVENESS?

Many design elements of codes have potential relevance for effectiveness. We based our choice of design elements, as factors for our experimental study, on Schwartz's (2004) pioneering research relating to formal features, and selected the tone of the code (positive vs. negative), and the signature from the executive board (with vs. without). Both are, from the perspective of the related research, potentially relevant and from the perspective of companies' features which can be changed at low costs. For both, there is little or no empirical experimental research on their effectiveness.

Regarding the effect of signatures from top management, there is, to the best of our knowledge, no experimental research. However, there is substantial research on the relevance of employee beliefs that top management supports the code; see Schwartz (2004) and Montoya and Richard (1994) for qualitative data. We suggest that a signature from top management is a strong signal of its support for the code and, thus, a strong promoter of code effectiveness.

Regarding the effect of wording, there is some related research. Farrell and Farrell (1998) studied several codes and found them to use language, which establishes an authoritarian relationship between the company's leadership and the employees, where the latter might be pushed into a situation characterized by powerlessness, often unspecific demands, and lack of discretion. Farrell and Farrell caution, in particular, against the usage of an authoritarian tone, as it disregards the employee as the actual decision maker and implicitly assumes that leadership makes the ethical decisions and the rest of the staff merely complies, which will not work. A qualitative study found that code users indicate that they perceive a negative tone to be better, as it provides more clarity (Schwartz, 2004). Whether this perception matches reality remains an open issue. It is also argued that negative wording using prohibitions "may offend the innocent user of the code" (Payne & Dimanche, 1996, p. 1004). Codes heavy in prohibitions are perceived "as pedantic, restrictive and threatening" (Kaptein, 2008, p. 64), which may have negative implications for the working climate. As Kaptein and Wempe put it "[t]he positive tone results in the code not communicating a lack of trust in the staff" (Kaptein & Wempe, 1998, p. 867, see also Stöber et al., 2019). Furthermore, Malloy and Fennell (1998) assume that individuals are more open-minded regarding positive codes of ethics. At the practical level, knowing what is forbidden is not necessarily helpful when deciding what to do. To conclude, the issue in the focus of our study, that is, the relevance of a positive or negative tone (positive/prescribing vs. negative/prohibiting), was addressed but, to the best of our knowledge, never using experimental methods.

4 | BEHAVIORAL MECHANISMS UNDERLYING THE EFFECTS OF CODES AND CODE FEATURES

In order to answer the empirical question of whether codes are effective and under what conditions, the question arises as to which behavioral mechanisms codes induce behavioral changes. One mechanism close to the behavioral approaches developed by Fishbein and Ajzen (1975) or Rest et al. (1986) assumes that codes change the values of employees, who then are able to derive the correct specific action from the abstract values and commandments in the code. A major weakness of this approach derives from its problems in explaining how features of the situation and the code and its design impact on code effectiveness; why actors, even after

considering the situation and being aware of the code's applicability, still decide to act unethically; and how the code affects this consideration.

We suggest starting out from sociological approaches which allow us to model how contextual features of the situation, of which the existence of a code is but one, exert their influence on decisions. The subjective expected utility (SEU) model, as developed by Coleman (1990) and Lindenberg (1990), allows us to conceptualize the interaction between personal preferences and situational contexts in a very straightforward way, allowing the derivation of hypotheses linking situations and code features to decisions. The SEU model starts out from utilities and expectations, as they are perceived by actors. Decisions are made in a way that maximizes the SEU rather than maximizing utility under the condition of objective probabilities. The SEU focuses on effects of situational features on individual decisions, allowing us to derive how situations affect, ceteris paribus, individual behavior, while explicitly allowing for individual variance due to perceptional differences and preferences. In this framework, codes change behavior by affecting the utility function underlying decision making, that is, the subjectively expected utility associated with behavioral options, in our case, compliance with or deviance from norms (Licht, 2008). A code may prohibit certain options, formally removing them from the set of alternatives from which actors are supposed to choose. While this does not factually remove the options from the set of alternatives, it puts a price on choosing a forbidden option, namely, sanctions in one form or other. By adding sanctions for misconduct, codes link options that might have been attractive from the perspective of the decision maker, with disutility. Codes also add some features to the list of criteria that the decision maker must consider. For example, guidance to use an eco-friendly supplier adds environmental considerations to the decision-making calculus, which might have consisted before only of quality, reliability, and price. In addition, the design of the code can also affect the subjectively estimated probabilities of consequences when actors disregard the code. Design elements, which emphasize the relevance of the code, or features, which indicate compliance, are monitored thoroughly, signaling that sanctions are no empty threat. This increases the subjectively estimated chance of getting caught when willfully ignoring the code. Enforcement instruments, such as whistleblowing, increase the probability assigned to the negative consequences of disregarding the code. Equivalent to the argument on ethical awareness as a precondition for ethical behavior by Rest et al. (1986), the SEU model also implies that a code is relevant only if decision makers are aware of it and its applicability in a given situation. Thus, everything that makes a code easier to learn and to retain potentially improves compliance, as the actors include the ethical component and the code in their considerations about how to act or behave.

5 | HYPOTHESES

Our hypotheses concern the general effect of a code but, in particular, the relevance of a code's features for its effectiveness.

5.1 | Existence of codes of ethics

While codes may contain specific rules, they are also a signal to all employees that the company is concerned about ethical and compliant behavior (Adams et al., 2001). A code indicates to the

actors which actions are (un)desired from the company's point of view. We formulate the first and very basic hypothesis:

Hypothesis 1. If decision makers are presented with a code of ethics, they are more likely to choose the ethical alternative in an ethical–economic decision dilemma.

While presenting a code might just work as an ethical reminder (Mazar et al., 2008), which is to say, giving participants a card with "Act ethically!" written on it might have the same effect, we assume this not to be the case and argue that the code's design matters, not just its existence.

5.2 | Tone of the code

We are interested in the consequences of using a positive vs. a negative tone. At the extremes, codes written in a positive tone enumerate only what code users should do, while negatively written codes focus on what is prohibited (Kaptein & Wempe, 1998). The content of the code—what should and should not be done—can be seen as independent of the tone used.

There are not only arguments for a higher effectiveness of a positive tone but also arguments for that of a negative tone. Learning theory, beginning with Wason (1959), would state that positively formulated codes are more effective. The argument is that the human brain is not capable of processing negative information. On receiving such negative information, for example, a prohibition, it is automatically translated into its positive version. In doing so, the content of the information may be falsified and distorted. In our setting, this should constitute the case for a negatively formulated code. A positively formulated code should be more easily learned and more effectively retained and thus be more effective. According to the SEU model, the tone of a code affects the choices available to decision makers in that a restriction formally and unambiguously outlaws certain options. Codes stating what should be done (positive tone) bring certain options to the attention of recipients but do not actually forbid other options. In doing so, a positive tone does not remove unwanted options from the set of decision alternatives available to decision makers. SEU theory would thus argue that the negative tone is more effective. As we control for knowledge of the code (CodeFamiliarity), which is the variable by which the argument made by learning theory would operate, we can focus on the effects of the code's tone as predicted by the SEU model and put forth the following hypothesis:

Hypothesis 2. If decision makers receive a code of ethics written in a negative tone, they are more likely to choose the ethical alternative in an ethical–economic decision dilemma, compared to decision makers who receive a code of ethics written in a positive tone.

5.3 | Signature of the executive board

To foster ethical behavior in companies, executives should demonstrate their commitment to business ethics (The Business Roundtable, 1988). Nothing undermines the effectiveness of a norm more than the belief that one is the only person abiding to it while all others ignore it (Cialdini, 2007; Kotzian, 2011). Whether top executives are perceived to back the code is part of a company's ethical culture, which in turn affects ethical behavior (Driscoll, 2001;

Kaptein, 2008), and there is evidence of a positive effect of ethical leadership on ethical behavior (Posner & Schmidt, 1992; Treviño et al., 1999). In addition to acting ethically in an exemplary way, executives can signal their commitment to ethical conduct by putting their names on the company's code of ethics (e.g., Gordon & Miyake, 2001). This signature by top executives signals endorsement, which is regarded as important for a code's usefulness for achieving its aims (Benson, 1989; Schwartz, 2004). According to the SEU model, if the code is signed by the top executives, the relevance of the code increases as decision makers receive a signal that the code is backed and enforced by them. Thus, our third hypothesis is as follows:

Hypothesis 3. If decision makers are presented with a code of ethics literally signed in handwriting by all members of the executive board, they are more likely to choose the ethical alternative in an ethical–economic decision dilemma, compared to decision makers who are presented with a code of ethics without a signature.

6 | RESEARCH DESIGN AND MEASUREMENT

6.1 | Participants

Participants of this study were students, professors, research associates, and other staff from a middle-sized German university. We aimed at a heterogeneous group of participants, because a code must work for all people in an organization (Kaptein & Schwartz, 2008). Participation was voluntarily, and there was no monetary incentive to participate. Figure 1 presents the procedure of the online experiment.

Participants were recruited using the university's internal mailing list, and the survey was conducted using an online tool. After the initial contact, two additional reminders were sent. On reaching the landing page, participants were informed that their task was to act as a Tennenkamp employee (a fictitious company) and to make decisions. Next, participants were randomly assigned to one of the four experimental conditions or to the baseline condition receiving no code. Those assigned to the experimental conditions received one out of four differently designed codes and were asked to read it thoroughly. In addition, participants had to do a

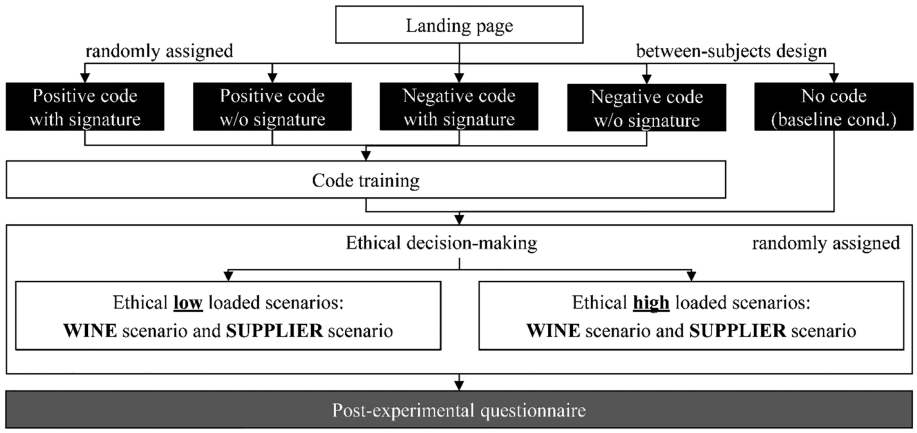

FIGURE 1 Experimental design

short training session based on the code's content. Participants who were assigned to the baseline condition skipped that step completely. Then, all participants were confronted with two different ethical–economic decision dilemmas presented as simplified scenarios, where we manipulated certain situational aspects. In each scenario, they had two mutually exclusive options to choose from (an ethically vs. an economically dominant, unethical action). Of a total of 219 participants, 31 did not complete the post-experimental questionnaire which included the control variables or gave implausible answers. Excluding them left 188 participants. Participants were aged 19 to 77 years ($M = 31.12$, SD = 12.07), 66% of them were female, and the sample covered students, academics, and technical staff. One hundred forty-three participants received a code and are roughly equally distributed among the four code variants.

6.2 | Experimental manipulations

This study used a 2 × 2 between-subjects experimental design with an additional baseline condition. The baseline condition was added to examine whether or not codes in general influence ethical decision making (Hypothesis 1). The manipulations were fully randomized. Regarding the manipulation of the code's tone, the positively written code mainly emphasized what behavior is desired and expected, thus giving employees guidance when facing ethical–economic decision dilemmas. The negatively written code prohibited certain types of action, thus reducing the discretionary powers of employees. The second manipulation was whether or not the code was signed by the company's top executives. Except for the two manipulated design elements described above, each code contained the same behavioral prescriptions (e.g., relating to the company's values, the acceptance of gifts, and selection of suppliers), which were written in close accordance with codes of listed German companies, in order to be as realistic as possible. Following arguments in the literature, for example, Ferrell and Gresham (1985), the relevance of the codes was increased by adding a further paragraph, stating that each employee is bound by the code and that there are sanctions for code violations. See Appendix A for an exemplary code of ethics used in this study.

6.3 | Experimental task and dependent variables

We used the vignette technique to present two typical real-life ethical–economic decision dilemma scenarios (see Kotzian et al., 2016; Lavelle et al., 2016; Oll et al., 2018 for applications). By describing a situation and asking for a decision intention, the technique comes as close as possible to actual decision making.

One scenario dealt with a business partner sending a bottle of expensive wine to the participant's private address (“Wine”). The gift's value exceeds the maximum acceptable value stated in the code, and thus, the decision can be evaluated in terms of compliance; accepting the gift is, according to the code, misconduct. In the other scenario (“Supplier”), participants were asked to choose between two suppliers, one of which was more eco-friendly but more expensive than the alternative. In all codes, eco-friendliness was indicated as one of Tennenkamp's values to be included in decision making. However, an evaluation of the decision in terms of compliance is less straightforward than in the case of the gift, as the code does not state that environmental considerations should have precedence over economic considerations.

Given that, according to the SEU approach, norm compliance also depends on the situation, say, the temptation, the two scenarios were constructed to vary in this regard. In the wine scenario, the recipient of the wine has the benefit, and the situation is factually anonymous, resulting in high temptation. In the supplier scenario, the participant has no personal stake, and the action is observable, resulting in low temptation; see Appendix B for the scenarios.

Participants were asked to judge on a 7-point Likert scale, first, the probability that a Tennenkamp employee would choose the economically dominant decision alternative (accept the wine and choose the cheaper supplier), that is, state an unethical decision intention. They were then asked to indicate the probability of themselves making this choice. This procedure is suggested as a control for social desirability biases which are particularly virulent in ethics research (e.g., Cohen et al., 2001; Dunn & Shome, 2009). We denote the dependent variable as an ethical decision intention, but its interpretation is subject to a qualification. In the case of participants who did not receive a code, we cannot speak of compliance, as they did not receive a code to comply with. Their behavior serves only as a reference. In the case of participants who did receive a code, the dependent variable can be seen as compliance with the code. To avoid confusion, we refer to ethical decision intention throughout.

6.4 | Control variables

Whether a code is effective also depends on situational features. In this regard, we control for the ethical loading (EthicalHigh), defined as the magnitude of deviation from the norm stated in the code. Based on the theory of self-concept maintenance (Mazar et al., 2008), the magnitude of deviation from a norm implied by a decision needs to surpass a certain threshold, beyond which actors will negatively update their self-concept and perceive themselves as unethical. If the deviation is below that level, actors will deviate but not perceive themselves as unethical. In the ethical low condition of the wine scenario, the price of the bottle of wine was just above the threshold requiring rejecting the gift. In the ethical high condition, the price was substantially above this level. For the supplier scenario, the ethical low condition featured a cheaper supplier which was in environmental terms, slightly worse than the more expensive but eco-friendly one. In the ethical high condition, the difference in eco-friendliness was described as substantial. If the first scenario shown to the participants was an ethically high condition, it was followed by a scenario with the same condition and vice versa. From the literature on compliance programs cited above, it is clear that how the code is implemented is critical for its effectiveness. We consider two aspects. First, participants who received a code had to do a short training session to ensure that they were familiar with its content (see Appendix C), as code familiarity is a driver of compliance (Wotruba et al., 2001). Basically, we simulated a compliance training. Training questions were adjusted to the code's tone, and the number of correct answers was counted (CodeFamiliarity). Further, during decision making, participants were able to download their code to consult it once more (dummy variable DownloadedCode, 1 if the code was downloaded once more, 0 otherwise). This is consistent with the view that codes serve as a reference (Adams et al., 2001) and should be accessible, when needed (Kaptein, 2011).

Several personal-level variables influence ethical decision making (Craft, 2013; Lehnert et al., 2015; O'Fallon & Butterfield, 2005). A precondition for applying the code is participants' ethical awareness (Hunt & Vitell, 1986). Following Singhapakdi and Vitell (1990), participants had to indicate their level of agreement on a 7-point Likert scale that the scenarios described involve ethical issues (EthicalAwareness). Further, we control for personal values:

environmentalism (Scholz et al., 2011; GESIS, 2011; Cronbach's $\alpha = 0.677$), idealism (Cronbach's $\alpha = 0.743$), relativism (Cronbach's $\alpha = 0.807$) (Forsyth, 1980; Strack & Gennerich, 2007), egoism (Shajek, 2007; Weigel et al., 1999; Cronbach's $\alpha = 0.524$), and religiosity. Furthermore, we control for basic sociodemographics, that is, gender, age, and work experience; see Appendix D.

The potential bias due to social desirability is addressed by measuring a person's tendency towards impression management (ImpressionMgmt) by using a German short scale developed by Winkler et al. (2006) (Cronbach's $\alpha = 0.503$). An overview of all variables used in our study is provided in Appendix E. Table 1 gives descriptives and correlations of all variables used.

7 | RESULTS

7.1 | Manipulation check

Following the recommendation of Wetzel (1977), we conducted a manipulation check after the dependent variables were measured, so as to determine whether the experimental manipulations (i.e., tone and signature) were successful. Participants were asked questions about the code they received, for example, "The code of ethics was signed by various different people (e.g. the CEO)." Results revealed that 90% of the participants correctly indicate that their code was signed or not signed, and approximately 80% correctly perceived the tone of their code. Therefore, we concluded that our manipulations were correctly perceived.

7.2 | Hypothesis testing

To test our hypotheses, we regressed the participants' self-reported decision intentions on experimental manipulations and control variables.

As the two scenarios used in this study represent a different combination of situational features, we analyze each scenario separately and not an aggregate score. At the technical level, building an aggregate score when using different scenarios is problematic for the construct validity of that score (Mudrack & Mason, 2013). Moreover, information about code effectiveness in different situations would be lost. Using ordinary least squares (OLS) regression, separate models were estimated for each scenario (columns Wine and Supplier), allowing an evaluation of whether and how the code and its design elements work in each; see Table 2.

Our first and basic hypothesis postulates that if decision makers receive a code, they are more likely to choose the ethical alternative. Regressing the behavioral intention on the presentation of a code (Model 1a) shows that presenting a code indeed significantly reduces the intention to engage in unethical conduct. The effect is present for both scenarios, somewhat stronger in the wine scenario, where the baseline incidence of unethical behavioral intention is higher (measured by the regression constant), and robust against the inclusion of control variables (Model 1b). Therefore, the first hypothesis is supported.

To test our hypotheses regarding the design of codes, we look only at differences among participants who received a code, again differentiating between the two scenarios (columns Wine and Supplier in Models 2a/2b).

Hypothesis 2 stated that if participants received a code written in a negative tone, they are more likely to choose the ethical alternative, compared to participants who received a positive

TABLE 1 Mean values, standard deviations, and (Pearson) correlations

	Variable	*M*	SD	Min	Max	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.
1.	Supplier_Own	2.66	1.71	1	7																			
2.	Supplier_Other	3.32	1.75	1	7	0.537**																		
3.	Wine_Own	3.61	2.21	1	7	0.116	0.185*																	
4.	Wine_Other	4.16	2.02	1	7	0.120	0.334**	0.602**																
5.	CofCExistent	0.76	0.43	0	1	−0.281**	−0.319**	−0.287**	−0.320**															
6.	TonePositive	0.53	0.50	0	1	−0.003	0.037	0.046	0.155	[a]														
7.	Signature	0.53	0.50	0	1	−0.143	−0.179*	0.079	0.099	[a]	0.047													
8.	EthicalHigh	0.49	0.50	0	1	−0.104	−0.173*	0.011	0.060	0.001	−0.048	−0.020												
9.	Ethical Awarness	5.72	1.38	1	7	0.110	0.137	−0.059	0.004	−0.203**	0.025	−0.105	0.003											
10.	Ethical Training Score	5.42	0.82	2	6	0.024	−0.068	−0.028	0.018	[a]	0.405**	−0.042	−0.144	0.049										
11.	Downloaded CofC	0.13	0.33	0	1	0.276**	0.086	−0.064	−0.098	[a]	0.108	0.024	−0.034	0.012	−0.014									
12.	Environmentalism	20.65	4.26	5	28	−0.125	−0.057	−0.019	0.123	−0.192**	0.076	0.127	−0.021	0.029	0.098	0.061								

(Continues)

TABLE 1 (Continued)

	Variable	*M*	SD	Min	Max	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.
13.	Egoism	9.46	3.97	3	21	0.014	−0.041	−0.087	−0.052	0.021	0.110	−0.020	−0.008	−0.116	0.000	0.037	−0.130							
14.	Relativism	10.91	4.56	3	21	−0.023	−0.082	0.104	−0.010	0.044	−0.008	0.111	0.080	−0.008	−0.127	0.139	−0.058	0.043						
15.	Idealism	17.13	3.38	3	21	−0.131	0.032	−0.108	0.124	−0.141	0.078	−0.047	−0.114	−0.027	0.168*	−0.021	0.281**	0.103	−0.214**					
16.	Religiosity	3.38	2.04	1	7	−0.118	−0.110	−0.174*	−0.064	0.031	−0.078	−0.028	0.121	−0.105	−0.164	−0.037	0.070	−0.028	0.007	0.242**				
17.	Female	0.66	0.48	0	1	−0.111	0.016	−0.037	0.101	−0.114	0.081	−0.151	0.052	0.092	−0.014	−0.014	0.156*	0.075	0.023	0.205**	0.155*			
18.	Age	31.12	12.07	19	77	−0.035	−0.077	−0.316**	−0.172*	−0.014	−0.014	0.052	0.052	0.215**	0.077	−0.045	0.089	−0.079	−0.141	0.027	0.061	−0.130		
19.	dWorking Experience	0.77	0.43	0	1	0.104	−0.057	−0.230**	−0.068	−0.016	0.159	−0.038	−0.037	0.017	0.106	−0.036	0.082	−0.006	−0.055	0.059	−0.076	−0.026	0.348**	
20.	Impression Management	13.73	3.85	3	21	−0.114	−0.086	−0.173*	0.104	−0.029	0.066	−0.024	−0.051	−0.115	0.047	0.011	0.293**	0.013	−0.071	0.283**	0.154*	0.126	0.041	0.021

Note: $N = 188$, except for TonePositive, Signature, CodeFamiliarity, and DownloadedCode (each $N = 143$).

[a]Correlation cannot be computed because at least one of the variables is constant due to the structure of the research design.

*$p < 0.05$. **$p < 0.01$ (two tailed).

TABLE 2 Factors influencing unethical decision making

	Model 1a		Model 1b		Model 2a		Model 2b	
Variable	**Wine**	**Supplier**	**Wine**	**Supplier**	**Wine**	**Supplier**	**Wine**	**Supplier**
CofCExistent	−1.482***	−1.120***	−1.667***	−1.277***				
TonePositive					0.184	0.011	0.460	−0.110
Signature					0.331	−0.460*	0.248	−0.481*
CodeFamiliarity							−0.118	0.117
DownloadedCofC							−0.645	1.346***
EthicalHigh			0.091	−0.353			0.162	−0.471*
EthicalAwareness			−0.179	0.090			−0.136	0.081
Environmentalism			0.008	−0.051*			−0.055	−0.025
Egoism			−0.061	0.013			−0.072	−0.006
Relativism			0.031	−0.016			0.033	−0.005
Idealism			−0.022	−0.069*			−0.001	−0.095**
Religiosity			−0.155**	−0.005			−0.250***	0.028
Gender (Female)			−0.221	−0.381			−0.443	−0.373
Age			−0.043***	−0.014			−0.049***	−0.015
dWorkingExperience			−0.812**	0.570*			−0.575	0.357
ImpressionMgmt			−0.082**	−0.014			−0.018	−0.043
Constant	4.733***	3.511***	10.055***	6.048***	2.981***	2.627***	9.049***	4.826***
R^2	0.082	0.079	0.280	0.178	0.008	0.021	0.263	0.237
$R^2_{adj.}$	0.077	0.074	0.231	0.122	−0.006	0.007	0.176	0.147
N	188	188	188	188	143	143	143	143

Note: Table 2 presents the unstandardized coefficients as obtained by OLS regressions, with the intention to behave unethically in the wine and supplier scenario as dependent variables, design elements of codes as independent variables, and relevant control variables. Negative coefficients indicate an intention to behave more ethically. The difference in sample size is due to the fact that 45 participants did not receive a code (baseline condition) and therefore cannot be included in the analysis of hypotheses relating to a code's design elements.
*$p < 0.10$. **$p < 0.05$. ***$p < 0.01$.

code. Here, our results provide no support: the dummy variable indicating a positive tone (TonePositive) has no significant effect, thus, there are no differences between codes with a positive or negative tone.

Hypothesis 3 stated that participants who received a signed code are more likely to choose the ethical alternative than participants who received an unsigned code. We find weakly significant support in the supplier but not in the wine scenario.

Looking at the effect of control variables (see Models 1b/2b), we find that ethical loading (EthicalHigh) affects decision intentions in the supplier scenario; the eco-friendly supplier is chosen more often when the cheaper supplier is described as being much worse in terms of eco-friendliness. In the wine scenario, the value of the gift increases the probability of accepting. Among those participants who received a code, we find that participants who consulted the code once more (DownloadedCode) intend to behave less ethically in the supplier scenario (Model 2b), while they tend to reject the wine more often. Being more familiar with the code is of no relevance for the decision intention the same is true for ethical awareness, understood as the perception that an ethical dimension is involved. Regardless of the setting, personal values of idealism and religiosity matter, namely, idealism for the supplier scenario and religiosity for the wine scenario. All these values exert a significant effect on ethical decision intention, resulting in more ethical intentions. For sociodemographic features, there are significant effects for age in the wine scenario. Older participants reject the bottle of wine more often than younger ones. Having prior work experience reduces the stated likelihood of accepting the wine but increases the propensity to choose the cheaper but less eco-friendly supplier. The effects reach significance in the full sample (Model 1b) but remain equivalent when using the smaller sample of participants who received a code (Model 2b). We interpret the absence of systematic effects of participant's tendency for impression management (ImpressionMgmt) as an indication that participants felt under no obligation to present themselves in a favorable way. The same conclusion follows from other tests for problems with social desirability; comparing the groups with and without code shows no significant differences in levels of impression management (not tabulated). Furthermore, we find the same patterns of coefficients when we use the participant's perception of how other employees would behave (not reported).

All main effects of a code's design elements remain qualitatively identical when including control variables. Effects of control variables also remain stable. Where significance levels change, this is due to changes in the number of cases.

7.3 | Supplementary analysis

It may well be that codes work differently for different persons, that is, that there are interaction effects between a code's design and personal features, and we have the data to test for this. For reasons of feasibility, we limited our analysis of conditionality to the code's design (i.e., signature and tone) and individual-level variables (i.e., age, gender, religiosity, ethical awareness, and work experience). Here, our study was mostly explorative. The coefficients we found (not tabulated) reveal that only codes with a positive tone have effects which are to some degree conditional on personal features. For women, a positively written code increases their intention to behave unethically ($b = 1.164$, $p < 0.1$ for the wine scenario and $b = 1.264$, $p < 0.05$ for the supplier scenario). Participants with work experience who received a positive tone display a high intention to behave more ethically ($b = -1.912$, $p < 0.05$) in the wine

scenario. The same is true for participants with a higher level of ethical awareness who received a positive tone in the wine scenario ($b = -0.433$, $p < 0.1$). No such conditionalities were found for the signature. There is no evidence of an interaction effect between our two manipulations, tone and signature, that is, having both features in the code does not add value to adding the one, relevant feature.

8 | DISCUSSION AND CONCLUSION

We investigated the effects of codes of ethics and in particular their design, by first asking whether a code has an impact on participants' decision intention; second, if the tone of a code makes a difference; and third, whether it matters or not that the code is signed by the executive board. Existing research is often survey based, which makes it difficult to identify the contribution of a particular code feature to effectiveness and to focus on the content of codes rather than its formal design. Addressing both issues, we contribute to the research on code effectiveness.

Our findings support Hypothesis 1, by indicating that the existence of a code is significant and increases decision makers' ethical behavioral intentions in all scenarios used. This result corroborates earlier studies showing that codes positively influence ethical decision making. Hypothesis 2, on the higher relevance of a negatively formulated code, is not supported. This is contrary to the qualitative study by Schwartz (2004), which found that managers and compliance officers perceive negatively written codes to be more effective; we do not find any evidence that a negative tone improves compliance. Regarding Hypothesis 3, our finding yields empirical evidence that signatures by top executives can contribute significantly to compliance at least in some situations. The effect is of limited magnitude and to some degree conditional on situational characteristics, revealing some interesting points about how elements of a situation affect code effectiveness. A signed code matters most when the behavior in question is visible, concerns the company, and there is no personal benefit at stake. This is, in our setting, the case in the supplier scenario. Signatures do not matter in the wine scenario, where a personal benefit is at stake and the decision is made in an anonymous setting. This finding hints at a behavioral mechanism where participants either see no relevance of a code for a seemingly private matter, or if they do, do not believe that their decision will be detected. However, in terms of managerial implications, the implication is straightforward—management should sign the code. While limited in its effect, it is a measure which is easy and very cost-efficient.

Like all experiments, our study has certain limitations. First, a typical critique of vignette-based experiments is that the scenarios presented to participants are rather abstract (Auspurg et al., 2009). As the scenarios used are typical business situations, we control for work experience, and the effects found for the manipulations take the effect of work experience into account. Nonetheless, we find effects of the manipulations, which are conditional on having working experience, for instance, that a positive code has a stronger effect for participants with work experience in the wine scenario. Second, the study focused upon behavioral intention as opposed to actual behavior. Despite acknowledging that behavioral intention is conceptually different from actual behavior (Fishbein & Ajzen, 1975; Rest et al., 1986), it is theorized to be an "immediate antecedent of behavior" (Ajzen, 1985, p. 18). In addition, empirical studies and meta-analyses have revealed that behavioral intention is a strong predictor of behavior (e.g., Armitage & Conner, 2001; Kautonen et al., 2013; Kim & Hunter, 1993). Contrary to asking

whether participants believe that a code is effective, asking for the behavioral intention is only one step removed from action. Third, social desirability may bias research that focuses on self-reports, especially when it comes to ethical decision making (Ganster et al., 1983; Randall & Fernandes, 1991). We controlled for social desirability using an impression management scale but found no evidence that impression management consistently affected participants' responses. Even if effects of impression management were present, the effects reported are the results after controlling for impression management. In any event, the anonymity of the online setting prevented social desirability from becoming an issue. Fourth, this study sampled its participants among members of a medium-sized German university. This may limit the generalizability of the findings. Despite this, having a heterogeneous sample of students and staff, even if it does not consist of managers, is more realistic than having a student-only sample (Cohen et al., 2001). Nevertheless, it would also be important to replicate our results with a sample of practitioners from several companies. Fifth, the codes given to the participants only comprised one page. In real life, codes are often much more extensive and complex (e.g., Kaptein, 2004). We chose this setting as we wanted to avoid information overload and ensure that the whole study could be completed in an acceptable amount of time.

While we find evidence that codes work and that signed codes work even better, this is not equally the case for both dilemmas but only for the supplier scenario. This finding is in line with arguments stating that rules do not matter in all situations (Kish-Gephart et al., 2010) but warrants further explanation. As it is, each scenario represents a fixed combination of features; the supplier scenario is characterized by visibility and by deciding on behalf of the company, which bears the costs and benefits of the decision. The wine scenario is characterized by anonymity, by being required to abstain from doing something, and by gaining a personal benefit. Two arguments can be derived from the SEU model to explain the differences in code effectiveness in the two scenarios. First, under the condition of anonymity, the consequences implied by violating a norm are less relevant for the decision calculus, increasing the likelihood of deviant behavior. As no one will know about potential misconduct, it will be without negative consequences. Second, a personal benefit is more relevant for decision making than a benefit which accrues to a third party. Looking at the two scenarios, noncompliance in the wine scenario has the higher subjectively expected utility, leading to the prediction that the intention to behave unethically is higher than in the supplier scenario. The two scenarios differ in several respects, that is, anonymity versus visibility and personal benefit versus benefit for the company, resulting in confounded effects of situational features. While we observed differences in the effectiveness of a code's design between the two scenarios, the research design, chosen for reasons of feasibility, does not allow for a statistical identification of the specific situational context factors underlying these differences. Indeed, the broader question of "What code works for whom in what situations?" remains open.

In terms of "in what situations," further research is needed to examine code effectiveness in different situational contexts like anonymity, situations where actors are asked to do something as opposed to abstaining from doing something.

In terms of "what code," studies might use other design elements that may influence effectiveness. These include the usage of examples, the length of a code (short vs. long), or the title of the document (code vs. guidelines). Another extension concerns the one-shot setting of experiments. In real life, codes are introduced, trained repeatedly, and affect many everyday decisions. Therefore, it would be interesting to analyze the long-term effectiveness of codes with certain properties.

In terms of "for whom," there are some implications of the study. In times of ever-increasing diversity in the workplace, a practical question is whether companies need to tailor their codes to employees, at least in terms of code design. Regarding this topic, there is some evidence of a conditionality of a code's effectiveness on individual-level characteristics. For women, a negatively written code works much better than a positively written one (for women in the wine scenario, the *b* coefficient of the positive tone condition, including all control variables, is +1.10 [$p < 0.05$], indicating significantly fewer ethical intentions). While it is typically argued that a code has to be written in a uniform way for all organizational members (Kaptein, 1998), we take this finding to indicate that tailoring may make sense. If tailoring is not possible at the level of the code (because there can be only one code), it may make sense to use this insight in the stages of implementation and enforcement of a code, notably with focused and tailored ethics training.

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APPENDIX A: EXAMPLE OF A SIGNED CODE WRITTEN IN A NEGATIVE TONE

Code of ethics

At Tennenkamp AG, we pursue the vision of becoming a global leader in our industry. Performance, passion, integrity and honesty are the core values of Tennenkamp AG. Accordingly, no employee may violate these core values and breach the principles of fairness and responsibility in all aspects of their business.

(1) Scope of application

Under no circumstance are employees allowed to violate the regulations in this code of ethics. Instructions from a supervisor that breach this code of ethics must not be obeyed. No employee is allowed to violate the laws.

(2) Sustainability

No employee may refuse to take on ecological responsibility at any time. The procedures and processes at Tennenkamp AG must never be designed in such a manner as to harm the environment. High CO_2 emissions are to be avoided. No employee may subordinate this ecological responsibility to purely economic considerations.

(3) Gifts

No employee is allowed to accept gifts from a third party above a value of € 40.00. Gifts with a value exceeding € 40.00 may not to be kept and employees must hand them over to Tennenkamp AG. These gifts are then used for internal company lotteries or for other internal company purposes.

(4) Business partner

No employee may select suppliers without a careful and objective assessment of their performance. Tennenkamp AG will not cooperate with suppliers that are not environmentally friendly and socially responsible.

The code of ethics is a fundamental part of our corporate culture. It must be practiced and not be violated. Violations of this code of ethics will result in disciplinary action and be subject to civil or criminal action.

Dr. Peter Tennenkamp
(Chief Executive Officer)

Lisa Müller
(Chief Finance Officer)

Lian Wáng
(Chief Marketing Officer)

Mathéo Lacroix
(Chief Procurement Officer)

Robert Müller
(Compliance-Officer)

Note: In the positive version, section (1) reads as follows:

All employees act always and without exception in accordance with the regulations contained in this code of conduct. Employees are only to comply with those

instructions from a supervisor which comply with the code of conduct. All employees comply with the laws.

APPENDIX B: EXEMPLARY SCENARIOS (ETHICAL HIGH)

Wine scenario

Someone who has been an important business partner of yours for years and who was your colleague a few years ago is sending a bottle of wine to your private address for Christmas. You are aware that you will be conducting contract negotiations with this person in January, in the context of a contract that is important to Tennenkamp AG's profit.

Your business partner knows that this is your favorite wine, which you love to drink on holidays. The wine is sold out at your wine merchant.

You have recently seen this wine offered in an auction house on the internet. Different vendors were asking the following fixed prices for this wine.

Vendor	Price
Vendor 1	€89.00
Vendor 2	€95.00
Vendor 3	€129.00
Vendor 4	€154.80
Vendor 5	€159.00

Supplier scenario

Next year, Tennenkamp AG is going to add a new product to its range. Being an employee of Tennenkamp AG, it is your task to choose the supplier that suits your company best. Therefore, you must choose between supplier A and supplier B.

Only supplier A has been approved in accordance with the environmental standard ISO 14001.

Supplier B has recently been criticized by the press several times. Independent experts assessed supplier B and found that it had not followed any environmental objectives, such as a reduction of CO_2 emissions.

In contrast, the press only praises supplier A, which thanks to a new technology, has been able to reduce CO_2 emissions significantly. Because of this, supplier A was recently honored with the German Sustainability Award.

Working with supplier A is a lot more expensive than working with supplier B. A contract with supplier A would increase the expenses of your department noticeably. Consequently, the profit of your department, for which you are responsible, would be much lower than if you were working with supplier B.

APPENDIX C: TRAINING QUESTIONS REGARDING THE NEGATIVE CODE

The core values of Tennenkamp AG include performance, passion, integrity, and honesty.	
Incorrect ☐	Correct ☐

The following questions were asked in the identical format:

- Instructions from a supervisor must never be disregarded and override regulations in the code of ethics.
- Regardless of any economic considerations, the environment must not be compromised.
- Gifts above a value of €40.00 must never be accepted.
- The selection of business partners is not regulated in the code of ethics.
- Violations of the code of ethics can result in sanctions.

Participants were asked to indicate whether the statement was incorrect or correct, based on their code.

APPENDIX D: VALUES AND SCALES

Idealism and relativism scales (Forsyth, 1980, p. 178)

Idealism

- The existence of potential harm to others is always wrong, irrespective of the benefits to be gained.
- One should not perform an action which might in any way threaten the dignity and welfare of another individual.
- If an action could harm an innocent other, then it should not be done.

Relativism

- Moral standards should be seen as being individualistic; what one person considers to be more moral may be judged immoral by another person.
- Questions of what is ethical for everyone can never be resolved since what is moral or immoral is up to the individual.
- Moral standards are simply personal rules which indicate how a person should behave and are not to be applied in making judgments of others.

Note: Participants indicated their level of agreement to the general statements on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Short scale based on items with the highest factor loadings, based on Davis et al. (2001, p. 46), originally developed by Forsyth (1980), and translated into German by Strack and Gennerich (2007).

Environmentalism (Scholz et al., 2011, p. 33)

- I do what is right for the environment, even when it costs more money or takes more time.
- There are more important things to do in life than protect the environment. (R)
- There is no point in doing what I can for the environment unless others do the same.
- Many of the claims about environmental threats are exaggerated. (R)

Note: Participants indicated their level of agreement to all statements on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*). Short scale based on items with high factor loadings, based on Scholz et al. (2011). We used the items translated into German by GESIS (2011). Reversed items were indicated by "(R)."

Impression management

- There were occasions when I received too much change and said nothing.
- I am always honest with others.
- Occasionally, I took advantage of others.

Note: Participants indicated their level of agreement to the general statements on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*), based on the scale developed by Winkler et al. (2006).

Egoism

- When making money, there are not right or wrong ways, only easy or difficult ones.
- Sometimes, I ask myself whether there is something of value at all.
- Nowadays, I ask myself whether anybody can be trusted.

Note: Participants indicated their level of agreement to the general statements on a 7-point Likert scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*), based on a scale by Shajek (2007).

Religiosity

How religious are you? Likert scale ranging from 1 (*not religious at all*) to 7 (*very religious*) scale from Weigel et al. (1999).

APPENDIX E: VARIABLE DESCRIPTION

Variable name	Description
Dependent variables	
Supplier/ SupplierOther	Probability that participants (other: a Tennenkamp employee) would choose the economically dominant decision alternative (i.e., choose supplier B); 7-point Likert-type scale ranging from 1 (*very unlikely*) to 7 (*very likely*)

(Continues)

Variable name	Description
Wine/WineOther	Probability that participants (other: a Tennenkamp employee) would choose the economically dominant decision alternative (i.e., accept the wine); 7-point Likert-type scale ranging from 1 (*very unlikely*) to 7 (*very likely*)
Independent variables	
CofCExistent	Dummy variable that equals 1 if participants received a code (experimental group) and 0 if they received no code (control group)
Signature	Dummy variable that equals 1 if participants received a code which was signed by the executive board and 0 otherwise
TonePositive	Dummy variable that equals 1 if participants received a positively written code and 0 if they received a negatively written code
Control variables	
Age	Age of the participants
DownloadedCofC	Dummy variable that equals 1 if participants downloaded the code before making a decision and 0 otherwise
dWorkingExperience	Dummy variable that equals 1 if participants have work experience and 0 otherwise
Egoism	Participants tendency towards egoism; aggregated measure ranging from 3 (*low tendency*) to 21 (*high tendency*)
Environmentalism	Participants tendency towards environmentalism; aggregated measure ranging from 4 (*low tendency*) to 28 (*high tendency*)
EthicalAwareness	Awareness that the scenarios concern an ethical issue or problem; 7-point Likert-type scale ranging from 1 (*strongly disagree*) to 7 (*strongly agree*)
EthicalHigh	Dummy variable that equals 1 if the magnitude of deviation from the code is high and 0 otherwise
EthicsTrainingScore	Number of correct answers in the brief ethics training ranging from 0 (*no correct answer at all*) to 6 (*all answers are correct*)
Female	Dummy variable that equals 1 if participants are female and 0 otherwise
Idealism	Participants tendency towards idealism; aggregated measure ranging from 3 (*low tendency*) to 21 (*high tendency*)
ImpressionMgmt	Participants tendency towards impression management; aggregated measure ranging from 3 (*low tendency*) to 21 (*high tendency*)
Relativism	Participants tendency towards relativism; aggregated measure ranging from 3 (*low tendency*) to 21 (*high tendency*)
Religiosity	Participants level of religiosity; 7-point Likert-type scale ranging from 1 (*not religious at all*) to 7 (*very religious*)