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The Usefulness of Social Norm Theory in Empirical Business Ethics Research: A Review and Suggestions for Future Research

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Abstract In response to recent calls to extend the underlying theories used in the literature (O'Fallon and Butterfield in J Bus Ethics 59(4):375–413, 2005; Craft in J Bus Ethics 117(2):221–259, 2013), we review the usefulness of social norm theory in empirical business ethics research. We begin by identifying the seeds of social norm theory in Adam Smith's (in: Raphael and Macfie (eds) The Theory of Moral Sentiments, the Glasgow Edition, Oxford University Press, Oxford, 1759/1790) seminal work, *The Theory of Moral Sentiments*. Next, we introduce recent theory in social norm activation by Bicchieri (The grammar of society: The nature and dynamics of social norms, Cambridge University Press, New York, 2006) and compare the new theory to two theoretical frameworks found in the literature: Kohlberg's (in: Goslin (ed) Handbook of socialization theory and research, Rand McNally, Chicago, IL, 1969; in: Lickona (ed) Moral development and behavior, Holt, Rinehart & Winston, New York, 1976) theory of moral development and Cialdini and Trost's (in: Gilbert et al. (eds) The handbook of social psychology, Oxford University Press, Boston, 1998) taxonomy of social norms. We argue that the new theory provides useful insights by emphasizing the ability of situational cues and information to generate common expectations for social/-moral norms. The theory is particularly useful for empirical research in business ethics because it gives both organizational and individual factors a role in motivating norm-based behavior. To demonstrate this usefulness, we present examples where the theory has been effectively applied in experimental accounting research to generate new insights. We conclude by citing specific examples where the theory may prove useful in empirical business ethics research.

Keywords Empirical business ethics research · Social norm theory · Moral theory · Economic theory · Adam Smith

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Introduction

In an early review of the literature, Ford and Richardson (1994) find a surprisingly limited number of empirical studies of ethical decision making in business. They conclude, "In a sense, this review is discouraging in that the number of empirical studies is distressingly small. In another sense, this review is exciting in that it identifies a large number of opportunities for fruitful research in an area in which we still know so little and need to know so much" (Ford and Richardson 1994, p. 219). In a subsequent review, Loe et al. (2000) add empirical studies of ethical decision making appearing in the marketing literature and relate the studies to the Jones (1991) model of ethical decision making. They also note the paucity of empirical studies in the literature, especially in specialized areas of business outside of marketing. O'Fallon and Butterfield (2005) review empirical studies published since the earlier two reviews and relate the studies to Rest's (1986a) four steps of ethical decision making (moral awareness, moral judgment, moral intent, and moral behavior). They observe a dramatic increase in empirical research and conclude, "Overall, researchers have produced more empirical articles in the area of ethical decision making over the past 7 years than in the previous four decades combined" (O'Fallon and Butterfield 2005, p. 405).

The above three reviews cover empirical business ethics research for the years 1978–2003. Craft (2013) extends these reviews by reviewing empirical research over the years 2004–2011. Similar to O'Fallon and Butterfield (2005), Craft includes empirical studies in her review if they investigate ethical decision making within an actual or simulated business context and the results can be applied to one of Rest's (1986a) four ethical decision-making variables or Jones' (1991) model. Given these qualifiers, her review includes 84 empirical studies with 357 key findings. Craft identifies many of the same trends as those mentioned in earlier reviews. For example, individual factors dominate organizational factors for the most attention, comprising 77 % of the overall findings between 2004 and 2011. Craft identifies a slight increase in the number of findings related to "subjective norms," with five findings in this area as compared to three findings in O'Fallon and Butterfield. No attempt was made by the authors, however, to apply these findings to social norm theory. Further, the authors were unsuccessful at applying their results to Rest's four ethical decision-making variables or Jones' model. Given the mixed results and the failed attempts at theory building, Craft (2013, p. 252) concludes, "(T)he impact of subjective norms on ethical decision-making is unclear."

The feedback loop between theory and empirical research "is the engine of progress in every scientific discipline" (Friedman and Sunder 1994, p. 3). Theory organizes our knowledge and provides empiricists with a list of variables to explore or control. Completing the loop, empirical research provides useful evidence to validate theory or suggest needed revisions. In an early critique of methodology in business ethics research, Randall and Gibson (1990) examine 94 empirical studies and identify only 32 that contain any type of theory development and only 24 that contain any formal hypotheses. Ford and Richardson (1994, p. 205) also observe a general lack of theory in the empirical literature and state, "The paucity of empirical research grounded on theory has substantially impeded the development of the field." Similarly, O'Fallon and Butterfield (2005) observe that many empirical studies over the seven-year period 1996–2003 lacked strong theoretical grounding and formal hypotheses. They conclude, "If the field of descriptive ethics is to move forward to strengthen our understanding of the ethical decision-making process, it is imperative that future studies focus more attention on theory development. This includes developing and/or moving beyond Rest's framework, conceiving and testing additional individual, situational, and issue-related influences, and considering potential moderators of the ethical decision-making process" (O'Fallon and Butterfield 2005, p. 399).

We address the call for theory development in previous reviews by introducing social norm theory and demonstrating its usefulness to empirical business ethics research. In contrast to previous reviews in the literature, we do not provide a comprehensive review of empirical studies in business ethics. However, we share important themes with these reviews and build upon their insights. First, we agree with prior reviews that empirical studies in business ethics have the greatest potential to add new insights when they are grounded in theory. Second, we agree that the best way to advance theory is often by using experimental methods with strong manipulations and controls (Randall and Gibson 1990; Ford and Richardson 1994). Finally, we agree that empirical research in business ethics can benefit from advances in moral theory from multiple business-related disciplines, including management, marketing, and accounting (Loe et al. 2000). Similar to our study, Bobek et al. (2013) introduce Cialdini and Trost's (1998) social norm taxonomy to the literature in their study of ethical decision making related to tax compliance. Our study expands upon their study by reviewing the historical development of social norm theory, introducing recent theory in social norm activation, presenting examples where the theory has been effectively applied in experimental accounting research, and citing specific examples where the theory may prove useful in the more general literature of empirical business ethics research.

The current literature in ethical decision making reflects a hesitancy on the part of researchers to incorporate insights from the literature in social norms. This hesitancy has been matched by a hesitancy on the part of many social norm researchers to incorporate insights from the literature in ethical decision making (Campbell 1975). A review of history suggests that this hesitancy is unwarranted. Eighteenth century authors of the Scottish Enlightenment resisted rationalist/individualist views of moral judgment that removed individuals from their social context (Berry 2003). For example, Adam Smith (1759/1790) likened society to a mirror that reflected norms and values, and argued that the moral conscience was the effect of social experience. Adam Smith's scientific approach to morality has been credited with sowing the seeds of social norm theory (Campbell 1971). Bicchieri (2006, p. 21) links social norms with moral norms when she states, "What needs to be stressed here is that what makes something a social or a moral norm is our attitude toward it." Further, "Social norms by and large apply to situations in which there is conflict between selfish and pro-social incentives" (Bicchieri 2006, p. 34). Thus, the gap between the literature in ethical decision making and the literature in social norms appears unwarranted and could be bridged to yield new theoretical insights. One goal of our study, therefore, is to bridge the gap between these two literatures to advance theory regarding both ethical decision making in business and the influence of social norms in business settings.

An even greater gap exists between social/moral norm theory and traditional economic theory. The dominant economic theory of the firm in accounting, economics, and finance is principal–agent theory (Jensen and Meckling 1976). Since the publication of Friedman's (1953) influential essays on positive economics, researchers in these business-related disciplines have been hesitant to incorporate insights from social/moral norm theory because of the charge that such theory is purely "normative."[1] Bicchieri's (2006) model of social norm activation, however, is a positive theory that was developed in part to explain empirical results in experimental tests of game theory in economics. This makes the model readily applicable to traditional economic theory. In particular, Bicchieri's model explains how "conditional preferences" for social norms arise and affect behavior due to situational cues and information. Stevens and Thevaranjan (2010) use insights from Bicchieri's model to introduce moral sensitivity into the traditional principal–agent model, and find that the ability of the model to describe contracting behavior is increased. This suggests that the large gap between social/moral norm theory and traditional economic theory is unwarranted. Another goal of our study, therefore, is to help bridge this gap and thereby open the business-related disciplines of accounting, economics, and finance to business ethics research.

In the following section, we identify the seeds of social norm theory in Adam Smith's (1759/1790) seminal work, *The Theory of Moral Sentiments*. Considered by many to be the father of modern economic theory, Smith's moral theory has been rediscovered and used as a vehicle to introduce morality and social norms into traditional economic theory (Smith 2008; Stevens and Thevaranjan 2010; Stevens 2011). Next, we introduce recent developments in social norm theory and Bicchieri's (2006) theory of social norm activation. Next, we compare the new theory to two theoretical frameworks found in the empirical business ethics literature: Kohlberg's (1969, 1976) theory of moral development and Cialdini and Trost's (1998) taxonomy of social norms. We conclude that the new theory is capable of providing useful insights by emphasizing the ability of situational cues and information to generate common expectations for social norms. The theory is particularly useful for empirical research in business ethics because it gives both organizational and individual factors a role in motivating norm-based behavior. To demonstrate this usefulness, we present examples where the theory has been effectively applied in experimental accounting research. We conclude by citing specific examples where the theory may prove useful in the more general literature of empirical business ethics research.

The Seeds of Social Norm Theory in Adam Smith's Moral Theory (1759/1790)

The seeds of social norm theory can be traced to the attempt by Adam Smith and other Scottish Enlightenment writers to turn moral philosophy into an empirical science. A professor of moral philosophy at the University of Glasgow from 1752 to 1764, Smith published the first edition of *The Theory of Moral Sentiments* in 1759.[2] His first seminal work contained a comprehensive theory of the

[1] This hesitancy is reflected in the recent attempt by Erhard et al. (2009, 2010) to incorporate integrity within the theory of the firm. While acknowledging the importance of integrity in markets and organizations, and encouraging researchers to incorporate this integrity into the theory of the firm, the authors espouse a positive model of integrity that strips the construct of any moral content. Their model of integrity is based on the erroneous premise that moral theory is purely normative in nature and therefore has little relevance to positive economic theory. Thus, their model offers no testable predictions for empirical researchers in empirical business ethics research or the other business-related disciplines of accounting, economics, and finance.

[2] Adam Smith's first appointment at the University of Glasgow was as Professor of Logic from 1751 to 1752.

source and role of moral judgment in society. Smith left the University of Glasgow to spend 2 years touring Europe as tutor to the future Duke of Buccleuch. After returning to his hometown of Kirkcaldy, Scotland, he began his second seminal work dealing with the division of labor, commerce, and political economy. Smith published the first edition of *The Wealth of Nations* in 1776. Throughout the rest of his life, Smith alternately revised his two books. The last two editions of *The Wealth of Nations* which appeared during his lifetime (the fourth and fifth editions) were published in 1786 and 1789 with only minor changes. In contrast, the sixth and final edition of *The Theory of Moral Sentiments* appeared just prior to his death in 1790 and contained important new elaborations. Thus, there is no validity to the argument that Smith thought his two books were at odds with each other or that he changed his views regarding the importance of morality in society (Raphael and Macfie 1982; Griswold 1999; Raphael 2007).

Although commonly overlooked by economists today, *The Theory of Moral Sentiments* was well received by leading philosophers of the eighteenth century in Scotland, England, and throughout Continental Europe (Reeder 1997). Evidence suggests that the book was read and critiqued by other Scottish Enlightenment writers such as David Hume, Edmund Burke, Lord Kames, Thomas Reid, Adam Ferguson, and Dugald Stewart. French philosophers such as D'Holbach and the Condorcets, Antoine and Sophie also read and critiqued the book, as well as German philosophers such as Herder and Kant. By all accounts, Smith's first book was a literary success that allowed its author to launch his reputation as a man of letters. This reputation brought students from around the world to Glasgow to study under Smith (Raphael and Macfie 1982). Well before the publication of *The Wealth of Nations*, therefore, Smith already enjoyed international fame as a moral philosopher of the highest order (Campbell 1971).

To understand why a moral philosopher would write a major work on economics, it is important to know something of scholarly thought in eighteenth century Europe. In contrast to today, moral philosophy was the central discipline in most universities and economic matters were an integral part of that discipline (Raphael and Macfie 1982; Griswold 1999). Further, the terms "philosophy" and "science" were used interchangeably to mean any systematic attempt to understand the world (Campbell 1971, Berry 2006). As more and more topics of study have broken away from their philosophical origins, philosophy has become the residual category that it is today, specializing in issues that remain beyond the scope of particular sciences. When classifying theories of morality today, an important distinction is made between those theories that are *philosophical* in nature and those that are *scientific* in nature. The former is primarily concerned with problems associated with the justification of moral judgments, whereas the latter focuses on causal explanations for moral judgments and behavior in practice (Campbell 1971). Accordingly, the former consists of normative moral theories, whereas the latter consists of positive moral theories that are particularly useful for scientific inquiry (Loe et al. 2000).

The moral theory developed in *The Theory of Moral Sentiments* is a positive moral theory in the sense that its goal is to describe moral judgment and behavior in practice.[3] It is also "Newtonian" in that it reflects the Scottish Enlightenment's emphasis on science (natural philosophy) and the emerging discoveries by Isaac Newton (Campbell 1971; Berry 2006). In particular, Smith used the language of science to explain his moral theory and included examples from everyday life. Smith also shared the conviction of his Scottish Enlightenment colleagues that reason alone does not have the power to stir moral behavior (Raphael 2007). Similar to the current literature in ethical decision making, he defined moral judgment as the determination that a given act or mode of conduct was "right" (worthy of approval) versus "wrong" (worthy of disapproval). The key mechanism behind this moral judgment, according to Smith, is our natural ability to "sympathize" with the state and condition of other human beings.[4] In judging the appropriateness of an agent's action, we imagine ourselves in their position and evaluate what we would have *felt* were we in the same position. If we can share in the agent's moral sentiments after entering into their situation, we deem their conduct right or worthy of approval. Yet, Smith makes clear that we maintain "emotional space" or detachment in our moral judgment (Griswold 1999). Our natural ability to sympathize or empathize with the lot of others, therefore, creates an "impartial spectator" that allows us to scrutinize the behavior of others. The impartial spectator also allows us to scrutinize the morality of our own behavior. As such, Smith's moral theory explains moral judgment and the origin of the moral conscience (Raphael and Macfie 1982).

In the sixth and final edition of *The Theory of Moral Sentiments*, Smith added a new section dealing with the role of virtue in moral reasoning and behavior. Similar to ancient stoic philosophers, Smith emphasized the four virtues of courage, temperance, justice, and prudence. Similar to his mentor Francis Hutcheson, he also emphasized the Christian virtue of benevolence. Finally, similar to Immanuel Kant, Smith emphasized duty or a solemn

[3] Adam Smith criticized the moral philosophy of his day for reflecting a deficient understanding of "natural principles." He viewed his account of moral sentiments as superior because it more fully reflected these natural principals (Smith 1759/1790, VII.I.1).

[4] Smith defined sympathy in a neutral way, so his definition fits more closely with what we today would call "empathy."

regard for rules of conduct (Fleischacker 1991). According to Smith's moral theory, the impartial spectator is not immune to self-deceit, and is therefore not sufficient to ensure moral behavior in all situations. To remedy this deficiency in the impartial spectator, human beings are endowed with a natural respect for general rules of conduct. This natural respect for behavioral rules can be seen in the prominent role that norms and laws play in preserving order across cultures, nationalities, and social groups.

The descriptive validity of Adam Smith's moral theory has recently been acknowledged by prominent researchers in economics. After winning the Nobel Prize in Economic Science in 2002, Vernon Smith referenced Adam Smith's moral theory to explain emerging evidence in experimental economics (Smith 2008). In experiments designed to test game theoretic predictions (e.g., ultimatum, dictator, and trust games), norm-based behavior has been documented that is consistent with preferences for fairness, reciprocity, trustworthiness, etc. Further, this norm-based behavior has been found to vary with relatively small changes in situational cues and information. Based on this evidence, Vernon Smith concluded that participants enter the laboratory with socially derived norms or "morality" that can be activated with situational cues present in the experimental setting. Further, he sided with Scottish Enlightenment writers in arguing that, while participants may not be able to fully articulate them, these social norms are discoverable through scientific methods (Smith 2008, p. 37).

Bicchieri's (2006) Model of Social Norm Activation

Research in social psychology has largely validated Adam Smith's (1759/1790) moral theory. Researchers have found that social norms are shared belief systems that must be examined from the perspective of both the individual's psychological system and the sociocultural system in which that individual is embedded (Campbell 1975; Pepitone 1976; Sunder 2005). Researchers have also found that environmental stimuli help individuals interpret a given social setting and map their behavior to behavioral scripts or norms (Cialdini and Trost 1998). In particular, individuals who enter a social setting must decide how to behave, and they are more likely to follow a given social norm if they interpret the setting as calling for such a norm (Bicchieri 2006). Finally, researchers have found evidence that the decision to follow a social norm can take a *deliberate* route of conscious decision making or a *heuristic* route of simplified or even subconscious decision making (Cialdini et al. 1990).

After reviewing the empirical landscape, Bicchieri (2006, p. 57) concludes, "Research by economists, decision scientists, psychologists, and other social scientists seems to agree that context matters. However, a model of just how context matters is absent." To fill this void, Bicchieri develops a formal model that provides the necessary and sufficient conditions for a social norm to be activated in a given social setting. According to Bicchieri's model, the decision to follow a social norm is conditional upon the belief that a norm exists and applies to the current situation (*contingency condition*), the belief that a sufficiently large subset of people conforms to the norm in similar situations (*empirical expectations condition*), and the belief that a sufficiently large subset of people expects conformance to the norm in similar situations (*normative expectations condition*). If all three conditions are present, an individual will exhibit a preference for the norm and thereby experience positive utility for conformance and negative utility for nonconformance (*conditional preference condition*).

Bicchieri (2006, p. 59) summarizes social norm activation as follows: "To 'activate' a norm means that the subjects involved *recognize* that the norm applies: They infer from some situational cues what the appropriate behavior is, what they should expect others to do, and what they are expected to do themselves, and act upon those cues. It is the cues one focuses on that govern the mapping from context to interpretation and, ultimately, the activation of social norms." Rather than assume consistent preferences, as is commonly assumed in traditional economic theory, Bicchieri's model assumes that individuals have *conditional preferences* for conforming to social norms and that such preferences are activated by situational cues present in the social setting.

Bicchieri's (2006) model allows for differential social norm sensitivity among individuals. For example, empirical expectations may differ across individuals because of differential information or experience regarding conformance to the norm in similar situations. Further, individuals may differ in the magnitude and nature of normative expectations required for conformance (Bicchieri 2006, p. 11). For some it may be sufficient to believe that other people expect them to conform to the norm, whereas some individuals may need to believe that other people are willing to punish them for nonconformance. Thus, while the threat of punishment is the strongest form of normative expectations, strong reasoning in support of the norm may generate sufficient normative expectations to ensure conformance in some individuals.[5]

[5] Although Bicchieri assumes that sensitivity to a given social norm varies across individuals and particular social norms, she considers an individual's sensitivity to a particular norm to be a fairly stable disposition (Bicchieri 2006, p. 116).

Bicchieri's model suggests three motivations that may lead an individual to comply with a given social norm: (1) fear of the consequences for noncompliance, (2) the desire to please, and (3) acceptance of the social norm as valid (Bicchieri 2006, pp. 23–24). The first motivation may exist because the individual fears potential sanctions or penalties from violating the norm. Bicchieri's model extends traditional economic theory by including *behavioral* penalties such as resentment in addition to financial penalties. The second motivation may exist because the individual desires potential rewards from fulfilling the norm. Again, Bicchieri's model extends traditional economic theory by including *behavioral* rewards such as respect and dignity in addition to financial rewards. The third motivation has no equivalent in traditional economic theory in that it provides a reason for individuals to conform to a social norm even when their norm-based behavior is private. As such, Bicchieri's model of social norm activation extends traditional economic theory by providing behavioral as well as financial motivations for norm-based behavior.

Table 1 summarizes Bicchieri's model of social norm activation. To highlight the usefulness of the model to empirical researchers, we include empirical manipulations and measures suggested by the model. The table reflects the ability of the model to provide testable hypotheses relating both situational and individual factors to ethical decision making and norm-based behavior in business. According to the model, for example, any situational cue or information that makes a given social norm salient is expected to increase behavior consistent with the norm through the contingency condition. Further, any situational cue or information that increases the belief that other people conform to the norm in similar situations is expected to increase behavior consistent with the norm through the empirical expectations condition. Finally, any situational cue or information that increases the belief that other people expect conformance to the norm is expected to increase behavior consistent with the norm through the normative expectations condition.

In summary, Bicchieri's (2006) model of social norm activation is a positive theory that can help researchers explain and predict norm-based behavior in business settings. It is important to emphasize, however, that her model does not require that individuals take a *deliberate* route of conscious decision making to follow a given norm. In particular, her model incorporates evidence that following a social norm often takes a *heuristic* route of simplified or even subconscious processing. Bicchieri (2006, p. 3) states, "The definition of social norm I am proposing should be taken as a *rational reconstruction* of what a social norm is, not a faithful descriptive account of the real beliefs and preferences people have or of the way in which they in fact deliberate." In contrast to intuitionalist approaches, which assume that moral intuitions come first and cause moral judgments (Haidt 2001), Bicchieri's model takes a rationalistic approach that allows for the possibility of intuitive or subconscious processing. Conscious processing of situational cues and information may be increasingly important in business settings where social norms frequently conflict with self-interest. Further, motivating norm-based behavior by engaging such conscious processing may be of critical importance to the firm. Thus, we conclude that Bicchieri's model is particularly useful for empirical business ethics research.

Comparisons of Bicchieri's Theory to Other Theoretical Frameworks

In this section, we compare Bicchieri's (2006) model of social norm activation to other theoretical frameworks found in the literature. We focus on two theoretical frameworks: Kohlberg's (1969, 1976) theory of moral development and Cialdini and Trost's (1998) taxonomy of social norms. The former has a long history of use by empirical researchers to measure moral development and moral reasoning and the latter has recently been introduced to the empirical literature in business ethics (Bobek et al. 2007, 2013). Similar to Bicchieri's model, Cialdini and Trost's taxonomy of social norms is based on empirical evidence in social psychology. Consequently, as we discuss below, Cialdini and Trost's taxonomy shares some similarities with Bicchieri's social norm theory.

Kohlberg's (1969, 1976) theory of moral development provides an explanation of differential moral reasoning across individuals and within the same individual across time. According to the theory, moral development occurs over six stages in a step-by-step progression from self-interest (called "*Pre-conventional*"), proceeding to a respect for society's conventions and laws (called "*Conventional*") and, for some, proceeding to the highest level of principled reasoning (called "*Post-conventional*"). While Kohlberg's theory has provided useful insights and empirical support has been found for some of its aspects, researchers have challenged the theory on philosophical, psychological, and empirical grounds.[6] In response to these criticisms, Kohlberg's theory of moral development has gone through many refinements and clarifications over time. For our purposes, we focus on specific issues related to the usefulness of Kohlberg's theoretical framework in empirical research in business ethics.

Kohlberg's theory is a normative theory that emphasizes macro-moral issues related to societal structures (laws,

[6] For a thorough discussion of these challenges and potential responses, see Modgil and Modgil (1986) and Rest et al. (1999).

Table 1 Summary of Bicchieri's (2006) model of social norm activation

Condition	Description	Empirical manipulation/measure
Contingency	An individual knows that a norm exists and applies to the current situation	Any situational cue or information that makes the norm salient for the current situation
Empirical expectations	An individual believes that a sufficiently large subset of people conforms to the norm in similar situations	Any situational cue or information that increases the belief that other people conform to the norm in similar situations
Normative expectations	An individual believes that a sufficiently large subset of people expects conformance to the norm in similar situations (and may be willing to sanction non-conformance)	Any situational cue or information that increases the belief that other people expect conformance to the norm in similar situations (and may be willing to sanction non-conformance)
Conditional preference	If the three conditions above are met (contingency, empirical expectations, and normative expectations), an individual will prefer to conform to the norm in the current situation	Any measure of conformance to the norm in the current situation or the belief that one's conformance to the norm is appropriate
Social norm sensitivity	An individual possesses a given level of sensitivity or normative expectations for the norm	Any measure of an individual's prior sensitivity to or belief in the norm

roles, institutions, general practices) and the ability of the individual to reach independent views of justice and equality (Modgil and Modgil 1986; Rest et al. 1999).[7] Researchers have criticized his theory for being less informative about the micro-morality of individual ethical decision making, which involves the processing of situational cues in the determination of right versus wrong behavior. More specifically, Kohlberg's six levels of moral development have been criticized for being too coarse-grained and for not capturing short-term development in moral reasoning (Rest 1986b). Evidence suggests that most individuals start out around Stage 2 and end up around Stage 4. Researchers have also found a general lack of empirical evidence for Stages 5 and 6—Kohlberg's Post-conventional levels of principled reasoning. This represents a serious problem for Kohlberg's theory, because he defined the six stages of moral development from the perspective of the higher stages (Modgil and Modgil 1986; Rest et al. 1999). Finally, the overwhelming majority of subjects tested are not pure types but show stage mixture or state inconsistency (Rest 1986b).

To measure the moral development construct in Kohlberg, empirical researchers frequently use Rest's (1979) self-administered paper-and-pencil instrument called the "defining issues test" (DIT). The three-story DIT presents participants with three moral dilemmas and asks them to rank the relative importance of each of several standard items for resolving each dilemma on a 5-point scale. From the item rankings, a DIT *P* score is computed by adding the points allocated to the items that reflect the Post-conventional level of moral reasoning and then converting the points into a percentage. Individuals who score high on the DIT tend to rely more on Post-conventional moral reasoning, which frames morality and right behavior in terms of procedural due process and visions of the just society. This "higher level" of moral reasoning contrasts with the Conventional moral schema, which places a high value on laws and social norms.

A growing number of researchers view the DIT as a flawed measure of moral reasoning (Bailey et al. 2010). The DIT has been found to capture largely relativism and liberal political views (Fisher and Sweeney 1998). Further, the DIT has yielded "inverted-U" results whereby both low and high scorers exhibit unethical behavior (Ponemon 1993). For example, Schatzberg et al. (2005) find that putting high DIT scorers together in auditor–manager pairs results in premium audit fees and misreporting at the expense of investors. Given that the DIT has been found to capture relativism, it is not surprising that high DIT auditor–manager pairs demonstrate more, not less, opportunistic behavior. Finally, ethical decision making in business relies heavily on professional standards and codes, yet the DIT ranks such reliance at a relatively low level of moral reasoning. Because of these and other considerations, researchers have called for alternative measures of moral reasoning in empirical business ethics research (Sweeney and Roberts 1997; Lord and DeZoort 2001).

Bicchieri's (2006) model of social norm activation differs from Kohlberg's (1969, 1976) theoretical framework in that it was developed to explain norm-based behavior found in social psychology and experimental economics. As such, it is a positive theory that is useful to explain ethical decision making and norm-based behavior in a multitude of business settings. Consistent with Adam Smith's (1759/1790) moral theory, Bicchieri's model suggests that the capacity for moral reasoning comes from social norms that have been internalized by a history of social interaction. This view of morality has gained

[7] Kohlberg developed his theory in response to the social upheaval of the 1960s and the rejection by many of traditional American society, "which had become too repressive at home and too imperialistic abroad" (Rest et al. 1999, p. 3).

popularity within moral philosophy and moral psychology, and has been found to be useful within professional practice.[8] In particular, moral philosophy has begun to view morality as an inherently social phenomenon, embedded in the particular experiences and deliberations of a community (Rest et al. 1999). In contrast, Kohlberg's theory is a normative theory that sets individual perceptions of justice and personal rights as the highest form of moral reasoning.

Researchers have recently introduced Cialdini and Trost's (1998) taxonomy of social norms to the empirical business ethics literature (Bobek et al. 2007, 2013). Cialdini and Trost (1998, p. 152) define social norms as "rules and standards that are understood by members of a group, and that guide and/or constrain social behavior without the force of laws. These norms emerge out of social interaction with others; they may or may not be stated explicitly, and any sanctions for deviating from them come from social networks, not the legal system." Based on a review of the social norm literature, Cialdini and Trost identify four types or categories of norms that appear to guide social behavior: *descriptive* norms, *injunctive* norms, *subjective* norms, and *personal* norms. Descriptive norms reflect perceptions of what other people do in a given situation. Injunctive norms reflect perceptions of what most people think others should do in a given situation. Subjective norms reflect perceptions of what others who are important to a person think he/she should do in a given situation, and personal norms reflect internalized standards of behavior.

Bicchieri's (2006) model can be used to define the four social norm categories in Cialdini and Trost's (1998) taxonomy. For example, Bicchieri (2006, pp. 31–34) uses her model to define the conditions required for a descriptive norm to exist, which include the belief that the norm applies to the given situation and that a sufficiently large subset of people conforms to the norm in similar situations. According to Bicchieri, therefore, Cialdini and Trost's descriptive norms category includes empirical expectations but not normative expectations. As such, conformity to a descriptive norm allows us to "fit in," which is always dictated by self-interest (Bicchieri 2006, p. 29). Bicchieri's definition of a social norm, however, requires normative expectations and such expectations often conflict with self-interest, at least narrowly defined. Thus, Bicchieri's definition of a social norm closely resembles Cialdini and Trost's injunctive norm category. The subjective norm category implies a more strongly held empirical expectation in Bicchieri's model, as from a closely associated subgroup. Finally, Cialdini and Trost's personal norms category can be defined as social norms that have been internalized and form strong normative expectations, leading to feelings of guilt or shame for violation (Bicchieri 2006, p. 43).

In contrast to Bicchieri's (2006) model, however, Cialdini and Trost's (1998) taxonomy does not provide researchers with testable predictions regarding the ability of situational or individual factors to generate norm-based behavior. Further, their taxonomy does not provide intuition as to how the four social norm categories are related. Bicchieri's model not only yields testable implications, it provides useful intuition regarding how Cialdini and Trost's social norm categories are related. According to Bicchieri's model, descriptive norms come with empirical expectations but not with normative expectations, whereas injunctive norms come with both forms of expectations. Further, subjective norms represent descriptive norms with more intense empirical expectations, whereas personal norms are social norms that have been internalized and form strong normative expectations. Thus, Bicchieri's model is general enough to explain the wide body of findings in social psychology as captured by Cialdini and Trost's taxonomy of social norms.

The difficulty of using Cialdini and Trost's (1998) taxonomy to develop testable predictions is evident in Bobek et al.'s (2013) study of the role of social norms in tax compliance behavior. After presenting Cialdini and Trost's social norm taxonomy, Bobek et al. acknowledge that Cialdini and Trost do not make explicit predictions regarding the inter-relationships among the four categories. Thus, they base their hypotheses on "the theoretical premise that the larger influences the smaller" (Bobek et al. 2013, p. 456). Based on this theoretical premise, they predict specific relations between the four types of social norms and tax compliance intentions. For example, they predict that taxpayers' descriptive norms toward tax compliance will influence their injunctive, subjective, and personal norms toward tax compliance (Hypothesis 1). However, their predictions are ad hoc due to the lack of theory linking the social norm categories in Cialdini and Trost's taxonomy.

Table 2 summarizes the key differences between Kohlberg's (1969, 1976) theory of moral development, Cialdini and Trost's (1998) taxonomy of social norms, and Bicchieri's (2006) model of social norm activation. Kohlberg's theory is of minimal use to empirical researchers because it is a normative theory that yields limited

[8] For example, Beauchamp and Childress (1994) address moral dilemmas in biomedicine by starting from the moral consensus that has arisen within the medical community (i.e., the common morality that has evolved out of previous cases) and then examining the moral justifications for the specific case based on that consensus. That is, common moral principles that have arisen over time within the medical community function as the justification basis for action choices in specific cases. For Beauchamp and Childress, therefore, moral theory building within the medical profession is a dialectical process of both top-down and bottom-up moral judgments (Rest et al. 1999). We assert that moral theory building within the business professions is very similar.

Table 2 Comparison of Bicchieri's (2006) model to other theoretical frameworks in the literature

Theoretical framework	Normative or positive	Testable implications
Kohlberg's (1969, 1976) Theory of moral development	Normative	Limited
Cialdini and Trost's (1998) Taxonomy of social norms	Positive	No
Bicchieri's (2006) Model of social norm activation	Positive	Yes

testable implications. Cialdini and Trost's taxonomy is also of minimal use because, while designed to categorize norm-based behavior found in the social psychology literature, it yields no testable implications. In contrast, Bicchieri's model provides a positive theory that yields testable implications. This theory is particularly useful for empirical research in business ethics because it gives both organizational and individual factors a role in norm-based behavior. To demonstrate this usefulness, we now present examples where the theory has been effectively applied in experimental accounting research to generate new insights.

Applications of Bicchieri's Social Norm Theory in the Accounting Literature

Theoretical and empirical researchers in accounting have found Bicchieri's (2006) model useful to introduce social/moral norms into traditional economic theory. For example, Stevens and Thevaranjan (2010) use insights from Bicchieri's model to incorporate a morally sensitive agent in the traditional principal–agent model. In the traditional model, a risk-neutral principal seeks to hire a risk- and effort-averse agent to provide a productive effort. When the agent's effort is unobservable, as is typically assumed, a moral hazard problem arises because the agent is motivated to shirk and provide minimal effort after contracting with the principal. Traditional contract solutions to the moral hazard problem rely on financial incentives that tie the agent's pay to a noisy measure of performance. Due to the agent's risk aversion, however, the principal must pay the agent a risk premium for bearing the risk of the financial incentive and the resulting contract solution is always second best.

Stevens and Thevaranjan (2010) use Bicchieri's (2006) model to generate a moral solution to the moral hazard problem. They assume that the principal specifies a standard for effort in addition to a salary wage at the time of contracting. Further, they assume that the agent suffers disutility for providing less than the standard effort after agreeing to the contract, and that this disutility is increasing in the magnitude of the violation and the moral sensitivity of the agent. Stevens and Thevaranjan argue that agreeing to the contract activates a promise-keeping norm that generates a disutility for violating the standard effort (shirking). Stevens and Thevaranjan examine the interplay between moral sensitivity and firm productivity in determining the optimal salary contract. They show that the principal can pay the agent the first-best salary in exchange for the first-best effort as long as the moral sensitivity of the agent is nonzero and the productivity of the agent's effort to the firm is relatively low. As productivity increases, it becomes optimal for the principal to pay the agent a "salary bonus" to induce more effort from the agent. The salary bonus solution is more efficient than the traditional incentive solution at high productivity levels, but it is less efficient than the first-best solution because of the cost of the bonus. Stevens and Thevaranjan compare their fixed contract solutions to real-world contracts and conclude that adding moral sensitivity increases the descriptive power of the principal–agent model.

Experimental researchers in accounting have found Bicchieri's model useful to explain and predict behavior in principal–agent settings such as participative budgeting. Agency theory predicts that having subordinates participate in setting budgets is inefficient due to the incentive to build slack into the budget (Jensen 2001). To explain the continued use of participative budgeting in practice, researchers have examined the effects of social/moral norms on budgetary slack in budgeting experiments. To provide strong tests of these norms, experimental researchers have used "slack-inducing" pay schemes where the economic prediction is for the subordinate to create maximum budgetary slack. In such a setting, for example, Evans et al. (2001) find that participants sacrifice wealth to provide honest or partially honest cost reports and do not lie more as the payoff for lying increases. Further, they find that the most profitable contract makes use of participants' preferences for honesty. Their results suggest that participative budgeting settings activate an honesty norm. While rich in economic theory, however, the experimental study in Evans et al. does not incorporate insights from social norm or moral theory.

Stevens (2002, p. 157) argues that budgetary slack allows a subordinate to extract excess resources from the firm through deceptive means, and such behavior violates common social norms and basic standards of professional conduct. Thus, he examines the effects of reputation and ethics on budgetary slack. Stevens examines the effect of reputation concerns by manipulating the amount of information asymmetry between participant workers and an experimenter manager regarding production performance, and examines the effects of ethical concerns by gathering measures of personal values and moral judgments regarding budgetary slack. Stevens finds that participants who were concerned about their reputation with the experimenter manager, because of lower information asymmetry regarding production potential, build less slack into their budget. He also finds that budgetary slack is negatively related to personal values for ethical responsibility as measured by the *Responsibility* Scale of the Jackson Personality Inventory-Revised (Jackson 1994). Finally, Stevens finds that budgetary slack is negatively related to the moral judgment by participants that significant budgetary slack is unethical.

Based on his result that reputation concerns are affected by differences in information asymmetry but ethical concerns are not, Stevens (2002, p. 169) concludes that reputation concerns represent a "socially mediated" form of control, whereas ethical concerns represent an "internally mediated" form of control. Subsequent evidence, however, suggests that ethical concerns can also be "socially mediated." Hobson et al. (2011) add results from a truth-inducing pay scheme to the slack-inducing pay scheme results in Stevens' study to examine the effect of pay scheme and personal values on moral judgments regarding budgetary slack. Hobson et al. find that participants who set budgets under a slack-inducing pay scheme judge significant budgetary slack to be unethical on average, whereas participants who set budgets under a truth-inducing pay scheme do not. This pay scheme effect is not driven by justification or hindsight bias, as participants given the slack-inducing pay scheme build significantly more slack in their budget than participants given the truth-inducing pay scheme. Hobson et al. conclude that a slack-inducing pay scheme generates a moral frame by setting economic self-interest against common social norms.

The pay scheme effect in Hobson et al. (2011) supports Bicchieri's (2006) model in that it suggests that situational cues can affect the social norm that participants focus on. Hobson et al. also find support for Bicchieri's social norm sensitivity construct. Controlling for pay scheme, they find that participants who score high on the *Traditional Values* scale of the JPI-R (Jackson 1994) are more likely to judge significant budgetary slack to be unethical. Since traditional values are inconsistent with a utilitarian or "relativist" value orientation, this result is consistent with prior empirical research in business ethics finding a negative relation between moral judgment and relativism (O'Fallon and Butterfield 2005). Hobson et al. also find that participants who score high on the *Empathy* scale of the JPI-R are more likely to judge significant budgetary slack to be unethical. The latter result supports Adam Smith's moral theory linking moral judgment to the ability to sympathize (i.e., empathize) with the situations and motivations of others.

Rankin et al. (2008) note that prior studies finding evidence for a preference for honesty used budgetary slack as a direct measure of honesty and granted the subordinate unilateral authority to set the budget. They argue that budgetary slack captures preferences for distributional fairness as well as honesty, and that granting unilateral budget authority causes subordinates to view the budgeting setting as a moral dilemma. In their study, they attempt to isolate the incremental effect of honesty preferences on budgetary slack and manipulate whether or not participant superiors can reject the budget. To isolate the effect of honesty preferences, Rankin et al. manipulate whether or not the budget communication includes a statement of fact regarding the actual cost of production. They find that requiring a factual assertion in the budget communication only reduces budgetary slack when the superior cannot reject the budget. Rankin et al. (2008, p. 1085) conclude that giving the superior the authority to reject the budget raises strategic concerns in subordinates because of the fear of having their budget proposal rejected, and these strategic concerns "crowd out" honesty concerns. This is consistent with results in economics and management science suggesting that strong controls can crowd out intrinsic motivations to follow norm-based behavior.

Douthit and Stevens (2015) note that since the superior typically has the authority to reject the subordinate's budget, Rankin et al.'s (2008) results challenge the role of honesty preferences in participative budgeting. They contribute to the literature by examining the robustness of honesty preferences on budget proposals when the superior has rejection authority. In particular, Douthit and Stevens use Rankin et al.'s measure of honesty preferences and apply Bicchieri's (2006) model to predict interactive effects of competing social norms. Consistent with their predictions, they find that honesty has a strong effect on budgetary slack when the salience of a distributional fairness norm is reduced by withholding the relative pay of the superior from the subordinate. They also find that honesty continues to have a strong effect on budgetary slack when the salience of a reciprocity norm is introduced by giving the superior the authority to set the subordinate's pay. Because of the transparency of relative pay in Rankin et al.'s experiment, these findings help explain their result that honesty does not affect budgetary slack when the superior has the authority to reject the budget. Thus, Douthit and Stevens use Bicchieri's model to explain prior experimental results and confirm the importance of honesty preferences in participative budgeting.

Experimental researchers have found Bicchieri's (2006) model useful to explain other results in the accounting literature. In an experimental study of the behavioral effect of information systems on honesty in managerial reporting, Hannan et al. (2006) propose a trade-off model where subordinates trade-off monetary benefits of budgetary slack with a constant preference for appearing honest. In their budgeting experiment, they find that introducing an information system that provides a range of the actual production cost *increases* honesty in the budget report. Because the budget report is not used for contracting, they attribute this result to a reduction in information asymmetry between the superior and the subordinate regarding the level of honesty in the budget. They also find, however, that reducing information asymmetry further by reducing the range reported by the information system *decreases* honesty in the budget report. Hannan et al. attribute this surprising finding to the narrower range increasing the cost of appearing honest to the point where it is no longer worth appearing honest. Thus, the reduction in information asymmetry eventually tilted the trade-off in favor of misrepresentation.

Abdel-Rahim and Stevens (2016) use Bicchieri's (2006) model to develop a behavioral theory of information asymmetry effects on budgetary slack. Rather than assume a constant preference for honesty, as in Hannan et al. (2006), they assume that reducing information asymmetry regarding the level of honesty in the budget increases the subordinate's preference for honesty by activating an honesty norm. Further, they note that information asymmetry in Hannan et al.'s study was uniformly high even in the precise information system condition because the cost range signaled by the information system contained the actual cost with only 70 % accuracy. The high operating uncertainty in Hannan et al. allowed subordinates to avoid the honesty norm by "hiding behind the uncertainty." In their experimental study, Abdel-Rahim and Stevens manipulate the operating uncertainty of the information system between 70 % accuracy and 90 % accuracy. Under low operating uncertainty where the cost range contains the actual cost with 90 % accuracy, they find that increasing the precision of the information system as in Hannan et al. reduces budgetary slack. Thus, Abdel-Rahim and Stevens use Bicchieri's model to generate new insights and explain a seemingly anomalous result in the participative budgeting literature.

Douthit et al. (2016) argue that participative budgeting involves a trusting relation between the superior and the subordinate. Thus, trustworthiness is a behavioral rule that would apply in this principal–agent setting, consistent with Bicchieri's (2006) contingency condition. This suggests that the superior can motivate the subordinate to reduce budgetary slack by increasing empirical and normative expectations for a trustworthiness norm. Douthit et al. also argue that the superior can increase empirical and normative expectations for a trustworthiness norm by choosing a contract that conveys either trust or distrust to the subordinate. Thus, they use Bicchieri's model to predict that endogenous contract selection by the superior will reduce budgetary slack whether it signals trust or distrust. This effect is based on the trusting relationship implicit in the participative budgeting setting and the ability of the superior to increase empirical and normative expectations for a trustworthiness norm by signaling trust or distrust.

To examine the effect of endogenous contract selection on budgetary slack, Douthit et al. (2016) use the two main slack-inducing contracts found in the literature: a "trust contract" where the superior must accept any feasible budget submitted by the subordinate (Evans et al. 2001; Hannan et al. 2006) and a "discretion contract" where the superior can accept or reject the budget (Rankin et al. 2008; Douthit and Stevens 2015). Douthit et al. argue that selecting a trust contract signals trust and expectations of trustworthiness, whereas selecting a discretion contract signals distrust and an increased willingness to enforce trustworthiness by rejecting unreasonable budgets. They find that both contracts generate less budgetary slack when they are endogenously selected by the superior than when they are randomly assigned by the experimenter. Further, they find the lowest level of budgetary slack with the endogenously selected discretion contract. Thus, their results suggest that endogenous contract selection can improve efficiency whether it signals trust or distrust and signaling distrust may be optimal for the firm in some contracting settings.

Table 3 summarizes the key results from the above referenced experimental studies in the participative budgeting literature.[9] These studies reflect the important insights that have been gleaned by applying Bicchieri's (2006) model of social norm activation to the literature in participative budgeting. Early on, researchers held the view that honesty preferences were stable and unaffected by situational cues (Evans et al. 2001; Stevens 2002; Hannan et al. 2006; Rankin et al. 2008). By applying insights from Bicchieri's model, researchers have been able to identify honesty as a condition preference in participative budgeting settings and predict when it is more likely to be activated in such settings (Hobson et al. 2011; Douthit and Stevens 2015; Abdel-Rahim and Stevens 2016). Researchers have also expanded the list of social norms that can be activated in participative budgeting settings to include fairness, reciprocity, and trustworthiness (Douthit and Stevens 2015; Douthit et al. 2016). By applying Bicchieri's (2006) model of social norm activation, therefore,

[9] This list represents only a subset of the experimental studies in the participative budgeting literature and is intended only to demonstrate the usefulness of Bicchieri's model to empirical research. For a more comprehensive list of experimental studies in the participative budgeting literature, see Brown et al. (2009).

Table 3 Summary of norm-based experimental studies in participative budgeting

Experimental study	Social norms	Key results
Evans et al. (2001)	Honesty	Subordinates display a preference for honesty in that they sacrifice wealth to provide more honest budgets (reduce budgetary slack)
Stevens (2002)	Honesty	Budgetary slack is negatively associated with a measure of social norm sensitivity on the JPI-R (*Responsibility*) and a measure of moral judgment on the exit questionnaire
Hannan et al. (2006)	Honesty	The presence of a coarse information system reduces budgetary slack but increasing the precision of the information system increases budgetary slack
Rankin et al. (2008)	Honesty	Reporting the budget as a statement of fact reduces budgetary slack but only when the superior cannot reject the subordinate's budget
Hobson et al. (2011)	Honesty	Extend Stevens (2002) by showing that moral judgments regarding budgetary slack are associated with pay scheme and measures of social norm sensitivity on the JPI-R (*Traditional Values* and *Empathy*)
Douthit and Stevens (2015)	Honesty, fairness, reciprocity	Extend Rankin et al. (2008) by showing that when the superior can reject the subordinate's budget, reporting the budget as a statement of fact reduces budgetary when fairness concerns are controlled. Honesty preferences also continue to reduce budgetary slack in the presence of reciprocity concerns
Abdel-Rahim and Stevens (2016)	Honesty	Extend Hannan et al. (2006) by showing that increasing the precision of an information system reduces budgetary slack when operating uncertainty is sufficiently low
Douthit et al. (2016)	Trustworthiness	Giving the superior the ability to choose the budgeting contract reduces budgetary slack whether the choice signals trust or distrust to the subordinate

experimental researchers in accounting have been able to generate new insights with important significance for budgeting practice and theory.

A recent review of ethics-related research in accounting omits the experimental literature in participative budgeting (Bampton and Cowton 2013). This may be due to the fact that, outside of Stevens (2002) and Hobson et al. (2011), these studies do not specifically address moral theory or ethical decision making. However, we agree with Stevens (2002) that budgetary slack allows a subordinate to extract excess resources from the firm through deceptive means, and such behavior violates common social norms and basic standards of professional conduct. Further, experimental evidence suggests that budgetary slack can be reduced by activating common social/moral norms such as honesty, fairness, reciprocity, and trustworthiness. Thus, the experimental literature in participative budgeting has implications for moral theory and empirical research in ethical decision making.

Ideas for Future Research in the Empirical Business Ethics Literature

Bicchieri's model of social norm activation was developed in large part to explain empirical regularities in social psychology and experimental economics (Bicchieri 2006, p. 57). The model suggests that individuals have conditional preferences for conforming to social/moral norms, and these preferences can be activated by situational cues and information present in a given business setting. Further, the model suggests that individuals have differential sensitivity to social/moral norms, which gives individual factors a role in norm activation. Thus, Bicchieri's model appears well suited for empirical business ethics research, which focuses on both organizational factors and individual factors.

Empirical evidence suggests that the presence of social norms within an organization impacts ethical decision making. Craft (2013) identifies five findings related to organizational factors from 2004 to 2011 related to social norms in an organization, which she labels "subjective norms." One finding links such norms to moral awareness and four findings link them to moral intent. However, other findings related to organizational factors in her review appear to relate to social norms in an organization, such as organizational culture (5 findings), ethical culture (10 findings), and a code of ethics (5 findings). Further, many of the findings related to individual factors in her review appear to relate to social norm sensitivity, such as cultural values/nationality (35 findings), personal values (11 findings), philosophy/value orientation (32 findings), and religion/spirituality (10 findings). Consistent with recent reviews of the literature (O'Fallon and Butterfield 2005; Craft 2013), we group our ideas for future research into two categories: organizational factors and individual factors.

Organizational Factors

The summary of Bicchieri's (2006) model in Table 1 suggests that the model is useful in empirical studies examining organizational factors in ethical decision making. In particular, researchers can use the model to predict that norm-based behavior will increase with organizational factors that (1) make a social/moral norm salient in the current situation, (2) increase the belief that other people conform to the norm in similar situations, or (3) increase the belief that other people expect conformance to the norm in similar situations. Thus, Bicchieri's model suggests that setting the tone at the top may be highly effective at encouraging norm-based behavior in the organization by making norms salient and increasing empirical and normative expectations for such norms. Common norms that are important to the success of an organization include honesty, fairness, reciprocity, cooperation, and trustworthiness. However, organizations also want to encourage professional norms such as excellence, objectivity, skepticism, and independence. Bicchieri's model is fully capable of incorporating such professional norms, which are uniquely important in organizational settings.

Craft (2013) notes that the proportion of findings related to organizational factors fell from 30 to 23 % between O'Fallon and Butterfield's review period (1996–2003) and her review period (2004–2011), and calls for a renewed focus on organizational variables in future research. One of the organizational factors frequently researched in the literature is a code of ethics. Of the five findings that relate to a code of ethics over her review period, Craft notes that only three of the five studies document a positive effect of a code of ethics on ethical decision making. Craft also notes that research on a code of ethics has noticeably declined since O'Fallon and Butterfield's review period, when it dominated organizational factors with 20 reported findings. Given the inconsistent results in the literature, and the continued emphasis by policy makers and corporations on a code of ethics as an organizational control, future research appears warranted regarding the effectiveness of such codes. For such research to advance our understanding of ethical decision making in business, however, we need to develop theory regarding the factors that make a code of ethics effective as an organizational control.

Davidson and Stevens (2013) use Bicchieri's (2006) model to predict that a code of ethics will improve manager behavior and investor confidence to the extent that it activates social norms that control opportunistic behavior. Further, they predict that adding a certification choice whereby the manager can publicly certify that he will adhere to the code enhances the potential activation of such norms. They find support for their predictions using an experimental investment game where an investor sends some part of their endowment to a manager, which is tripled, and the manager decides how much of the tripled amount to return to the investor. When the code is present but there is no certification choice, managers return little back to investors and investment erodes over time because of increased expectations that are not met by managers. When the code of ethics comes with a certification choice, however, managers return a relatively high amount to investors and investment remains high over time. These results suggest that a code of ethics can deter opportunistic behavior to the extent that it activates social/moral norms in the code, and that a certification or signature requirement may increase the activation of such norms.

Bicchieri's (2006) model provides a theoretical framework to explain and predict other organizational factors that may encourage norm-based behavior. Experimental evidence suggests that truthful reporting in participative budgeting increases with the introduction of an information system that reduces information asymmetry regarding the level of truthfulness in the budget (Hannan et al. 2006), and that increasing the precision of the information system further increases truthful reporting (Abdel-Rahim and Stevens 2016). This experimental evidence supports the use of traditional organizational controls based on transparency and tracking norm-based behavior. For example, this evidence suggests that gathering and reporting information regarding norm-based behavior, such as in a Corporate Social Responsibility report or a Balanced Scorecard, is an effective organizational control. However, further empirical evidence and theoretical development is required to support the effectiveness of such controls.

Because of its emphasis on situational cues and information, Bicchieri's (2006) model is able to explain and predict the effectiveness of other organizational controls such as organizational culture, rewards/sanctions, recruiting programs, and leadership and ethics training. Many of these organizational factors have already been examined in the empirical business ethics literature. A general lack of theory, however, has impeded the development of the field (O'Fallon and Butterfield 2005; Craft 2013). By providing a theoretical framework, Bicchieri's model could open new avenues of research and thereby increase the proportion of studies examining organizational factors in the empirical business ethics literature. For example, further research is needed to understand behavioral effects of traditional contracting and controls within the organization. Research in economics and management science suggests that strong controls can reduce intrinsic motivations for social/moral norms. Recent evidence in Douthit et al. (2016), however, suggests that strong controls can increase intrinsic motivation by activating relevant social/moral norms.

Individual Factors

The summary of Bicchieri's model in Table 1 suggests that the model is also useful in empirical studies examining individual factors in ethical decision making. In particular, researchers can use the model to predict individual factors that reflect differential sensitivity to social norms. Many of the individual factors that empirical researchers in business ethics have examined fit within the category of social norm sensitivity, such as personality, cultural values/nationality, personal values, philosophy/value orientation, and religion/spirituality. The individual factor receiving the most attention in Craft's (2013) review is personality, accounting for 43 findings in the literature from 2004 to 2011. Aspects of personality that have been found to affect ethical decision making in business include locus of control, Machiavellian traits, self-control, mindfulness, attitudes, etc. The effects of these aspects of personality on ethical decision making can be related to their implications for social norm sensitivity. For example, a Machiavellian, who is characterized as being opportunistic and cunning, would tend to have low social norm sensitivity. On the other hand, individuals who score high in self-control or mindfulness would tend to have high social norm sensitivity.

Differences in an individual's cultural values/nationality have also been found to affect ethical decision making in the literature (O'Fallon and Butterfield 2005; Craft 2013). Because an individual's social experiences affect the social/moral norms that they internalize (Smith 1759/1790), and such experiences can differ widely across cultures and social groups, it is reasonable to expect that culture/nationality would affect social norm sensitivity. Thus, Bicchieri's (2006) model is able to explain and predict the effect of culture/nationality on ethical decision making in business. Empirical researchers have also found that personal values affect ethical decision making in business, including altruism, responsibility, political orientation, and empathy. These personal values are also likely to reflect an individual's sensitivity to social norms. For example, personal values for altruism are likely to reflect sensitivity to fairness norms, whereas personal values for responsibility are likely to reflect sensitivity to norms such as honesty and trustworthiness. Further, political orientation is likely to reflect sensitivity to such norms as fairness, individualism, and open-mindedness. Finally, empathy is at the heart of Adam Smith's (1759/1790) moral theory linking moral reasoning and the moral conscience to the "impartial spectator" and internalized social norms.

As with prior studies of organizational factors, prior studies of individual factors appear largely ad hoc. This is because, as discussed above, current theoretical frameworks used in the literature do not provide researchers with direct empirical predictions. In contrast, Bicchieri's (2006) model provides testable predictions regarding the effect of individual factors on ethical decision making based on differential sensitivity to social norms. In particular, Bicchieri's model suggests that differential social norm sensitivity can affect norm-based behavior by affecting the ability of an individual to identify a relevant social norm (contingency condition), affecting expectations that others will conform to the social norm (empirical expectations condition), or affecting expectations that others expect conformance to the social norm (normative expectations condition). Thus, Bicchieri's model helps empirical researchers develop empirical predictions by identifying relevant social/moral norms that might be activated in a given business setting as well as organizational and individual factors that might play a role in such activation.

Joint Effects of Organizational and Individual Factors

A particular strength of Bicchieri's model is the ability to combine organizational and individual factors in a single empirical study. It is likely that both factors interact in a given business setting to affect ethical decision making. This is demonstrated by Hobson et al. (2011) in their study of moral judgments regarding budgetary slack. They find that moral judgments regarding budgetary slack (that creating significant budgetary slack is unethical) are affected by both the pay scheme and the personal values of the subordinate. In particular, such moral judgments are higher under the slack-inducing pay scheme than the truth-inducing pay scheme and higher for subordinates who score high in *Traditional Values* and *Empathy* in the JPI-R (1994). Similar to Hobson et al., future empirical studies could use Bicchieri's model to examine joint effects of organizational and individual factors in a single empirical study.

An example of the usefulness of examining the joint effects of organizational and individual factors is the market for auditing services. Schatzberg et al. (2005) assert that auditors may be less inclined to impair their independence if they have the moral courage to satisfy their obligations to third-party investors. Thus, moral reasoning or the consideration of right versus wrong behavior may enter into the auditor's decision to impair independence. However, Schatzberg et al. find that independence impairment, where auditors receive premium audit fees to over report the true value of the firm, is more frequent in high rather than low moral reasoning auditor–manager pairs. As noted above, a potential limitation of their study is the use of the DIT to measure moral reasoning. Empirical researchers could utilize Bicchieri's model to develop stronger tests of moral reasoning in the market for auditing services. For example, researchers could include alternative measures of moral reasoning based on social norm sensitivity, and investigate alternative social norms that might be relevant in an auditing setting. Finally, empirical researchers could vary aspects of the audit environment that may differentially activate such norms. For example, similar to Davidson and Stevens (2013), an auditor may be less likely to impair independence if the audit report comes with a certification or signature requirement.

Conclusion

In response to recent calls to extend the underlying theories used in the literature (O'Fallon and Butterfield 2005; Craft 2013), we review the usefulness of social norm theory in empirical business ethics research. In particular, we review the historical development of social norm theory, introduce recent theory in social norm activation and compare it to theoretical frameworks found in the literature, present examples where the theory has been effectively applied in experimental accounting research, and then cite specific examples where the theory may prove useful in empirical business ethics research. We argue that the new theory provides useful insights by emphasizing the ability of situational cues and information to generate common expectations for social/moral norms. The theory is particularly useful for empirical research in business ethics because it gives both organizational and individual factors a role in motivating norm-based behavior.

As Bicchieri (2006, p. 63) states, "Knowing what makes people focus on particular norms, what may happen if they face conflicting norms, and how sensitive norms are to the framing of a situation is of great practical importance." Her model of social norm activation allows empirical researchers in business ethics to ask new research questions that are able to generate new insights that are relevant to both practice and theory. This research has the potential to bridge the gap between social norm theory and the moral theory commonly used by empirical researchers in business ethics. This research also has the potential to bridge the gap between social norm/moral theory and traditional economic theory. It is important for researchers in business ethics to bridge this gap because ethical decision making in business takes place within an economic context. Given the continued occurrence of financial scandals that jeopardize organizations, communities, and economies, such research appears to be of critical importance.

Bicchieri (2006, p. 63) emphasizes the importance of further empirical research to advance our understanding of what activates a social norm in a given social setting: "I believe the greatest help in understanding the effects of social norms on behavior will come from a combination of field and lab experiments yet to come." Thus, while formed in response to empirical regularities in social psychology and experimental economics, Bicchieri's theoretical framework provides a unique opportunity for empirical researchers to further advance our understanding of ethical decision making in business, "…an area in which we still know so little and need to know so much" (Ford and Richardson 1994, p. 219).

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