TEACHING MULTIPLE APPROACHES TO MANAGEMENT TO FACILITATE PROSOCIAL AND ENVIRONMENTAL WELL-BEING*

Abstract

Milton Friedman's (1970: 32) maxim "The social responsibility of business is to increase its profits" has shaped what managers consider effective management. This Financial Bottom Line approach to management has been challenged by both Positive Organizational Scholarship (POS) and Critical Management Studies (CMS). POS highlights how enhancing prosocial and other nonfinancial considerations can increase profits, consistent with the currently dominant Triple Bottom Line approach. In contrast, CMS tends to critique any approach that seeks to maximize profits by creating dysfunctional power symmetries and marginalization. This study introduces a third option, the Social and Ecological Thought approach, which promotes maximizing social and ecological well-being while remaining financially viable. A longitudinal pre-post intervention in a sample of undergraduate management students showed that teaching multiple approaches to management—Financial Bottom Line, Triple Bottom Line, and Social and Ecological Thought resulted in learners becoming less likely to espouse profit-related goals (e.g., to maximize efficiency, productivity, profitability) and more likely to identify nonfinancial ones (e.g., extraorganizational prosociality and reduction of marginalization) when characterizing effective management. However, the results did not support predictions regarding intra-organizational prosociality and marginalization, or power asymmetries. We discuss implications for pedagogy and the future development of POS and CMS.

Keywords: Critical Management Studies, critical thinking, pedagogy, Positive Organizational Scholarship, prosociality

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It seems that the management of business needs a new approach. The orthodox approach to management, which we will call the Financial Bottom Line approach, prioritizes profit above all else, and is increasingly seen as problematic because of the negative social and ecological externalities it creates (e.g., Moosmayer et al., 2019; Waddock, 2016). To address the shortcomings of the Financial Bottom Line approach, many business managers and educators have embraced what has been called the Triple Bottom Line approach (e.g., Elkington, 1997; Kurucz et al., 2014). The Triple Bottom Line approach explicitly recognizes that firms can enhance their financial performance by deliberately reducing negative social and ecological externalities. The apparent "win-win-win" aspect of the Triple Bottom Line approach likely explains its prevalence among large corporations, as illustrated in the recent shift from shareholder to stakeholder capitalism by the Business Roundtable (e.g., Lemoine et al., 2020). However, it may not be enough: even if the world's 1,200 largest corporations met their all their aspirational environmental goals, doing so would address only 25 percent of their responsibility in meeting the targets of the Paris Agreement (Makower et al., 2020).

While the Triple Bottom Line approach's addition of social and environmental awareness to Financial Bottom Line management is a step forward, it is not sufficient. In particular, the Triple Bottom Line approach's capacity to address social and ecological externalities is constrained by the fact that it does not challenge the fundamental ideological assumption that profit is the overriding goal of business. Among its three "bottom lines"—financial, social, and ecological—the Triple Bottom Line approach typically treats the financial bottom line as the "first among equals" (Dyck and Silvestre, 2019: 1594; Worley and Lawler, 2010: 20; for similar arguments see Elkington, 1994: 99; Porter and Kramer, 2011: 8; Hart, 1995: 986). To address existing problems and prevent looming disaster associated with profit-first approaches, there have been many calls for the development of alternative approaches to management (e.g., Ferraro et

al., 2005; Høgdal et al., 2021; Lämsä et al., 2008; Pirson, 2020). Moreover, improvements and alternatives have been suggested (e.g., Berg, Dutton and Wrzesniewski, 2013; Cameron, 2013; Heizmann and Liu, 2018; Rynes et al., 2012; Wright, Forray and Lund Dean, 2018), but there is little evidence that management, or management education, has moved beyond the Triple Bottom Line approach (Høgdal et al., 2021; Kaplan, 2020; Parker, 2018). Business management has not yet adopted an approach that challenges the primacy of maximizing shareholder wealth.

We believe that management education has an important role to play in creating the required change. Educators should develop pedagogies that allow management students to shift their perspective and consider an alternative paradigm that values people and planet as much as, or more than, profit. Toward this end, the current article describes one such pedagogy and examines its effects on 154 management students. Specifically, we took two steps. First, we exposed students to a third management approach—Social and Ecological Thought management—which argues that business should make enough profit to remain viable but beyond that should prioritize social and ecological benefits (Dyck et al., 2018). Second, rather than being told that one management approach was preferable, students were simultaneously taught three approaches—Financial Bottom Line, Triple Bottom Line, and Social and Ecological Thought—throughout a single course. Our goal was to examine whether teaching multiple approaches to management made students more likely to identify and embrace nonfinancial goals for management.

The results indicated that this pedagogy led to important changes in some attitudes, but not in others. While there was an overall trend away from goals that espoused profit maximization above all else, this general pattern involved a diverse mix of changes, and some notable consistency. Our findings have implications for management education generally, and

particularly for Positive Organization Scholarship (POS) and Critical Management Studies (CMS), both of which are important sources of potential alternatives to the profit-first approach.

LITERATURE REVIEW

Financial Bottom Line

What we refer to here as the Financial Bottom Line approach to management is akin to what Kurucz and colleagues (2013) called a classical view of management. The approach is based on norms that prioritize technical, scientific, and bureaucratic knowledge, manifest in a formal rationality that emphasizes hierarchical social relations, seeks to maximize profits, prioritizes shareholders over all other stakeholders, and assumes that people are driven by guileful opportunism that needs to be controlled through competition and regulation (e.g., Kurucz et al., 2014).

Historically, the Financial Bottom Line perspective has been the dominant approach to management since the Industrial Revolution and is consistent with Nobel Prize laureate Milton Friedman's belief that business' only role is to generate profit within the letter of the law: "The social responsibility of business is to increase its profits" (Friedman, 1970: 32). The belief that managers should "make as much profit for shareholders as possible while conforming to the basic rules of society" has been a foundational tenet in most of management education (Lämsä et al., 2008: 48; Lourenço, 2013) and is formalized in theories such as transaction cost analysis (Williamson, 1981) and principal-agent theory (Jensen and Meckling, 1976). This profitmaximizing approach has had extensive global influence, creating unprecedented financial wealth (Abreu-Pederzini and Suarez-Barraza, 2020; Mitchell, 2001). It has coincided with growth in GDP and consumer products, as well as improved agricultural productivity, access to clean water, life expectancy, literacy, and reduction in poverty (e.g., Norberg, 2016).

Unfortunately, the Financial Bottom Line approach has also been associated with social crises (e.g., terrorism and large-scale war), ecological crises (e.g., climate change), and financial crises (e.g., Norberg, 2016). In many instances, the benefits from Financial Bottom Line management have been unevenly distributed among stakeholders, such that 95 percent of the economic gains associated with globalization accrue to the richest 5 percent of the population (e.g., Stiglitz, 2002). Likewise, the good created is often outweighed by its negative effects. For example, advances in agricultural productivity have come with significant soil erosion and greenhouse gas emissions (Martin, 2019). Even leading exemplars associated with the Financial Bottom Line approach recognize that it has contributed to negative social, environmental, and economic outcomes (e.g., Kurucz et al., 2014; Porter and Kramer, 2011). Financial Bottom Line management has played a key role in causing the Anthropocene era (Hoffman and Jennings, 2015), which may usher in the next great extinction (IPCC, 2021). For example, in the USA 75 percent of waste is created by industry; less than five percent arises at the household level (Leonard, 2013).

Triple Bottom Line

Growing awareness of, and concern with, the social and ecological problems associated with the Financial Bottom Line approach contributed to the modern advent of the Triple Bottom Line approach (e.g., Elkington, 1997). This approach reflects what Kurucz and colleagues (2013) call the intertwined view: it continues to prioritize profit, but rather than ignoring social and ecological problems, it advocates seeking opportunities to mitigate them in profit-enhancing ways. For example, whereas the Financial Bottom Line approach discourages managers from focusing on social well-being since that is the responsibility of the government (Friedman, 1970), the Triple Bottom Line approach focuses on the importance of addressing social well-being in ways that can increase profits (e.g., Elkington, 1997; Gelles and Yaffe-Bellany, 2019; Hart, 1995;

Porter and Kramer, 2011). Indeed, evidence suggests that attending to social and ecological issues can increase firms' financial well-being (e.g., Dixon-Fowler et al., 2013; Nishitani and Kokubu, 2020). As a result, the Triple Bottom Line approach has arguably become the new dominant paradigm in business practice and theory. Most the world's largest firms now annually report on their financial, social, and ecological performance (Makower et al., 2020).

However, because Triple Bottom Line management retains a focus on maximizing profit and on business case decision-making where financial well-being is the first among equals, managers may overlook exploitive and marginalizing power structures that often attend a profit-first approach. For example, while the Triple Bottom Line approach may have slowed the creation of some negative externalities, evidence points to a continually widening gap between rich and poor linked to the contemporary management emphasis on maximizing shareholder wealth (Bapuji et al., 2020). This gap is growing within firms, within countries, and between countries (Philips et al., 2020; Tsui et al., 2018). The net result is a decrease in overall quality of life, social trust, mental health, and ecological well-being (Wilkinson and Pickett, 2010).

Moreover, despite several decades of Triple Bottom Line practices, most workplaces are still characterized by low morale, high job stress, and widespread depression (Tan et al., 2017). For example, only 17 percent of the global workforce report being actively engaged in their work, and the leading source of stress at work is dysfunctional management (Burke, 2017). At the same time, the world's 1,200 largest corporations annually generate about five trillion USD of negative ecological externalities, a 50 percent increase from five years earlier (Makower et al., 2020) and a sum greater than their combined profits (Global 500, 2019).

Seeking an alternative in management education

The continuing problems associated with modern management and the Triple Bottom Line approach highlight the need for an alternative approach. Unfortunately, introducing alternative

approaches in management education has proven difficult, especially when those alternatives challenge the profit-first assumptions institutionalized in business schools (e.g., Ferraro et al., 2005; Ghoshal, 2005; Krishnan, 2003; Pfeffer and Fong, 2004) and management textbooks (e.g., Dehler et al., 2001; Duarte, 2010; Prichard, 2009). One review noted that most "authors write their textbooks to support a managerial ideology" and offer little by way of innovation via alternative management approaches (Cameron et al., 2003a: 726; see also McLaren and Mills, 2010; Dehler et al., 2001: 494). Nonetheless, two important sources of potential alternatives are Positive Organization Scholarship (POS) and Critical Management Studies (CMS). We discuss each in turn below, briefly summarizing how they counter the profit-first approach and describing past efforts to incorporate their ideas in management education.

POS in the classroom: Co-optation by the profit-first approach. In contrast to the narrow profit-first orientation of the Financial Bottom Line perspective, POS is explicitly focused on broadening the scope of management within organizations. "POS emphasizes an ethical, humanizing approach to organizing that challenges the primacy of instrumental outcomes, encourages pro-social norms, and fosters the well-being of organizational members" (Lavine et al., 2019: 1; Berg et al., 2013; Cameron, 2012, 2013; Dutton and Ragins, 2007; Dutton et al., 2006; Gittell, 2016; Lavine, 2012; Lavine and Cameron, 2012; Rosso et al., 2010; Rynes et al., 2012; Stephens et al., 2012). By emphasizing the importance of human flourishing and intrinsically valuable practices, POS highlights that business can and should be concerned with more than profit (Berg et al., 2013; Dutton and Glynn, 2008; Meyer, 2018; Rynes et al., 2012).

However, both in the classroom and outside of it, POS risks co-optation by profit-first approaches. Despite POS's goal of improving work and organizations in ways that promote flourishing (Cameron et al., 2003b), its theories and tools are at risk of being subverted to serve the profit-first agendas of Financial Bottom Line or Triple Bottom Line management instead

(Caza and Carroll, 2012). For example, an Organizational Behavior textbook that includes both POS and CMS perspectives notes that:

"While adopting a positive lens is in itself a critique of managerialist business as usual agendas, there is nonetheless the potential for managerial co-opting or colonizing of positive organizational practices in the service of managerialist agendas. In such a scenario, positive practices are used as the mere means towards the ends of greater efficiency, productivity and profitability. There are no guarantees that positive practices may not themselves become structures of domination and control" (e Cunha et al., 2020: 10).

More generally, Caza and Carroll (2012: 973) observe that most POS publications "treat organizations' economic performance or related business goals as the ultimate end of positive states and practices," a claim supported by Spreitzer and colleagues' (2019) subsequent observation that over 100 studies link POS constructs to instrumental outcomes like increased performance.

In short, although POS aspires to more than profit, pursuing POS aims and teaching from a POS perspective does not necessarily produce a challenge to the fundamental agenda of profit-maximization (also see Bannerjee et al., 2009; Høgdal et al., 2021). While there is nothing wrong with POS increasing profits, it is contrary to the goals of POS to treat those profit gains as the reason for adopting positive practices (e.g., Cameron, 2020). Nonetheless, the evidence suggests that the positive relationship between POS and profit may be the primary lesson that is being taken from this line of work (Spreitzer et al., 2019).

To be fair, such co-optation is not unique to POS: other ostensibly prosocial initiatives—including corporate social responsibility, business ethics, and stakeholder theory—have similarly been absorbed into the agenda of profit-first management (e.g., Dyck and Schroeder, 2005; Margolis and Walsh, 2003). In any case, simply teaching students about POS is unlikely to

challenge the normative dominance of profit-maximizing goals associated with Financial Bottom Line and Triple Bottom Line management. Indeed, a recent study indicated that teaching prosocial values has a "negligible" effect on business students' prosocial behavior (Peterson et al., 2019: 188). Similarly, a meta-analysis of the effects of business ethics instruction found that targeting attitudinal changes generally has little effect (Medeiros, 2017). Taken together, such research suggests a rather dismal conclusion: teaching POS may not achieve the desired attitudinal or organizational changes and may inadvertently fuel co-optation in ways that simply make life in the profit-first approach slightly more comfortable (i.e., allowing managers to suppress challenges to the profit-first paradigm).

CMS in the classroom: Resistance. "CMS is known for exposing and challenging power asymmetries and structures of domination, paying attention to that which is marginalized, and for questioning the taken-for-granted in social orders" (Lavine et al., 2019: 1; Adler et al., 2007; Alvesson et al., 2009; Heizmann and Liu, 2018; Wright et al., 2018). The CMS route to fostering an alternative to the Financial Bottom Line and Triple Bottom Line approaches typically involves naming and understanding dysfunctional aspects of profit-first management, which in turn is expected to enable and motivate managers to challenge the assumptions underlying the profit-first approach, challenge power asymmetries and structures of domination, and reduce the marginalization of people and ideas disenfranchised by the profit-maximizing approach (Adler et al., 2007; Alvesson et al., 2009; Lavine et al., 2019). More generally, CMS highlights how market dynamics are shaped by ideology and political decisions (e.g., Piketty, 2020), underscoring the need to incorporate a radically critical perspective in management.

While CMS may suffer some risk of co-optation in being used by managers to perpetuate their domination (Fournier and Grey, 2000: 24; see also Burrell, 1996; Nord and Jermier, 1992), the far more common challenge it faces is resistance. CMS tends to be oppositional, since it

highlights negative externalities created by profit-maximizing approaches to management (Fournier and Grey, 2000). Unfortunately, it is not clear that liberation from the profit-first paradigm reliably follows from such demonstrations of shortcomings. Rather, research on the effect of CMS-oriented courses suggests that they are as likely to evoke student resistance as empowerment. For example, one course-based study examining the effect of teaching students about the shortcomings of mainstream management found that one-third of students perceived the CMS-oriented course as enlightening and empowering, one-third went through the motions of taking the course but did not engage with it at a personal level, and the remaining third experienced a loss of confidence and a sense of powerlessness (Rigg and Trehan, 1999). Another study found that a minority of students in a CMS-oriented course started it with a critical management philosophy, which the course affirmed and clarified for them; but the majority of students started the course holding a profit-first philosophy, and two-thirds of them "experienced the course as an affirmation of their beginning beliefs in mainstream management philosophy even though the course content ran counter to those beliefs" (Monaghan and Cervos, 2006: 386).

The resignation and resistance displayed in response to CMS instruction may reflect three barriers identified by Duarte (2010). First, the criticism inherent in CMS may inadvertently cause students to feel their own freedom to adopt a profit-first approach is being constrained, and this uncomfortable feeling of censure may prompt students to resist the message (Heath et al., 2019). Second, by discussing the ubiquity and power of currently taken-for-granted practices, CMS instruction may drive students to cynicism regarding the prospects for change. And third, CMS-focussed instruction seems to require small classes that permit discussion and collective brainstorming. Each of these barriers may be more or less important in any given context, but their joint influence seems clear: Evidence suggests that while some students in CMS-oriented

classes may change as per the aims of CMS, just as many students may leave the course feeling disempowered or more firmly committed to their prior, non-CMS views.

Social and Ecological Thought

Given the challenges faced in teaching POS and CMS, the current study examined a different option. In addition to students being taught Financial Bottom Line and Triple Bottom Line approaches to management, they were taught an alternative approach based on Social and Ecological Thought principles (Dyck et al., 2018; Dyck and Manchanda, 2021). The Social and Ecological Thought approach to management is akin to what Kurucz et al. (2013) call the embedded view, and responds to calls in the literature for an alternative to the profit-first approach (e.g., Ferraro et al., 2005; Høgdal et al., 2021; Kaplan, 2020; Lämsä et al., 2008; Pirson, 2020). Indeed, Social and Ecological Thought management seeks to optimize social and ecological well-being, explicitly making financial well-being a subsidiary concern. Social and Ecological Thought management argues that organizations should—indeed must—make enough profit to be financially viable, but they need not maximize profit. This approach explicitly contradicts the ideas that the only responsibility of business is profit (Financial Bottom Line), and that profit is first-among-equals (Triple Bottom Line).

It should be noted that neither the pedagogy described below, nor the Social and Ecological Thought approach, are explicitly POS or CMS. However, the approach is consistent with, and supportive of, the shared aims of those two movements. Indeed, despite their significant differences, POS and CMS share two important commonalities (Caza and Caza, 2008; e Cunha et al., 2020). First, in their own ways, both POS and CMS challenge the ideas of managerialism and the logic of economic rationality that confines human experience—and management—to maximizing material rewards and self-interest (e.g., Spreitzer et al., 2019). Second, POS and CMS share an "emancipating agenda" (Lavine et al., 2019: 2): both are aware that management is

not value-neutral, and so seek to promote and develop "more humane forms of management" (Fournier and Grey, 2000: 23) that eschew profit-first values when making management decisions (Adler et al., 2007; Cameron et al., 2003b).

Table 1 provides an overview of key tenets of POS and CMS, and how they compare to a Social and Ecological Thought approach. Two key differences between POS and Financial Bottom Line management—POS challenges an exclusive focus on maximum profit and offers a positive prosocial alternative—are shared by the Social and Ecological Thought approach, with only the first being shared by CMS. Similarly, two key tenets of CMS—challenging the idea of profit-maximization as a goal and critiquing power asymmetries—are also part of Social and Ecological Thought management, with neither being a key emphasis in POS. These partial overlaps highlight the ways in which each of POS and CMS provide insights that the other does not, and how advancing a Social and Ecological Thought approach can contribute to the goals of both. Moreover, Social and Ecological Thought is explicitly sensitive to both the intraorganizational and extra-organizational effects of management, whereas extra-organizational effects are frequently overlooked by POS and CMS alike.

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Teaching multiple approaches to management

Our study examined the effects of simultaneously teaching multiple approaches to management. Specific details are given below, but in brief students were taught every unit in the course from three perspectives: Financial Bottom Line, Triple Bottom Line, and Social and Ecological Thought. The hope was that simultaneously teaching multiple approaches to management would motivate students to critique each approach and enable them to identify actionable alternatives. Research suggests that deliberately teaching students multiple approaches to management enhances their critical and ethical thinking, thereby enabling students to act and

think in ways that escape the normative dominance of profit-maximizing approaches (e.g., Dyck et al., 2011, 2012).

The desire to enhance critical thinking is ubiquitous in education (Brookfield, 2012), and has become increasingly important in business schools after "critical reflection" was identified as an important goal by the Association to Advance Collegiate Schools of Business (e.g., Calma and Davies, 2020). While there is debate about the specifics of critical thinking, there is consensus that it comprises at least two dimensions (Feiner and Roberts, 1997; Halx and Reybold, 2005): the ability to think deeply (technical dimension), and to do so from different perspectives (philosophical dimension). Evidence suggests that business students are as proficient as other university students in the technical dimension but may be less capable in the philosophical dimension (Facione et al., 1995; Giancarlo and Facione, 2001; Sampson et al., 2007).

Our decision to teach multiple perspectives is consistent with prior work suggesting that critical thinking is enhanced by exposure to more than one view (e Cunha et al., 2004; Martin, 2007). Indeed, compared to students who were taught only one management approach, students who were taught two different approaches had increased critical thinking abilities in the philosophical dimension (Dyck et al., 2012). Moreover, this increase in critical thinking ability appears to coincide with enhanced ethical thinking, suggesting that teaching multiple approaches may facilitate attitudinal change. For example, Dyck and colleagues (2011) found that, compared to students who were taught only one approach to management, students taught two approaches to management placed less emphasis on materialism and individualism, and were less likely to rate Financial Bottom Line management practices as effective.

Since teaching students to think critically about management is not the same as teaching them to be critical of management (e.g., Dehler, 2010), the use of multiple approaches may circumvent the barriers faced by traditional CMS instruction (Duarte, 2010). First, rather than

explicitly criticizing the profit-maximizing management approach and thereby making students defensive, teaching multiple approaches involves more implicit criticism. Contrasting among approaches illuminates relative flaws in each approach, but it is less likely to be perceived as an attack since it does not imply a "best" choice. Second, rather than allow students to retreat into cynicism regarding the prospects of challenging the profit-first paradigm, teaching multiple approaches provides empirical examples and best practices of managers using alternative approaches, demonstrating that it is possible to manage in ways other than maximizing profit. And third, rather than be limited to small classes that hinge on deep interaction, it is possible to teach students about multiple perspectives in any class size and format.

In addition, teaching multiple approaches is consistent with POS's ontological foundations. POS explicitly aims to use knowledge derived from empirical evidence to better the world (Cameron et al., 2003b). In the teaching model examined here, each of the three management approaches were presented to students with concrete, real-world examples, and with theory-based explanations of their effects. Moreover, teaching multiple approaches without explicitly favoring one of them is consistent with POS's heliotropic ideal: that given a choice between possibilities, individuals instinctively favor those that are 'good' (Cameron, 2008).

Presenting three approaches to management as options for consideration, each of which has strengths and weaknesses, also addresses the charge of "superior moralizing" that has been levelled at some CMS pedagogy (Samra-Fredericks, 2003). There is a risk that, in arguing for CMS, instructors may present themselves as having enlightened superiority and a greater knowledge of what is best. Doing so risks creating a new coercive orthodoxy. We believe it is better to teach students about multiple approaches and allow them to decide which is superior. It seems more valuable to teach students to understand and ask questions about different ways of managing, rather than telling them the "wrong" or "right" way.

Juxtaposing three approaches prompts students to critically evaluate each approach for themselves. It also highlights the different moral points of view underlying each approach, inviting students to think about which is most consistent with their own values (Spreitzer et al., 2019). Students learn to critique each of the three approaches vis a vis the others, identify relative strengths and shortcomings among the approaches, and develop skills that enable them to deconstruct any approach. Adopting a multiple-approach pedagogy gives students the tools to question, enhances their freedom to choose, and thereby compels them to think deeply about which approach is best.

OUR RESEARCH

Research site and pedagogical methods used

We examined the effect of simultaneously teaching different management approaches on students' beliefs about effective managers' goals in three sections of an undergraduate Introduction to Management course at a large, public, midwestern university. The course was a degree requirement for all business majors in all disciplines, preventing self-selection in enrollment, so it provided a representative sample of business students. The sections had approximately equal gender proportions, and the students were primarily in their second or third year of study. Other demographics (e.g., international status) were consistent with those of the larger business school. All three sections occurred in the same semester in 2019, controlling for temporal and contextual differences, and all were taught by the same instructor (the second author).

There are several textbooks that lend themselves to teaching multiple approaches to management (e.g., Clegg et al., 2019; Hamilton et al., 2019; Laasch and Conaway, 2017), as well as a textbook with an explicit focus on POS (e Cunha et al., 2020; note this book is also well-grounded in CMS), but we chose *Management: Financial, Social, and Ecological Well-Being* by

Dyck and colleagues (2018). This textbook explicitly and consistently discusses three approaches to management: Financial Bottom Line, Triple Bottom Line, and Social and Ecological Thought. Moreover, the textbook has many detailed examples of firms that place social and ecological well-being ahead of maximizing profits, providing illustrations of Social and Ecological Thought management to help students see how businesses successfully eschew the profit-first approach.

Paralleling the structure of the textbook, each topic in the course (e.g., organization design, strategy, organization change) was presented by contrasting the three different approaches to management. The course design and instructional presentation sought to be even-handed, with each approach being discussed in terms of its ethicality and effectiveness as judged by its own criteria. For example, the profit-maximization approach is arguably the best choice if one adopts the mainstream utilitarian ethics reflected in Friedman (e.g., maximize the financial interests of owners and let other stakeholders like the government care for non-financial forms of well-being). If that perspective is the "right" way to view the world, then the Financial Bottom Line approach succeeds and is best. In contrast, if one adopts a perspective based on virtue ethics (e.g., practicing virtues in community to create flourishing), the Financial Bottom Line approach is far less appropriate than the Social and Ecological Thought approach.

By consistently teaching three approaches, the design of the course encouraged students to consider which approach was most consistent with their personal values and preferences. As an example, consider the topic of generic business strategy. Students were taught that from a Financial Bottom Line approach, it is ethical and effective for managers to pursue strategies like cost leadership (e.g., maximize intra-organizational efficiency) and differentiation (i.e., maximize margins), insofar as these optimize the firm's competitive advantage and profits (Porter, 1980, 1985). In contrast, from a Social and Ecological Thought perspective it is ethical and effective for managers to pursue generic strategies like Minimizer (i.e., maximize the reduction of negative

social and ecological externalities) or Transformer (i.e., redeem others' waste or under-utilized resources; Dyck et al., 2018). As this example highlights, the course used a format of choice and subsequent execution: if you want X (e.g., maximum profit), then do Y or Z; if you want A (e.g., environmental preservation), then do B or C. Concrete examples of all options (i.e., B, C, Y and Z) were provided so that each one represented a credible and realistic choice. It was left to students to decide among them.

As a concrete illustration, Table 2 summarizes some of the differences in how the text described the three management approaches' decision-making processes. From a Financial Bottom Line perspective, the four-step process unfolds as follows: 1) managers identify a problem or opportunity related to maximizing a firm's financial well-being, 2) managers develop alternatives designed to optimize financial outcomes, 3) managers seek uniform agreement when choosing the best option, and 4) managers implement the decision in the most efficient, top-down way possible. The Triple Bottom Line variation of this process is as follows: 1) managers and stakeholders identify a problem or opportunity related to maximizing a firm's financial wellbeing, potentially via addressing social and ecological issues, 2) managers develop alternatives designed to optimize financial outcomes, 3) managers prefer uniform agreement when choosing the best option, and 4) managers implement the decision in the most efficient, top-down way possible, with some openness to experimentation. Finally, the Triple Bottom Line variation of this process involves: 1) managers and stakeholders identify a problem or opportunity related to improving various forms of social and ecological well-being, 2) managers and stakeholders develop alternatives designed to enhance stakeholders' overall well-being, 3) managers and stakeholders celebrate diverse views when choosing the best option, and 4) managers implement the decision via extensive participation and ongoing experimentation. In sum, the text, and course instruction, highlighted differences in who identifies the need to make decisions, what

issues are considered, the criteria used, the prevailing attitude toward differences of opinion, and the level of participation and experimentation in the process.

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Hypotheses

Our research goal was to examine whether simultaneously teaching multiple approaches to management would produce attitudinal changes away from the dominant profit-first paradigm. We expected that such change would occur. A central assumption of CMS is that once individuals become aware of problems in current management approaches, they will be moved to seek better options. Likewise, POS asserts that individuals have an inherent drive toward that which is positive and nourishing. As a result, both perspectives suggest that, all else being equal, individuals will prefer management that does not sacrifice people and planet for the sake of profit. Moreover, for the reasons outlined previously, a non-judgmental, even-handed presentation of three alternatives should make it relatively easy for students to consider new ways of approaching management. Therefore, the course format used in this study should have given students both the tools and the freedom to reconsider their beliefs about what constitutes effective management.

Accordingly, we investigated whether students' views of what constituted effective management goals would change to reflect less emphasis on maximizing profit, more emphasis on prosocial goals (i.e., enhancing social well-being), more challenge to the primacy of financial outcomes (i.e., not making profit first among equals), and increased emphasis on addressing issues related to marginalization (i.e., respecting difference and listening to other voices) and power asymmetries (i.e., flattened hierarchies, broader power sharing and access). Specifically, we tested seven hypotheses.

After being taught multiple approaches to management, students are more likely to describe the most important goals of effective managers in ways that

H1: expand beyond Financial Bottom Line management goals;

H2: emphasize intra-organizational prosocial goals;

H3: emphasize extra-organizational prosocial goals;

H4: challenge the primacy of maximizing profits;

H5: reduce intra-organizational marginalization;

H6: reduce extra-organizational marginalization;

H7: reduce organizational power asymmetries.

Procedure

As a part of the course, all students completed in-class questionnaires about their knowledge of and attitudes toward management. The same questionnaire was administered at the beginning of the first class of the semester, and again in the penultimate class (three months later) after all instruction was complete. There was a total of 172 students in the three sections, 154 of whom agreed to participate in the study by making their responses available for analysis.

Participation was voluntary and confidential, based on informed consent under the supervision of the university's ethics review board.

Several steps were taken to comply with that ethical supervision and to maximize the quality of the data. First, to prevent researcher bias, the second author taught all sections and was not involved in coding the responses; the first author led coding using an anonymized dataset. Second, students confidentially indicated to the first author whether they were willing to participate; the instructor was not aware of their choice. Only after the semester was complete and final grades had been submitted did the authors gather the data from those students who indicated their willingness to participate. Students were aware of this procedure, and thus knew

that their participation decision would not influence their grades. Third, informed consent was gathered in the middle of the semester, midway between the two data collection points, so that students were unlikely to connect the study to their responses and thus prevent any demand characteristic influence.

The analysis here is based on students' responses to the following open-ended question: What are the three most important goals that effective managers pursue? Students' written responses were coded in a multi-step process. Each set of student responses (i.e., three per student per questionnaire) was transcribed and assigned a random identifier, to allow blind coding. All the responses, both pre and post, were assembled into a single list in random order. The first author and a trained graduate research assistant coded the responses, working independently and then meeting to discuss and fine-tune the coding scheme. Each response was coded for the presence (1) or absence (0) of views related to the hypotheses, as described below.

Expanding beyond Financial Bottom Line management goals (H1) was coded as "present" when a student's response went beyond Financial Bottom Line management. Examples of responses that were coded as "present" (1)—because they aligned with Triple Bottom Line and/or Social and Ecological Thought management—included any mention of goals such as: explicitly challenging profit-maximization, valuing prosociality, mitigating marginalization, and challenging power asymmetries. In contrast, goals like the following were considered to be consistent with Financial Bottom Line management, and so coded as "absent" (0): efficiency, profits/revenues/sales, productivity, output quality, having a motivated/cooperative workforce, effective teams/morale, and harmony. Note that some of these goals could have been interpreted as prosociality within organizations (e.g., harmony, morale), but we chose to err on the conservative side and code them as not inconsistent with Financial Bottom Line management.

Emphasizing intra-organizational prosociality (H2) was coded as present when a response pointed to creating a positive work environment and enhancing employee well-being (e.g., "Have a positive work environment," "Employee well-being/happiness," "Increase well-being within the organization," "Enjoyable work experience," "Maintain a healthy + fun work environment," "Bettering employees' lives") or developing non-instrumental relationships within organizations ("Connecting with employees," "Relationships," "Camaraderie amongst their workers").

Mentions of mitigating intra-organizational marginalization were also included (see H5).

Emphasizing extra-organizational prosociality (H3) was coded as present when a response was consistent with enhancing well-being or happiness in society or among external stakeholders (e.g., "Making sure that all stakeholders are happy," "Social responsibility goals," "Benefit society," "Create positive change in the world," "Help improve the quality of the world").

Mentions of mitigating extra-organizational marginalization were also included (see H6).

Challenging the primacy of maximizing profits (H4) was coded as present when a response disagreed with the tenets of the Financial Bottom Line profit-only and Triple Bottom Line profit-first approaches. A student response was coded as a challenge if it disagreed with the primacy of maximizing profits or indicated that making enough profit was adequate (e.g., "Financial viability," "To make profit or at least break even," "Less money"), or if it suggested that managers should proactively take responsibility for social or ecological externalities (e.g., "Maximizing value for planet," "maximize positive externalities").

Reducing intra-organizational marginalization (H5) was coded as present when a response displayed sensitivity to employee rights or needs, including seeking to enhance the employees' voice (e.g., "Employee rights," "Create an atmosphere where employees are respected," "Trusting environment," "Employees are not afraid to voice their opinions," "Mutual respect").

Reducing extra-organizational marginalization (H6) was coded as present when a response was sensitive to social needs and rights beyond organizational boundaries, including addressing shortcomings and negative externalities (e.g., "To better the external environment through at least one act of charity," "Reducing negative social/environment externalities," "Have a presence in social-ecological issues, be a part of the solution").

Reduce organizational power asymmetries (H7) was coded as present when a response suggested flattening the organizational hierarchy in some way (e.g., "Empower employees," "Building a 'team'-like organization," "Makes sure employees are heard," "Setting employees up to manage themselves") or placed the interests of others before those of the manager or organization (e.g., "Helping others instead of oneself," "Pursuing what's in the best interest of employees," "Realizing that a manager works for their employees").

There were 132 students in the pre-test and 128 in the post-test, of whom 83 percent completed both questionnaires. The pre-to-post difference in respondents did not appear to introduce any sampling bias. Both groups were similar in their grade performance in the course, and both groups were broadly consistent with the demographics of management students at the university (e.g., gender, ethnicity, major, age). The responses included a total of 777 goals, all of which were coded. When coding was complete, the responses were aggregated at the individual test level, such that if at least one of a student's three responses at a given time point was coded as 1, that student was coded 1 as an individual at that time. We then compared the relative proportions of pre and post responses, using Boschloo's (1970) extension of Fisher's (1922) exact test. We subsequently examined the patterns of change within individuals, looking at how answers changed between pre- and post-test responses among a subset of 106 students who completed both questionnaires.

RESULTS

H1 predicted that students' description of effective managers' goals would become less aligned with the Financial Bottom Line approach. The data supported this conclusion. At the start of the semester, 46.21 percent of students listed at least one managerial goal that was not aligned with Financial Bottom Line management. This proportion increased to 61.72 by the end of the semester (p = .01). In other words, at the start of the course a small majority (53.79 percent) of students' views were wholly consistent with Financial Bottom Line management, but at the end such students were a minority (38.28 percent).

H2 and H3 concerned prosociality within and outside the organization, respectively. The data did not support H2, with 39.39 percent of students mentioning intra-organizational prosociality in the pre-test, compared to 30.47 percent in the post-test (p = .14). In contrast, the data supported H3, with a more than ten-fold increase (3.03 percent to 35.94 percent) in the proportion of students mentioning extra-organization prosociality goals (p < .01).

H4 was also supported. The proportion of students who listed goals that challenged the Financial Bottom Line and Triple Bottom Line profit-first approach to management increased from 10.61 percent at the beginning of the course to 39.84 percent at the end (p < .01).

H5 and H6 concerned attending to marginalization within and outside the organization. Similar to the results regarding prosociality, there was no evidence of change regarding intraorganizational marginalization (17.42 percent vs 14.06 percent, p = .52), but there was a significant increase in students who mentioned goals related to extra-organizational marginalization (0.76 percent vs 20.21 percent, p < .01).

H7 predicted that students would become more likely to challenge organizational power asymmetries, but we found no evidence of such a change. In the pre-test, 6.82 percent of students mentioned goals that addressed power asymmetry, compared to 5.47 percent post-test (p = .78).

Figure 1 summarizes within-person longitudinal patterns in the students' responses regarding effective management goals. One-hundred and six students completed both questionnaires and clearly fit into one of the three categories of Financial Bottom Line, Triple Bottom Line, or Social and Ecological Thought management based on their responses at the beginning and end of the semester. The Financial Bottom Line group included students for whom all three goals aligned with a profit-maximizing approach and showed no evidence of prosociality (i.e., consistent with the measure used for H1). The Triple Bottom Line group included students for whom at least one goal was consistent with prosociality (as per the measures used for H2 and H3) but who did not challenge the primacy of profits (H4). All students in the Triple Bottom Line group mentioned intra-organizational prosociality, but only 5.08 percent mentioned extraorganizational prosociality; likewise, while 37.29 percent attended to intra-organizational marginalization, only 1.69 percent attended to extra-organizational marginalization. The Social and Ecological Thought group included students for whom at least one goal directly challenged or subverted the profit-first paradigm (as per the measure used for H4). In this group, 35.71 percent mentioned intra-organizational prosocial goals and 71.43 percent mentioned extraorganizational prosocial goals, and 25.00 percent attended to intra-organizational marginalization and 41.07 percent attended to extra-organizational marginalization. The Figure shows whether, and if so how, each student's responses changed during the course vis a vis the three types.

--- Insert Figure 1 about here ---

Finally, in post hoc testing, we found another interesting observation. There was an increased proportion of students (5.30 percent vs 29.69 percent) whose description of effective managerial goals included explicitly promoting greater ecological well-being (p < .01). We found it particularly noteworthy that, of the 24 students whose responses changed from the Financial Bottom Line type at the beginning of the course to the Social and Ecological Thought type at the

end, a large majority (79.17 percent) had added mention of the need to care for ecological externalities in their final responses.

DISCUSSION

Our study explored a new pedagogy in management education by examining the extent to which simultaneously teaching three management approaches (i.e., Financial Bottom Line, Triple Bottom Line, and Social and Ecological Thought) changed students' beliefs about what constitutes effective management. Our results suggest that teaching three approaches to management resulted in significant change among students' views of effective management, and an overall trend away from the Financial Bottom Line approach and towards the Social and Ecological Thought approach.

Our findings have implications not just for pedagogy, but also for the development of POS and CMS as fields. We submit that, to a degree, POS and CMS can be seen as opposite sides of one coin. POS seeks to develop positive management theory and practice, and CMS seeks to address the negative implications of profit-first management theory and practice. Put another way, CMS highlights the need for an approach that is liberated from profit-first thinking, and POS provides insights into what such an approach might look like. Moreover, POS without CMS risks being co-opted by the profit-first paradigm, while CMS without POS may fail to create the alternative practices it desires. Combining the two has the potential to foster the development of approaches to management that are consistent with their shared goals. In particular, it points to the merit in developing what might be called "critical POS" or "positive CMS."

Critical performativity and POS

We believe that teaching multiple approaches to management represents a straightforward example of critical performativity, and thus provides a concrete example of how POS, to the extent that it represents a progressive form of management, can help CMS fulfill its goal to

"actively and pragmatically intervene in specific debates about management and encourage progressive forms of management" (Spicer et al., 2009: 1). Consistent with Spicer and colleagues' (2009) five characteristics of critical performativity, teaching multiple approaches to management as described in our study exhibits: 1) an affirmative stance (e.g., it starts from familiar management practices/experience and subsequently offers horizon-expanding alternative views); 2) caring (e.g., it engages in a critical dialogue about different approaches to management in a way that motivates reflection); 3) pragmatism (e.g., it is relevant for the four classic functions of management: planning, organizing, leading and controlling); 4) potentialities (e.g., it describes different possible ways of managing); and 5) awareness of the normative bases upon which different approaches to management are grounded. We further believe that teaching multiple approaches to management can support the four components that enable improving the critically performative framework within CMS: dialectical reasoning, deliberation, public relevance, and movement building (Spicer et al., 2016).

Dialectical reasoning. A consequence of teaching multiple approaches is that it showcases tensions between the differing approaches to management without resolving them, an essential element of dialectal reasoning (Alvesson and Spicer, 2012). In learning about the different management approaches, students come to know each one's relative strengths and weaknesses, and indeed learn about the tension underlying the very idea of what is a "strength" versus a "weakness." For example, a strength of Financial Bottom Line decision-making is that it is relatively quick and easy (i.e., decisions are made by a manager based on financial criteria). Based on these criteria, it would be considered a weakness of Social and Ecological Thought decision-making that its process is slower and more complex (e.g., because it involves the participation of many stakeholders and differing criteria for well-being). However, the opposite can also be seen as true, namely that a strength of Social and Ecological Thought decision-

making is that it engages many stakeholders and views, avoiding the limitations of the Financial Bottom Line approach's top-down, profit-maximizing decision-making process.

Such comparisons draw attention to a paradox—related to Spicer and colleagues' (2016) ideas about circumspect care—associated with dialectical reasoning. Teaching multiple approaches fosters clearer and deeper thinking about management but, rather than this richer understanding being associated with a smug or "holier-than-thou" sense of having "arrived," it instead paradoxically seems to nurture humility and non-judgmentalism. Students learned the relative shortcomings and strengths of Financial Bottom Line vs Triple Bottom Line vs Social and Ecological Thought management, and our observation was that doing so made them more understanding and appreciative of people who think differently. Exposure to multiple perspectives appears to help students realize how each approach is defensible within its underlying assumptions. As students take the opportunity to discern which approach is best for them, they are simultaneously moved to offer others the same freedom. Teaching multiple approaches, and the tensions they embody, may provide a framework that enables people to depolarize disagreements with others (see also Dyck, 2017).

Deliberation. Teaching multiple approaches to management, where each approach is presented even-handedly and as a legitimately credible option, creates a safe place for students to consider the relative merits of each. Rather than tell students what is "right," articulating three alternative approaches invites students to consider which one they find most (and least) attractive. In this sense, it is noteworthy that the root of deliberation is "liberation" (where the prefix "de" essentially means "of" liberation). By learning about differing approaches to management, students are supported in deciding which approach they judge most effective. The pedagogy motivates them to ask which approach is most consistent with their values and moral point of view, and which approach will result in flourishing. Indeed, it is not unusual for students who

learn several approaches to not subscribe to any of the taught approaches, but rather to feel enabled to develop a unique approach to management suitable for themselves (e.g., Dyck, 2017). Such learning reflects liberation of a very high order, where pedagogy enables students to begin developing their own approach to management. It is the opposite of authoritarian theoretical policing, where students are encouraged to puppet the views of the instructor (Spicer et al., 2016). That said, for readers who may wonder whether the course materials and instruction would be more likely to sway students who entered the course with a Financial Bottom Line view than students who entered valuing nonfinancial well-being (e.g., students aligned with the Triple Bottom Line and Social Ecological approaches), it may be noteworthy that the percentage of students who moved away from their initial approaches was considerably lower for students who started with a Financial Bottom Line view (54 percent) compared to students who started with Triple Bottom Line (72 percent) and Social and Ecological Thought (64 percent) (overall 70 percent) views.

The results in Figure 1 suggest that students in our study took advantage of their freedom to choose. Regardless of which approach to management students espoused at the start of the course, by the end the majority had moved to a different type (61 percent moved overall). Of the students who changed, 63 percent moved to the Social and Ecological Thought type, 23 percent to the Financial Bottom Line type, and 14 percent to the Triple Bottom Line type. This rate of change is approximately double what has been found in research using other pedagogical approaches (e.g., Monaghan and Cervos, 2006; Rigg and Trehan, 1999), and thus suggests that teaching multiple approaches enables and empowers students to change their views regarding what constitutes effective management. Moreover, consistent with the POS assumption of the heliotropic effect and the CMS belief that awareness can drive change away from profit-first

management, more students moved toward Social and Ecological Thought than to Financial Bottom Line and Triple Bottom Line combined.

That said, even though the plurality of students abandoned the profit-first assumptions of Financial Bottom Line and Triple Bottom Line management, there were still some that changed to adopt Financial Bottom Line or Triple Bottom Line after being taught the three approaches. For example, 11 of 39 students (28 percent) who started the course in the Triple Bottom Line type, and 4 of the 11 students (36 percent) who started in the Social and Ecological Thought type, moved to the Financial Bottom Line type by the end of the course. Thus, our results highlight an important caveat for POS: even if the heliotropic principle applies to social behavior, what constitutes "light" or life-giving will be socially conditioned; not everyone will view the same things as positive (Caza, 2021; see also Yamagishi et al., 2014). Similarly, with regard to the CMS perspective, one must accept that a proportion of managers will embrace (rather than seek to disarm) "tools of domination" when they are made aware of them. Nonetheless, we believe that there is merit in teaching everyone multiple approaches to management, if only because it promises to increase their understanding of, empathy for, and patience with colleagues who prefer other approaches.

Public relevance. The results of teaching the different approaches to management in our study have implications for how critical performativity can focus the attention of more people on issues of public importance. We contend that, to demonstrate the importance of POS and CMS ideas for the general public, it is more effective to teach different approaches to management in an introductory course than it is to teach courses that focus only on instrumental concerns or on some esoteric aspects of POS and CMS. For example, the course in our study made little or no explicit mention of concepts like "performativity," "managerialism" or "systemic power," but we believe that an implicit understanding of these ideas is embedded in the act of learning multiple

approaches to management. Of course, this is not to suggest that specific CMS (and POS) concepts are unimportant, or that teaching them (in other courses) is not valuable (e.g., courses that teach multiple approaches to management might serve as an excellent prerequisite for a CMS course). Rather, we believe that our study demonstrates how critical performativity may be facilitated by finding ways to make key POS and CMS concerns more accessible to larger numbers of people in ways that resonate with them.

Another implication related to public importance arises from our post hoc observations about the salience of ecological well-being. Of the 24 students who changed from the Financial Bottom Line to the Social and Ecological Thought approach, most (79 percent) added the need to care for ecological well-being. This suggests that concern about climate change may be a "gateway" issue. Its widespread public importance may help draw attention to negative implications of profit-first management. POS and CMS scholars alike may do well to strengthen their linkages to the field of environmentalism – links that are currently not well-developed. There are exceptions of course, including the role of ecological well-being in Kurucz et al.'s (2014) approaches to management, Adler et al.'s (2007: 1) view that "CMS's motivating concern is ... the social injustice and environmental destructiveness of the broader social and economic systems," Hoffman and Haigh's (2011) description of the link between POS and sustainability, and Spreitzer et al.'s (2019) call for future research that fosters the well-being of the environment, people, and organizations. However, such references to ecological well-being are the exception rather than the norm, and this lack may be reducing the appeal of POS and CMS to larger audiences. In addition to ecological well-being, our results suggest that there may also be opportunity to expand the domain of POS and CMS to other topics covered in management courses (such as strategy and entrepreneurship) that may be under-examined in the POS and CMS literatures.

A similar opportunity to broaden or shift focus to match the larger public interest is also evident in our unexpected findings regarding intra- vs extra-organizational prosociality and marginalization. Recall that we found that the course produced no consistent change in intra-organizational prosociality and marginalization, but it did greatly increase the frequency of such goals concerning extra-organizational stakeholders. These results suggest that management students are more responsive when made aware of the needs of external stakeholders, thus providing an indication of where to focus efforts to reach students. For example, students in the Social and Ecological Thought group were twice as likely to mention extra-organizational prosocial goals compared to intra-organizational prosociality (71 percent vs 36 percent), and more likely to mention extra-organizational versus intra-organizational marginalization (40 percent vs 25 percent).

Finally, we note that concern for the marginalized was relatively uncommon in the goals that students mentioned. This relative absence may reflect a failure of the course and its treatment of the issue, and in education more generally (e.g., Berti et al., 2020; Zulfiqar and Prasad, 2020). For example, even though marginalization is mentioned in most chapters of the textbook we used (10 of 18), there is no extended discussion that links marginalization (e.g., systemic racism) with organizational or structural issues. We speculate that, in the wake of the George Floyd inspired protests and the disparities observed in Covid-19 consequences, future students may be much more sensitized to and concerned about issues related to marginalization.

Movement building. The goal of critical performativity should be to create widespread, meaningful change, and Spicer and colleagues (2016) identify four means of doing so – means that we believe our findings and pedagogical approach can support. First, insofar as management instructors are high status actors, they grant legitimacy to CMS and POS goals when they teach approaches to management that draw on ideas consistent with them. Second, our approach takes

advantage of an opportunity to leverage dormant resources within a business school, by recognizing that a management course (or textbook) that teaches only the profit-maximizing approach is an under-utilized resource that can be mobilized to teach additional management approaches that support POS and CMS goals. Third, teaching alternative approaches like Social and Ecological Thought management in regular business courses, rather than in CMS-specific ones, increases the reach of such ideas and their spread to the larger population. And finally, movement building is facilitated when issues are framed in terms that resonate with the larger public, which, as we argued above, may be enhanced via a shift in focus toward extraorganizational social and ecological well-being.

Limitations and future research

Our study examined the effect of teaching multiple approaches in an introduction to management course. We have described how the three approaches are related to POS and CMS, and though the course was informed by both literatures, it was not designed with the goal of specifically teaching them. Rather, the aim was to produce changes that supported POS and CMS goals, not to increase students' academic knowledge of either field. As such, we invite scholars to fine-tune the different approaches to management as appropriate for their own teaching, and to examine how the insights from our results may inform disciplinary instruction in POS and CMS.

In terms of the specifics of our empirical study, it is noteworthy that we did not include a control group. This absence reflects a deliberate ethical choice on the part of the second author (who taught the courses). Regardless of any potential research findings, we believed at the outset that teaching multiple perspectives would benefit a range of student learning outcomes, such as improved critical and ethical thinking (e.g., Dyck et al., 2011, 2012). We could not condone deliberately teaching students in what we believed to be an inferior fashion for the sake of having a control group in a study. Moreover, we already knew from previous research that students who

are taught only the profit-maximizing approach gravitate towards it (e.g., Lämsä et al., 2008; see also Dyck et al., 2011, 2012). Such findings mitigate concerns about confounding maturation effects and underscore the changes observed in our data. Nonetheless, experimental purists may wish to include a control group in future studies.

Note that the research was designed so that course instructor did not collect the data, or even see them before teaching was complete. The students were aware that no analysis would take place before the final course grades were assigned. Moreover, the questionnaire that produced the data was not a graded component of the course, so students received no reward for giving "correct" answers. Nonetheless, some students could have sought to say things that they thought the instructor would like to hear. Similarly, although the instructor was not involved in coding the data, and although information regarding whether responses were from the beginning of the term versus the end of the term was hidden from the two coders, nevertheless there could have been some unintended or hidden bias evident when coding the data.

A related concern might be raised regarding the fact that the instructor was not blind to the study design. Readers may be concerned that course content or presentation was biased in favor of particular outcomes. In response, we note that there was no intentional bias, and that the available evidence argues against unintentional bias. If the course had encouraged students toward the Social and Ecological Thought approach, the changes in Figure 1 should have been less comprehensive. That is, students in a biased course should not move toward the Financial Bottom Line type. Likewise, change away from the Social and Ecological Thought type should have been absent, or at least rare. In reality, students moved to and from all three approaches, and the proportion of students who changed their type was smallest among those who began in the Financial Bottom Line type (54 percent), and lower than the proportion that moved away from

the Social and Ecological Thought type (64%). As such, instructional bias seems not to have been influential, but a double-blind design could conclusively address the issue.

Our study included more students and more sections than related previous research (e.g., Monaghan and Cervos, 2006; Rigg and Trehan, 1999), but it was nonetheless limited to three undergraduate management classes from one school in one country, all taught by the same instructor. The course also was taught in a particular social context and time (e.g., pre-Covid-19), and relevant aspects of culture may be different in another context or may have changed in the months since the courses were taught (e.g., post-Covid 19 students may be more sensitized to issues like marginalization and ecological dangers). Exploration of the generalizability of our results is welcome.

Of course, there are also many important opportunities to examine generalizability beyond an introductory management course. We hope that our results will generalize to other contexts, including not just higher-level courses, but also other learning contexts such as mentors and junior colleagues discussing a variety of approaches to address a particular workplace situation, government policymakers discussing the sorts of approaches their legislation should nurture, and investment advisors providing clients information about traditional mutual funds versus socially responsible investing. For example, related to the latter, research suggests that retail investors welcome information about firms that place people and planet ahead of profits, given that they may already invest about 33 percent of their money into firms that optimize social and ecological performance knowing that this may compromise their financial return (Morgan Stanley, 2019).

Future research also could examine a longer time horizon. Although our results showed clear change over the course of a semester, we do not know what may occur four months or four years later. Once students have learned about multiple approaches to management, will they continue to grow and change in their assessment of effective management? Will they revert to

their pre-test views? Will any lasting changes in beliefs affect their actual behavior (Berti et al., 2020), especially knowing that management students generally tend to avoid challenging organizational norms (Lämsä et al., 2008)?

Our study also points to opportunities in the larger curriculum in business schools. Even though an introductory management course may be the likeliest venue to teach multiple approaches to management, many other courses, and informal experiences beyond courses, constitute students' management education (Caza and Brower, 2015). If POS and CMS scholars seek to create change in current business practices, they may want to examine the effects of teaching multiple approaches in other areas such as accounting, finance, and marketing (e.g., Dyck and Manchanda, 2021). Such curricula are not currently the norm, and so it remains to be determined how such changes might affect outcomes and how best to make change. We encourage scholars and practitioners to begin answering these questions.

Finally, our use of the Social and Ecological Thought approach draws attention not only to areas of overlap between POS and CMS that we have emphasized (e.g., both seek emancipation from a narrow Financial Bottom Line perspective), but also points to tensions and contradictions that make combining POS and CMS difficult (e.g., the former seeks to exploit strengths/opportunities, the latter seeks to reveal weaknesses/oppression). Indeed, this study's pedagogy of teaching three approaches to management not only draws attention to such paradoxical tensions (Smith and Lewis, 2011), but also invites students to consider how they can be harnessed to generate innovative possibilities. For example, we began the paper by noting that the Financial Bottom Line approach has (paradoxically) been associated with strengths such as improved financial well-being, agricultural productivity, access to clean water, life expectancy, literacy, and reduction in poverty, but also with weaknesses such as social crises (e.g., terrorism and large-scale war), ecological crises (e.g., climate change), and financial crises (e.g., Norberg,

2016). Rather than have a primary focus on either amplifying the strengths (POS) or the weakness (CMS), a paradoxical approach can foster a holistic from of dialectical reasoning that embraces both views in a way that linear or reductionist approaches cannot. A simultaneous focus on promoting positive (POS) and avoiding negative (CMS) outcomes will enable students to see new ways of thinking about management—such as Social and Ecological Thought—that both defy and enhance POS and CMS. This issue merits investigation.

In conclusion, consistent with the twofold agenda of this special issue, we sought to "explore new practices of management learning and teaching informed by positive perspectives" by "interweaving of positive and critical perspectives in the field of management teaching and learning" (Lavine et al., 2019: 1, 2). We believe that the shared POS and CMS goal of moving beyond profit-first management practice and its negative externalities is ambitious, but worth pursuing. Our results suggest that management education can play a role in reaching this goal. Learning multiple approaches to management reduced the number of students who espoused wholly profit-maximizing views of effective management, increased the number of students embracing prosocial goals, and increased the number students challenging profit-first assumptions and recognizing the importance of caring for social and ecological externalities. We hope that our work contributes to the shared goals of POS and CMS.

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Figure 1: Changes in students' responses about effective management goals, before and after a course that taught multiple approaches to management

Beginning End of of semester semester **Financial Bottom Line type:** 26 students Students where all responses align with **56** 41 6 studentsprofit-related goals (e.g., to maximize efficiency, productivity, profitability) **Triple Bottom Line type:** Students where at least one response expresses 11 students **39** 20 17 students prosociality, but remaining responses align with profit-related goals (i.e., no responses challenge the primacy of profits) 3 students Social & Ecological Thought type: Students where at least one response challenges the primacy of profits (i.e.,

11

counters Financial Bottom Line and Triple

Bottom Line management)

4 students

45

Table 1: Comparison of key tenets of POS, CMS, and Social and Ecological Thought

Tenet	POS	CMS	Social and Ecological Thought
Challenges an exclusive focus on maximizing profit, productivity, and/or efficiency	Yes	Yes	Yes
Develops an alternative to the dominant approach	Yes	No	Yes
Challenges the goal of maximizing profit	No	Yes	Yes
Critiques power asymmetries and marginalization	No	Yes	Yes
Privileges intra-organizational over extra- organizational implications	Yes	Yes	No (both internal and external)

Table 2. Example of three management approaches applied to teaching decision making*

Decision-making	Financial Bottom	Triple Bottom	Social & Eco-
process (four steps)	Line	Line	logical Thought
1. Identify the need for	Managers identify	Managers and	Managers and
a decision (for example,	problems or	stakeholders identify	stakeholders
a problem to solve, or an	opportunities to	problems or oppor-	identify problems
opportunity to seize)	improve the	tunities to improve	or opportunities to
	financial bottom-	the financial bottom	improve various
	line.	line by reducing	forms of
		socioecological	socioecological
		externalities.	wellbeing.
2. Develop alternative			
responses:	Ensure that financial	Ensure that financial	Ensure that overall
(a) do nothing	benefits outweigh	benefits outweigh	well-being of
(b) programmed	financial costs.	total costs.	stakeholders is
(c) non-programmed			enhanced.
3. Choose appropriate			
alternative			
- agreement on aims and	- seek conformity	- seek conformity,	- celebrate diversity
means		with some variation	
- based on available	- emphasize explicit	- balance tacit	- balance tacit
knowledge	knowledge and idea	knowledge and	knowledge and
	that certainty is	explicit knowledge	explicit knowledge
	possible		
4. Implement choice			
- overcome resistance via	- selective	- moderate	- extensive
	participation	participation	participation
- get feedback	- greater likelihood	- accept	- embrace
	of escalation of	experimentation	experimentation
	commitment		

^{*} From Dyck et al. (2018); used with permission.