What Corporate Environmental Sustainability Can Do for Industrial-Organizational Psychology

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The premise for this edited volume is that industrial-organizational (I-O) psychology has much to contribute to corporate environmental sustainability (CES) research and practice (Klein & Huffman, this book). In fact, the book’s title suggests that I-O psychology can serve as a driver for change regarding CES. We agree fully. In fact, each of the excellent chapters included in this book offers numerous suggestions in this regard.

Our chapter offers an alternative yet complementary perspective on the relationship between I-O psychology and CES. To paraphrase former U.S. President John F. Kennedy’s famous inaugural address statement, in our chapter we ask not what I-O psychology can do for CES, but what CES can do for I-O psychology. More specifically, we argue that CES can help I-O psychology consider the role of context and “go macro,” be more open and explicit about values, consider people at work in terms of long-term investments and partnerships, and reach out to other fields of inquiry as well as re-think traditional areas of research and practice. Overall, we believe that CES can help I-O psychology in important and meaningful ways particularly regarding the bridging of two troubling and often-lamented gaps in our field: the science-practice gap and the micro-macro gap.

First, regarding the science-practice gap, Cascio and Aguinis (2008) conducted a 45-year (1963 to 2007, inclusive) content analysis and review of published research in the two leading journals in I-O psychology: Journal of Applied Psychology (JAP) and Personnel Psychology (PPsych). Results based on a database including 5,780 articles published over almost half a century showed that, for the most part, I-O psychology research has not addressed
important societal issues (e.g., human-capital trends). In cases when I-O psychology has addressed societal issues, it has done so modestly and mostly indirectly. For example, consider the topic of talent management. As noted by Cascio and Aguinis (2008), talent management encompasses the domains of recruitment, development, retention, human resource effectiveness, and organizational demographics. The record is decidedly mixed regarding the extent to which I-O psychology research has addressed these issues. Specifically, consider publication trends for the most recent period included in the review: 2003 to 2007. During this time, 1.53% of articles published in JAP addressed recruitment; 3.28% of JAP articles and 3.26% of PPpsych articles addressed development; 1.75% of articles in JAP and none in PPpsych addressed retention; no articles in either journal addressed human resource effectiveness (although there were some published methodological critiques of the body of literature that relates human resource activities to firm performance); finally, 0.44% of JAP articles and 0% of PPpsych articles addressed demographic changes. In short, although talent management seems to be one of the most important recent human-capital trends (e.g., “The battle for brainpower,” 2006), I-O psychology research does not seem to be paying much attention to it. In fact, based on these and other results, Cascio and Aguinis (2008) concluded that if:

we extrapolate past emphases in published research to the next 10 years, we are confronted with one compelling conclusion, namely, that I-O psychology will not be out front in influencing the debate on issues that are (or will be) of broad organizational and societal appeal. (p. 1074)

In short, there is a gap between I-O psychology research and broader organizational and societal trends.

A second troubling gap is the micro-macro divide. I-O psychology research and practice focuses mostly on individual- and, to some extent, team-level phenomena. An examination of I-O psychology textbooks (e.g., Cascio & Aguinis, 2011) and compendia (e.g., Rogelberg, 2007; Zedeck, 2011) indicates that major topic headings include personnel selection, training, performance appraisal and management, individual differences, and job analysis and design. The vast majority of these topics address individual-level phenomena. For the most part, organization-, industry-, and society-level phenomena are not discussed in detail and do not play a major role.
The emphasis on micro- rather than macro-level phenomena is not surprising given I-O psychology's historical roots in differential psychology. However, in today's globalized and hypercompetitive business milieu driven by technological advancements, speed of communications, and flow of information, a sole emphasis on micro-level phenomena can mean that I-O psychology risks becoming irrelevant. As noted by Aguinis, Boyd, Pierce, and Short (2011), "practitioners who face day-to-day management challenges are interested in solving problems from all levels of analysis. For example, they are interested in performance issues at the organizational and individual levels of analysis" (p. 397). If the research produced by I-O psychology addresses only the individual level, then it is likely that the science-practice gap mentioned earlier will continue to widen.

CES is of great importance to organizations and society at large. Thus, I-O psychology research on CES is likely to be received with interest by stakeholders outside of the field, thereby improving I-O psychology's stature in terms of perceived relevance. When was the last time we have watched an individual on television discuss the latest I-O psychology knowledge or interventions and their implications for society? In contrast, we can foresee how I-O psychology research addressing CES has potential to be widely disseminated and, again, this can help bridge the much lamented science-practice gap in the field. Moreover, CES can help I-O psychology move beyond an almost exclusive emphasis on micro-level phenomena to a combination of micro- and macro-level phenomena. By its nature, CES has mostly been studied at the macro-level phenomenon (Aguinis & Glavas, 2012). However, individuals make decisions about CES, have values, attitudes, and beliefs about CES, and react to CES initiatives in various ways. So, CES can serve as a conduit for I-O psychology to consider both micro- and macro-level issues and thereby help narrow the micro-macro gap.

In the remainder of our chapter, we provide a more detailed description of illustrative domains and issues for which CES can make a contribution to I-O psychology. To do so, we rely on the many excellent ideas and data included in this volume's chapters. Before we proceed, we clarify that we define corporate social responsibility (CSR) following Aguinis (2011, p. 855) and also adopted by others (e.g., Aguinis & Glavas, 2012; Rupp, 2011) as "context-specific organizational actions and policies that take into account stakeholders' expectations and the triple bottom line of economic, social, and environmental performance." Thus, based on this
definition, and consistent with its conceptualization in most of the chapters in this book, CES refers to the environmental performance aspect of CSR. In other words, CES consists of context-specific organizational actions and policies that take into account stakeholders' expectations specifically regarding environmental issues.

**CES CAN HELP I-O PSYCHOLOGY CONSIDER THE ROLE OF CONTEXT AND "GO MACRO"**

As noted earlier, I-O psychology is essentially a micro-level discipline. In other words, the majority of I-O psychology research and practice topics focus on phenomena at the individual and, less often, team level of analysis. On the other hand, CES is essentially a macro-level field of study and practice. CES refers to policies and actions by organizations. However, such policies and actions are influenced and implemented by actors at all levels of analysis (e.g., institutional, organizational, and individual). Accordingly, CES also subsumes the individual and team levels of analysis (Lindenberg & Steg, this book; Pandey, Rupp, & Thornton, this book).

CES can help I-O psychology consider the role of context and go macro because research and practice concerning CES will need to adopt a systems approach that involves individual, organizational, and societal-level variables (Andrews, Klein, Forsman, & Sachau, this book; DuBois, Astakhova, & DuBois, 2013; Ones & Dilchert, 2013). Much like Aguinis and Glavas (2012) concluded regarding CSR in general, an understanding of CES requires a consideration of actors and variables at multiple levels of analysis. For example, such systems and multi-level perspective include a consideration of organizational-level characteristics as well as pressure from external stakeholders (i.e., macro level) and individual motivation and goals (i.e., micro level). I-O psychology has a long and illustrious tradition in terms of the generation of knowledge regarding foundations of a field that are based on individual action and interactions, what is labeled microfoundations (e.g., Foss, 2011). CES can help I-O psychology place these microfoundations within a broader organizational and societal context.

Our proposed integration of micro- and macro-level actors and processes will not be easy given the traditional I-O psychology emphasis on the micro level. Thus, to achieve this integration, it is helpful to
categorize CES into peripheral and embedded CES. *Peripheral CES* focuses on activities that are not integrated into the daily strategies and operations. Examples are volunteering and philanthropy. On the other hand, *embedded CES* refers to an integration into strategy and daily operations by using the firm’s core competencies.

We model our distinction between peripheral and embedded CES after the notion of embedded sustainability recently put forward in the practitioner literature by Laszlo and Zhexembayeva (2011). Embedded CES can include building on the core competencies of the company in order to deliver sustainable products and services and is integrated into the daily operations and overall organizational culture (e.g., Bertels, Papania, & Papania, 2010). Examples of how firms build on their core competencies to embed CES are GE’s ecoimagination program through which GE uses technology to provide environmentally-friendly products, and IBM’s use of their information systems capabilities to help create smarter and greener cities through their Smarter Planet program. Stated differently, similar to how Aguinis (2011) proposed regarding CSR in general, CES is not viewed as separate from overall organizational strategy and daily operations; rather, “all policies and actions are affected throughout the entire organization and at all levels of analysis (i.e., individual, group, and organization)” (Aguinis, 2011, p. 865).

Viewing CES as peripheral or embedded is important in terms of what CES can do for I-O psychology for the following reasons. First, it is crucial for future research, especially research at the individual level of analysis—the “bread and butter” of I-O psychology. If CES is at the periphery and managed by only a few organizational members (e.g., sustainability officer or corporate foundation), then it is unlikely that micro-level research will make important contributions. However, if CES is embedded, then scholars can use current I-O psychology theories to conduct further research on how human capital systems may promote integration of CES into daily operations. Second, such a categorization allows future research to more precisely assess outcomes at the individual level of analysis. As the meaningfulness literature has put forward (e.g., Pratt & Ashforth, 2003), employee outcomes (e.g., identification, commitment, satisfaction) can vary depending on whether individuals find meaning in work (i.e., embedded in one’s daily work). So, for example, our categorization can help I-O psychology understand when and why employees are likely to “own” sustainability (DuBois, Astakhova, & DuBois, this book) and the extent to
which CES is likely to affect the effectiveness of human resource management practices such as recruiting (Willness & Jones, this book).

**CES CAN HELP I-O PSYCHOLOGY BE MORE OPEN AND EXPLICIT ABOUT VALUES**

In a comprehensive compendium of the field of I-O psychology, Rogelberg (2007, p. xxxv) noted that “…the goals of I/O psychology are to better understand and optimize the effectiveness, health, and well-being of both individuals and organizations.” Likewise, the Society for Industrial and Organizational Psychology (SIOP) makes an explicit mention of values by noting that the field’s mission “is to enhance human well-being and performance in organizational and work settings by promoting the science, practice, and teaching of I-O psychology” (Society for Industrial and Organizational Psychology, 2012). In other words, one of I-O psychology’s very open and explicit goals is to help individuals, organizations, and society. This clear and explicit goal seems to collide with the goal of a silent majority of academics who advocate disinterest in practice in order to achieve scientific objectivity (Palmer, 2006). Such a detachment from values has been advocated so that research will “not be subverted to those of management, and that I-O psychology researchers and practitioners will not become mere servants of those in positions of power” (Cascio & Aguinis, 2008, p. 1074).

Tushman and O’Reilly (2007) argued that this self-imposed distancing from values, with the goal of achieving objectivity, reduces the quality of I-O psychology research, undermines the external validity of our theories, and reduces the overall relevance of the data used to test ideas. CES offers I-O psychology a different path: the possibility of making clear and open statements about values—values that I-O psychology researchers and practitioners hold but often may choose to not make public. As argued by Lowman (2013), it is better to discuss values and ethical standards in the open—and debate them—rather than hiding them or pretending they do not exist. For example, Intel’s leadership believe, and openly proclaim, that “business has a fundamental responsibility to consider the long-term consequences of its activities on the environment” (Barrett & Niekerk, this book). An open discussion about values is needed because, acknowledged
or not, they play an important role in how people make decisions. As noted by Swanson (1999), “values cannot be ignored and are part of the decision-making process whether managers realize it or not” (p. 507).

A discussion of values within the context of specific research and practice domains is not new to I-O psychology (Werner, this book). For example, consider the rationale for and use of test-score banding in personnel selection. Users and developers of personnel selection tools face a paradoxical situation: the use of cognitive abilities and other valid predictors of job performance leads to adverse impact (Aguinis & Smith, 2007). Thus, choosing predictors that maximize economic utility often leads to the exclusion of members of certain demographic groups. Pre-employment test-score banding has been proposed as a way to incorporate both utility and adverse impact considerations in the personnel selection process (Aguinis, 2004). Banding avoids the strict top-down selection strategy that typically leads to adverse impact and, instead, is based on the premise that (a) pre-employment measures are never perfectly valid, and (b) both predictors and criteria (i.e., measures of performance) are also never perfectly reliable (Aguinis, Cortina, & Goldberg, 1998). Thus, an observed difference in the scores of two job applicants may be the result of measurement error and less than perfect test validity instead of actual differences in the construct that is measured (e.g., general cognitive abilities). Consequently, if it cannot be determined with a reasonable amount of certainty that two applicants differ on the construct underlying a predictor, these two applicants are deemed statistically indistinguishable from one another and tie-breaking criteria may be used to choose one of them over the other. For example, assume that the computation of bands leads to the conclusion that pairs of applicants John-Susan and Peter-Ed have indistinguishable test scores. If a school of business is seeking to increase the number of female students in the program because women are severely underrepresented vis-à-vis the relevant population, Susan may be a preferred candidate over John. Similarly, if a police department is attempting to increase the ethnic diversity of its workforce, they may wish to choose Peter (African-American applicant) over Ed (Caucasian applicant).

Test-score banding has generated very strong and emotional reactions from the I-O psychology community. For example, Schmidt and Hunter (2004) argued that banding is internally logically contradictory and thus scientifically unacceptable. In their view, banding violates scientific and intellectual values and, therefore, its potential use presents selection specialists
with the choice of embracing the “values of science” or “other important values.” In contrast, Aguinis, Cortina, and Goldberg (2000) argued that, if two scores fall within the same band, they are considered statistically indistinguishable and secondary criteria (e.g., job experience, ethnicity) may be used in making a hiring decision—particularly if an organization places strategic importance on such “tie-breakers.” In the end, as concluded by Murphy (2004), whether someone supports the use of banding is likely to reflect broader conflicts in interests, values, assumptions about human resource selection, and one’s position regarding the tradeoff between efficiency and equity. In other words, “there is no question there is an issue of values here that should be directly addressed” (Barrett & Lueke, 2004, p. 95).

In sum, CES gives an opportunity to I-O psychology to discuss values openly and explicitly. What is a researcher’s position regarding CES? Does a practitioner believe that CES is a necessary evil, or something that I-O psychology should support and encourage? Based on our earlier discussion, should CES be embedded or peripheral? More broadly, CES can help the field of I-O psychology be more open about values and belief systems in other areas such as diversity (e.g., what is the value of diversity for an organization, its stakeholders, and society?) and performance management (e.g., is it acceptable that pay-for-performance systems lead to large differences in pay across employees?). Given the nature of I-O psychology and SIOP’s value-laden mission statement, an open and explicit discussion about values can be highly beneficial for the field.

**CES CAN HELP I-O PSYCHOLOGY CONSIDER PEOPLE AT WORK IN TERMS OF SUSTAINABLE LONG-TERM INVESTMENTS AND PARTNERSHIPS**

As noted earlier, a long-standing concern in the field is that I-O psychology researchers’ and practitioners’ interests and values may be subverted to those of management, thereby turning I-O psychology into a mere servant of those in positions of power (Baritz, 1960). To address this concern, CES can help I-O psychology think about organizational members in terms of long-term investments and partnerships. Consistent with SIOP’s mission, I-O psychology researchers and practitioners can work
towards the dual goal of enhancing individual well-being and organizational performance.

A highly influential theoretical model in management, and particularly strategic management, is the resource-based view (RBV) of the firm (Barney, Ketchen, & Wright, 2011). In a nutshell, the perspective is that firms that are able to acquire valuable resources that are neither perfectly imitable nor substitutable without great effort are likely to gain a competitive advantage. Human resources is an important component of RBV, which is consistent with a view held in the field of I-O psychology that people are a critical asset (Cascio & Aguinis, 2011).

Consider the perspective that CES can contribute to I-O psychology regarding the view of people as a source of a firm’s competitive advantage. First, the “acquisition” of people should consider a future long-term and sustainable employee-employer relationship. Operationally speaking, this means that personnel selection procedures should focus not only on predicting individual job performance, which is the current focus of I-O psychology, but also a sustainable employee-employer relationship over time. For example, what will be the growth opportunities for a job applicant should she join the organization? What will be the possible career paths for the job applicant? Will there be leadership opportunities? What will be the opportunities to expand into other types of responsibilities? CES also allows for more overt integration of values into the entire human resource development process. CES has been found to signal to potential employees that an organization has deeper values than simply short-term profit maximization (Turban & Greening, 1997). In turn, such values have given companies a competitive advantage in recruiting. Moreover, embedding CES in the organization cannot be done without a shift of the organizational culture to one that embraces values of CES (e.g., caring for well-being of stakeholders and environment). As a result, succession planning would need to expand to consider the whole person. Currently, there is an overemphasis on pay and promotion. As Wrzesniewski (2003) puts forward in her model, employees have three major needs that should be met: job related (e.g., pay, job security), career related (e.g., pay equity, promotion, ability to apply skills to a job, feeling useful), and calling oriented (e.g., doing something to make the world a better place). It is the latter calling orientation that is often overlooked in I-O psychology research and practice.

Second, based on CES principles, training and development interventions should also be implemented within a broader perspective of
long-term and sustainable employee-employer relationships. The traditional approach to training and development is to consider skills that are required for the current position (Aguinis & Kraiger, 2009). A consideration of sustainability means that an important component of training and development are the skills that will be needed for positions in the future.

Third, adopting a CES perspective suggests that performance management systems should also focus on a long-term and sustainable employee-employer relationship (Aguinis, 2013). The typical performance management approach in I-O psychology emphasizes performance appraisal—the measurement of job performance. Moreover, performance appraisal emphasizes past performance (Aguinis, Joo, & Gottfredson, 2011). In contrast, CES can help I-O psychology frame performance management such that it “takes into account both past and future performance. Personal developmental plans specify courses of action to be taken to improve performance. Achieving the goals stated in the developmental plan allows employees to keep abreast of changes in their field or profession” (Aguinis et al., p. 505). In addition, performance appraisal often emphasizes the successful implementation of tasks based on a job description that usually does not include macro-level issues. CES allows for an expansion of performance appraisal to also include contributions to broader organizational goals.

Finally, the view of people as resources is also reflected in the literature on the psychological contract, which refers to an unwritten agreement in which the employee and employer develop expectations about their mutual relationship (Rousseau, 1995). Downsizing, mergers, acquisitions, and other inter-firm transactions have led to a decrease in satisfaction, commitment, intentions to stay, and perceptions of an organization’s trustworthiness, honesty, and concern for its employees (e.g., Osterman, 2009). CES can help I-O psychology think about long-term and sustainable employee-employer relationships (Becker, this book). Just as CES has been found to have a positive signaling effect to external stakeholders resulting in increased value-based congruence (Sen & Bhattacharya, 2001) and trust (Vlachos, Tsamakos, Vrechopoulos, & Avramidis, 2009), CES can have a signaling effect on internal stakeholders—employees. Firm involvement in CES can signal that the organization cares about more than just short-term profit maximization at all costs, that it cares about the well-being of stakeholders. As a result, employees might have more trust and faith in the firm, thus strengthening the psychological contract and reinforcing a long-term employee-employer relationship.
CES CAN HELP I-O PSYCHOLOGY REACH OUT TO OTHER FIELDS OF INQUIRY AND RE-THINK TRADITIONAL AREAS OF RESEARCH AND PRACTICE

The content analysis of the I-O psychology literature conducted by Cascio and Aguinis (2008) revealed that research in the field has remained fairly stable in terms of the relative attention devoted to various topics and research domains. CES can help I-O psychology research and practice reach out to other fields of inquiry such as engineering (Campbell & Campbell, this book), information and communication technology (Behrend & Foster Thompson, this book), and environmental studies (De Young, this book). Although research domains closer to engineering including human factors and ergonomics were popular early on, studies addressing these issues are now absent from *JAP* and *PPsych*.

In addition to reaching out to other fields, CES can help I-O psychology re-think traditional I-O psychology research domains such as job analysis and job design. Given trends toward a green economy, the nature of many occupations is changing. CES can help I-O psychology keep up the pace regarding these changes in the world of work (Dierdorff, Norton, Gregory, Rivkin, & Lewis, this book). In order to design work that leads to both high motivation and job satisfaction, I-O psychology researchers have explored the impact of characteristics such as skill variety, task identity, task significance, and autonomy (Humphrey, Nahrgang, & Morgeson, 2007). Although such an approach has led to great success “because the motivational approach is widely accepted, it appears that many in the fields of I-O psychology and management concluded it was a ‘case closed’ with respect to work design” (Humphrey et al., 2007, p. 1332). As a result, the literature on work design has remained focused on a narrow set of characteristics (Humphrey et al., 2007). CES provides I-O psychology with the opportunity to explore how work can be designed in a way that goes beyond skills, knowledge, and attitudes and taps into meaningfulness, deeply held values (e.g., caring for others), and purpose (e.g., feeling of contributing to a greater purpose). Employees are increasingly seeking to find greater fulfillment at work that goes beyond pay satisfaction and career advancement (Wrzesniewski, Dutton, & Debebe, 2003) and CES has become an avenue for finding meaning at work by addressing issues about which many people are truly passionate.
CONCLUSIONS

We began our chapter by asking the question of not only what I-O psychology can do for CES, but what CES can do for I-O psychology. Overall, CES can help I-O psychology address two important gaps: the science-practice gap and the micro-macro gap. First, CES can help I-O psychology researchers conduct studies that address issues of concern to society. Second, CES can help I-O psychology researchers and practitioners conceptualize individual behavior (micro-level variables) within the broader organizational and societal contexts (macro-level variables).

In our chapter, we made the points that CES can help I-O psychology bridge the science-practice and micro-macro gaps by focusing on several specific issues and domains. First, CES can help I-O psychology consider the role of context and "go macro." A conceptualization of CES as embedded, as opposed to peripheral, can guide I-O psychology research and practice towards the inclusion of higher level variables including the organizational and societal levels of analysis. Second, CES can help I-O psychology be more open and explicit about values. At its core, CES is about an explicit statement that sustainability is good and I-O psychology can benefit from a more explicit discussion of values and belief systems, which influence decision making whether individuals realize it or not. Third, CES can help I-O psychology consider people at work in terms of long-term investments and partnerships. Although I-O psychology does consider people to be a key organizational asset, the field could benefit from re-thinking employee-employer relationships on a more long-term and sustainable basis. Finally, CES can help I-O psychology reach out to other fields of inquiry as well as re-think traditional areas of research and practice. CES addresses issues that go beyond any specific field of study and, thus, can help I-O psychology build productive bridges with other disciplines such as engineering.

In closing, our chapter points to only a few specific I-O psychology domains and issues to which CES can make contributions. In addition to the points we addressed in our chapter, CES can also help I-O psychology become more global (Reichman, Berry, Cruse, & Lytle, this book) and make important contributions to the measurement of CES initiatives and their impact (Strasser, this book). We hope our chapter will serve as a catalyst in terms of future research and practice to establish further synergies between CES and I-O psychology.
REFERENCES


