Title: Clarifying the Epistemology of Corporate Sustainability

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Abstract

Business research is placing increasing focus on the relationship between the natural environment and the political concept of sustainable development. Within this nexus, one area, labelled ‘Corporate Sustainability’, emphasizes the interactions between economic, environmental and social values. The need to consider multiple values has contributed to a blur in the conceptual landscape. This is partly due to the fact that authors often address epistemological challenges on an implicit level. Moreover, hidden ideologies, e.g. the profit maximization paradigm, can explain the conceptual obscurity.

The contribution of this article is twofold. Firstly, a conceptual framework is developed based on the dichotomy of positivism and constructivism. A relation is established between these epistemological positions and the analytic treatment of environmental and social values. The framework can be applied to increase transparency on epistemological challenges and thereby strengthening construct validity in the field. Secondly, an analysis of the most influential literature from the last 50 years shows that there is a trend of clustering theoretical positions and value constructs without any critical awareness of their philosophical assumptions. The authors hope that acknowledgement of a multi-paradigmatic approach can help to clarify the epistemology of the research area by establishing pluralism as an explicit position.

Key words: Construct Validity; Corporate Sustainability; Epistemology; Ideology; Pluralism; Value Constructs
1. Introduction

An ongoing debate in business research challenges the traditional view of economics, based on a linear model of resource consumption, with the circular system thinking of ecology (Spangenberg, 2015). Furthermore, the political concept of sustainable development represents increasing societal expectations for business conduct (Baumgartner and Ebner, 2010), and the United Nation’s new Sustainable Development Goals (SDGs) are planned to act as frame conditions for the global economy in the years to come (Griggs et al., 2013).

A specific stream of literature, called ‘Corporate Sustainability’ (CS), is especially interesting in the debate between traditional economics and a systemic ecological perspective since it deals directly with the role of business, i.e. economic value creation, when it comes to ecological and social concerns. This calls for a multi-paradigmatic perspective (Bansal and Hoffman, 2012, p. 19), which poses epistemological challenges related to how to address values and ideologies (Söderbaum, 1999). The seminal work by Gladwin et al. (1995) assert that traditional business research suffers from an ‘epistemological crisis’ because the natural world is excluded in the study of human organizations. When investigating contemporary debates, several scholars point to similar fundamental dilemmas when it comes to the level of analysis (Hahn et al., 2015), along with the choice of value constructs (Van der Byl and Slawinski, 2015) in the area of CS.

On one hand, authors such as Whiteman et al. (2013) and Costanza et al. (1997) stress that the analytical premises of CS are given by environmental science, which assumes that reality is objective. On the other hand, researchers must consider inter-subjective processes such as human decision-making, and thus acknowledge factors related to values (Hemingway and Maclagan, 2004) and power (Mitchell et al., 1997) in the generation of knowledge. Because of this dilemma, and since values are often related to ideologies, this article seeks to investigate epistemological
challenges in CS by applying the positions of positivism and constructivism found in the philosophy of science (Robson, 2011).

This article engages in the ongoing debate in Ecological Economics regarding the epistemology of ‘sustainability economics’ (see Söderbaum, 2015, Remig, 2016). Emphasis is placed on CS and the role of social and environmental value constructs. The chosen approach aligns with, for example, Dembek et al. (2015), who explains why research areas addressing business and its relationship to societal values need to clarify epistemological assumptions. The research topic is operationalized through two specific questions:

1) **How can the epistemology of CS be analyzed?**

2) **What are the epistemological trends of the most influential literature in CS?**

Question 1 is approached in this article through a conceptual analysis grounded in two distinct positions within epistemology, i.e. positivism and constructivism. A framework is developed by evaluating the relation between epistemological positions and the value constructs found in CS.

Question 2 is answered through an analysis based on the framework. The main finding is that the most influential literature from the last 50 years contains implicit clustering in terms of theoretical value constructs. Finally, the article discusses resulting epistemological challenges. A remedy is proposed through a pluralistic epistemology, which asserts the role of value-based discourses in the field of economics (Söderbaum, 2015).

The following section introduces the concept of CS by explaining the historical background, along with recent trends in the literature. Moreover, the first research question is approached through a

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1 It is symptomatic that business literature does not distinguish between the two positions ‘positivism’ and ‘post-positivism’. We have chosen to use the term positivism in this article, since it is commonly reflected in the literature even if some articles comprise post-positivist aspects. However, we discuss differences between the positions in the philosophical analysis in section 2.2.
philosophical analysis. In section 3, the second research question results in an analysis of top-cited
literature in CS. Section 4 discusses epistemological challenges by synthesizing the contributions of
the two previous sections. Finally, section 5 presents concluding reflections along with future
implications for researchers and practitioners in the field of CS.

2. Philosophical anchoring of corporate sustainability

This section provides an overview of CS, along with a historical account of its central concepts. Such
exercise elucidates why and how the research area has become anchored in fundamentally
different values, i.e. environmental, social and economic concerns. Further, a philosophical analysis
is conducted in order to demonstrate how underlying tensions in CS are connected to
epistemological aspects. This results in a conceptual framework that can be used to analyze the
epistemology of knowledge contributions in the area of CS.

2.1. Conceptual background

Drawing on the historical account by Bansal and Hoffman (2012), it is clear that CS as a research
area has evolved since the 1960s through a series of major changes in values, beliefs and norms. A
relevant example is how ecological economics has emerged as an alternative position to neo-
classical economics. CS can be seen as a new paradigm – the practice and motive that define a
scientific discipline (Kuhn, 1970).

Historically, knowledge development has been linked to core theoretical concepts in business
research – Regulatory Compliance, Strategic Environmentalism and (Corporate) Sustainability. In the
1960s and 1970s, emphasis was placed on regulation, and new governmental agencies were formed
in response, forcing industry to focus on legal compliance and technical aspects. Most scholars
acknowledge Rachel Carson’s 1962 publication of Silent Spring as an important starting point for
such regulatory focus. The book’s main assertion is that chemicals adversely affect the environment and society (Carson, 2002). In the next phase of scientific development, during the 1980s and 1990s, environmental issues were elevated to a strategic concern for business through principles such as pollution prevention and product stewardship. Stuart L. Hart’s ‘Natural-resource-based view’ (NRBV) was an important contribution to strategic management literature, and emphasizes how firms can enhance their competitive position while simultaneously securing ecological values (Hart, 1995). The contemporary debate is centered on the concept of sustainability, which, in a business context, reflects upon how firms can contribute to development that recognizes the needs of future generations by ensuring social standards and safeguarding the natural environment. State-of-the-art literature conceptualizes this as ‘corporate sustainability’ (CS) (Baumgartner and Ebner, 2010, Lozano et al., 2014). It should be noted that the political underpinnings CS originate in the United Nations, and especially in the publication Our Common Future (Brundtland, 1987).

An important conceptual grounding for CS can be found in system theory, the interpretation of sustainability as the ability of the human system to adapt to the ecological system (Holling et al., 2002). The system perspective has received increasing attention in the sustainability debate because it addresses the complexity present when dealing with different underlying values and sub systems. Furthermore, several authors argue that the solution to sustainability is to adopt a holistic view, in order to analyze the qualities that emerge from the interactions within the whole, instead of breaking the system down into parts. Griggs et al. (2013) have received significant attention for this way of thinking, and suggest a new paradigm where Earth’s life-support system is the basis for all human activity. This aligns with the logic of Holling et al. (2002), which emphasizes the embeddedness of human systems in the slower-changing ecological system. Such paradigm
represents a fundamental understanding of the human and environmental systems at hand, providing a useful theoretical context.

The macro perspective of Griggs et al. (2013), however, is not directly applicable to change processes at the organizational level, which are the core focus of CS. The model provided by Hahn et al. (2015) is therefore appropriate because it simultaneously takes into account different levels of analysis, namely the individual, organizational and systemic (Figure 1). The purpose of the model is to provide scholars and decision makers a theoretical lens to analyze the underlying tensions related to change for sustainability at the business level. The model illustrates a dynamic aspect by including the temporal dimension of the context in which change takes place. For example, the temporal dimension highlights how short-term financial concerns can be a barrier to the long-term orientation of social and environmental concerns because they are perceived as having more value. Another example can be conflict between the individual motivations of employees and the company’s organizational goals, which illustrates the need for different levels of analysis (i.e. individual, organizational and systemic).

<FIGURE 1 HERE>

The model can be used to summarize the basic concepts in CS. First, the dimensions of change, i.e. economic, social and environmental values, are linked strongly to differing societal interests. Second, the level of change reflects the systemic nature of sustainability, and the intersection between the ecological, economic and social areas. Finally, the context has fundamental implications. One aspect reflects temporal aspects where short-term profit orientation is a barrier to long-term investment, in environmental technology for example. The second aspect reveals spatial elements such as how companies divide their activities between developed and under-developed regions in the world with different social standards and environmental technologies.
To summarize, CS is an area that deals with multiple perspectives and knowledge disciplines, something which generates latent tensions in change processes both at organizational and systemic levels.

The topic of tensions in CS, and particularly the inter-relations between social, environmental and economic values, can be seen in relation to two distinct positions in sustainability science. According to proponents of ‘strong sustainability,’ there are fundamental differences between the three constructs. This rests on the premise that natural capital represents a unique contribution to societal welfare, which cannot be substituted by human or financial capital (Ekins et al., 2003). Moreover, natural capital cannot be understood purely through quantitative techniques since there are qualitative differences between ecosystem services and their influence on social systems (p. 176). ‘Weak sustainability,’ on the other hand, treats the three forms interchangeably with the assumption that the aggregated amount of capital is to be allocated in an optimal manner. As an example, CO2 emissions to the atmosphere are not a damage to human welfare as long as other forms of capital are created, e.g. machineries and roads (Pelenc et al., 2015). In other words, this position makes it possible to conduct trade-offs between social, environmental and social values.

On the whole, there are different philosophical issues to consider when analyzing the conceptual grounding in CS. Hahn et al. (2015) have made an important contribution here because their model indicates how CS draws on different disciplines and underlying value constructs. Overall, the model supports discourses aimed at fundamental epistemological challenges, which are illustrated in the following section.

2.2. Philosophical analysis

A field’s philosophical anchoring is typically determined by assumptions within ontology, the philosophic study of reality, and epistemology, the philosophic study of knowledge. The classic
philosophic dichotomy between positivism/post-positivism⁡ and constructivism (Robson, 2011, Cunliffe, 2010), is useful for our purpose. A premise for this usefulness is that theoretical concepts and empirical observations are central parts of the positivism/post-positivism vs constructivism scholarly debate.

Main features of positivism are that knowledge is based on experience, research means gathering evidence about reality and that any ‘transcendent’ knowledge claims are refuted (‘Positivism’, Encyclopaedia, 2016). Ontologically, positivism sees reality as an objective realm, independent from human mind, but accessible through, for example, research. Epistemologically, access to reality is achieved by observing and collecting data. Research reflects an objective nature with the goal to explain, predict and control phenomena under inquiry (Guba and Lincoln, 1994), and to verify theories. Critiques of positivism state, however, that there is no guarantee to get a true picture of an objective world since all collected data are necessarily incomplete (Popper, 2005). Post-positivist Popper thus introduced the ‘falsification principle’ claiming among others that data that to refute a hypothesis is far more decisive than data that support it. Post-positivists (see also ‘critical realism’, Alvesson and Sköldberg, 2009) acknowledge reality is not understandable with absolute certainty, however, research and experiments make it possible to approach truth (Guba and Lincoln, 1994, Willis and Jost, 2007). An important difference for this article is also the post-positivist acknowledgement that collected data are not neutral (as positivists believe), but to some degree influenced by the researcher’s decisions and values.

Positivism/Post-Positivism is linked to the elements in Figure 1. On the systemic level and in the environmental dimension, knowledge is based on the assumption that a natural world exists, and that reasoning can be justified with the help of empirical observations and/or experimental testing.

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⁡ We have chosen to use the term ‘positivism’ in this article except in section 2.2 where we also discuss ‘post-positivism’.
This is for example visible in methods such as ‘Material Flow Analysis’ (MFA), which assesses environmental impacts of materials in a system and predicts changes with help of algorithms - a combination of empirical data collection and mathematics. However, knowledge about factual circumstances/reality is here connected with researchers’ decisions and values, and thus a post-positivist position seems appropriate for the systemic level/ environmental dimension. In a MFA, this means that sources of material input in the system for example from production facilities are based on the researcher’s selection. Missing knowledge, missing data or the ignorance of a source can result in a wrong prognosis, besides the fact that data collection can be challenging since actors may be reluctant to reveal correct figures. Also one has to consider that temporal and spatial aspects are not universal, new knowledge will result in revised prognosis and the results might be limited to a certain geographic area. According to Post-positivism these uncertainties can only be mitigated by constant testing and application of scientific methods and revision of hypotheses.

Focusing entirely on interpretations and values, constructivism claims that knowledge is always relative and context dependent. Moreover, the individual values of the researcher and participants become an integral part of knowledge development via hermeneutic interpretation (Høiseth et al., 2014). Consequently, constructivist-based reasoning relies on the interpretation of qualitative data in order to explore and explain how human actors attach meaning to phenomenon and objects. Constructivists perceive reality as mental constructions, socially and experientially based, local and specific in nature, although often shared among many individuals. ‘Truth’ can never be claimed and even if there be an external world, it is not possible to approach it. Ontologically, constructivism can be described as relativism, epistemologically as ‘transactional and subjectivist’, its methodologies being interpretivist and hermeneutical (Guba and Lincoln, 1994).
Related to Figure 1 one can connect constructivism from an epistemological, as well as ontological, perspective with the **individual level** and the **social dimension**. Reality is socially constructed, based on (inter-)subjective values and norms, experienced subjectively and decisions are ‘negotiated’ through transactions. Intersubjective values are for example visible in principles of social sustainability such as to achieve well-being for those living and their descendants (Chiu, 2003).

Rather than referring to an objective necessity, minding future generations’ well-being is based on a (contemporary) value of care, which is individually experienced (‘my children should have a good life as well’) and up for intersubjective debate. In contrast to positivism and to a certain degree also to post-positivism, constructivism is not considering any objectivized notions of time and space. On the contrary, knowledge generation is per se contextual i.e. related to certain historical and cultural place-bound circumstances. **Temporal** and **spatial** dependencies are thus not seen as uncertainties, but as conditions for analysis.

Finally, the **organizational level** and in the **economic dimension** in Figure 1 will most frequently have elements of both constructivism and positivism/post positivism, which appear to be interdependent. For example, dealing with the allocation of natural resources in a decision-making context, or relating to a company’s internal negotiations among individuals on how to prioritize time and resources, includes positivist and constructionist elements. A positivist element relates here to information and data collection on infrastructure and technology, and to underlying **temporal** conditions, such as estimated production- and distribution time. **Spatial** aspects that vary in different countries would be local resource availability and access, and infrastructure conditions such as taxes and salaries. A constructivist element is reflected in companies’, employees’ and societal values, which are grounded on (inter-)subjective interpretations. This relates to issues such
as when and where to work, mobility and productivity, and favorable local settings for production facilities.

<FIGURE 2 HERE>

The philosophical analysis has considered all the dimensions (economic, social and environmental), levels (individual, organizational and systemic) along with contextual aspects (spatial and temporal) of Figure 1. Moreover, we have argued relations with epistemological positions found in constructivism and positivism. Figure 2 shows how an analytical framework can be developed by applying this logic. The framework emphasizes the three underlying value constructs and how they are premised upon the set of philosophical assumptions explained previously. As a result, one can identify a fundamental epistemological difference between the environmental and social dimensions because the former assumes objectivity, while the latter implies a relative approach and context-dependency of knowledge.

Figure 2 represents a framework for analyzing the epistemology of CS, i.e. the first research question of this article. An application is presented in the next section, and this process aims to answer the second research question along with facilitating critical discussion on the philosophic underpinnings of CS.

3. Analyzing the most influential literature in corporate sustainability

It is appropriate to adopt a broad scope when conducting analysis in the field of CS because the theoretical foundation draws on different perspectives and disciplines (as in e.g. Hahn et al., 2015). Consequently, this article analyzes the literature without further specifying thematic boundaries. Relevance, in terms of scholarly citations, was selected as the main criteria when sampling the literature.
An analysis of the most-influential literature in the field, based on the framework developed in the previous section, was selected as the main method. Hoffman (2011) conducts a review of most influential articles in CS, and is one of the main authors of the Oxford Handbook of Business and the Natural Environment (Bansal and Hoffman, 2012). His review is based on the 874 articles covered in the handbook. Hoffman’s list ranks the articles based on normalized citations in Google Scholar, which take into account the fact that older articles will gather more citations than recent ones. The top 20 articles on Hoffman’s list are analyzed in this article.

An important aspect is the criteria applied in the analysis. They were created through the application of Figure 2, and the value constructs linked to the social, environmental and economic dimensions. The process of analysis was to investigate how these constructs were applied within the individual articles on the list. The logic of this approach is grounded in the concept of ‘construct validity’ as means of scientific quality. This criterion concerns “(...) how well information about the constructs in the theory being built are measured in the research” (Healy and Perry, 2000, p. 124).

For example, when scholars in CS applies the construct of ‘corporate social performance’, construct validity implies that the information at hand must represent something ‘social’. The remaining part of this section presents the results of the analysis and provides examples of the classification process.

Table 1 presents the 20 article sample of the most-influential literature in the field of CS. The literature is classified based on the usage of underlying values (social, environmental and economic), which varies between single and multiple constructs. Examples are provided in the following paragraphs on the different combinations. Moreover, the analysis reveals a multitude of approaches when it comes to the explicit application of the three value constructs.
Articles are grouped into three main clusters. The one with the fewest articles concerns an explicit focus on the economic and environmental dimensions. Costanza et al. (1997) adopts a systems perspective on how natural ecosystem services can be valued in terms of monetary constructs, as shown by the following statement: “We have estimated the current economic value of 17 ecosystem services for 16 biomes, based on published studies and a few original calculations” (p. 253). Porter and Van der Linde (1995) use a qualitative approach and focus on the effect of environmental regulation on the competitiveness of business organizations. ‘Social benefits’ are mentioned as a topic (p. 98), but the social value construct is treated implicitly as an economic variable.

The second largest cluster of articles concerns the constructs of social and economic values. The general trend among the seven articles is that the environment is regarded as a social value. This is typical for quantitative-oriented articles that focus on the concept of ‘performance’ (e.g. Waddock and Graves, 1997, Wood, 1991), where relationships between social and economic performance are analyzed. An exemption is Mitchell et al. (1997), who deal with qualitative negotiation processes between social actors. The environmental dimension is indirectly regarded as a social stakeholder, as illustrated by the following statement: “Persons, groups, neighborhoods, organizations, institutions, societies, and even the natural environment are generally thought to qualify as actual or potential stakeholders.” (p. 855). Moreover, the economic dimension in this cluster is qualitatively represented through emphasis on management strategies.

The largest article cluster addresses all three value constructs. The meta-analysis by Orlitzky et al. (2003) is a good example because it defines social, environmental and economic variables explicitly. Moreover, it clarifies the inter-relations between social and environmental variables in the chapter on methodology (p. 410). The overall construct includes both environmental and social values, and
is called ‘corporate social performance’ (CSP). In the quantitative analysis, however, statistical results are calculated through a breakdown of social and environmental dimensions. This variable is discussed in relation to ‘corporate financial performance’ (CFP). It should be noted that several of the other articles (e.g. Margolis and Walsh, 2003, Matten and Moon, 2008) apply a qualitative approach within which they explicitly state that the social dimension is interpreted to include environmental values.

The analysis clarifies how inter-linkages between value constructs are treated in the literature. Some authors explicate, both quantitatively and qualitatively, the social, environmental and economic dimensions as distinct elements. Others make an implicit clustering, for example when the natural environment is regarded as a social stakeholder. In general, there is a tendency to use the constructs of social and environmental interchangeably, and especially to assume that the social dimension also includes environmental concerns. The next section aims to discuss the epistemological implications of these methodological trends.

4. Discussion

Transparency in terms of underlying philosophical assumptions is necessary to uncover hidden values and to secure scientific development in a field in general (Alvesson and Sköldberg, 2009). Banerjee (2012) argues, for example, that knowledge development in the area of CS lacks a critical reflection because the basic assumption of the profit maximization paradigm remains unchallenged. This is supported by Hahn and Figge (2011), who call for a redefinition of corporate profitability that takes into account social and environmental capital. In general, publications are not often explicitly aware of the origin of the epistemological approaches chosen, and units of analysis are tacitly presumed.
The main finding from the analysis of literature is that there seems to exist a clustering of value constructs, each representing fundamentally different epistemological assumptions. Indeed, there are several examples from the top-cited literature on how social and environmental dimensions are combined as a unit of analysis. Remembering the research questions of this article, it is important to discuss the epistemological implications of this observation. Moreover, the framework depicted in Figure 2 can be applied in order to discuss the philosophical anchoring of CS. There are epistemological challenges involved when social and environmental values are combined in scientific analysis because they relate to the different paradigms of constructivism and positivism.

There is a general trend in the literature, namely that the construct based on the social dimension is typically defined, or interpreted, as including the environmental dimension. This implies two fundamental challenges. First, positivist-oriented articles typically treat social and environmental values as a joint construct called CSP. Referring to the logic in Figure 2, there is an epistemological challenge when social values are treated as objects. For example, who defines social values? Strong arguments are made that social concerns must be understood through a context-dependent process of interpretation, along with negotiations between actors. Second, constructivist-oriented articles tend to interpret the environmental dimension as a social stakeholder, for example through governmental agencies. This is also problematic because the main-stream epistemology in natural science assumes objectivity, meaning that the social context should not influence scientific analysis and understanding. This implies that ideologies and hidden values can influence how environmental concerns, for example CO2 emissions, are treated in decision-making processes. On the whole, the combination of social and environmental values in a single construct implies a fundamental epistemological challenge.
An ongoing debate in Ecological Economics can be related to the insights of this article. Remig (2015) critically discusses the emerging contributions centered on the topic of ‘sustainability economics.’ The author argues the fuzziness and unnecessary complexity of the concept since there is a tendency to cluster theoretical concepts without specifying boundary conditions and analytical criteria. As a response, Söderbaum (2015) warns against the notion of “mainstreaming” economics, and refuses the classic idea that a scientific area must belong to one defined paradigm since values and ideologies are an inherent part of the scientific discourse. This creates complexity, which he argues must be met through epistemological pluralism and a multi-paradigmatic approach. It should be noted, that Remig (2016) supports the pluralist position, but argues: “Yet, pluralism must not be confused with anything goes.” (p.2). His main argument concerns the need of a structured approach when dealing with multiple methodological approaches.

This article acknowledges a pluralist epistemology in sustainability science as advocated by both Remig and Söderbaum. Indeed, this position may remedy the fundamental challenge that exists in the area of CS. The classic dichotomy of positivism vs constructivism is useful to apply in order to explicate epistemological dilemmas, but this frame of reference seems unsuitable to advance the discussion. Resultantly, a structured approach towards pluralism that synthesizes insights from the classical paradigms may be a way further. This could increase construct validity when addressing social and environmental values in traditional business disciplines. One specific topic to investigate in this regard, is the role of social stakeholders when representing the value of ecosystem services. This creates a complex setting of negations, where both democratic principles and the inherent value of nature must be taken into account.

The ontological aspects of sustainability, the worldview behind the concept, are not the scope of this article. However, the analytical findings indicate that the most influential literature in CS
resonates strongly with the position of weak sustainability. This means that the three forms of
capital (human, natural and financial) are assumed to substitutable. Such an inference is supported
by the observation that social and environmental constructs are treated on a common scale, for
example through CSP, as explained earlier. An ontological position of strong sustainability would, in
contrast, have assumed that the inherent value of natural capital cannot be traded off with financial
or human capital. On this note, it seems safe to conclude that the core literature of CS represents
the mainstream ideology in economics, namely that financial value creation can be optimized on
the basis of input factors such as natural resources and human capabilities.

5. Conclusion and implications

The core elements of CS concern the social, economic and environmental dimensions (as seen in
Figure 1). The overall goal of this article is to increase the transparency of epistemological
challenges that arise when research is conducted within the inter-relationships between these three
distinct constructs. The means towards this goal has been to answer two distinct research questions
that have resulted in the following contributions. Firstly, a conceptual framework has been
developed in order to analyze the epistemological foundation of CS. Secondly, an application of the
framework shows that the most influential literature from the last 50 years adopts mixed and
contradictory positions in terms of epistemology. As a consequence, concepts and philosophical
worldviews are clustered without critical awareness of their implications, resulting in what we
name, ‘implicit pluralism.’

To remedy the situation, we assert a pluralistic position that makes explicit statements about
underlying value assumptions and their inter-relations, in order to facilitate critical reflection and
scientific development in the field. Further research can apply the groundwork laid in this article for
philosophical transparency related to epistemological and ontological aspects. More specifically,
research can be placed within the context of Hahn et al. (2015), whose model represents the holistic understanding of the interactions between systemic mechanisms anchored in the concept of sustainable development, and organizational decision-making rooted in inter-subjective values. We have focused on the triple value construct that represents the conceptual core of CS, but there are several avenues for further knowledge development. The dynamic and temporal element is relevant, and especially in the context of micro-macro interactions between the systemic and the organizational level. The ongoing implementation of the UN SDGs, which will last until 2030, is an interesting process for scholars to investigate. A fundamental topic is the nature of systemic change prescribed by the goals, and the philosophical debate between organic and mechanistic worldviews (Ims et al., 2015). This touches upon the ontological dimension of philosophical analysis, which has not been scope of this article, but is indeed an area to explore further.

In addition to scholars, practitioners and decision makers can utilize the insights of this article in order to adopt the SDGs in their activities. Others have argued that the 17 SDGs are interrelated and rife with latent tensions (Nilsson et al., 2016), which makes it even more relevant to consider the framework’s underlying assumptions in terms of social, economic and environmental values. In this respect, we strongly warn against superficial adoption of the goals, along with the ‘cherry picking’ of a few without systemic consideration of all 17. A business organization, for example, must make an explicit decision on how to deal with the different topics of the SDGs, and specifically take a principal stance to manage the tensions and conflict that will occur in practical implementation. This is a natural task for company boards and other high-level governing bodies in organizations, and we hope our suggestions can facilitate value-oriented discussions that challenge taken-for-granted assumptions such as the ideology of profit maximization.
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**Figures and Table**

**Figure 1** The fundamentals of corporate sustainability (Hahn et al., 2015)

<table>
<thead>
<tr>
<th>Epistemology</th>
<th>Value constructs</th>
</tr>
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<td>Environmental X Economic X Social</td>
</tr>
<tr>
<td>Positivist</td>
<td>X Economic X Social</td>
</tr>
</tbody>
</table>

**Figure 2** A framework for analyzing the epistemology of corporate sustainability
Table 1 Analysis the top 20 literature in the area of corporate sustainability

<table>
<thead>
<tr>
<th>Nr³</th>
<th>Title</th>
<th>Author and year</th>
<th>Journal</th>
<th>Explicit value constructs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The value of the world’s ecosystem services and natural capital</td>
<td>Costanza et al. (1997)</td>
<td>Nature</td>
<td>Environmental Economic</td>
</tr>
<tr>
<td>2</td>
<td>Toward a theory of stakeholder identification and salience: Defining the principle of who and what really counts</td>
<td>Mitchell et al. (1997)</td>
<td>Academy of management review</td>
<td>Social Economic</td>
</tr>
<tr>
<td>3</td>
<td>A stakeholder framework for analyzing and evaluating corporate social performance</td>
<td>Clarkson (1995)</td>
<td>Academy of management review</td>
<td>Social Economic</td>
</tr>
<tr>
<td>4</td>
<td>Corporate social and financial performance: A meta-analysis</td>
<td>Orlitzky et al. (2003)</td>
<td>Organization studies</td>
<td>Social Environmental Economic</td>
</tr>
<tr>
<td>7</td>
<td>Misery loves companies: Rethinking social initiatives by business</td>
<td>Margolis and Walsh (2003)</td>
<td>Administrative science quarterly</td>
<td>Social Environmental Economic</td>
</tr>
<tr>
<td>8</td>
<td>Corporate social responsibility: A theory of the firm perspective</td>
<td>McWilliams and Siegel (2001)</td>
<td>Academy of management review</td>
<td>Social Economic</td>
</tr>
<tr>
<td>9</td>
<td>The social responsibility of business is to increase its profits</td>
<td>Friedman (1970/2007)</td>
<td>The New York Time Magazine</td>
<td>Social Economic</td>
</tr>
<tr>
<td>10</td>
<td>The corporate social performance-financial performance link</td>
<td>Waddock and Graves (1997)</td>
<td>Strategic management journal</td>
<td>Social Economic</td>
</tr>
</tbody>
</table>

³ The numerical ordering reflects ranking in terms of normalized citations in Google Scholar.
| 18 | A three dimensional model of corporate social performance | Carroll (1979) | Academy of Management Review | Social Economic |