

## An interpretative approach to sustainability in the logics of production and consumption from the narratives in the Mining Sector

## Uma abordagem interpretativista para a sustentabilidade a partir das narrativas no Setor de Mineração

Flavia Luzia Oliveira da Cunha Galindo\*, Barbara Maria Meneses Gomes Universidade Federal Rural do Rio de Janeiro (CPDA/UFRRJ), RJ, Brazil

#### ABSTRACT

Sustainability has been presented as a homogeneous concept that articulates and defines many values of the current society in the questions of production and consumption. In this article, we develop a sociology of marketing communication practices. Thus, sustainability as a homogeneous notion is discussed from two different world views disseminated by a mining company and one of its interest groups opposed to the mining activity, in dialogues that begin with the publication of (In) Annual Sustainability. Although sustainable practices are defined by global indicators in the business world that seek legitimacy, we observe how sustainability is a social construction permanently negotiated by individuals. As a result, sustainability is a recent concept and little elastic, which does not seem to include any business activity in its practiceal and / or symbolic framework.

**KEYWORDS:** Sustainability; Sociology of marketing; Mining Sector.

#### RESUMO

A sustentabilidade tem sido apresentada como um conceito homogêneo que articula e define muitos valores da sociedade atual nas questões de produção e consumo. Neste artigo, foi possível exercitar o desenvolvimento de uma sociologia das práticas de comunicação de marketing. Assim, a sustentabilidade como uma noção homogênea, é discutida a partir de duas diferentes visões de mundo, disseminadas por uma empresa de mineração e por um de seus grupos de interesse, contrários à atividade de mineração, em diálogos que se iniciam a partir da publicação de Relatórios de (In)Sustentabilidade anuais. Ainda que as práticas sustentáveis sejam definidas por indicadores globais no mundo empresarial que buscam a legitimação, pode-se observar como a sustentabilidade é uma construção social negociada de forma permanente pelos indivíduos. Como resultado, concluiu-se que a sustentabilidade é um conceito recente e pouco elástico, que parece não comportar toda e qualquer atividade empresarial em seu *framework* prático e/ou simbólico.

**PALAVRAS-CHAVE**: Sustentabilidade; Sociologia do marketing; Setor de Mineração.

Submission: June 27, 2017 Approval: August 25, 2017

#### \*Flavia Luzia Oliveira da Cunha Galindo

Doctorate degree in Social Sciences, Federal Rural University of Rio de Janeiro (CPDA/ UFRRJ). Adjunct professor at the DCA/ICSA/UFRRJ, vicecoordinator at the Professional Masters in Management and (MPGE/UFRRJ) Strategy and manager of the MPGE/UFRRJ and IFRJ covenant.

(CEP 23890-000 - Seropédica, RJ, Brazil).

E-mail: flaviagalindo@uol.com.br Address: Rodovia BR 465, Km 07, s/n - Professional Master in Management and Strategy (PPG Building) Rural Area, Seropédica -23890-000, RJ, Brazil.

#### **Barbara Maria Meneses Gomes**

Professional Master's Degree in Management and Strategy from the Federal Rural University of Rio de Janeiro (MPGE/UFRRJ). MBA in Project Management at FGV and International Executive MBA at Ohio State University. E-mail:

barbara.m.m.gomes@hotmail.com

# 1 INTRODUÇÃO

In this article is widespread concern about the sustainability of today's way of life, which sometimes chooses consumption as the great villain of humanity in the twenty-first century, the main cause of an unsustainable way of life that articulates new logics and social behaviors for a new way of living more aligned with the idea of sustainability (Ali & Huda, 2015). In the business literature, the movement for sustainability has represented new opportunities for action that can reduce costs and increase market share (Simons, Slob, Holswilder, & Tukker, 2001, Hart & Milstein, 2004, Hart, 2005, Prahalad, 2005; & Brugman, 2011). However, in a scenario of cultural variability resulting from several socio-structural contexts, it is observed that man is increasingly concerned with the environmental crisis and questions the modes of production and development that govern human life. And the notion of sustainability, which represents the best way out of perpetuity, is far from being a unanimously accepted concept. On the contrary, for some people, sustainability seems to be a sophistical concept, especially for scientists who have recently published studies that strengthen a new ethic and moral order for the production and consumption of goods, products and services. Science has been struggling to present evidence of environmental changes caused by man's action on Earth, a metaphor that would trigger the beginning of a new geological period called Anthropocene (Artaxo, 2014), which Latour (2014) understands as the best option for get out of the modernity project.

If there was a time when "fault" for an unequal and environmentally incorrect way of life rested alternately on the shoulders of consumers and large producing companies, the current thematic complexity per se incorporates various actors such as science, media, state, market and institutions and lead to an attempt to understand how the sustainability logics articulated in narratives that are not always homogeneous, interfere in the life of the common man.

#### **2 OBJECTIVE**

It is necessary to contextualize that, in addition to the sustainable (or not) practices of the business world, it is the result of a broad discussion in several spheres that result in a strong movement towards sustainability (World Commission on Environment and Development), 1991, United Nations (UN), 2000, United Nations Development Program (UNDP), 2010). From a macrossocial point of view, these forces result in the development and creation of laws and new regulations that try to protect the environment (Hart, 2005; Prahalad, 2005; Oppen & Brugman, 2011), but sometimes diffuse, the very notion of sustainability as a homogeneous concept and widely accepted socially. The relationship between business development and sustainability is a relatively new issue introduced in the 1980s, changing not only consumer behavior, but also the relationship between business and the environment, and the exploitation by industry, of natural capital (Park, 2008).

Fleeing from the dichotomy of guilt that hangs between industry and consumption, the discussion of a sustainable human life seems to call for a transformation in the way individuals deal with the everyday essential mineral resources that constitute the basic raw materials of a large number of goods and products (Moreira, 2003). Iron ore is the raw material for steel and 20% of its use is for housing construction, as well as employment in the Automotive Sector and in several Economic Sectors (Brazilian Mining Institute [IBRAM], 2012). These are expressive numbers that deserve to be analyzed for a question about this activity and its consequences. Above all, iron ore exploration, extraction and processing are associated with goods and products that bring comfort to man, but cause social and environmental impacts that can destroy fauna and flora, impacting local residents (IBRAM, 2012). That said, the mining activity is directly related to the notion of sustainability, and it is a productive activity in a constant state of alertness and suspicion, because not only depends strictly on nature but modifies it, following the historical course that incorporates, concretizes and symbolizes the natural environment to society (Sassen, 2003; Harvey, 2003).

Concerning the consumption of iron ore in human life, it is understood as axiomatic that it is not possible to change the current way of life and to remove iron in all its current uses in dwellings, automobiles or any other products of modern life. This condition aggravates and gives more relevance to the warning of Barreto (2001), which draws attention to the fact that iron ore is a nonrenewable resource, which makes it impossible to reconstitute the degraded areas, since the ore, once removed, will not return to the excavated space on earth. But it is not just the functional use of extracted ore. The symbolic strength of the visual impact of the explored areas that cause great psychological and symbolic repercussion in the population must also be considered (Barreto, 2001). These are the elaborations of intense debates in which various social sectors ask themselves if it is possible to build, operate and close a mining industry without provoking social, environmental and economic impact, leading to an intense discursive dispute involving companies and their stakeholders. Specifically in Brazil, the mining industry has a strong national presence and, due to its operational nature, demands the occupation of large territorial spaces for the exploitation of its products. With current technology, deposits can not be exploited without surface interference, causing imbalances in biomes and ecosystems and therefore having great potential to cause social, environmental and economic impacts, as observed with the environmental disaster in Mariana while this research was developed.

This background leads to the development of a sociology of marketing communication practices and to formulate, as a guiding research question, the ideologization of the concept of sustainability in the narrative disputes between the miners in Brazil who have to argue in favor of its operations and environmental interventions, and the groups that criticize its operations. They ask themselves how they are justified and how they present their worldview. According to Boltanski and Thévenot (1999), we can not look at social actors (in this case, companies) only as stakeholders, since the understanding of socioeconomic phenomena leads to a multiplicity of justifiable actions that are subordinated to the conceptual heterogeneity of according to the social group to which they belong and which are capable of articulating the underlying logic of the modes of production and consumption.

Accepting this theoretical-interpretative perspective, it will be accepted that, in the business and economic perspective of a country, the mining activity, with its possible problems and questions, provokes justifications since, practices and actions, do not always have correlation or are always explained by purely technical and / or rational analyzes.

Before this scenario, the objective of this article is to present the results of a preliminary investigation on the sustainability vision presented by the mining industry and the interest groups opposed to the mining activity, in order to problematize their similarities and / or differences. The object of study is the texts of the Annual Sustainability Report and the Annual Sustainability Report for the Mining Sector in the years 2014 and 2015. The analyzes lead to the conclusion that if the concept of sustainability is not sufficiently elastic to accept the activities of mining in its formulation by society, on the other hand, the Mining Sector legitimates the definition of sustainable mining practices from the disclosure of mitigating practices of environmental risk. This gap between what it represents to be sustainable or not feeds the distinctions and conflicts between expectation and reality of contemporary life.

## **3 FROM ANTHROPOCENTRISM TO ECOCENTRISM**

The anthropocentric vision emerged in the mid-eighteenth century by the Illuminist movement, which considered that man should emancipate himself through his knowledge. Above all, this knowledge must be useful to man in the circuit production and consumption (Ribeiro, 2007), and anthropocentrism has as its central idea the superiority of the human being, so that nature is valued from an instrumental point of view. It can, therefore, assume two perspectives: in the first, nature is seen as an economic resource; in the second, the importance of nature is related to the satisfaction of multiple human interests, not only the economic ones (Almeida, 2002, Campbell, 1983). For

some authors, the ethics deriving from Anthropocentrism is one of the main reasons for environmental degradation (Grun, 2006), since care with nature is always considered from man and for man aiming at the survival of civilization and not the biosphere (Junges, 2004).

What is at the heart of this debate is a system of values produced and reproduced by culture, which has been scrutinized from some changes that emerged at the end of the last century, when a new ethics in the person / planet relationship involving another paradigm was strengthened, the ecocentric one, in which the preservation of the natural environment must be practiced in function of itself and not of the man itself (Campos, 2008; Egri & Pinfield, 1998). In this new proposal, human welfare would be a function derived from the well-being of the Earth, and material growth would increase environmental and social costs beyond its benefits, so that growth would make humanity poorer. Therefore, the economy is seen as integrated, inseparable and completely contained in the environment, as a subsystem, whose growth is totally dependent on the ecosphere and its size (Rees, 2003).

Radicalizing the ethics of ecocentrism, we observe the emergence of the Anthropocene, a new theory that explains the environmental problems and that is based on the notions of the geological time of the Earth, more strongly in the evolution and the transformations of the planet. Through interdisciplinary scientific data, it is argued that man has modified the environment to such an extent that his own species is threatened by fundamental changes in the terrestrial system (Artaxo, 2014). In this way, the voices of the environmentalists seek greater legitimacy through scientific studies that predict serious climatic problems that impact the natural resources of the planet and their direct relation with the production of energy, consumer goods and even food and water. This is the end of the Holocene era, which began 11,700 years ago and the beginning of the Anthropocene Age, a term created by Paul Crutzen, Nobel Prize in Chemistry, in his studies of humanity as a destructive force capable of interfering and / or provoking changes in the atmosphere and properties of the planet (Artaxo, 2014; Martini, 2011).

They are arguments that qualify man as the impure, which contaminates the environment and the planet as a living, fragile and, above all, sacred entity that deserves to be protected (Gladwin, Kennelly, & Krause, 1995). Having presented the ethics of anthropocentrism and ecocentrism, as well as the most recent debate about the Anthropocene Age, the business field will be inserted into the theoretical reflections.

## 4 DISCUSSIONS ON SUSTAINABLE DEVELOPMENT IN THE BUSINESS CONTEXT

As already mentioned, the relationship between business development and sustainability is a relatively new issue introduced in the 1980s, changing the relationship between business and the environment. In this context, the notion of sustainability has been disseminated through the expression "sustainable development", which is conceptualized as "one that meets the needs of the present without compromising the ability of future generations to meet their own needs" (CMMAD, 1991, p. 46). The principles of this idea originate from the concept of ecodevelopment, which proposes the integration between development, the environment and communities, considering the limits of the renewal of natural resources (Sachs, 1993).

Sustainable organizations are usually defined as those that seek to become economically viable and competitive in the market, with the particular peculiarity of producing without harming the environment, contributing to the social development of the region and the country in which they operate (Almeida, 2002; Savitz, 2007). There is, therefore, a challenge for organizations that seek the adjective "sustainable" to bring together economic well-being, social equity and environmental protection from long-term actions. In other words, sustainable companies are those that integrate the economic, social and environmental dimensions for the construction of a new productive paradigm (Elkingtom, 1997; Daroit & Nascimento, 2004; Cajazeira, 2009; Varadarajan, 2014), in which they are pressed by the strong movement of sustainability (CMMAD, 1991, UN, 2000, UNDP, 2010) and are validated in a recurrent way by laws and regulations of manufacturing operations that govern the environment (Hart, 2005; Prahalad, 2005; Oppen & Brugman, 2011). In this sense, companies' adherence to the sustainable development model is a result of external pressures as a response to the criticisms and objections of government entities and organized civil society that held companies accountable for the processes of social and environmental degradation that affected the planet. Above all, adherence to sustainable development has become synonymous with modernity and business competitiveness, and can be a source of differentiation or qualification for the permanence in the market. For contemporary organizations, it is no longer possible to escape the idealized models of business activity, with values linked to sustainable development and respect for environmental policies that have been institutionalized to a greater or lesser degree in the various countries by the media, social movements, environmentalists and by governments (Barbieri, Vasconcelos I., Andreassi, & Vasconcelos, F., 2010).

The monitoring of sustainable management has been regulated by some instruments that facilitate and contribute to the insertion of sustainability in the business strategy, in order to guide the implementation and maintenance of management systems, programs and activities and to guarantee the transparency of the communication with the parties stakeholders and the compatibility between management systems (Leff, 2001; Barbieri, 2007; However, business discourses for sustainability arouse mistrust and sometimes harsh criticism, such as those of Leff (2001) by suggesting that such narratives have served interests that are not truly environmental. It can be seen that the concept of sustainable development is broad and vague, allowing differentiated and ideological appropriations by social segments of interest. It is a new way of understanding the Productive Sector, because it is not only what it gives to society in the form of goods, products and services, but how it does this delivery and at what cost. This leads to a reflection on sustainable development and its direct relationship with the Mining segment.

# 5 DIMENSIONS OF SUSTAINABLE DEVELOPMENT APPLIED TO THE MINING SEGMENT

In the mineral industry, the incorporation of management practices for sustainability aims to minimize the environmental impacts inherent to this productive activity. Sustainable development in the Mining Sector requires a commitment to continuous environmental and socioeconomic improvement in the exploration, operation and closure phases of activities (Hilson & Murck, 2000). It is a productive activity in constant alertness or suspicion, because it not only depends on nature, but also modifies it concretely and symbolically (Harvey, 2003). It is a sector under the yoke of international standards and, for Viana (2007), the adoption of an environmental policy is fundamental to be in line with international standards, in this case ISO 14001. This standard defines guidelines for the management system environmental, environmental quality assessment and certification, and criteria for evaluating the quality and effectiveness of company / environment relations.

In a study of sustainable development in Australia's mineral industry, Solomon, Katz and Lovel (2008) found that the rather broad and complex social question needs to go beyond the idea of "community relations" so that all social perspectives are integrated and considered. Not surprisingly, a model called the Sustainable Development Framework (SDF), developed in 2003 by the International Council on Mining and Metals (ICMM) (2010), is used to ensure the standardization of practices as a way of enforcing the policies established in this field. This is to endorse a public commitment by mining companies to the implementation and maintenance of ethical business practices and sound corporate governance systems. In addition, its principles also uphold fundamental human rights and culture while preserving the customs and values of officials and stakeholders. It is foreseen in SDF, rigorous implementation of risk management strategies based on valid data and well-founded science, with attention to health and safety, conservation of biodiversity and integrated approaches to land use planning. It is, therefore, a strategic decision to define the modus operandi of mining companies based on such sustainable premises as the only

possibility of dialogue with public opinion on environmental issues, as well as the groups involved as workers, investors and environmental groups (Barbieri, 2007).

For the occurrence of this dialogue that demands a continuous effort of the organizations to point to the society on the real adoption of guidelines of management for the sustainability, it is necessary to measure and to collect information on performances and social-environmental investments. The social-environmental report, corporate social report or sustainability report are documents that can be understood as means of communication for stakeholders that report on the main sustainability indicators, disseminating information on environmental and social economic impacts (Calixto, 2011).

Sustainable organizations are those that seek to be economically viable and competitive in the market, producing in a way that does not harm the environment and contributing to the social development of the region and the country in which they operate (Almeida, 2002). According to Savitz (2007, p.2), "sustainable enterprise is one that generates profit for shareholders, while protecting the environment and improving the lives of people with whom it interacts."

According to Fonseca (2010), sustainable development is "the company's commitment to contributing to sustainable economic development, working with its employees and their families, local communities and society in general to improve the quality of life."

For Sachs (1993) and Altvater (1995) sustainable development starts from a new perspective that is based on ethical presuppositions that demand two interrelated solidarities: the synchronic, with the generation to which one belongs; and the diachronic, with future generations. But in addition to these, a third solidarity, the space, is still necessary, since it is not tolerable for some regions or countries to gain quality of life and environmental conservation at the cost of the unsustainability of other social spaces, as is the case today, industrial backlog of developing countries is a precondition for moderating the serious environmental

Based on the concept of sustainable organization, the greatest challenge is to bring together economic well-being, social equity and protection of the environment from medium and long-term actions. The integration between the economic, social and environmental dimensions results in a new productive paradigm, under the perspective of sustainable development, emphasizing the sustainability of processes and products, enabling a better quality of life for men from their environment (Daroit & Nascimento 2004).

The company's social role focused on the economic function as a generator of profits, wages and taxes is no longer sufficient to guide business in the face of the new values required by society. The companies are competing to be seen as propitiators of continuity, connection, direction and long-term sustainable vision (Cajazeira, 2009; Kotler, Kartajaya, & Setiawan, 2010).

Today, sustainable development is a global challenge, because it is apparently incompatible with the unrestricted play of market forces, insensitive to social and environmental issues, by only seeing the profits. Therefore, some intervention and state planning is required, as well as the negotiated and contractual management of resources, in which the local populations receive some of the benefits of their exploitation (Barbieri, 2010).

It can be said that the adhesion of companies to the sustainable development movement was initially due to external pressures in response to the criticisms and objections of government entities and organized civil society that blamed companies for the processes of social and environmental degradation that hit the planet. In addition, adherence to sustainable development has become synonymous with business competitiveness, and can be a source of differentiation or qualification to continue in the market (Barbieri et al., 2010).

# 6 RESEARCH METHODOLOGY

In the interpretative approach (Hirschman, Scott, & Wells, 1998; Schwandt, 2000; Arnould & Thompson, 2005; Santana & Akel, 2007), the interaction of two social actors was chosen to carry out this study. On the one hand, Vale, a mining company that publishes an official sustainability

report and, on the other hand, a group that frankly opposes the company and contests it, called Affected by Vale. Qualitative research was adopted using exploratory research, that is, to provide greater familiarity with the problem (to explain it) in the reports published between 2014/2015, in order to counteract the sustainability narratives in different views of the world.

One of the social actors is therefore Vale, former Companhia Vale do Rio Doce (CVRD), created in June 1942 by former President Getulio Vargas. With over 70 years of operations, it is currently the third largest mining company in the world (Ribeiro, 2007). In addition to a Brazilian multinational mining company, Vale is considered one of the largest logistics operators in Brazil, with more than 10 thousand kilometers of rail network and its own port terminals. It produces iron ore, nickel, manganese, ferroalloy, copper, bauxite, potassium, kaolin, alumina and aluminum, and only its Brazilian operations are responsible for the consumption of 5% of all energy produced in the country. It is a public company, headquartered in Rio de Janeiro, with shares traded on the Stock Exchange (www.vale.com, 2014). In Brazil, its operations are carried out in 13 Brazilian states and in 2008 its market value was estimated at US \$ 196 billion by Consultoria Economática, making it the 12th largest company in the world.

The other social actor who calls himself Affected by Vale, refers to a collective formed by social movements, unions, organizations and communities impacted by the company's performance in several countries, which has maintained a blog since 2012, with the clear objective of doing counterpropaganda to mining practices they understand as "strategic philanthropy." For this collective, it is contradictory that the company (Vale) maintain social projects and seek to strengthen its identity with the Brazilian culture, when it faces several accusations for its social and environmental impacts.

The study faced two initial difficulties to be realized:

- Non-authorization of the mining company under study to conduct interviews with its respective collaborators on the subject;
- The fact that interviewing key leaders, who are critical to mineral extractive activities, could result in operational difficulties.

It is possible to say that the researcher in question works in a company in the segment under study, which could generate problems on the part of the interviewees. Above all, it is believed that it would not be possible to establish the much needed rapport for interviews.

Considering this scenario, the method selected in this research is considered to be the documentary, that is, it constitutes the examination of materials of diverse nature, which have not been analyzed or that can be reexamined in the search for new interpretations or complementary interpretations when unveiling a latent content that may be hidden in an apparent, symbolic and polysemous discourse (Godoy, 1995a).

The first perspective of the documentary analysis apprehends documents as the basis for the development of studies and research whose objectives come from the researcher's interest; can also be perceived as an investigation related to historical research, since it seeks the critical reconstruction of past data in order to obtain indications for future projections. In the next topic we will detail the data sources of this research.

Having identified these two narrative forces on sustainability, the research sought information on possible discursive sources of these antagonistic poles and it was observed the relevance that the Sustainability Reports established by the Global Reporting Initiative (GRI) have in the world, that longs for the homogenization of business practices in line with sustainable development. It is a standardization accepted in more than 60 countries that elects guidelines for sustainable development based on consensus among several stakeholders such as governments, companies, civil society, academics, economists and workers (GRI, 2006). What underlies the notion of the Sustainability Report is the dissemination of processes that modify the business mindset and its practices. Above all, it modifies the processes of evaluation of performance that give magnitude to

the future time and not only to the present time. Future time-space is what governs the very concept of sustainability, which defines what is acceptable or not about business impacts on the environment, such as human rights and climate change. By publicly declaring the effect of their actions on the reports, organizations seek a way to dialogue with society and assume the reliability of the information declared as correct and transparent so that there is due mediation in the public sphere of relations between companies and their publics.

Thus, the object of study is the documents that report the position of each of these actors on sustainability in the Mining Sector: Vale's Sustainability Report for 2014 and 2015, and a document that contrasts with Vale's Report called Report of Ineffectiveness.

With Vale Reports and its antagonist in hand, the authors went into immersion characterized by codification, labeling and structuring documents with 119 and 32 pages, respectively. Although foreseen, other sources of data have been cataloged, but not included in the analysis presented here, such as digital and printed files, such as leaflets, folders, posters, videos and news articles.

Taking the two reports as an object of study, it was sought to understand the narratives of the miners and activists from their shadow report, considering the presentation of the facts and their subjective description as the comprehensive dimension that would allow access to the meanings of sustainability. The phenomenological approach was used in this study since it is based on an event that manifests itself as it is (Vergara, 2011, 2012), in the composure before the world that surrounds it. The interpretative phenomenological analysis is the description of the lived experiences of several subjects about a concept or phenomenon, with a view to searching for the essential structure or the invariant elements of the phenomenon, that is, its central meaning (Creswell, 2007, 2014). In this sense, documentary research constitutes the examination of printed materials in the search for interpretations capable of unveiling a latent content that may be hidden in an apparent, symbolic and polysemic discourse (Godoy, 1995a, 1995b).

In this study, the phenomenological approach will be used, since it consists of a subjectivist method of scientific investigation (Burrell & Morgan, 1979), with the objective of understanding human life and its relations with productive organizations, based on the narratives of this mining and of groups opposed to this activity, this material being the phenomenon or, rather, the object of study (Creswell, 2007, Masini 1989, Ray 1994). It is the experience of the facts and their subjective description that will allow them to reach their nucleus, in the understanding dimension that will allow access to the categories related to the term "sustainability".

In this way, it will be presented the exploratory research carried out throughout the year 2015 that resulted in a closer approximation with the research object and, together with the theoretical reference, provided elements for the data analysis to be presented. In coding the documents, it was decided to consider the main themes of the document as primary analytical categories that, whether for or against the mining activity, were able to indicate the world views about sustainability, whether they were contradictory or not. In this sense, both documents referred to the themes "strategic vision", "people", "value chain" and "planet", which a critical look seems to point to the most relevant dimensions of the concept of sustainability of both the Mining Sector and interest groups dissatisfied with the sector.

# 7 MAIN RESULTS

The reference used to gauge these indicators was through the Global Reporting Initiative (GRI). It is composed of a globally recognized concepts, languages and metrics framework on sustainability and used by organizations of all sizes, sectors and localities (Mining and Metals Sector Supplement, 2010).

The Global Reporting Initiative (GRI) is a non-profit organization, founded in 1997 in the United States, that works for a sustainable global economy, providing guidance on sustainability reporting. Its headquarters are in Amsterdam, the Netherlands, with offices in Australia, Brazil, China, India and the United States (GRI, 2006).

The reading of the 151 pages of the reports was of great importance to organize their content in semistructures with the objective of relating and discussing the topical macros in which the discourses of the two social actors are based on: "Strategic Vision", "People", "Chain "Of Value" and "Planet."

They are therefore important categories and present in the two texts analyzed and enabled a comparison to better understand the confrontation of ideas and information, in what will be called, henceforth, as Narrative of the Mining to denominate the findings in Vale's Sustainability Report and, Contest Narrative, for the inferences in the Group's Sustainability Report Affected by Vale.

Figure 1 compares the native categories, that is, those formulated in the field by the social actors themselves discussed here, in their texts on sustainability, elected as object of study. Assuming the native category as analytical becomes a gateway to a better understanding of the practical world, accepting its historical sense for a social group, allowing its analysis from the theoretical framework already discussed.

In parallel with this in-depth analysis of the company's socioeconomic report and shadow report, a more careful and correlated analysis was carried out with the indicators used in the elaboration of this sustainability report in line with the organization's economic, environmental and social performance scopes (Triple Bottom line).

Category	Mining Narrative	Contest Narrative
Strategic Vision	<ul> <li>The technological improvement and the adoption of good governance practices are announced as fundamental commitments of the company.</li> <li>Incorporating sustainability into business is one of the company's most important strategic pillars to achieve vision.</li> </ul>	<ul> <li>The company uses governance tools (eg, Social Dialogue, Demand Management, Socioeconomic Studies) to measure social risk, co-opt and divide communities and policies.</li> <li>The company's transparency policy is selective. Even today, around 100 popular lawsuits with the purpose of nullifying the privatization process of the company are in court. The company's discourse hides its practice regarding compliance with the provisions of environmental protection legislation.</li> <li>The company was elected at the Public Eye Awards in 2012 as the world's worst company regarding environmental, social and labor issues.</li> </ul>
Workers	<ul> <li>The company claims to be committed to generating a positive legacy for the communities with its projects.</li> <li>To ensure zero loss, the company has invested continuously in people. Caring for people and one of the five strategic pillars and Life first and one of the values of the company.</li> <li>Reaffirm the commitment to value and support the development of their employees and communities through practices, processes, Human Resources Policy and assistance to the development of local communities.</li> </ul>	<ul> <li>Increased exploration and increasing degradation of territories and people's lives.</li> <li>Harassment, increase of hours worked, reducing labor costs, underreporting of the number of accidents at work and injured workers.</li> <li>Communities are affected by mining activities in Brazil, New Caledonia, Malaysia, Peru, Mozambique and Colombia.</li> </ul>
Value Chain	<ul> <li>Seeks to achieve excellence in project delivery, reduce deadlines and costs without compromising employee safety, sustainable practices, and respect and transparency with stakeholders throughout the value chain.</li> </ul>	<ul> <li>Despite all the benefits that the company receives from the state, such as tax exemption and public funding, it refuses to give fair compensation to impacted communities. High-risk business strategy intensifies impacts on the territory.</li> </ul>
	<ul> <li>The Global Policy on Mitigation and Adaptation to Climate Change includes the Carbon Target, which is to reduce</li> </ul>	<ul> <li>Behind the image of a sustainable company, responsible and concerned with future generations, the same old practice of</li> </ul>

PMKT – Brazilian Journal of Marketing, Opinion, and Media Research (PMKT online) | ISSN 2317-0123 (on-line) | ISSN 1983-9456 (printed version 2008-2013) | São Paulo, v. 10, n. 2, p. 182-197, May-Aug. 2017 | www.revistapmkt.com.br 190

Planet	<ul> <li>direct GHG emissions by 5% by 2020 and incentives to the value chain to do the same.</li> <li>Energy management is fundamental to achieve the Carbon Target and can be evidenced through the goals of reducing fuel consumption and electricity from operations.</li> <li>Development of Biodiversity Management Plans in all stages of the life cycle of enterprises and industrial activity.</li> </ul>	encroachment and neglect with the territories and communities (eg destruction of subsoil water and worsening water quality, climate change and excessive energy consumption).
--------	--	--

Figure 1 - Comparison of native categories Source: Own elaboration.

The cleavage presented in Figure 1 indicates the coexistence of two value regimes that guide the narratives about sustainability in the Mining Sector: anthropocentrism and ecocentrism, as divergent ethics, but present in the worldview of the groups analyzed here.

Regarding the "Strategic Vision" Category, the Mining narrative employs positive terms such as "good practices", "core commitments", "incorporates sustainability" that point to a business commitment that underpins its daily activities. In the infinitive, the verb "incorporate" points to something procedural, which occurs in the course of time, and it is not possible to present a radical change. Sustainable company status is not given as "yes" or "no", but as "interested in becoming" sustainable. In this sense, the dualist conception separates the real and the objective with regard to the possibilities of connection with nature, regardless of whether the preservation of nature is for its own benefit, but a goal to be achieved.

The contestatory narrative uses terms that contribute to understanding what is at issue in this narrative dispute, such as "co-optation," "selective politics," "hidden," and "worse." In its etymological sense, "co-optation" has a connection with a kind of negative attraction, through seduction and involvement, and making the other an accomplice of its error. Implicit in the notion of co-optation is the idea that organizations aim at growth at any cost without addressing the issue that mining activity exploits a finite resource. In this sense, the contestatory narrative criticizes the strategic vision as the fruit of a capitalist worldview whose paradigm of environmental destruction has not yet been eradicated. It is a clash over two value systems reproduced by culture, in which two ethics in the relation man / environment are opposed to the possible instrumentalization of the system in favor of an economic activity.

This leads to the category of "people" in the business narrative that chooses words that reveal a desire to garner faith and trust, such as "commitment," "caring," and "life." Species of pact and moral pledge, engaging with people indicates a willingness to elect individuals as a fundamental part of their activities, resulting in assumed responsibilities. However, the controversies on this point are quite striking when one finds categorical terms that "wound" the current narrative, such as "exploitation", "degradation" and "bullying".

Special attention should be given to the double meaning of the term "exploration", used intensively by the Mining Sector to explain its main activity of extraction and production of wealth. The polysemy of the term is not ignored in the contestatory narrative that appropriates it to denounce a relation with individuals devoid of ethics, as if it were an abuse of good faith. The historical implication of the term that refers to abusive relations between planters and slaves is not ignored here, an issue that is part of the collective imagination in labor relations to the present day. If people are of the utmost importance in the speeches of companies in the Mining Sector, for their disaffection, believing in this business assertion implies becoming the unwary without caution and devoid of malice that deserves to be warned against the business ruse.

As Douglas and Isherwood (1970) pointed out more than 40 years ago, the social scheme contemplates goods, labor and consumption, themes that should be observed in an integrated way,

placing consumption in social and economic processes, and products, goods and services used in human life in a dynamic system of rationality and subjectivity. Thus, talking about sustainability implies discussing the value chain associated with the extraction of iron ore, which in the business narrative highlights "excellence", "security", "respect" and "transparency". On the other hand, the Value Chain represents the space of the distorted relation that hurts norms and values that sustain the relation between Company and State. The State here is criticized for its inertia in the condition of regulating and monitoring activity and, furthermore, as the agent that encourages pragmatic goals through fiscal resources and public funding for high-risk activities and future impacts. The construction of a Value Chain in both perspectives leads to the discussion of social involvement and interactions with stakeholders of two antagonistic and potent worldviews.

Organizational legitimacy is defined by Suchman (1995, p. 574) as "a generalized perception that certain actions are desirable, appropriate, or necessary in a system of socially constructed norms, values, and beliefs." The legitimacy evidence the congruence between the entity and the beliefs of a particular social group. In other words, the author's conceptualization exposes principles of institutional theory, established around the concept of legitimacy as the main organizational objective. Being then, legitimacy created subjectively by a single organization, but perceived objectively by society and its different actors in the external environment of the organization.

In this sense, the business narrative is based on the strong discussions carried out around the world for the legitimization referencing international performance indicators. Once again, the organization uses terms that indicate the adoption of processes ("mitigation", "adaptation", "management"), without a categorical affirmation of totally sustainable organization. It is a lenitive discourse that seeks to soften and calm relationships with its stakeholders. The contestatory narrative, however, does not accept this prerogative and uses more incisive terms such as "hides", "same old practice", "usurpation", "neglect", to affirm that the mining company is not aligned with the new ethic of ecocentrism.

# 8 FINAL CONSIDERATIONS

Data analysis reflects a reflective project, based on intermediate studies associated with data collection, extremely useful for evaluating the progress of the research, according to Miles and Huberman (1994) methodological method for qualitative research. In this sense, it is a work in process that consists of coding, annotating, abstracting and comparing, checking and refining and inferring theoretical associations.

Thus, one sees a company in the Mining Sector that passes its activities as practices associated to the latest global notions of sustainability, which implies a socio-political investment to associate with the latest notions of economic, social welfare and protection to the environment. This is the fabric of the new productive paradigm, that of the company concerned with the imagery construction that allows it to be a competitive player in this contemporary world, because it is not ignored that good corporate image and reputation matter. In this sense, as interpretative researchers, there is no element to judge their discourses as real or imaginary, for what is of interest at the moment is to ascertain the extent of value regimes that present a heterogeneous notion of sustainability.

To be sustainable for the Mining company is to be involved in processes that may not be immediate, since technological improvement and the adoption of good governance practices are things that are yet to be consolidated. According to Barbieri, Vasconcelos I., Andreassi, & Vasconcelos, F. (2010), innovating for sustainability is therefore not a target for the Mining Sector, to contemplate the social, environmental and economic dimensions environmental issues. Being sustainable in the mineral industry seems to mean incorporating the debate into its management practices for sustainability that aim to minimize the environmental impacts inherent to this productive activity. The term "minimize" is very suggestive in the sense of something that attenuates, reduces, but does not eradicate.

The commitment of the mining company to sustainability, therefore, is the commitment of continuous improvement in its activities of exploration, operation and closure of activities. And this is far short of the other order of values that purports to purify the planet, eliminating actions potentially harmful to the environment. There is, therefore, in this interlocution with society, a clear gap that separates expectation and reality.

Therefore, the narrative of the mining company is not able to overcome conflicts with its stakeholders, which is vigilant and monitors it on a recurring basis. Therefore, it is questionable to base business discourse on environmental issues as a competitive differential, when strategically, the sector is still not able to affirm innovation processes capable of eradicating the social risk of environmental tragedies, which leads to infer that the concept of sustainability is not elastic enough to be used by any and all business activity.

This observation is particularly dramatic when one imagines that the Mining industry is the basis of the Brazilian Economic Sector and a factor for the growth and development of society. It is a sector that faces the challenge of properly using sustainable development in the search for a harmonious integration between economic, social and environmental dimensions.

However, it is true that in the current scenario of the commodity industry, the term sustainability transcends any discussion between the concept x merely compliance with laws or even the genuine concern to care for the planet. The concept of sustainability becomes the protagonist of a new mining industry. This article indicates the need for further research on the notions of sustainability that permeate the relations between industry and society, based on an analysis of the narratives around the Mining Sector.

## REFERENCES

Ali, S. H., & Huda, M. S. (2015). Constructive consumption: Bridging livelihoods and conservation in democratic societies. *CSR*, *Sustainability and Leadership (Routledge)*. Edited by Gabriel Ewege and Ralph Bathurst (Expected late, 2016).

Almeida, F. (2002). O bom negócio da sustentabilidade. Rio de Janeiro: Nova Fronteira.

- Arnould, E. J., & Thompson, C. J. (2005). Consumer Culture Theory (CCT): Twenty years of research. *Journal of Consumer Research*, *31*(4), 868-882.
- Artaxo, P. (2014). Uma nova era geológica em nosso planeta: O Antropoceno? *Revista USP*, n. 103, 13-24.
- Altvater, E. (1995). *O preço da riqueza. Pilhagem ambiental e nova (des)ordem mundial.* São Paulo: Editora UNESP.
- Barbieri, J. C. (2007). *Gestão ambiental empresarial: Conceitos, modelos e instrumentos* (2a ed.). São Paulo: Saraiva.
- Barbieri, J. C., Vasconcelos I. F. G., Andreassi, T., & Vasconcelos, F. C. de. (2010, abr.-jun.). Inovação e sustentabilidade: Novos modelos e proposições. *Revista de Administração de Empresas – RAE*, São Paulo, 50(2), 146-154.
- Barreto, M. L. (2001). *Mineração e desenvolvimento sustentável: Desafios para o Brasil*. Rio de Janeiro: CETEM/MCT.
- Boltanski, L., & Thévenot, L. (1999). The sociology of critical capacity. *European Journal of Social Theory*, 2(3), 359-377.

PMKT – Brazilian Journal of Marketing, Opinion, and Media Research (PMKT online) | ISSN 2317-0123 (on-line) | ISSN 1983-9456 (printed version 2008-2013) | São Paulo, v. 10, n. 2, p. 182-197, May-Aug. 2017 | www.revistapmkt.com.br 193

- Burrell, G., & Morgan, G. (1979). *Sociological paradigms and organizational analysis*. London: Heinemann Educational Books.
- Cajazeira, J. E. R. (2009). Responsabilidade social empresarial e empresa sustentável Da teoria à prática. São Paulo: Saraiva.
- Calixto, L. (2011). The business strategy to disclosure social and environmental information in Latin America. International Conference on Strategic Management in Latin America, III São Paulo, *Anais eletrônicos*...São Paulo: FGV, 1-20. 1 CDROM.
- Campbell, E. K. (1983). Beyond anthropocentrism. Journal of the History of the Behavioral Sciences, (19), 54-67.

Campos, P. C. (2008). O pressuposto da ética na preservação do meio ambiente. Breve história sobre origens e conceitos do Movimento Ambientalista. *ALCEU*, 8(16), 19-51.

- Comissão Mundial sobre o Meio Ambiente e Desenvolvimento. (1991). Nosso futuro comum (2a ed.). Rio de Janeiro: Editora da Fundação Getúlio Vargas.
- Creswell, J. W. (2007). Projeto de pesquisa: Métodos qualitativo, quantitativo e misto. Porto Alegre: Artmed.
- Creswell, J. W. (2014). Investigação qualitativa e projeto de pesquisa: Escolhendo entre cinco abordagens (3a ed.). Porto Alegre: Penso.
- Daroit, D., & Nascimento, L. F. (2004). Dimensões da inovação sob o paradigma do desenvolvimento sustentável. In ENANPAD, 28, *Anais...* Paraná: ANPAD.
- Douglas, M., & Isherwood, B. (1970). *The world of goods: Towards and anthropology of consumption*. New York: W. W. Norton.
- Douglas, M. (2009). *O mundo dos bens: Para uma antropologia do consumo* (Tradução: Plínio Dentzien, 2a reimpr.). Rio de Janeiro: Editora UFRJ.
- Egri, C. P., & Pinfield, L. T. (1998). As organizações e a biosfera: Ecologia e meio ambiente. In S. R. Clegg, C. Hardy, & W. R. Nord. (Orgs.). *Handbook de estudos organizacionais*. São Paulo: Atlas, *1*, 363-399.
- Elkington, J. (1997). *Cannibals with forks: The triple bottom line of 21<sup>st</sup> century business*. Oxford: Capstone Publishing.
- Fonseca, A. (2010). *Requirements and barriers to strengthening sustainability reporting among mining corporations*. Thesis presented to the University of Waterloo, Ontario, Canada, 264 p.
- Giddens, A. (1991). As consequências de modernidade. São Paulo: Editora da Universidade Estadual Paulista.
- Gladwin, T. N., Kennelly, J. J., & Krause, T. S. (1995, Oct.). Shifting paradigms for sustainable development: Implications for management theory and research. Academy of Management Review, 20(4), 874-907, New York.

PMKT – Brazilian Journal of Marketing, Opinion, and Media Research (PMKT online) | ISSN 2317-0123 (on-line) | ISSN 1983-9456 (printed version 2008-2013) | São Paulo, v. 10, n. 2, p. 182-197, May-Aug. 2017 | www.revistapmkt.com.br 194

- Global Reporting Initiative. (2006, dez.). *Diretrizes para Relatórios de Sustentabilidade*. São Paulo: Instituto Ethos, 47 p. Recuperado de http://www.ethos.org.br/\_Uniethos/documents/gri\_g3\_portugues.pdf
- Godoy A. S. (1995a). Introdução à pesquisa qualitativa e suas possibilidades. *Revista de Administração de Empresas*, 35(2), 57-63.
- Godoy, A. S. (1995b). Pesquisa qualitativa: Tipos fundamentais. *Revista de Administração de Empresas*, 35(4), 65-71.
- Grun, M. (2006). Educação e ética ambiental: A conexão necessária (10a ed.) Campinas: Papirus.
- Hart, S., & Milstein, M. B. (2004, maio-julho). Criando valor sustentável. *RAE Executivo*, 3(2), 65-79.
- Hart, S. (2005). *Capitalism at the Crossroads: The unlimited business opportunities in solving the world's most difficult problems*. Upper Saddle River, NJ: Wharton School Publishing.
- Harvey, D. (2003). A condição pós-moderna. Uma pesquisa sobre as origens da mudança cultural (12a ed.). São Paulo: Edições Loyola.
- Hilson, G., & Murck, B. (2000). Sustainable development in the mining industry: Clarifying the corporate perspective. *Resources Policy*, *26*(4), 227-238.
- Hirschman, E. C., Scott, L. & Wells, W. B. (1998). A model of product discourse: Linking consumer practice to cultural texts. *Journal of Advertising*, 27(1), 33-50.
- Instituto Brasileiro de Mineração. (2012). *Informações e análises da economia mineral brasileira*. Recuperado de http://www.ibram.org.br/
- International Council on Mining and Metals (2010). *Sustainable Development Framework*. Recuperado de http://www.icmm.com
- Junges, J. R. (2004). Ética ambiental (2a ed.). São Leopoldo: Unisinos.
- Kotler, P., Kartajaya, H., & Setiawan, I. (2010). *Marketing 3.0: As forças que estão definindo o novo marketing centrado no ser humano*. São Paulo: Elsevier Campus.
- Latour, B. (2014). Para distinguir amigos e inimigos no tempo do Antropoceno. *Revista de Antropologia*, 57(1), 11-31.
- Leff, E. (2001). *Ecologia, capital e cultura: Racionalidade ambiental, democracia participativa e desenvolvimento sustentável.* Blumenau: Ed. da FURB.
- Lévi-Strauss, C. (1958). Anthropologie Structurale. Paris: Librairie Plon.
- Martini, B. (2011, jul.). Antropoceno A época da humanidade? *Revista Ciência Hoje*. São Paulo. Recuperado de http://www.academia.edu/934167/Antropoceno\_A\_%C3%A9poca\_da\_ humanidade

Masini, E. F. S. (1989). O enfoque fenomenológico na educação. São Paulo: Cortez.

- Miles, M. B., & Huberman, M. (1994). *Qualitative data analysis: An expanded source book*. Thousand Oaks, Sage.
- Moreira, H. F. (2003). *O desenvolvimento sustentável no contexto do setor mineral brasileiro*. Curso de Pós-Graduação em Gestão Ambiental – Universidade Federal do Rio de Janeiro (UFRJ), Rio de Janeiro.
- Norma ISO 14001. Recuperado de http://certificacaoiso.com.br/iso-14001/
- Oppen, C. V., & Brugman, L. (2011). Organizational capabilities as the key to sustainable innovation. XXII IXPIM Conference Held in Hamburg-Germany, 12-15 June.
- Organização das Nações Unidas. (2000). *Objetivos do milênio*. Recuperado de http://www.objetivosdomilenio.org.br/
- Park, J. (2008). China, business and sustainability: Understanding the strategic convergence. *Management Research News*, 31(12), 951-958.
- Prahalad, C. K. (2005). A riqueza na base da pirâmide: Como erradicar a pobreza com o lucro. Porto Alegre: Bookman.
- Programa das Nações Unidas para o Desenvolvimento. (2010). Os 8 objetivos de desenvolvimento do milênio.
- Ray, M. A. (1994). The richness of phenomenology: Philosophic, theoretic and methodologic concerns. In J. M. Morse (Ed.). *Critical issues in qualitative research methods*. London: Sage Publications.
- Rees, W. E. (2003, July). Economic development and environmental protection: An ecological economics perspective. *Environmental Monitoring and Assessment*, Dordrecht, 86(1/2), 29-45.
- Relatório de Sustentabilidade da Vale. (2014). Recuperado de http://www.vale.com/pt/aboutvale/sustainability/links/linksdownloadsdocuments/relatorio-de-sustentabilidade-2014.pdf
- Relatório de Insustentabilidade da Atingidos pela Vale. (2015). Recuperado de http://www.atingidospelavale.wordpress.com/2015/04/16/leia-relatorio-de-insustentabilidade-da-vale-2015/
- Ribeiro, F. (2007). *Correntes ideológicas no movimento*. Recuperado de http://fabrizioribeiro.blogspot.com.br/2007/07/correntes-ideolgicas-no-movimento.html
- Sachs, I. (1993). *Estratégias de transição para o século XXI: Desenvolvimento e meio ambiente.* São Paulo: Estúdio Nobel, 103 p.
- Santana, E. E. P., & Akel, Z., Sobrinho. (2007). O interpretativismo, seus pressupostos e sua aplicação recente na pesquisa do comportamento do consumidor. In *Anais do I Encontro do Ensino e Pesquisa em Administração e Contabilidade*, Recife, Pernambuco, Brasil, 1-10.
- Sassen, S. (2003). *Cities in a world economy*. Thousand Oaks, CA: Pine Forge Press. Schiffer, R. S. 2002. Sao Paulo: Articulating a cross-border regional economy, 209-36 in Global.

PMKT – Brazilian Journal of Marketing, Opinion, and Media Research (PMKT online) | ISSN 2317-0123 (on-line) | ISSN 1983-9456 (printed version 2008-2013) | São Paulo, v. 10, n. 2, p. 182-197, May-Aug. 2017 | www.revistapmkt.com.br 196

Savitz, S. (2007). A empresa sustentável. Rio de Janeiro: Elsevier.

Schwandt, T. A. (2000). Handbook of qualitative research, Sage, Thousand Oaks.

- Simons, L., Slob, A., Holswilder, H., & Tukker, A. (2001). The fourth generation: New strategies call for new eco-indicators. *Environmental Quality Management*, (11), 51-61.
- Solomon, F., Katz, E., & Lovel, R. (2008). Social dimensions of mining: Research, policy and practice challenges for the minerals industry in Australia. *Resources Policy*, *33*, 142-149.
- Suchman, M. (1995). Managing legitimacy: Strategic and institutional approaches. Academy of Management Review, 20.
- Suplemento Setorial de Mineração e Metais. (2010). Recuperado de https://www.globalreporting. org/resourcelibrary/G3-Portuguese-Mining-and-Metals-Sector-Supplement.pdf
- Varadarajan, R. (2014). Toward sustainability: Public policy, global social innovations for base-ofthe-pyramid markets, and demarketing for a better world. *Journal of International Marketing*, 22 (2), 1-20.
- Vergara, S. C. (2011). Métodos de pesquisa em Administração. São Paulo: Atlas.
- Vergara, S. C. (2012). Métodos de coleta de dados no campo (2a ed.). São Paulo: Atlas.
- Viana, M. B. (2007). *Licenciamento ambiental de minerações em Minas Gerais: Novas abordagens de gestão*. 305 f., Dissertação (Mestrado em Desenvolvimento Sustentável) Universidade de Brasília, Brasília.