

Vanúbia Araújo Laulate Moncayo

**A SUSTAINABILITY COSMOLOGY: AN ANALYSIS OF A  
“GREEN” COMPANY’S SUSTAINABILITY REPORT**

Tese submetida ao Programa de Pós-graduação em Língua Inglesa da Universidade Federal de Santa Catarina para a obtenção do Grau de Doutor em Língua Inglesa e Linguística Aplicada.

Orientadora: Prof<sup>ª</sup>. Dra. Viviane Maria Heberle

Florianópolis  
2014

Ficha de identificação da obra elaborada pelo autor,  
através do Programa de Geração Automática da Biblioteca Universitária da UFSC.

Moncayo, Vanúbia

A SUSTAINABILITY COSMOLOGY: AN ANALYSIS OF A ?GREEN?  
COMPANY'S SUSTAINABILITY REPORT / Vanúbia Moncayo ;  
orientadora, Viviane Heberle - Florianópolis, SC, 2014.  
311 p.

Tese (doutorado) - Universidade Federal de Santa  
Catarina, Centro de Filosofia e Ciências Humanas. Programa  
de Pós-Graduação em Letras/Inglês e Literatura  
Correspondente.

Inclui referências

1. Letras. 2. Constelações e cosmologias. 3. teoria da  
avaliabilidade. 4. discurso da sustentabilidade. 5.  
estrutura do conhecimento-conhecedor. I. Heberle , Viviane  
. II. Universidade Federal de Santa Catarina. Programa de  
Pós-Graduação em Letras/Inglês e Literatura Correspondente.  
III. Título.

**Vanúbia Araújo Laulate Moncayo**

A SUSTAINABILITY COSMOLOGY: AN ANALYSIS OF A  
“GREEN” COMPANY’S SUSTAINABILITY REPORT

Esta tese foi julgada adequada para obtenção do Título de “Doutor em Inglês: Estudos Linguísticos – Área de Concentração: Estudos da Linguagem”, e aprovada em sua forma final pelo Programa de Pós-Graduação em Inglês: Estudos Linguísticos e Literários.

Florianópolis, 24 de julho de 2014.

---

Profa. Dra. Viviane Maria Heberle  
Coordenadora do PPGI, Orientadora e Presidente

**Banca Examinadora:**

---

Profa. Dr. Francisco O. Dourando Veloso,  
Polytechnic University, Hong Kong

---

Profo. Dr. Fábio Alexandre Silva Bezerra,  
Universidade Federal da Paraíba

---

Profo. Dr. Marcos Antônio de Oliveira,  
Univesidade Federal de Santa Catarina

---

Profa. Dra. Maria Ester W. Motitz,  
Univerisdade Federal de Santa Catarina

---

Profa. Dra. Adriana Kuerten Dellagnelo,  
Universidade Federal de Santa Catarina

*A minha amada filha, Yasmin  
Monick Araújo Moncayo,  
TUDO é por ELA, para ELA  
e com ELA.*

*A minha avó-mãe, Creuza dos  
Santos (in memoriam), a  
minha eterna gratidão.*



## ACKNOWLEDGEMENTS

At the same time this thesis represents a work of nearly five years of confinement, it is a work of several hands and collective strength. Above all, this thesis is a product of the academic work developed by Universidade Federal de Santa Catarina- UFSC and the University of Sydney-USYD. First and foremost, my thankfulness to God for the opportunity to be part of both settings, and for having given me inspiration, encouragement and patience to carry out a piece of research with recent and challenging dimensions.

My deepest gratefulness to my family, specially my parents Clotilde and Abrahão, my brothers, Rock Wallace (*in memoriam*) and Lucas, and my sister Lucicleide, for their support and presence in my life. They have made me become the person I was, am and will be.

I am profoundly indebted to my PhD advisor, Dra. Viviane Maria Heberle, for her concern about introducing me to the SFL research community which helped me develop the sense of perception and sensibility necessary in research from a systemic functional linguistic perspective. Thanks to her professional conduct, I had an open door to go overseas and to be exposed to a world of possibilities that helped improve linguistic skills and the quality of this research. More importantly, in this final stage, Heberle's professional experience, support and advice were determining aspects in sharpening my look at specifications in the thesis that were unclear to me till then.

Also, my heartfelt gratitude to James Martin's supervision throughout my doctoral stage at the University of Sydney, Australia. I acknowledge Martin's dedication in patiently guiding me throughout this process; a time that I was privileged to be instructed by him mainly in the management of Appraisal Theory. Jim's sharp academic look, experience, and the plenty of original material provided by him, that some have not even had been published by that time, have awakened me to see the right road to take in this research.

I extend my sincerest thanks to Professor Paulo Vieira from the Department of Sociology and Environment Studies of the Federal University of Santa Catarina- UFSC. Having attended the discipline "Manejo de Recursos Naturais comunitários", taught by Vieira, I could improve and upgrade knowledge related to the latest issues of sustainability which served as backdrop for my data analysis.

I should also like to express my thanks to all my Professors from the Departments of Applied Linguistics, in particular, Viviane Heberle, Leda Tomitsch (UFSC), van Leeuwen and Jim Martin (USYD), for their

valuable teaching and, above all, for their commitment to language studies that in a way represented a call to reflection about my professional and academic background.

I give sincere thanks to my colleague Ladjane Sousa for her availability in shedding lights on the specifications related to appraisal resources that remained unanswered to me by the time I was dealing with my analysis. I acknowledge her devoting time in revising part of my data.

My gratefulness to Manaus State University (UEA) for the leave of absence that enabled the pursuing for a better academic qualification and research exchange.

I am grateful to all the valuable contacts I have established and friends I have made throughout this journey. Special thanks to my dear colleagues Giana Steffens, Bruna Batista, Marcia Carazzaia, Fábio Nascimento and João Carlos da Silva (UFSC) and Yupaporn Piriya Silpa, Beatriz Quieroz and Rabia Akram (USYD) for their support and friendship.

My special thanks to all my students that in one way or another have always motivated me to boost knowledge and expand my academic and professional horizons.

Of no less importance, I thank for both scholarships granted: FAPEAM and CAPES, which have provided me with the necessary resources that enabled my going back and forth several times from the North to the South within Brazil, or around the country, and, in particular, from Brazil to the other corner of the world – Sydney, Australia, divulgating my research and qualifying it over and over.



Knowledge is prototypically, made of language. Once you have language - whether you as species, or you as individual-then you have the power of transforming it into meanings. But by the same token, as you are enable to do this your are also constrained to do it; you have not internalized an experience until have transformed it into meaning. And once you have done that, it has the potential for being worded – it can now be transformed into text (Halliday 1998a, p.25).

[...]Theory is every scholar's best friend; social theory of this order is a very best friend indeed (Martin's comment in the section "praise for *knowledge and knowers: Towards a realist sociology of education*. London: Routledge, 2014.



# **A Sustainability Cosmology: An analysis of a “Green” Company’s Sustainability Report**

**Vanúbia Araújo Laulate Moncayo**

**Programa de Pós Graduação em Inglês e Linguística Aplicada – UFSC**

**Supervisor: Dra. Viviane Maria Heberle**

## **ABSTRACT**

Based on cosmologies and constellations within Legitimation Code Theory (LCT) interfaced with appraisal framework within Systemic Functional Linguistics (SFL), this research aims at analyzing sustainability knowledge management by Kraft Foods Company in their Annual Sustainability Report based on the meanings that their constellations convey. As conceptualized by Maton (*in press*) constellations refer to clusters of stances condensing social actors’ practices, ideas and beliefs related to a given field of science. These clusters are the mechanism through which cosmologies are built. Through the lens of SFL, the hierarchy Individuation, situated in between the hierarchies of Instantiation and Realization, provides an open space for the activation of the LCT model, since in individuation, as Martin (2007, 2009) postulates, the central focus is on the language users rather than the language use. As regards the methodological framework, because of its interdisciplinary perspective, this research is split into two different stages: 1) the handling of the internal relations; 2) the handling of the external relations. These relations make up the overall procedures that enable the development of works on cosmologies. In stage (I), the handling of the former consists of clustering the company’s practices, beliefs and values in the form of stances through which Kraft’s constellations are identifiable. Thanks to the appraisal resources by Martin and White (2005), the inscriptions of the attitudinal subsystem and the grading resources, in particular, that identification is possible. Stage (II) discusses the constellations analysis regarding the external relations allowing for gauging the epistemological and axiological underpinnings in the investigated discourse, the means by which the type of knower is known. In this phase, the theoretical accounts of Maton’s (*in press*, 2013b, 2010a, 2010b, 2007, 2006, 2004) knowledge-knower structure interfaced with Bernstein’s concepts of the code theory are brought into play. The results have shown that by means of appreciation and graduation interplay within appraisal theory the majority of the stances in Kraft’s

cosmology are acknowledgeable within the reservoir of meanings of sustainability. By the same token, appreciation-graduation interplay has revealed that four of the stances identified in Kraft's cosmology do not comply with the reservoir of meanings of sustainability, indicating that the 'grammar' power in Kraft's cosmology is, in some sense, downplayed. Nevertheless, this is not to argue that the epistemic relations in Kraft's knowledge structure become weak. In truth, they remain untouchable, since the only hierarchy individuated by Kraft's company is the one of sustainability whereby the presence of the majority of the stances is justifiable. Therefore, the social actors in Kraft's cosmology are the type of knowers who emphasize the specialist knowledge over the knowers' attributes and gaze from the view that in Kraft's knowledge structure epistemic relations are strongly classified and social relations are weakly framed. Technically considered, this means that the company investigated is described under the knowledge code **+ER (+C, + F); - SR (-C, -F), strong epistemic relations and weak social relations**, thus indicating the company's inclination towards the specialist knowledge.

**Key words:** Constellations and Cosmologies; Appraisal resources; Sustainability Discourse; Knowledge-knower structure.

## RESUMO

No presente estudo, o viés interdisciplinar justifica-se pela conexão estabelecida entre o aspecto sociológico por intermédio do modelo ‘Legitimation Code Theory’ (LCT), especificamente referente às dimensões das cosmologias e constelações, e da perspectiva linguística sistêmico-funcional através da teoria da avaliatividade. Esta tese tem como objetivo investigar de que forma a Multinacional “Kraft Foods” lida com o conhecimento da sustentabilidade com base nos significados que suas constelações constroem. Maton (*in press*) define constelações os grupos das ideias, crenças, e valores que refletem as práticas de atores sociais em um específico tempo e espaço em uma dada cosmologia. ‘Cosmologia’, por conseguinte, consiste em uma configuração de ideais que caracteriza as práticas socioculturais desses atores atrelados a um dado campo da ciência. No que concerne à perspectiva da linguística sistêmico-funcional, a hierarquia Individação, localizada entre as dimensões Instanciação e Realização, possibilita a ativação dos recursos da LCT, haja vista ser a individuação âmbito de proliferação das ideologias em que se privilegia o repertório do falante. No tocante aos pressupostos teórico-metodológicos, a presente pesquisa alicerça-se em duas fases distintas: 1) manuseio das relações internas; 2) manuseio das relações externas. Tais relações compreendem os procedimentos sobre os quais trabalhos desenvolvidos sob a ótica ‘cosmologia’ são viáveis. No estágio (I), acontece o manuseio das relações internas, o que significa que os recursos linguísticos contidos nos subsistemas de Atitude e Gradação dentro da teoria da avaliatividade (Martin & White, 2005) são ativados a fim de identificar as unidades de significados constituídas a partir da configuração de ideias, práticas, valores e crenças dos atores sociais referente ao reservatório de significados da sustentabilidade. A fase (II) compreende a análise das constelações, ocasião em que as relações externas são tratadas de modo que se mesure o sustentáculo epistemológico e axiológico existente na cosmologia investigada. Nesta fase, os postulados de Maton ( *in press*, 2013b, 2010a, 2010b, 2007, 2006, 2004 ) sobre a estrutura do conhecimento e conhecedor, emanada das concepções de Bernstein acerca da estruturação e transmissão do conhecimento, são explorados a fim de caracterizar o tipo de conhecedor existente na cosmologia em questão. Dos resultados obtidos, evidenciou-se que o intercâmbio entre Apreciação, uma das três dimensões de Atitude, e Gradação propiciou o reconhecimento da maioria das unidades significativas pertencentes ao reservatório de

significados da sustentabilidade. Outrossim, percebeu-se que os mesmos recursos linguísticos corroboraram a descoberta de que há quatro unidades significativas desvinculadas do campo da sustentabilidade, o que sugere uma diminuição do poder da ‘gramática’ na cosmologia sob análise. É importante salientar que, no cenário desta investigação, a diminuição do poder da gramática não implica no enfraquecimento da hierarquia (episteme), uma vez que os referentes epistêmicos no discurso analisado são integralmente explorados pela multinacional em questão. Ademais, a hierarquia da sustentabilidade é a única base científica evidenciada no discurso sobre o qual a existência da maioria dos referentes e descrições empíricas (unidades significativas) é justificável. Por fim, os referentes epistêmicos são fortemente ‘classificados’ enquanto que as relações sociais- os atributos dos atores sociais em relação ao campo do conhecimento proposto - são fracamente ‘enquadrados’, fato que caracteriza os atores sociais sob os códigos **+ER (+C, +F)** e **- SR (-C, -F)**, **fortes relações epistêmicas e fracas relações sociais**. Tecnicamente, esses códigos indicam que na cosmologia investigada os atores sociais são os tipos de conhecedores que sobrepõem os pressupostos teóricos às suas relações sociais com o objeto investigado.

**Palavras-chave:** Constelações e cosmologias; teoria da avilatividade; discurso da sustentabilidade; estrutura do conhecimento-conhecedor.

## LIST OF FIGURES

<b>Figure 1.1.</b> Four phases of SFL/Social realism interdisciplinary dialogue.....	27
<b>Figure 1.2.</b> The four dimensions proposed in this research.....	29
<b>Figure 1.3.</b> The three basic pillars of sustainability and the areas of science within which each one originates.....	32
<b>Figure 1.4:</b> Phases of the research on constellations and cosmology.....	35
<b>Figure 1.5.</b> The 2011 Kraft Foods Company’s report cover encompassing the six entities of texts (To be presented in the “Methodology chapter”.....	36
<b>Figure 1.6:</b> Relationship between epistemic relations and social relations.....	41
<b>Figure 1.7:</b> An overview of the hierarchy of individuation in between the hierarchies of realization an instantiation.....	45
<b>Figure 2.1:</b> Martin’s taxonomy of field.....	56
<b>Figure 2.2:</b> An overview of the disciplines within the areas corresponding the hierarchical knowledge structure and horizontal knowledge structure.....	58
<b>Figure 2.3:</b> A summary of Bernstein’s knowledge-structure framework.....	60
<b>Figure 2.4:</b> The two cultures as knowledge structures and knower structures.....	62
<b>Figure 2.5:</b> Knowledge-knower structures and the legitimation codes.....	66
<b>Figure 3.1:</b> Interpersonal semantic systems and tenor variables...	74
<b>Figure 3.2:</b> An overview of appraisal resources.....	76
<b>Figure 3.3:</b> Judgment and Appreciation as institutionalized Affect.....	79
<b>Figure 3.4:</b> An overview of the modes of intensification and quantification within Force.....	98
<b>Figure 4.1:</b> The storefront of Kraft’s Food headquartered in the South of Brazil, in the city of Curitiba.....	110
<b>Figure: 4.2:</b> Some of the brands commercialized by Kraft’s (currently Mondelez) after the division.....	111
<b>Figure 4.3:</b> Kraft’s Foods slogan alongside the certification of the change of the company’s name into ‘ <i>Mondelez International</i> ’	111
<b>Figure 4.4:</b> The six single entities of texts used in this investigation.....	116

<b>Figure 4.5:</b> The theoretical and methodological framing in the hierarchy of realization proposed in this research.....	118
<b>Figure 4.6:</b> An overview of the subsystem of Attitude and Graduation.....	119
<b>Figure 5.1:</b> The stances of environment awareness and trust building placed in the good-hand side of Kraft’s constellations....	138
<b>Figure 5.2:</b> The six stances of sustainability in Appreciation-graduation interface.....	152
<b>Figure 5.3:</b> A trace of opposed clusters in Kraft’s cosmology.....	165
<b>Figure 5.4:</b> The stance ‘product’s consumption-centered’ opposing the stance ‘product’s value propositions.....	171
<b>Figure 5.5:</b> Finding of two stances within the social responsibility dimension (engagement with social problems and life-enhancement) and one of ecological prudence (prediction of impacts, maximization and minimization of environment and social impacts).....	177
<b>Figure 5.6:</b> Another trace of ambiguity in Kraft’s cosmology.....	187
<b>Figure 6.1:</b> The vertical-horizontal axes in Kraft’s sustainability cosmology.....	195
<b>Figure 6.2:</b> The horizontal knowledge discourse in Kraft’s cosmology.....	196
<b>Figure 6.3:</b> Kraft’s binary constellations.....	200
<b>Figure 6.4:</b> The hierarchy in Kraft’s cosmology.....	204
<b>Figure 6.5:</b> The representation of Kraft’s social relations to the field of sustainability.....	211
<b>Figure 6.6:</b> The knowledge-knower code in Kraft’s cosmology...	214
<b>Figure 7.1:</b> An overview of Kraft’s constellations.....	223
<b>Figure 7.2:</b> Kraft’s binary constellations.....	225
<b>Figure 7.3:</b> The sustainability hierarchy in Kraft’s cosmology.....	227
<b>Figure 7.4:</b> The weakening of social relations in Kraft’s cosmology.....	228



## LIST OF TABLES

<b>Table 3.1:</b> The three variables in AFFECT.....	82
<b>Table 3.2:</b> Judgment in social esteem.....	86
<b>Table 3.3:</b> Types of realization in propositions.....	87
<b>Table 3.4:</b> Types of realization in proposals.....	88
<b>Table 3.5:</b> An overview of types of appreciation.....	90
<b>Table 3.6:</b> Sub-types of appreciation.....	91
<b>Table 3.7:</b> Appreciation in a specialized field (linguistics).....	92
<b>Table 3.8:</b> The gradability of attitudinal meanings.....	96
<b>Table 3.9:</b> Types of realizations of Isolation.....	99
<b>Table 3.10:</b> Types of realizations of ‘infusion’.....	101
<b>Table 5.1:</b> Codes in use in attitude and graduation interface for the identification of the stances in Kraft’s discourse.....	125
<b>Table 5.2:</b> The totality of instances in the subsystems of attitude and graduation.....	132
<b>Table 5.3</b> The totality of findings in Affect expressed in number..	133
<b>Table 5.4</b> Finding of the stance ‘trust building’.....	136
<b>Table 5.5:</b> The totality of findings in judgment expressed in number.....	140
<b>Table 5.6:</b> Appreciative meanings expressed in number.....	143
<b>Table 5.7:</b> Finding of the stance ‘environmentally, socially and economically-integrated’.....	145
<b>Table 5.8:</b> Finding of the stance ‘future-oriented’ as a complementary idea of the thesis.....	146
<b>Table 5.9:</b> Inscriptions of knowledge referring to attributes and values with respect to ‘success’ within the field of sustainability...	149
<b>Table 5.10:</b> Finding of the stance ‘natural resources management systems’.....	155
<b>Table 5.11:</b> Inscriptions of knowledge of the ‘reduction of environment harms’.....	160
<b>Figure: 5.12:</b> Finding of the stance ‘opportunities-efficiency.....	162
<b>Table 5.13:</b> Inscriptions of knowledge concerning health impacts.	166
<b>Table 5.14:</b> Inscriptions of knowledge based on the safety of the product.....	169
<b>Table 5.15:</b> Finding of the stance ‘engagement with social problems’.....	172

<b>Table 5.16:</b> Finding of the stance ‘people’s health and well-being’ .....	174
<b>Table 5.17:</b> Finding of stance ‘prediction, maximization and mitigation of environmental and social impacts’ .....	176
<b>Table 5.18:</b> Finding of the stance ‘horizontal and vertical collaboration’ .....	178
<b>Table 5.19:</b> Inscription of knowledge ‘vertical collaboration’ .....	179
<b>Table 5.20:</b> Finding of the stance ‘employees’ empowerment’ .....	181
<b>Table 5.21:</b> Finding of the stance ‘disciplinarian/authoritarian/conservative’ .....	183
<b>Table 5.22:</b> Finding of the stance ‘volunteerism’ .....	185
<b>Figure 5.23:</b> Kraft’s binary constellations and cosmology .....	188
<b>Table 6.1:</b> Kraft’s binary constellations and cosmology .....	202

## **ABBREVIATIONS**

CEO- Chief Executive Officer

C - Classification

EPA – United States Environment Protection Agency

ER - Epistemic relations

F- Framing

ISO – International Organization for Standardization

LCT – Legitimation Code Theory

LCTSS Legitimation Code Theory-Specialization-Semantics

SFL – Systemic Functional Linguistics

SR – Social Relations



## TABLE OF CONTENTS

1 Introduction .....	25
1.1 Positioning the research .....	25
1.1.1 Of the research aims and research questions .....	37
1.2 The Bridge to LCT .....	40
1.2.1 SFL and LCT's Semantics -Interface .....	42
1.3 Significance of the research .....	46
1.4 Organization of the thesis.....	47
2 Cosmology in the interplay between Bernstein's knowledge structure and Maton's knower structure.....	51
2.1 Constellations and cosmologies .....	52
2.2 Bernstein's Knowledge structure framework.....	55
2.2.1 Vertical Knowledge Discourse.....	56
2.2.1.1 Maton's Knowledge-knower structure.....	61
2.2.1.1.1 Understanding the legitimation codes of specialization .....	63
3 Appraisal Theory: A Tool for identifying inscriptions of sustainability knowledge .....	71
3.1 An outline of appraisal theory in English.....	72
3.2 The attitudinal system .....	76
3.2.1 Affect: the "voice" of the heart .....	79
3.2.2 Judgment .....	84
3.2.3 Appreciation: the gaze at the aesthetic value of the "thing".....	89
3.3 Borders .....	93
3.4 Theorizing graduation .....	95
3.4.1 The semantics of force .....	97
3.4.1.1 Isolating in the modes of intensification .....	99
3.4.1.2 Infusion in the modes of intensification .....	100
3.4.1.3 Force in quantification .....	101
3.4.1.3.1 Modes of quantification and Isolation – "infusion" aspects.	103

3.4.2	The semantics of focus .....	104
4	Methodology .....	109
4.1	<i>Kraft Foods</i> Company’s profile .....	109
4.2	The genre ‘Report’ in science .....	112
4.2.1	The generic structure in the environmentalist text .....	113
4.3	The corpus.....	114
4.3.1	The handling of the material selected .....	115
4.3.1.1	Phases of the analysis.....	117
4.3.1.1.1	The linguistic analysis via appraisal resources .....	118
4.3.1.1.2	Constellations-based analysis .....	120
5	Analysis of Appraisal in Kraft’s constellations .....	123
5.1	Constellationalizing in the interplay between attitude and graduation .....	124
5.2	The Appraisal theory in the generation of Kraft’s constellations .	128
5.2.1	Affect-graduation in the composition of Kraft’s stances .....	132
5.2.1.1	“Affecting-graduating” on the target of Kraft’s stances .....	133
5.2.2	In Judgment-graduation .....	139
5.2.3	Appreciation-graduation interface for the composition of Kraft’s stances .....	142
5.2.3.1	“Appreciating-graduating” in the thesis for targeting Kraft’s stances .....	144
5.2.3.2	“Appreciating-graduating” in the core of the thesisfor targeting Kraft’s stances.....	153
5.2.3.4	Combining attitude and graduation in the aspect of governance and volunteerism .....	177
6	Kraft’s sustainability cosmology: A constellation-based analysis ...	191
6.1	An outline of Kraft’s sustainability cosmology .....	193
6.2	<i>Kraft Foods</i> Company’s constellations .....	197
6.2.1	Kraft’s Company Knowledge-knower structure .....	203
6.2.1.1	The knowledge-knower code in Kraft’s cosmology .....	212

7 Concluding remarks: Summary of the findings, gains and future work .....	219
7.1 An outline of LCT and SFL interface in works on cosmology .....	219
7.2 The general findings in Kraft's cosmology .....	221
7.2.1 Specific findings in Kraft's cosmology .....	222
7.3 Concluding remarks, gains and future works .....	230
References .....	235
APPENDIX I .....	245
APPENDIX II .....	246





# 1 Introduction

## 1.1 Positioning the research

No matter what the manifestation of the type of knowledge, whether knowledge of the everyday life or of the scientific world, or, in Bernstein's terms, the "common sense" or the "uncommon sense" knowledge discourse<sup>1</sup>, respectively, the intractable link between grammar and knowledge is indisputable in the building of knowledge. Theoretically, grammar is "where knowledge is constructed and where the ideological foundations of what constitutes scientific practice are laid down" (Halliday & Martin, 1993, p.13).

Specifically about scientific knowledge, Halliday (1998a, 1998b, 1997, and 1995) draws an analogy between knowledge and grammar. For Halliday, scientific knowledge resembles the grammar of a child who has grown older and therefore mature as to reach a more refined perception in tackling technicality and abstraction in the construal of experience. The former is concerned with technical terms which serve the purpose of systematizing a world that differs from that of the everyday life (Martin, 1989) whereas the latter "involves moving from an instance or collection of instances, through generations to abstract interpretations" (Wignell, 1998, p. 303). As simplified by Wignell, abstraction is somewhat like a story that is being told and meant. For Martin (1989), abstraction is an "exposition" where a "thesis", i.e., a central idea is stated in this exposition from where arguments are followed in support of the central idea stated. Understandably then , technicality depicts the world of natural sciences (e.g. biology, physics) and abstraction the world of humanities and social sciences (e.g. linguistics, economy) (Wignell 1998; Martin 1989; Wignell, Martin & Eggins, 1989).

Considering that language provides the resources that express that technicality and abstraction underlying the fields of natural sciences, humanities and social sciences, studies linking aspects of language and

---

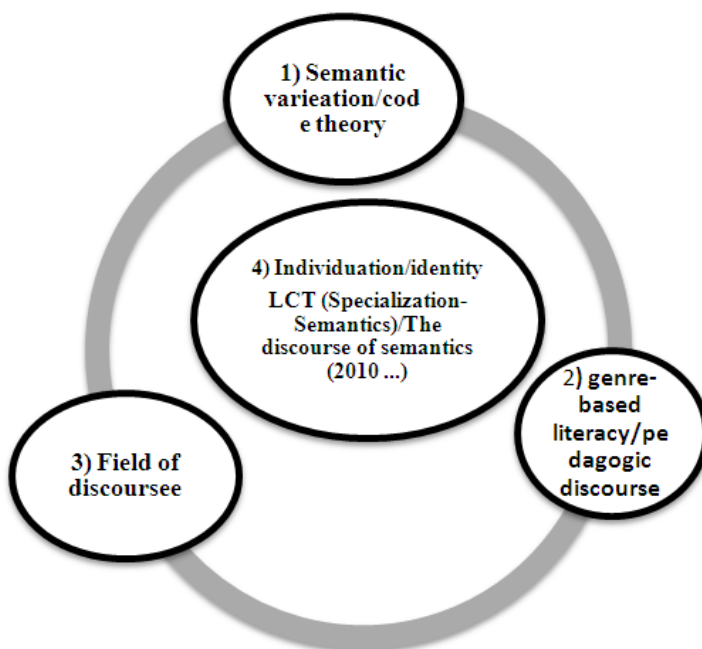
<sup>1</sup> Employed by Bernstein (1996, 1999, 2000), the terms common sense and uncommon sense knowledge discourse, the former being produced in informal context as it is the knowledge of the everyday life and the latter in formal context for being the scientific knowledge, will be explored in the second chapter of this thesis, since Bernstein's theoretical accounts of knowledge are one of the methodological resources underpinning this thesis.

these fields have been productive in certain approaches of linguistics such as in Discourse Analysis and Critical Discourse Analysis, which accounts for an increase in the number of interdisciplinary studies in the areas mentioned.

In Systemic Functional Linguistics (LSF henceforth), Martin (2011) recalls that the interconnectedness between SFL and other fields of science has shown its effectiveness in dealing with the difficulties and the challenges that studies from interdisciplinary perspectives may cause to arise. The open and dynamic system that SFL is, within which changes and adaptation to these changes are possible (Matthiessen, 2009), alongside the interchange of ideas among Basil Bernstein, Michael Halliday and Ruqaiya Hasan (Martin & Maton, 2013), accounts for the trajectory of interdisciplinarity involving SFL and Bernstein's code theory<sup>2</sup> in the field of the sociology of education across decades, spanning the 1960s to nowadays. Chronologically, Martin (2011) categorizes this expansion in four phases: I) Semantic variation (1960s-1980s); II) literacy-based genre (1980s—1990s); III) field (2000s); and IV) individuation (2000s) under coding orientation, pedagogic discourse, knowledge structure and identity as each one corresponding code theory (as schematized in Figure 1.1)

---

<sup>2</sup> Code theory refers to a number of organizing principles developed by Basil Bernstein intended to study the sociology of education in terms of transmission and acquisition of knowledge. Later on the same theory offered a framework comprising resources to study knowledge as an object of study known as Bernstein's knowledge structure from which Maton benefited to elaborate on Legitimation Code Theory (Maton, 2006, 2010,2003; Maton & Martin, 2013). The ongoing item of this chapter contends with it as it is the basis of this research.



**Figure 1.1.** Four phases of SFL/Social realism interdisciplinary dialogue. Source: Readapted from Martin (2011, p.54).

Special attention should be paid to the fourth phase (Martin, 2011). Following Martin, its strategic position inside the circle indicates that the avenues of the dialogue between SFL and the “social realism” have been paved through the introduction of Legitimation Code Theory<sup>3</sup> (LCT henceforth). Known as “a sociological toolkit for the study of practice” (Maton, 2013, p.10), as proposed by Karl Maton, who was Bernstein’s pupil and is now associated with the Department of Sociology and Humanities of the University of Sydney, LCT incorporates Bourdieu’s views as well as Bernstein’s views on the sociology of education but goes beyond these two contemporary

---

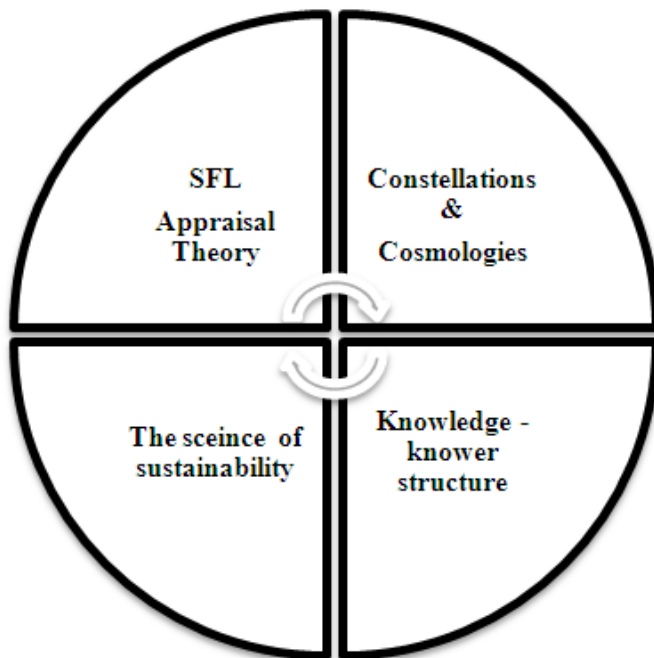
<sup>3</sup> Have free access to [www.legitimationcodetheory.com](http://www.legitimationcodetheory.com) in case you are interested in knowing more about the latest research under this prism. Also, there is a section in this chapter intended to better explore this issue.

thinkers. Involving aspects of “SFL”, “Applied Linguistics” and of other fields of science, Maton’s work on knowers’ structures, which focused on the repertoires of meanings of a language users distributed in different classes of a discursive community, is what enabled the connection between these areas (Martin, 2011). More specifically, as observed by Martin, bringing into play concerns common to “SFL’s individuation” and “affiliation” and Maton’s (*in press*) work on “constellations and cosmologies”, this work has opened up a window of possibilities in integrating LCT’s Specialization and Semantics within any given field to “appraisal”, “technicality”, “grammatical metaphor” and other approaches (Martin & Maton, 2013).

This thesis, entitled *A Sustainability Cosmology: An Analysis of a “Green” Company’s Sustainability Report*, enters that window of possibilities opened by LCT. Drawn on the concept of constellations and cosmologies, a concept within LCT- Semantics that also operates with the concepts of semantic gravity and semantic density (Maton 2013), Appraisal Theory, which Maton has incorporated in his approach, Maton’s knowledge –knower structure framework, which results from the filling in of a gap in Bernstein’s knowledge structure, alongside the science of sustainability (See Figure 1.2), this research focuses on analyzing how sustainability knowledge is managed in a discourse of a green company’s <sup>4</sup> annual sustainability report based on the meanings that their constellations convey.

---

<sup>4</sup> A Green company is defined as acting or claiming to “act in a way which minimizes damage to environment” ([www.wikipedia.org/wiki/Green Company](http://www.wikipedia.org/wiki/Green_Company)). The Oxford dictionary defines it as a business functioning in a capacity where no negative impact is made on the local or global environment, the community, or the economy. A green business will also engage in forward-thinking policies for environment concerns and policies affecting human rights (As available at [www.businessdictionary.com/definition/gree.business.html](http://www.businessdictionary.com/definition/gree.business.html))



**Figure 1.2.** The four dimensions proposed in this research

Maton (*in press*)<sup>5</sup> borrows from Bourdieu the notion *space of possibles* to elaborate on the concept of constellations. As conceptualized by Maton, constellations relate to “groupings that appear

<sup>5</sup> The data available in Karl Maton’s “Cosmologies: How to influence friends and people” concern concepts and principles underlying works on constellations and cosmologies, which is a case in point in the doctoral thesis proposed. When I was given access to this material during my advising sessions with Jim Martin at the University of Sydney in 2012, “Cosmologies: How to influence friends and people” was a draft intended for publication. Then, in this thesis, to refer to Maton’s work on cosmologies, I used the term “*in press*”, with the pages numbered from 01 to ... . It stands to reason that with the publication of “Cosmologies: How to influence friends and people”, the pages of reference may alter and differentiate from the ones indicated in this thesis.

to have coherence from a particular point in space and time to actors with a particular cosmology” (p.4). Resonating this concept of constellations with the scope of this research means that social actors in the green company investigated select practices, manifest values and beliefs related to the field of sustainability in order to appear located in time and space with the tenets of this field, thus attempting to satisfy the needs and exigencies of current business

The groupings that Maton refers to have to do with the arrangement of the stances. Paraphrasing Maton (*in press*), the term ‘stance’, also borrowed from Bourdieu, is a unit of meaning which condenses the practices, values and beliefs of a category within the field of study investigated. So, the stances form the constellations which in turn picture the world of possibilities of an individual or an entity - a cosmology or, in Bourdieu’s terms, a *space of possibles*.

Maton (*in press*) describes *space of possibles* or cosmology “as visions of the world embodied by actors’ practices, which underline the ways actors create constellations of stances that shape what is viewed as legitimate within a field” (p.2). In Martin and his colleagues’ (2010) work on cosmologies, this *space of possible* is understood as groups of ideas, beliefs and practice associated with the purpose of constueing a given field of study or of a category within this study.

As shown, individuals are at the core of this process of creating constellations and so are their ideologies. Regarding ideology, seen as a complex concept, Wodak (2007) explains that contemporary discussions on ideology have taken two distinctive positions: the dialectical one and that of “Popper’s Critical Relationlism, and, partly also Althrusser and Habermas” (p.1). As noted by Wodak, the latter views ideology as an apparatus that can replace scientific theories in case it construes reality based on false theories. The dialectical position, of which the philosopher Theodor Adorno is a representative, as recalled by Wodak, defends ideology as a product of “an unavoidable moment of thinking and acting” (p.2). Fairclough’s (1992) understanding of ideology appears to reflect the dialectal position:

[...] Significations/constructions of reality/the physical world, social relations , social identities, which are built into various dimensions of the forms/meanings of discursive practices, and which contribute to the production/reproduction or transformations of relations of dominations [...] (p.87).

Perhaps because of this domination, the epistemological and axiological aspects within a cosmology can be individuated at variable levels. Theoretically distinguishing between epistemology and axiology, the former is defined as “knowledge without a knower”; “knowledge without a subject who knows it” (p.111)<sup>6</sup>, an idea supported by traditional theoreticians of knowledge (Morin, 2008; Maturama & Varela, 2001; Musgrave, 1993; Lehrer, 1992), whereas the latter is theorized by Hart (1991) as the different ways in which values are manifested, these values being understood not in the sense of “mere appraising”, but in the sense of “value judgment” based on the episteme in use, as the author observes. So, considering the possible oscillation in these aspects, particularly concerning axiological cosmologies, constellations can be of heterogeneous or homogeneous nature within a particular cosmology, generating diversified cosmologies from the one already existing, particularly if the field claimed accommodates concepts and theories of other areas (Maton, *in press*).

The field of sustainability corroborates this aspect. Officially acknowledged in Amsterdam as an area of scientific research in 2001 (Zaman & Goschin, 2010), sustainability is entrenched in a three-dimensional scientific-based approach involving the areas of natural sciences, social sciences and humanities (Vieira P.; Berkes, F. & Seixas, C.S., 2005 a; Vieira, 2007, 2011). Because the fields of natural sciences represent the canonical science from where the traditional episteme derives (Foucault, 2005), the environmental sciences and conservation biology, which originate from natural sciences, account for the epistemological foundation of sustainability. Perhaps for the traditional episteme being fragmented in the nineteenth century, which welcomed man’s knowledge in the “order of knowledge” via social sciences and humanities (Foucault, 2005), it is explainable the reasons for the sustainability episteme having its concept standardized in three general basic pillars: ecological prudence, economy efficiency and social responsibility, where the former is linked to the conservation biology within the natural sciences, economy efficiency to social sciences and social responsibility to humanities. The following figure is illustrative:

---

<sup>6</sup> Translated from the Portuguese version.

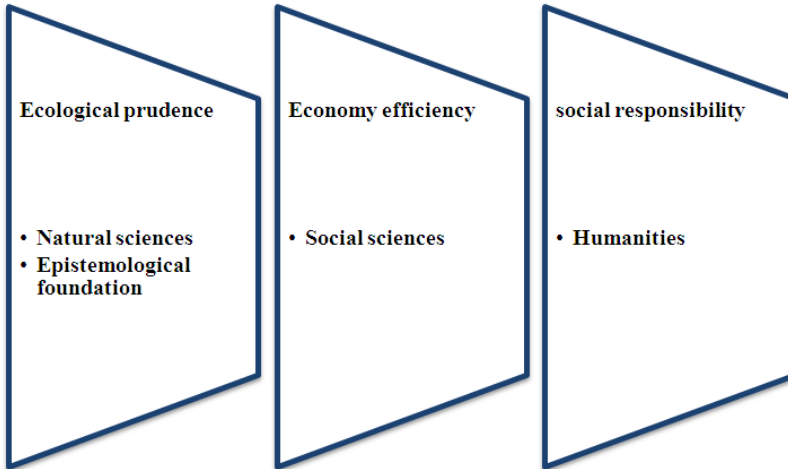


Figure1.3. The three basic pillars of sustainability and the areas of science within which each one originates.

In relation to these pillars, as exposed by Sachs (2007, 2009), Vieira (2007, 2010, 2011) and Berkes and Folke (1994), ecological prudence refers to the conservation of the natural resources systems available in the ecosystems in the long run. As to economy efficiency, it is concerned with generating reasonable and stable profitability in the long run by using the natural resources without exhausting them. Lastly, social responsibility has to do with the ecological dimension satisfactorily coinciding with the economic dimension, in the sense that the profits deriving from the use of a given ecosystem is reinvested in the form of projects and benefits to the local communities so that the quality of life is improved.

Since culture underlies the areas of social sciences and humanities and the interpretations of the issues of sustainability are culture-dependent, ambiguities and controversies in this realm are commonplace, as Tabara and Wholst (2007) remark- and there are more than 300 definitions for sustainability (Ehrenfeld, 2008 in Zaman & Goschin, 2010).

The assumption that culture is a determining aspect in social sciences and humanities reflects Maton's (2010a) thoughts. The author argues that both areas represent "culture wars", which sounds somewhat conflicting as many fields of science turn out to be "structures of feelings" rather than "structures of meanings" (Maton, *in press*, p. 13),



seen from the view that in certain occasions these fields, which sustainability can stand as an example, privilege a proliferation of values, moral and ethical aspects over information. The ways in which one manages the reservoir of meanings of a given language of science are what determines the nature of that structure. For instance, if there is unfounded knowledge subjectivity, it can put the epistemological basis of a certain field at risk, causing different types of knowers and “knowledges” to appear, as Maton explains. At times these knowledges and types of knowers are neither the right nor the ideal ones, which might be the case in some of sustainability cosmologies.

My initial concern with SFL started at the Post-Graduation Program in English at the Federal University of Santa Catarina, with my supervisor Dr. Viviane M. Heberle and members of the research group NUPDiscurso<sup>7</sup> at the University of Sydney, during my doctoral sandwich period, my concern towards analyzing the sustainability discourse in Kraft’s annual sustainability report from the perspective of constellations and cosmologies arose after being exposed to the latest research within SFL studies and after being motivated to conduct a *pilot study* on this topic in one piece of the initial data I had collected. The results of the pilot study have demonstrated that considering the level of complexity this research involves, in terms of interdisciplinary concerns, the proposed model provides resources that are suitable to deal with the existing epistemology or the missing epistemology and axiological aspects in the fields of scientific knowledge. This type of analysis may represent a gain in the field of SFL as it can serve as basis for other interdisciplinary studies that link SFL to other fields of science as the model cited operate particularly at the level of knowledge management.

From the link established between SFL and the science of sustainability, relying on research carried out across the years of PhD studies, it is possible to say that, to my knowledge, besides the proposed investigation, there is only one recognized work connecting SFL and

---

<sup>7</sup> NUPDiscurso is a research group under the supervision of Dra. Viviane Maria Heberle, which investigates text, discourse and social practices via critical discourse analysis (CDA), Systemic functional linguistics (SFL), multimodality and gender studies. Previously headed by Dr. Jose Meurer, NUNPDDiscurso has always sought to meet the needs of a contemporary scientific world focusing on the inter and transdisciplinary research. At present, the Group has not only been improving research on the areas mentioned but also developing studies geared towards the fields of socio-environmental theories, sustainability, internet and video games, thus being updated to the latest debates in today’s academic world.

sustainability issues in Brazil so far. This work is entitled “Discurso verde: reposicionamento discursivo das marcas” (Green Discourse: Reconstructing the Brands<sup>8</sup>, 2013), by Neiva Maria Machado Soares, a doctoral thesis in the database access of the Department of Linguistics of the University of Brasilia (UNB), which explores not only verbal language but also visual meanings.

Interestingly, although not having as central focus sustainability, as the investigation at stake and the previous work mentioned do, it is worth mentioning that another doctoral thesis entitled “Experiência executiva da liderança: uma tipologia baseada na gramática sistêmica funcional” (Construing meaning through executive leadership experience: a typology based on systemic functional grammar, the author’s translation, 2012), by Carlos Horonato, from the Department of Administration of the University of São Paulo (USP), links SFL with the area of business the same way as this investigation does. The differing point, however, is that the approach to sustainability in this work concerns the challenges it rises to the business area nowadays.

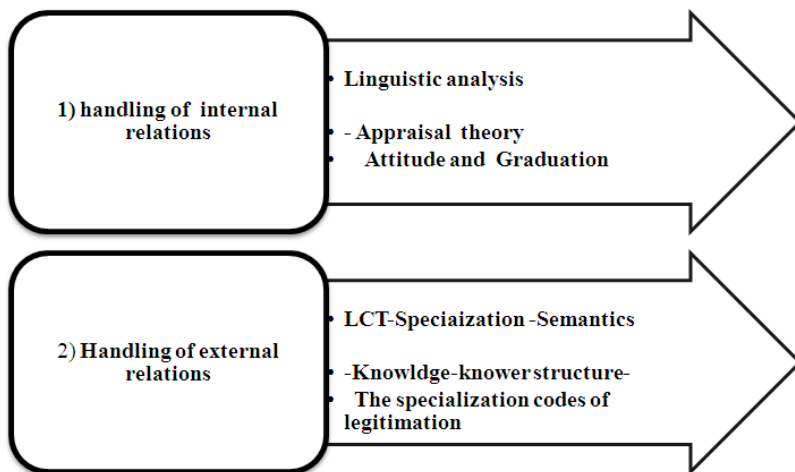
As shown, works linking SFL to the field of sustainability are still moving at a slow pace. Perhaps the ongoing years can eyewitness other pieces of research to come under this paradigm as there are some other scholars from the Federal University of Minas Gerais, in the State of Minas Gerais, Brazil (Universidade Federal de Minas Gerais – UFMG) exploring these issues altogether, with whom I have established some contact at the “8 Intercambio de Pesquisas em Linguística Aplicada (INPLA)”, a conference hosted by Pontificia Universidade Catolica de São Paulo’ (PUC), in São Paulo. With them, there was the chance of sharing the results of one of my studies conducted under that interdisciplinarity. However, none of those mentioned are constellations-based analysis.

Thus, in a broad sense, of constellational underpinning, this investigation links SFL, LCT and the science of sustainability. The initial thoughts on knowledge, ideologies, axiology and epistemology are helpful in understanding the dynamics involving works on cosmologies and constellations. The point of departure of *A Sustainability Cosmology: An analysis of a “Green” Company’s Sustainability Report* comprehends two different phases: (1) the “handling of the internal relations”; (2) the “handling of the external relations” (See Figure 1.4). In the former, there will be the linguistics analysis by means of the activation of the linguistic resources available

---

<sup>8</sup> Our translation.

in the stratum of discourse semantics, particularly the ones concerning Appraisal theory, more specifically the subsystems of Attitude and Graduation, in order to identify the stances and then form the constellations within which are condensed the social actor's values, beliefs and ideas towards sustainability. In the handling of the external relations, LCT's resources by means of Maton's accounts of knowledge-knower structure from the point of view of Bernstein's horizontal and vertical knowledge structure framework are deployed to the constellations identified in order to gauge the company's epistemological and axiological underpinning within the company's cosmology and hence find out the "specialization code of legitimation" among the four specialization codes under which the company is described, thus drawing the company's profile towards the science of sustainability; i.e., if the specialization code is an indicator or not of the possession of the expert's knowledge by the investigated enterprise (See Figure 1.4).



**Figure 1.4:** Phases of the research on constellations and cosmology

In a nutshell, these frameworks altogether in use, Appraisal which is explored in the third chapter and the knowledge knower structure alongside the four specialization codes of legitimation which are both the concerns of the following chapter, contribute to explain the dynamics involving the management of sustainability knowledge by Kraft Foods (Currently *Mondelez International*) in their discourse, more

specifically in their annual sustainability report entitled *Creating a more delicious world*, a composition of six texts documenting the company's possible sustainable practices, gains and progress in this field across the 2011 year (Figure 1.5. illustrates the report cover). Focused on the axiological charging of its terms, this thesis aims at unveiling the relationship between the known and the knower as well as the social relations that this relationship communicates in the cosmology of Kraft Foods Company, revealing therefore the company's type of knower.



**Figure 1.5.** The 2011 Kraft Foods Company's report cover encompassing the six entities of texts (To be presented in the "Methodology chapter". Retrieved from Kraft Foods official webpage. Available at [www.mondelezinternational.com/SiteCollectionDocuments/pdf./kraftsfoodsdeliciousworld2011.pdf](http://www.mondelezinternational.com/SiteCollectionDocuments/pdf./kraftsfoodsdeliciousworld2011.pdf) . Accessed in March, 2012.

### 1.1.1 Of the research aims and research questions

As previously stated, of interdisciplinary paradigm, this thesis focuses on how sustainability knowledge in Kraft Foods Company annual sustainability report is managed from a constellational perspective. In order to attend to the requisites of this study which is based on textual analysis at micro and macro levels, the set of research questions alongside the corresponding specific objectives here stated serve as a guideline to maintain the contours of the disciplinary parts this research involves.

Projecting Halliday's (1998a) idea that one understands knowledge when he is able to make it become meaningful on to the context of this investigation, it can be understood that the ways in which the linguistic resources are used by Kraft in communicating sustainability knowledge is what enables the answers not only to the following general research question posited in this study:

How does Kraft Foods Company construe their sustainability cosmology in their annual sustainability report?.

But also to the four research questions generated from this general question as an attempt to accomplish the following specific objectives:

- 1) • to delineate the values, roles and practices that the company views as legitimate within sustainability knowledge;
- 2) • to examine the nature of Kraft's constellations and the meanings that this naturalness communicates in Kraft's cosmological structure;
- 3) • to understand the relations of the company to sustainability knowledge practice through gauging the epistemological and axiological underpinnings contained in the company's discourse;
- 4) • to identify the possible generation of new knowledges and the ways in which their practices reveal what type of knower they are.

Below the four research questions posited according to the objective each one reflects:

- 1) Considering the repertoire of meanings in Kraft Foods towards the reservoir of meanings of the science of sustainability, what does this specific company view as legitimate in their discourse of their annual sustainability report?

Linked to the first objective; i.e., *to delineate the values, roles and practices that the company views as legitimate within sustainability knowledge*, the pursuit for this answer consists of deploying the linguistic resources to the data selected in order to identify the company's attitudes, roles, practices and values. These "feelings" condensed in the form of stances contribute to make up the system of constellations that forms Kraft's cosmological structure.

- 2) How does the company construe their *space of possibles*?

Aligned with the second objective, *to examine the nature of the constellations and the meanings that this naturalness communicates in Kraft's cosmological structure*, in answering this question, since the inscriptions of sustainability knowledge and thereby the constellations will already have been identified by this time as a result of the deployment of the linguistic resources to the data, I will observe how these constellations are distributed in Kraft's cosmology in order to find out the company's inclinations towards the issues of sustainability. This is the occasion when it is possible to identify whether or not the company's repertoire of meanings is within the reservoir of meanings of sustainability. That is, the acknowledgement of the nature of Kraft's constellations, if binary or not; i.e., if there are inscriptions of knowledge of other field of science other than the one of sustainability.

- 3) What are the relations of the company to sustainability knowledge practices?

Related to the third objective, *to understand the relations of the company to sustainability knowledge practice through gauging the epistemological and axiological underpinnings contained in the company's discourse*, the response to this question is conditioned to the handling of Bernstein's and Maton's resources available in the knowledge-knower structure framework. These resources allow for gauging the epistemological and axiological underpinning contained in the axiological charging of the terms on which Kraft cosmology is

based. This is the stage when it is possible to find out the relationship between the known and the knower as well as the social relations this relationship communicates.

- 4) What does Kraft's cosmological structure reveal about the knowledge-knower structure? What type of knower are they?

Concerned with the fourth objective, *to identify the possible generation of new "knowledges" and the ways in which their practices reveal what type of knower they are*, in such an answer, I will enquire into the findings related to the epistemological and axiological underpinnings in order to identify the specialization code of legitimation that best characterizes the company's profile in terms of the mastery of sustainability knowledge. In Brief, as proposed by Maton, the specialization codes of legitimation, which will be explored in the second chapter of this thesis, use the symbols 'ER+/-, SR+/-, standing for strong/weak epistemic relations and strong/weak social relations, as indicators of the level of the epistemological and axiological aspects individuated in a given cosmology as a way to draw the company's profile in relation to sustainability and thereby scribing the company its corresponding specialization code of legitimation, which can reflect or not the possession of the expert's knowledge, thus revealing the type of knower in the enterprise investigated.

Methodologically speaking, to supply the answers to these questions, of which answers are a proof that the specific objectives stated in this research are achieved, two distinctive stages are required. In the first stage, the annual report is analyzed via appraisal theory, particularly the subsystems of attitude and graduation for the identification of Kraft's stances and then constellations which allows for the understanding of the nature of constellations within Kraft's cosmology, thus reaching the first two specific objectives. In the second stage, relying on the constellations identifiable is the application of the resources available in Maton's knowledge-knower structure, signaling that the two remaining specific objectives are achieved.

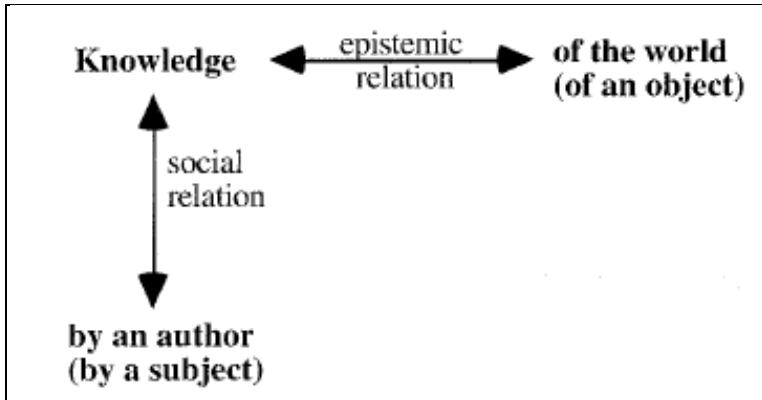
More details concerning these two distinctive stages are available in the fourth chapter of this thesis that is intended to explain in details the methodology applied to this research.

## 1.2 The Bridge to LCT

LCT arises out of the attempt to fill in a gap detected in Bernstein's knowledge structure framework (Maton, 2010a). According to the author, the central basis of its development integrates Bernstein's understanding of what the "structuring of knowledge" is about and Bourdieu's 'field' theory, which sought to figure out the motives for "the relationally positioned struggles over status and resources" (p.37) in the educational fields. Maton informs that for being inspired by the questions of "how", "who", "where" and "when" in use in Bourdieu's theories to describe the mentioned struggles, LCT is launched as encompassing concepts and principles designed to study the structure of the structured form of knowledge – the exploration of the nature of the uncommon sense and common sense knowledge discourse - where the focus of attention is the construal of knowledge-knower structures.

In LCT, "for every knowledge structure there is also a knower structure" (Maton 2006a, p.58). According to the author, "when actors make knowledge claims or engage in practices they are at the same time making a claim of legitimacy for those practices" (Martin, 2010a, p.37). Maton summarizes this idea by stating that "knowledge claims and practices are simultaneously claims to knowledge of the world and by authors, or oriented towards or about something" (p.43). In practical terms, this is the interplay between "epistemic relations" and "social relations", where the former refers to the relation between the object suggested and the field of science and the latter the relations one shows to share with the object being claimed (Figure 1.6).





**Figure 1.6:** Relationship between epistemic relations and social relations. Retrieved from Maton, 2000, p.155. [Slides provided by Martin as part of his Conference in Shanghai, China, 2012].

As shown, LCT enables the observation of whether or not social actors share some intimacy with the object claimed. Inspired by Bernstein’s thoughts, the resources provided by LCT contribute to scrutinize whether the “pedagogy” with what these social actors are affiliated is “visible” or “invisible”<sup>9</sup>, unveiling, as inspired by Maton, the “truth” and “truthiness” contained in the construal of knowledge. In the context of this investigation, this means that LCT resources enable the view whether or not the “inner logic” of the knowledge discourse being individuated reflects its organizing principles. If it does, it is a proof that visibility by social actors in relation to the object claimed is proven and that their truth is the truth pursued by science. If not, it is just the way around; i.e., the invisibility shown by social actors indicates that the inner logic of the knowledge individuated is not in compliance with its organizing principles, meaning that their truth is like mere opinion or belief, as suggested by Hart, thus having no relation to the

---

<sup>9</sup>Visible and Invisible pedagogies are concerned with the ways in which knowledge/subjects were transmitted. Bernstein (1984) focuses his work on studying the “inner logic” of the pedagogic discourses in the pedagogic practices hence revealing the pedagogy in use, whether visible or invisible. About these pedagogies, Bernstein (1984) claims that the more implicit the mode of transmission and the more confusing its criteria, the more invisible is its pedagogy. Otherwise, as put by the author, if the mode of transmission is explicit and the criteria underlying these principles are specific, the more explicit its pedagogy.

truth that science pursues. In brief, that mere appraisal brings into play invisibility and thereby truthiness which is momentary in a given space and time as it is based on one's ideas and beliefs - "the truth is no guarantee of belief; belief is no guarantee of truth" (Maton, *in press*, p. 1).

Considered "a sociological toolkit for the study of practice" (Maton, 2013, p.10), LCT encompasses the following five dimensions: "autonomy", "density", "specialization", "semantics", and "temporality"<sup>10</sup>. Of these dimensions, researchers have been applying mainly Specialization to interdisciplinary studies to build on the concepts of epistemic relations, knowledge knower-structure and the specialization codes of legitimation (Martin, 2011). Still in reference to Specialization, Maton (as cited in Martin 2011, p.65) has lately incorporated "LCT (Semantics)" into this dimension, which copes with the concepts of semantic density and semantic gravity and constellations and cosmologies upon which this thesis rests. By now the interconnection between SFL and social realism starts as part of that circle completion.

### 1.2.1 SFL and LCT's Semantics -Interface

Considering the focus of LCTS which is the construal of knowledge-knower structure, the understanding of SFL as "a resource for making meaning" (Halliday & Matthiessen, 2004, p.23) in this context implies that any utterance or piece of writing means meaning being manifested either in the form of a common sense or an uncommon sense type of knowledge, a statement corroborated by Halliday's (1998b) consideration that knowledge is "prototypically made of language" (p.25). That is to say, to affirm that an individual understands knowledge is to assume that he has used the linguistic resources available in the semantic system to make a specific idea become meaningful.

Although all strata instantiate and individuate (See figure 1.4), Zhao (2012) registers in her doctoral thesis "knowledge Building in Physics Textbooks in Primary and Secondary School" that it is in the stratum of discourse semantics that the construal of knowledge very often happens, since this is the stratum that operates primarily at the level of vocabulary which is the linguistic tool more accessible to the

---

<sup>10</sup> [www.legitimationcodetheory.com.br](http://www.legitimationcodetheory.com.br). Accessed in July 2013.

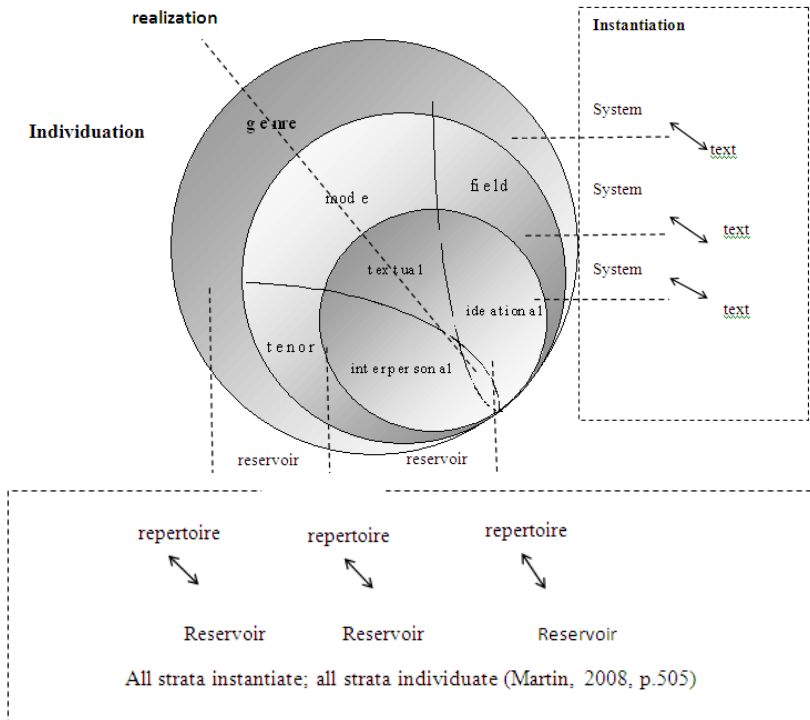
speakers of a language (Halliday & Martin, 1993). In SFL-LCTS, the “story” is the same. According to Martin (2011), one of the initial marks of SFL’s dialogue with LCTS concerns the ways grammatical metaphor and technicality are deployed in different knowledge structures for the construal of hierarchal and horizontal knowledge structures alongside the effort made to make these aspects intelligible to non-linguistics researchers. Since then, the impetus was given to construe the disciplines relying on SFL’s Discourse Semantics departing from the study of the knowledge-knower structures (Martin, 2011). Some of these studies: Zhao, Q.’s knowledge building in Physics Textbooks in Primary and Secondary Schools (2012); Martin and his colleagues’ Historical Cosmologies: Epistemology and Axiology in Australian secondary school discourse (2010); Hood’s inscriptions of knowledge and knowers in Academic Writing (2010); Martin’s Some Thoughts on Identity in Youth Justice Conferencing (2009c), among many others already concluded or in progress.

Retrieving Halliday’s idea that it is via people’s acts that knowledge is turned into meaning, the complementary hierarchy ‘individuation’ placed at an intermediary level between the hierarchies of realization and instantiation attends to this purpose as it switches the focus from language use to language users (Martin, 2009c). Martin recalls that this hierarchy is viewed from two perspectives by SFL researchers: one of these relates to Hassan’s work on “semantic variation” in which individuation is understood as a “hierarchy of allocation”, where language users can choose the resources among the “semiotic resources” at their disposal that best build on specific contexts (Hasan 2005a, 2009, Williams 2005 as cited in Martin, 2009 C, p.563); another refers to Martin’s understanding of individuation as the ways in which the social semiotic resources available in language are activated by “persona” to “commune” and “affiliate”<sup>11</sup> with one another (Martin, 2009c).

---

<sup>11</sup> Technically, the verbs *commune* and *affiliate* refer to what Martin calls “affiliation” which is a result of the act of individuating. More explicitly, Martin (2009) sees individuation as a dual-purpose function: the individuation of the hierarchy of allocation; the ways in which the activation of this hierarchy occurs in order to form “social bonds” which permits that one is categorized as belonging to specific groups - “including relatively ‘local’ familial, collegial, professional and leisure/recreational affiliations and more ‘general’ fellowship reflecting master identities including social class, gender, generation, ethnicity and disability” (Knight, 2009 as cited in Martin, 2009, p. 564).

Bernstein's (2000 in Martin, 2009C, p.563) understanding of individuation approaches that of Hassan in that the totality of the semiotic resources in the building of knowledge is realized by the interplay between the repertoire of meanings of a given field of science (the hierarchy of allocation) and the repertoire of meanings one develops from the former (the hierarchy of allocation in distribution). In other words, this means that in the context of knowledge building, one affiliated with a given intellectual field individuates the reservoir of meanings of this field across the hierarchy of realization in order to develop the individual's repertoire of meaning intended to shape the meanings in a certain text type (See figure 1.7 below). In resonating this with the discourse of sustainability, object of this research, the company under analysis develops its repertoire from the reservoir of meanings of sustainability and it is at how that hierarchy is individuated that it is possible to identify the company's specific roles, attitudes and practices – that *space of possibles* that Maton suggests.



**Figure 1.7:** An overview of the hierarchy of individuation in between the hierarchies of realization and instantiation. Readapted from Martin (2009c). Source: slides provided by Martin as part of his Conference in Shanghai, China, 2012.

It is in the hierarchy of individuation that SF and LCTS mostly approach to analyze people's ideologies and thus Knowledge-knowers' structures, as LCT proposes. Endorsed by Martin (2007), "individuation allows us to bring the interests of individuals and interests of groups into the picture, opening up considerations of the ways in which affiliations are negotiated and communities aligned" (p.295).

Thus, ideologies are at the core of individuation. As previously considered, the ways in which these ideologies are handled may undermine the epistemological and axiological foundations underlying fields of science, which might lead them to be popularized in a distorted way rather than in a positive way, as expected. That is, instead of propagating the positive effects of science such as the promotion of the maintenance of knowledge domain (Motta-Roth, 2009), science can

generate the bad effects such as the weakening of the episteme. Maton's concern with these effects of the popularization of science is what gave impetus to the development of works on cosmologies, which is the concern of the next chapter.

### 1.3 Significance of the research

Interdisciplinary research cannot be “the sum of its disciplinary parts” (pp.35, 36), as explained in Martin's (2011) article on interdisciplinary issues, nor can it privilege a given knowledge domain over another. In the present thesis, because of the complexity it involves, in which insights of interdisciplinary studies in sociology, environmental issues and linguistics are at play, there is an uninterrupted tension between converging these different types of knowledge and selecting the portion of interest of their subject parts that best attend to the purposes of this research throughout the process of this scientific production. Furthermore, I conceive of it as being part of a twofold project as its benefits are reflected not only in the academic scenario but also in the personal sphere, as I explain below.

In the academic scenario, originality as well as the gains brought about into the field of science, of linguistics, and particularly of SFL, are acknowledgeable from several perspectives. First of all, the construal of sustainability knowledge itself awakens the interest not only of scholars in general but also of the whole society insofar as sustainability has become a social phenomenon and subject to many ambiguities and misinterpretations. Secondly, the structuring and the structured structure of this knowledge through the lens of Bernstein's and Maton's accounts of *knowledge-knower structures* provides a set of criteria and principles to understand the dynamics of knowledge management and building. Since these issues appear to be unexplored within the traditional models offered by science, this can widen the perception of genuine science towards rethinking and reformulating the ways in which scientific knowledge is transmitted. In other words, scientists can be sensitized to replace the scientific choices they make in transmitting the information, generally appropriating of technical terms with high semantic density, for lexical choices that match with the repertoire of meanings of the majority of the social actors in the discursive communities, maintaining, on the other hand, the epistemological basis that makes genuine science be what it should be: committed to the pursuit of scientific truth. This can impose on lay people more responsibility managing knowledge in

the production and reproduction of their discourses. Next, science frees itself from being blamed for the cause of knowledge-blindness, as it is in many situations, contributing to the formation of closer ties with society which is the role it should always be playing. Lastly, this can help reduce those negative effects resulted from the manipulation of knowledge by outsiders reflected in the circulation of genres that contribute to popularize science.

Specifically within linguistics, the interplay of knowledge and meaning via a constellations-based analysis from the perspective of SFL sharpens and strengthens its dialogue with other fields of science, reinforcing the completeness of that circle about interdisciplinary studies. Besides, the constellational structure modeled here provides the area of SFL with another level of analysis from which other works can be explored. Specifically within SFL, the deployment of appraisal theory as a key methodological tool in forming that *space of possibles* brings into play the latest development in this approach updating researchers and those interested in it. Additionally, this work represents an aggregate of other pieces of research carried out in the realm of the popularization of science, thus contributing to the expansion of this area.

Personally, this thesis is part of a happy-ending story. It consolidates and unifies two opposing areas of my educational background and professional profile: BA in English and a master degree in environmental sciences and sustainability in the Amazon. Because they are apparently in opposite sides, in the sense that English is within the area of linguistics and sustainability within the broad area of environmental studies, there was always a feeling of uneasiness in relation to how this could be brought together so that the circle of my professional profile could coherently be filled in. The exposure to SFL and CDA (Critical Discourse Analysis) research throughout the PhD Program at the Federal University of Santa Catarina, Brazil and at the University of Sydney, Australia supplied the answers I have been pursuing for a couple of years: distinctive fields end up converging at a certain extent and at a particular point, of which language is the point of convergence

#### 1.4 Organization of the thesis

As a whole this thesis encompasses seven chapters. The present chapter sought to outline the major constitutive features underlying the organizational structure of this work. Because of its interdisciplinary

concerns between a recent sociological perspective and systemic-functional linguistics, the subsections in this introductory chapter were presented to prepare the reader in terms of Bernstein's contributions on the issues surrounding knowledge which gave impetus to Maton's recent work on cosmologies and constellations. The aforementioned chapter is an invitation to those who are interested in understanding the dynamic of the structured form of scientific knowledge in today's society.

Chapters (II) and (III) attempt to provide the theoretical background necessary for the identification and then the analysis of the constellations. In doing so, *chapter II* encapsulates the theoretical accounts of constellations and cosmologies and of Maton's framework deriving from Bernstein's work on knowledge structure. In the course of chapter III, considerations in terms of the subsystems of attitude and graduation are explored on the basis of the linguistic analysis from where the stances (inscriptions of sustainability knowledge) and then constellations are identifiable. Chapter II alongside Chapter III serve the basis on which the analysis of the data relies.

In chapter IV, there is a detailed description of the methodological tools and procedures applied to this study. Here the procedures for the management of the internal relations and external relations which are necessary in a work of cosmology are delineated and then put into practice in the two subsequent chapters as they are the chapters designed to support the analysis of the data.

Therefore, chapters V and VI present the analysis of Kraft's annual sustainability report based on the selected theoretical perspectives. At this point efforts are made to supply the answers to the research questions posited which in turn indicate that the specific objectives stated in this thesis are achieved.

More specifically, in chapter V the inscribed modes of the subsystem of attitude and then graduation within appraisal theory enable the handling of the internal relations with the view to identify inscriptions of sustainability knowledge generated from the company's ideas, values and practices for the formulation of the stances and then the constellations that are going to build Kraft's cosmology. All the inscriptions of knowledge targeted as a result of the appraisal framework are underpinned by the theoretical foundation of sustainability, and the theoretical explanations are arranged in the form of a guideline available in appendix III.

In Chapter VI, there will be the application of the theoretical accounts of the knowledge-knower structures as a way to deal with the external relations present in the cosmology built in order to discuss the



epistemological and axiological underpinnings which enable the drawing of the knower's profile.

To close the present thesis, chapter *VII* consists of a recap of the considerations drawn throughout the *corpus* of this research, particularly when it comes to those referring to the responses given to the research questions posed. Beyond the accomplishment of the objectives of this research, the final product of this investigation is to put at disposal of researchers and students a work supplying new resources and tools to explore interdisciplinary studies in the area of SFL, in particular in case the study of a scientific field is at play. Likewise, it is hoped that the model this research provides may be extended to other areas such as to language teaching and other correlated areas regarding knowledge structure.



## Chapter II

The theory of knowledge, or epistemology, is actually a long and still unfinished war between dogmatism and skepticism. It is in this war, a war of words rather than swords that we shall be examining (Musgrave 1993, p. 10)

### **2 Cosmology in the interplay between Bernstein's knowledge structure and Maton's knower structure**

#### Introduction

LCT, as briefly explained in the introduction, results from an attempt to fill in a gap in Bernstein's knowledge structure framework. In a sense it resignifies the resources available in Bernstein's knowledge structure framework for the formulation of the knower-structure model which culminates in a configuration of theoretical and methodological resources capable of examining the epistemological and axiological underpinnings of a given cosmology.

The creation of this model is motivated by Maton's (2006) belief that "for every knowledge structure there is also a knower structure" (p.58). Implicitly, in this citation resides Maton's recognition that there is a change in the ways in which the nature of knowledge is viewed and explored: from its structuring of knowledge to the structure of the structured form of knowledge. That is to say, a drift from the understanding of what the knowledge structure is about towards how this knowledge structure is structured by one who is affiliated with a given field of knowledge – from Bernstein's what to Maton's how.

Considering the newer dimension within LCT called LCT-(Semantics), which concentrates on, *inter alia*, the concept of constellations and cosmologies, where LCT's knowledge-knower

structure framework mentioned above operates, this chapter makes an attempt to encapsulate the major points of the theoretical accounts of constellations and cosmologies, Bernstein's knowledge structure and Maton's knowledge- knower structure framework and the four specialization codes of legitimation.

## 2.1 Constellations and cosmologies

In a broad sense, works on constellations and cosmologies aim at examining the dynamics of knowledge management in modern society. As considered before, Maton's (2006) perception that "for every knowledge structure there is also a knower structure" (p.58) suggests that within works on cosmologies there must be the consideration that knowledge is socialized and as such it allows for personal interpretations within which several different ideological orientations may flourish. Some of them may match with the epistemological and axiological foundations underlying a given knowledge domain whereas some others may differ from those expected within a given field of science. Maton alerts that new knowledges can emerge from the one already existing and so can other types of knowers, proliferating a new knowledge code, the information one gives is more important, or, a knower code, the one who gives the information is more important than what information is given (Maton, 2007, 2010a).

Thus, the proposal of cosmology is to study all these aspects, i.e., basically the epistemological and axiological relations within a cosmology. As defined by Maton (*in press*), cosmology refers to "a system of constitutive features of social fields that underline the ways actors and practices are differentially characterized and valued." (p.4). Metaphorically, as Maton verbalizes it, it is "what makes one system of ideas and practices sexy and another not so hot." (p.4). Interpreting Maton's notion of cosmology, it is plausible to say that the goals, commitments and interests of certain groups within a field determines that sexiness and heat.

According to Maton, the consideration of the internal and external relations is what shapes the hierarchizing of actors and practices in a social field. As explained by the author, the internal relations have to do with clustering the ideas, practices and beliefs in the form of stances as to compose a certain cosmology within which is possible to observe if these "feelings" are in harmony or disharmony with other clusters. - the process of "constellationing" and "clustering". The

external relations, as the author advocates, concern the analysis of the epistemological and axiological condensation in the constellations in order to find out the degree of epistemology and axiology existing the cosmology – the process of “condensation” and “charging”.

Because science to be regarded science necessitates the episteme which in turn produces the technicality involved in the fields of natural sciences such as in biology and physics, epistemological condensation exists not only in epistemological axiology but also in axiological cosmology. Maton (*in press*) conceptualizes both types of cosmology:

*Epistemological axiology*, where the ‘sex appeal’ of stances is based on their comparative explanatory power, such as emphasizing internal coherence, economy and worldly corroboration;  
*Axiological cosmology*, where stances are measured in terms of their Comparative capacity to place knowers in a good light (p.6)

In differentiating epistemology cosmology from axiological cosmology, the former is built through exploring the propositions and theories whereas the building of the latter centers on man’s perception based on values, ideas and beliefs, this categorical type being a case in point in this research. From this consideration, it is plausible to say that axiological cosmology is a product of abstraction as it deals with abstract concepts and interpretations whereby the areas of social sciences and humanities are translated, which in turn causes epistemological meanings (“epistemic referents”, “concepts and “theories”) and axiological meanings (“feelings”, “ethical”, “moral” and “political values”) to occur at variable levels or sometimes in the exceeding of the axiological terms used (Maton, *in press*).

However, this variation of epistemological and axiological meanings is not only a privilege of axiological cosmologies. In truth, Maton (*in press*) assures that more or less epistemological and axiological meanings can be condensed in every cosmology. That is, as explained by the author, these meanings can be either emphasized or downplayed; at times epistemological condensation can be proportional to axiological condensation, also at times epistemological meanings can predominate over axiological meanings, or vice-verse, since it depends on how the knowledge domain is mastered.

This vice-verse condition may correspond the reality in sustainability cosmologies, the object of this research, insofar as this

area has been pervaded by varied interpretations and ambiguities brought about by the cultural phenomenon that sustainability has become (Tábara. & Phal-Wostl, 2007). At times an array of values, ideas and beliefs encompassing a sustainability cosmology may not even relate to that within the reservoir of meanings of sustainability, thus condensing neither epistemological meanings nor axiological meanings.

Emphatically, concerning the stances, which has been previously defined in the singular form (stance) as a unit of meanings, their arrangement and combination is what constitutes the constellations and *the space of possibles* of a social field. Therefore, constellations relate to “groupings that appear to have coherence from a particular point in space and time to actors with a particular cosmology” (Maton, *in press*, p.4). Considering that social actors determine the *space of possibles* of a field, depending on the actors, time and struggles, constellations may vary or even present binary constellationability, as the author observes. About the latter, the author adverts that this might happen because social actors linked to fields that straddle the line between two poles tend to assume that the adoption of a certain stance within constellations of a given pole necessarily indicates that the other stances bounded to that one adopted are necessarily considered within that field. It is as though it were a natural and automatic phenomenon, being it not legitimate, though. For instance, in this research on sustainability studies, one may regard *conservation* and *preservation* as stances comprising the same *space of possibles*. However, each one has its own space in different *spaces of possibles*.

Still in reference to these binary constellations, according to Maton (*in press*), it is not because the constellations are binary that the analysis is binary. On the contrary, the constellations analysis is unambiguous and it is through such analysis that it is possible to know the “what”, “how” and “why” of the constellations built.

It seems that constellations of the fields of science can be somewhat compared to those of the sky in that some stars might appear to a beholder shiner and more prominent than others in a *cosmos* – those sexy ideas addressed by Maton. Then, sexiness is in the eye of the beholder. The contemplation of some specific stars rather than others available in that *cosmos* may indicate the beholder’s preferences, values and satisfaction of his needs from where his own cosmology is formed. For this reason, following Maton (*in press*), cosmologies within a common area of science may range, differentiating from one another or equating one with another, or even mixing up stances contained in

distinctive poles (conventional business x sustainability-driven business in the case being studied) within a particular field.

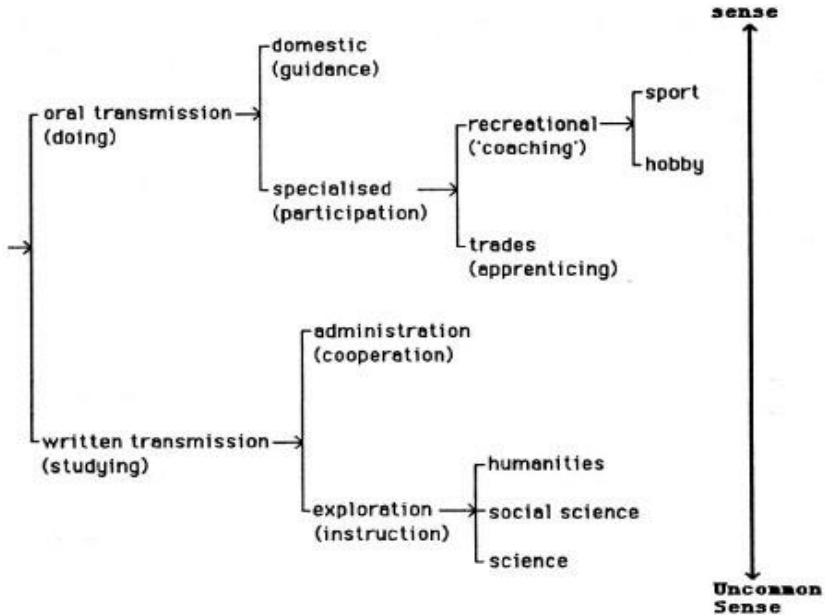
Because the interplay between Bernstein's knowledge structure and Maton's knower structure provide the resources needed to understand what the nature of the investigated company's constellations is, whether binary or not, the following sections are devoted to explore that interplay.

## 2.2 Bernstein's Knowledge structure framework

Dealing with this framework, Bernstein (1999) sees knowledge as being structured into two different categories: horizontal discourse and vertical discourse. As regards horizontal knowledge structure, Bernstein conceptualizes it the common sense discourse that takes place in every day life and as such it is characterized as "oral, local, context-dependent and specific, tacit, multilayered, and contradictory across and within contexts" (p.159). Conversely, vertical knowledge is the other way around. As described by Bernstein (1999), it is the uncommon sense discourse type, of the language of science. Generally in a written representation, as observed by Bernstein, its realization depends on the exploration of "metaphoric language", "in the sense of grammar", or, simply put, a "packed" language from the view that it condenses technicality and abstraction (Halliday, 1998a).

Still in reference to the linguistic aspects, the combination of semantics ("figure", "process", etc.) with lexicogrammar ("clause", "verbal groups", etc.) aspects is what aids in differentiating the uncommon sense knowledge discourse from the commonsense knowledge discourse (Halliday 1999, 1998b, 1997, 1995). More explicitly, the ways in which these resources are manipulated build up grammatical systems with features which are particular to one knowledge discourse type or another, a fact that contributes to telling them apart by merely hearing or looking at these discourses.

In sum, the boundaries of common sense and uncommon sense knowledge discourses are well-defined. Within SFL, Martin (1992 as cited in Martin, 2011) has projected the understanding of these discourses on to the descriptions of the discipline from a social perspective. Below is a summary of Bernstein's thinking about these discourses within SFL (See figure 2.1):



**Figure 2.1:** Martin's taxonomy of field. [Retrieved from Martin et. al. 2010, p. 440] Available at [www.google.com.br/knowledge](http://www.google.com.br/knowledge) – Knowers structure/images.

### 2.2.1 Vertical Knowledge Discourse

I present below the concept of vertical knowledge in accordance with Bernstein (1999):

Vertical knowledge takes the form of a coherent, explicit, and systematically principal structure, hierarchically organized, as in the sciences, or it takes the form of a series of specialized language with specialized modes of interrogation and specialized criteria for the production and circulation of texts, as in the social sciences and humanities (p.159).

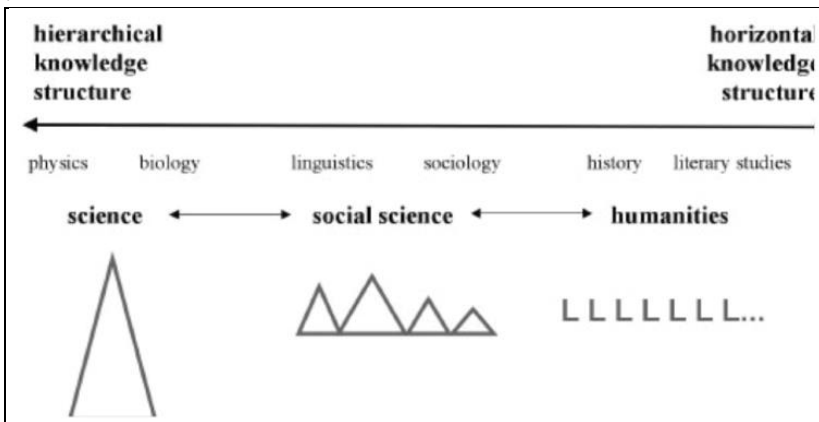
Intrinsically in this concept there is the cohesive tie 'or' dividing two different regions in the same space. The section prior to *or* explains the hierarchal structure and the one after *or* the horizontal structure



(Bernstein 1999). Thus, vertical knowledge is the joining together of the hierarchal structure and horizontal structure, each structure with well-defined counters.

Of the differentiation of these regions, hierarchical knowledge structure is characterized by propositions and theories being integrated at “lower level” in a hierarchy (Bernstein 1999). That is to say, as explained by the author, the theories and propositions are gradually integrated until these theories and propositions reach “a more abstract level”. Bernstein endorses this integration does not happen at random; i.e., consistency in integrating the converging phenomena as part of a single unit is mandatory. A triangle symbolizes a hierarchical structure. Unlike the hierarchical knowledge structure, the horizontal one attends to the management of “specialized languages”. As observed by Bernstein (1999), these languages are “based upon collection or serial codes; integration of language in one case and accumulation of languages in the other” (p. 163). Following Bernstein, this form of knowledge can bring into play “a fresh perspective, a new set of questions, a new set of connections, and an apparently new problematic, and most importantly, a new set of speakers” (p.163)

Interestingly, relying on these explanations of hierarchal and horizontal knowledge structures which altogether compose the vertical knowledge discourse, Martin et. al. (2010) in their research documents the areas of the disciplines belonging to each structure, with the disciplines within social sciences and humanities developed under the horizontal structure while the ones of the natural sciences under the hierarchical knowledge structure discourse. With it, the scholars endorse that vertical knowledge is a junction of areas and not an opposition of them. The following figure is illustrative:



**Figure 2.2:** An overview of the disciplines within the areas corresponding the hierarchical knowledge structure and horizontal knowledge structure [Retrieved from Martin et. al. (2010, p.438). Available at [www.google.com.br/knowledge-knower-structure](http://www.google.com.br/knowledge-knower-structure)]. Accessed in June 2013.

In a more personal interpretation, as based on this figure, the triangle on the left-hand side represents the theories in integration in science, i.e.; the place of the episteme or the hierarchy which is translated by the language of technicality whereby the areas of physics and biology lie. As to the series of triangles in different sizes placed in the center of the figure, they indicate the several specialized languages pervading science any time. As displayed, the disciplines of linguistics and sociology exemplify these areas. With respect to the series of “L” on the right-hand side in there, they signal the proliferation of specialized languages. History and literary studies are examples in these areas. In sum, this figure shows the trajectory the fields of science runs: from the natural sciences to the humanities, in which the knowledge structure of the former is of a hierarchical structure because of the sense of technicality imbued and of the latter a horizontal structure where specialized languages are considered.

Specifically about the specialized languages in the horizontal knowledge structure, Bernstein (1999) explains what they would be like in some areas. For the area of English literature, as the author exemplifies, “criticism” is the source from where the specialized languages originate; for that of Philosophy, the languages are varied. The language of the former possesses a “strong grammar” whereas that of the latter has a “weak grammar”. The term ‘grammar’, which refers to

horizontal knowledge structure, is proposed by Bernstein (1999) as a criterion to define languages with an “explicit conceptual syntax capable of ‘relatively’ precise empirical descriptions and/or of generating formal modelling of empirical relations” (p.164). That is, in fields with the powers of the language relatively high in terms of empiricism, a strong grammar is observable. Relying on Bernstein, economics, linguistics and parts of psychology exemplify this group. By contrast, as this author adds, a weak grammar predominates in fields where those descriptions and relations are minimal or low. As put by him, these fields include “sociology”, “social anthropology”, and “cultural studies”.

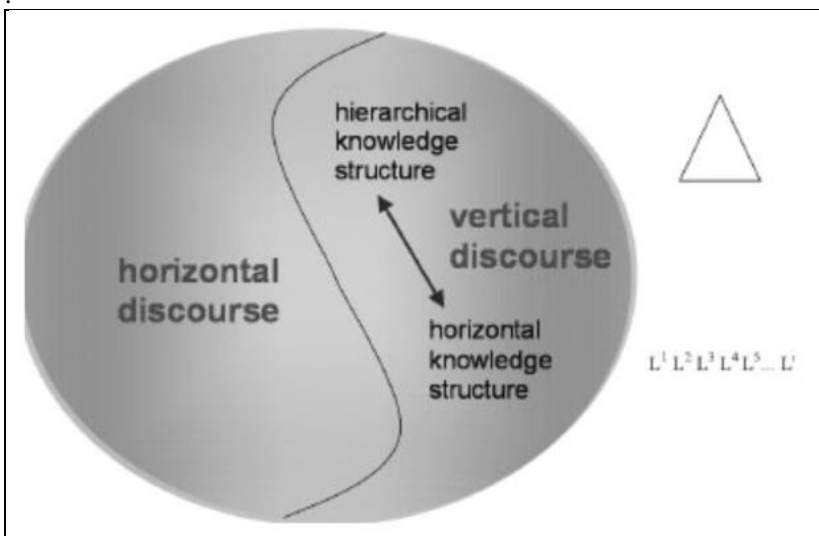
To manage fields in the horizontal structure, an acquired gaze of the specialized languages of the field being claimed is mandatory (Bernstein, 1999). As noted by the author, “for to know is to ‘gaze’ [...], a gaze has to be acquired, i.e. a particular mode of recognizing and realizing what counts as an “authentic sociology reality.” (p.165). In these structures, following Bernstein, “truth” depends on this acquired gaze. This is to argue that if a field in horizontal structure is claimed for legitimacy, which sustainability is a case in point here, truth depends on the eye of the beholder towards this field, whose repertoire of meanings can or cannot be linked to the reservoir of meanings of the field being claimed.

Nevertheless, this is not what happens in the fields in hierarchal structures. In these structures, the mastery of the theory and the procedures of investigation and observational processes is what matters. As defended by Bernstein (1999), “in the case of a hierarchical structure, in the end, it is the theory that counts and it counts both for its imaginative conceptual projection and the empirical power of the projection.” (p.165)

In view of the distinctive points stated it is obvious that texts in horizontal structures are tougher to handle than those in hierarchal structures (Bernstein, 1999). Following the author, in the former, especially those with weaker grammar, the specialized languages, their position, their perspective and the acquirer’s gaze are, in the end, what counts. It is in the specialized languages employed to the discourses that the hierarchy is identifiable (Bernstein, 1999). As observed by Bernstein, the detection of this hierarchy represents the first steps towards acknowledging the “specialist knowledge” (Maton, 2007, 2010b).

In short, discourses of the realms of science are vertical. And they all encompass hierarchal and horizontal knowledge structures. As shown, the former is represented by a triangle as a way to show how the

theories and propositions are cumulative across time and the latter by  $L^1$   $L^2$   $L^3$  ... indicating a series of specialized languages of a given scientific field accumulatively or segmentally positioned. A peculiar characteristic to the fields with horizontal structure knowledge lies in the fact that their languages are measured by grammar, which can be strong or weak. On Bernstein's belief, in these fields the fight for "linguistic hegemony" and "acquired gaze" is what matters, which differs from the proposal of those of the hierarchical structure, which is based on the integration of principles.



**Figure 2.3:** A summary of Bernstein's knowledge-structure framework [Retrieved from Martin et. al. (2010, p.436). Available at [www.google.com.br/knowledge-knower-structure](http://www.google.com.br/knowledge-knower-structure).

As demonstrated, the boundaries between commonsense knowledge discourse and uncommon sense knowledge discourse are well defined. Since Maton's knowledge-structure primarily originates from Bernstein's knowledge structure framework, the considerations taken so far in this chapter work as a scaffolding for the entrance to Maton's knower-structure framework, since some Bernstein's terms explored here, such as the concepts of hierarchy and grammar, are the bases on which the epistemological and axiological underpinnings will





be analyzed in the discourse of the investigated enterprise so that the knower structure is known.

### 2.2.1.1 Maton's Knowledge-knower structure

Through the knowledge knower structure practical effect is given to figure out the dynamics involved in the arrangement of the knowledge structure and the knower structures within a social field (Maton, 2004, 2006, 2007, 2010a, 2010b). Distinctively differentiated, as observed by the author, these structures will help us figure out the mastery of the sustainability knowledge by Kraft Foods Company in their annual sustainability report, and, consequently, the type of knowers the social actors in the investigated enterprise are.

According to Maton, the construal of knowledge-knower structure brings into play social actors' beliefs towards practices and attitudes related to a given object claimed. However, it is important to point out that such belief may not be in accordance with the truth science seeks. Quoting Maton's (*in press*) discourse verbatim, "the truth is no guarantee of belief, belief is no guarantee of truth" (p.1).

It is probably this belief that moves Maton's assertion about the fact that "for every knowledge structure there is also a knower structure" (Maton, 2006, p.58). By this it is meant just as the fields of science present a hierarchal or a horizontal structure, so too the same fields present a hierarchical or a horizontal knower structure (Maton, 2006, 2007, 2010b). What very often occurs is that the realms in a horizontal structure possess hierarchal-knower structures and that the reverse effect is also true; i.e., the fields in hierarchal knowledge structure generate horizontal- knower structures (See Figure 2.4).

	<b>Humanist culture</b>	<b>Scientific Culture</b>
<b>Knowledge structures</b>	 <p>(horizontal)</p>	 <p>(hierarchical)</p>
<b>Knower structures</b>	 <p>(hierarchical)</p>	 <p>(horizontal)</p>

**Figure 2.4:** The two cultures as knowledge structures and knower structures. Retrieved from Maton (2006, p. 92). Available at [www.google.com.br/knowledge-knower-structure](http://www.google.com.br/knowledge-knower-structure). Accessed in June, 2013.

Since the present investigation deals with sustainability which is a field of science in horizontal structure as it speaks the language of abstraction rather than technicality, it is expected that the knower structure in the sustainability cosmology investigated is hierarchal rather than horizontal. Unlike the horizontal knower structure, in which the hierarchy is easily identifiable because of the explicit technicality in the fields of hierarchal knowledge structure, in hierarchal knower structures the hierarchy is not easily perceived, but it is “somewhere” in the knowledge structure claimed ( Maton, 2010, 2007, 2006).

The presence of the hierarchy is what signals that there is uncommon sense knowledge discourse being managed. Conversely, the hierarchy by itself does only a part of the job. “Knowing where the hierarching principles lie” (Maton, 2007, p.179) is the complementary part of this job.

Still in reference to this hierarchy, Maton (2007) explains that hierarchal knowers “possess a systemic principle for selecting and arranging actors and discourses into a hierarchy” (p. 92). Corroborated by what Bernstein (1996, 2000) terms “the principles of contextualization structuring”, hierarchal knowers are capable of

recontextualizing their discourses, transforming and changing them at their taste, beyond making these discourses unique in the translation of their ideological orientations and tendencies. To endorse it, using Maton's (2007) wording, "whoever controls the epistemic device possess the means to set the shape of the field in their favor." (p.93). More specifically as based on the context of this investigation, "whoever controls the epistemic device possesses the means to set the structure and grammar of the field in their own favor" (Maton 2004, p.220).

Because of this control, discourses may range reflecting or not the epistemological and axiological aspects underlying the object claimed. In view of this possibility, Maton (2007, 2010b) develops four specialization codes through Bernstein's concepts of "classification" and "framing", these concepts being explored in the next section, in order to gauge the strengthening of those aspects and thus find out one's relations to the knowledge being managed. The resulting codes are as follows: + ER , +SR (strong epistemic relations, strong social relations); -ER, +SR (weak epistemic relations, strong social relations); +ER, - SR (strong epistemic relations, weak social relations); -ER,-SR (weak epistemic relations, weak social relations). The following section is devoted to explore these codes as they are used to characterize the company's epistemological and axiological underpinnings regarding the management of sustainability knowledge domain.

#### 2.2.1.1.1 Understanding the legitimation codes of specialization

The results of the analysis of knowledge production of the fields of mathematics and literacy criticism have proven that the epistemic device is fluctuating in the cited areas, causing differences in meanings to arise in the grammar of these fields and thereby in the knowledge structure discourse (Maton, 2004). This finding corroborated by the fact that this phenomenon can also take place in any other area of science gave impetus to the development of the specialization codes of legitimation.

Designed as a suitable model to investigate the epistemic relations and the social relations in axiological cosmologies (Maton, 2008), which is the case in this study, specialization codes are described somewhat like "units of measurement" intended to gauge the strengthening or weakening of the presence of the cited relations in discourse (Maton, 2004, 2006, 2007, 2010a, 2010b).

For this gauging which defines the code that characterizes a given cosmology, the understanding of Bernstein's concepts of

classification and framing is necessary. As interpreted by Maton (2007), “Classification refers to relative strength of boundaries *between* categories or contexts; Framing (F) refers to relative strength of control *within* these categories or contexts” (p.94). Interpretatively, this means that classification gauges the strengthening of epistemic relations between the contexts of the field that is being claimed by social actors and the knowledge domain of this field, whereas framing gauges the strengthening of “communication control” within the boundaries of the knowledge domain claimed; i.e., the extent to which information is controlled within the discourse of a given field of science.

As argued by Maton (2007), classification and framing can be independently at variable levels. The symbols (+) and (-), which stand for strong and weak, respectively, signal this variation. Then, ‘+/-classified (C) and +/- framed (F)’ can be assigned to a given cosmology. The general codes “ER” and “SR” designed by Maton, where the former stands for epistemic relations and the latter for social relations, condense each one strong/weak classification (+/-C) and strong/weak framing (+/-F). That is, ER can be strongly/weakly classified and strongly/weakly framed (+/- C, +/-F) and so can SR. So, depending on how social actors classify and frame epistemic relations and social relations within a cosmology, ER and SR can be exhibited like +/- ER, SR +/-, as Maton (2004, 2007, 2010a, 2010b) observes.

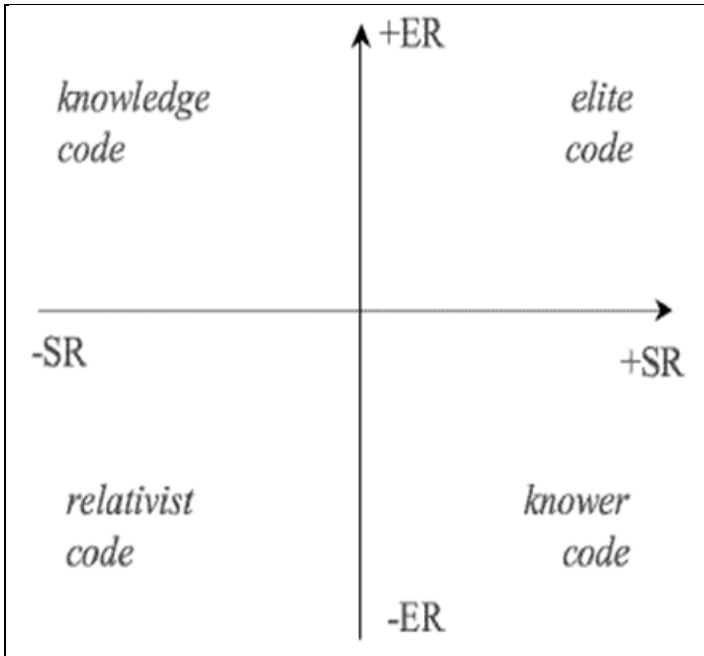
In detail, paraphrasing the author, if a given field reflects the possession of specialized knowledge in which “procedures”, “techniques” and “skills” predominate over “the knowers’ dispositions” and the gaze, the relations of this field are to the knowledge-structure as a hierarchal structure is strengthened, meaning that the field under investigation has as basis of legitimation the *knowledge code* ‘+ER (+C, +F), -SR’ (-C, -F) (Strong epistemic relations strong, weak social relations); i.e., the epistemic relations in the knowledge structure investigated are strongly classified and strongly framed, whereas the social relations in this structure are weakly classified and weakly framed.

Nonetheless, if the “story” is just the other way around, that is, the knowers’ dispositions are privileged over the epistemic relations at stake –the axiological aspects are more emphasized than the epistemological aspects- the social relations are to the knower code rather than the knowledge code. In practical terms, this indicates that a given field displays the knower code +SR (+C, +F) , -ER (-C, -F), strong social relations and weak epistemic relations, meaning that social relations in the knowledge structure investigated are strongly classified



and strongly framed while the epistemic relations are weakly classified and weakly framed (Maton, 2004, 2007, 2010a, 2010b).

The completeness of this set of codes includes “relativist code” and “elite code”, with the former represented by the code **-ER (-C, -F)**, **SR - (-C, -F)**, which characterizes fields showing neither the control of specialist knowledge nor the knowers’ dispositions; i.e., the epistemic relations and the social relations are both weakly classified and weakly framed, indicating hence a discourse immersed in unfounded speculations (*my emphasis*). In other words, there is no consideration of the hierarchy, the hierarching principles, nor is there of its grammar. The latter, in contrast, privileges both the specialist knowledge and the knowers’ dispositions. Of **+ ER (+C, +F)**, **+SR (+C, +F)** representation, this code is ascribed to what Maton terms “the right type of knower”, where the epistemic and the social relations are emphasized and are in accordance with the knowledge domain claimed. That is, these relations in a given knowledge structure are both strongly classified and strongly framed. Converging Bernstein’s and Maton’s ideas, this means that the hierarchy identified conflates with that of the field of science claimed and that the linguistic position taken in discourse reflects this hierarchy and the place where the hierarching principles lie alongside its grammar. An exemplification of this type of knowers by Maton (2004) is in the enlightenment period where the hard methods and techniques were the only tools available to do science. Illustratively, the four specialization codes of legitimation (Maton, 2010b, p.163):



**Figure 2.5:** Knowledge-knower structures and the legitimation codes. Available at [www.google.com.br/knowledge-knower](http://www.google.com.br/knowledge-knower). Accessed in Feb.12.2013.

Still about these codes, Maton (2010b) poses the questions to be answered when distinguishing between fields and that can also be helpful in charactering the social actors' profile with respect to knowledge management.

[...] 'where is the vertical' in different forms of vertical discourse? Or more accurately: what is hierarchal? Where is the '+' in the legitimation code (ER+/-, SR+/-)? Is it in the knowledge structure (knowledge code), knower structure (knower code) or both (elite code)? If neither, a relativist code, the field has no vertical discourse) [...] (p. 164).

For the purpose of endorsement, of the four specialization codes described in this section, two of these are to the hierarchal structure - the knowledge code **+ER** (+C, +F), **SR-** (+C, -F) and the elite code **+ER**

(+C, +F), +SR (+C, +F), intended to characterize cosmologies that prove possessing the specialist knowledge – thoughts are more important than the opposition one occupies. The other two specialization codes, in contrast, are to the knower structure – the knower code -ER (-C, -F), +SR (+C, +F) and the relativist code -ER (-C, -F), -SR (-C, -F), both are a product of the horizontal knowledge structure; i.e., the knower's dispositions and gaze towards the knowledge claimed – the position one occupies is more significant than one's thoughts or ideas.

### Review of the chapter

To sum up. The introductory subsection of this chapter sought to outline the accounts of cosmologies and constellations. As such, it was acknowledged that axiological cosmologies, which one of these is a case in point, are composed of a configuration of values, practices and beliefs that can make the epistemological and axiological underpinning within a cosmology fluctuate; that is why, cosmologies may vary and be distinctively differentiated from one another which in turn can produce new knowledges and hence different types of knowers. Because the concepts and principles contained in the knowledge – knower structure frameworks are activated within the investigated cosmology to gauge its epistemological and axiological aspects, the ongoing subsections cover such concepts and principles. As a start, I have discussed Bernstein's categorization of knowledge as being horizontal and vertical. In a broad sense, the former concerns the discourse of everyday life, of the commonsense knowledge discourse type, strengthened by the social bonds generated in the spreading discursive communities. The latter, on the other hand, is that of the uncommon sense knowledge discourse, often transmitted in a written mode whose language is vertical. Deemed to be the knowledge of the “privileged” people, this is the discourse of the academic world comprising theories and propositions interpreted based on empirical descriptions and observations. Since this research is of a vertical discourse, of the science of sustainability, attention was paid to explore the specifications surrounding “verticality”. In doing so, it was perceived that in vertical discourse there are two different structures, a hierarchal structure and a horizontal structure, which gathered compose the wholeness of what vertical discourse is about. In differentiating between these structures, the hierarchal one is that based on theories and propositions; it is where a hierarchy lies. A triangle symbolizes this hierarchy, where theories and propositions are arranged from a lower level to a more abstract level as a result of the integration

of the theories across time. With respect to the horizontal structure, it deals with the specialized languages of the discourses at stake, these languages being segmentally and/or cumulatively positioned. Then, fields in science are all vertical, presenting either a hierarchal structure or a horizontal structure.

The way truth is interpreted in these structures is also different. In fields with hierarchal structure, often represented by the disciplines within the natural sciences, truth is based on the mastery of the theoretical and methodological accounts. In fields in horizontal structure, of which the disciplines within the social sciences and humanities are considered, truth is associated to the acquired gaze one develops about the specialized languages used in these fields. Specifically about the fields in horizontal structure, because the legitimacy of the object claimed depends on the acquired gaze, depending on the gaze, discourses may vary at an extent of weakening or even refusing the episteme, thus making the object claimed become less visible.

It is in this context that the study about the knower-structure is well accommodated within Bernstein's knowledge-structure framework. For Maton, just as the fields of science possess a hierarchal or a horizontal structure, so too the same fields have hierarchal knower or horizontal knower structures, where the former is often produced in horizontal structures and the latter in hierarchal structures. In approaching this issue, the focus here concerns the hierarchal knowers as they operate within a horizontal structure in which the hierarchy is not very explicit, a fact that makes texts in horizontal structures become more complex, as argued in this chapter. As put by Maton, the challenge for these knowers is to locate the hierarchy, which is somewhere in a horizontal structure, the hierarching principles and manage its grammar. Success in this dynamics depends on the linguistic position taken.

In order to know the ways in which one can investigate whether a given possible knower has risen to that challenge, particularly the possible knowers of the sustainability cosmology under investigation in this thesis, Maton's considerations about the four specialization codes of legitimation are taken. As explored, these codes can be interpreted as units of measurement to gauge the strengthening or weakening of the presence of the epistemic relations and the social relations based on Bernstein's understanding of classification and framing. With this view, the symbols ('+') and ('-') are introduced to indicate whether the relations identified are strong or weak, or more or less strong, or more or

less weak. As presented, the following codes are: (1) a knowledge code +ER (+C, +F) , -SR (-C, -F) ; (2) a knower code -ER (-C, -F) , +SR (+C, +F); (3) a relativist code +ER (+C, +F), -SR (-C, -F), and (4) elite code +ER (+C, +F) +SR (+C, +F). That is to say, a certain field that presents as its basis of legitimation the *knowledge code* gives emphasis on the possession of specialist knowledge by social actors and downplays t the knowers' dispositions and gaze in their discourse, signaling that social actors in this knowledge structure are strongly classified, but weakly framed. As regards the 'field' characterized by the *knower code*, it means that the knowers' dispositions or their gaze are emphasized rather than the epistemic relations, meaning that actors in this knowledge structure are strongly framed, but weakly classified. As to the last two codes (*relativist code and elite code*), in "relativism" the field built reflects the lack of both possession of the specialized knowledge and the social relations emanating from this – the epistemic relations and the social relations are weakly classified and weakly framed. With an elite code, however, the "story" is the opposite. Its field construal is embedded in the possession of the specialist knowledge and its social relations emanate from this, thus both the hierarchal structure and the knower structure are hierarchal, which indicates that the epistemic relations and the social relations in this knowledge structure are both strongly classified and strongly framed. As put in this chapter, this is what characterizes the right kind of knower.



## Chapter III

[...] From the exchange of goods and services, or information to negotiation of feeling (Hood & Martin, 2007, p.741).

### **3 Appraisal Theory: A Tool for identifying inscriptions of sustainability knowledge**

#### Introduction

In the introductory chapter I have attempted to elucidate the connection between SFL and LCTS. There I explained the resources available at the stratum of discourse semantics that have enabled the construal of the field of certain knowledge domains in the educational fields and some other areas of science. More recently, based on LCT's proposal, these resources have been deployed to construe not only knowledge structure but also its corresponding knower structure, aligned with Maton's ideas that "for every knowledge structure there is also a knower-structure". As Martin (2011) informs, there are works previously modeled within 'field' which have been recontextualized to attend to this recent approach

Also, in chapter 1 I highlighted sustainability issues with the view to demonstrate that the nature of the concept of sustainability in the fields of social sciences and humanities brings into play specialized languages underlying not only epistemological, but, above all, axiological underpinnings whereby a proliferation of values, attitudes and roles is commonplace. Thus, as previously shown, within the science of sustainability axiological cosmologies other than epistemological ones tend to predominate. As previously considered, axiological cosmologies deal with the configuration of values, beliefs, practices and roles which characterize social actors' cultural practices within a given field of science where these social actors are affiliated,

where axiological aspects tend to stand out or be at comparable levels with the epistemological underpinning.

On account of this peculiarity, the appraisal framework may contribute to operationally unpack the meanings in the epistemological and axiological aspects. Within appraisal, the inscribed mode of the subsystem of attitude and the subsystem of graduation (Martin & White, 2005; Martin & Rose, 2007; Martin & Hood, 2007; Martin, 2000) are the concerns of this chapter. To reinforce, this mode refers to the direct realizations of the lexis contained in affect, judgment and appreciation. The selection for the inscribed mode of the attitudinal system rather than the invoked one alongside the grading resources represent an attempt to reduce the meaning potential and ambiguous interpretations contained in clauses composing registers such as those of the science of sustainability, which inherently carry an arena of meanings with high semantic density of epistemological and axiological types.

Thus, the inscriptions of sustainability knowledge arisen from **ATTITUDE** and **GRADUATION** have shed lights on Kraft's attitudes, values and roles, allowing for the capture of that system of sexy and not so hot ideas which constitutes Kraft's constellations and hence the construal of *the space of possibles*, technically acknowledged as cosmology thereof. By doing so, we will observe what social actors affiliated with the field of sustainability regard as legitimate, thus revealing their knowledge-knower structure.

Because the inscribed modes of attitude and the grading resources are deployed in this work, the preliminary section of this chapter starts with an outline of the whole system of appraisal until attaining the intended specifications. Throughout the chapter, we will try to align the theoretical accounts with the contours of this investigation by means of oscillating between the examples given by the theorists and those retrieved from the data under analysis.

### 3.1 An outline of appraisal theory in English

The term appraisal<sup>12</sup> conveys different meanings in different contexts. In the field of systemic functional linguistics, appraisal refers to a

---

<sup>12</sup>According to Thesaurus dictionary, the term appraisal is, most directly, employed in conventional and business contexts. Conventionally, it is defined as the act or an instance of appraising. Commercially, by contrast, appraisal can refer to an expert or official valuation, as taxation or the assortment, at regular



theoretical and methodological framework encompassing “the semantic resources used to negotiate emotions, judgments, and evaluations, alongside resources for amplifying and engaging with these evaluations” (Martin 2000, p.205).

Some issues have given impetus to the development of this framework. The concerns of how readers interpret meanings and the differences in meanings arisen out of these interpretations which at times generate ambiguities generalize all that those issues are about (Martin, 2000). More specifically, the project “The Disadvantaged School Program’s *Write it Right*” serves as basis for studying the effects of this dilemma (Martin, 1995). That is, as noted by Martin, in this project there was the need to investigate “the discourses demands of the junior secondary school curriculum and various workplaces” (p.179) by considering “descriptions of speech function” and “exchange structure” in order to unveil the relationship roles contained in the texts. Conversely, following the author, since these resources failed to fulfill the purpose of interpersonal-meanings-based study, researchers, pressed by the responsibility of explaining the ways in which those texts position and reposition readers, redirected from grammar to lexis the focus of this research. It is in this redirection that appraisal theory evolves during the 1990s in the Department of Linguistics at the University of Sydney (Martin, 2000) providing resources for “modalizing, amplifying, reacting emotionally, judging morally and evaluating aesthetically” (Martin 1995, p. 179).

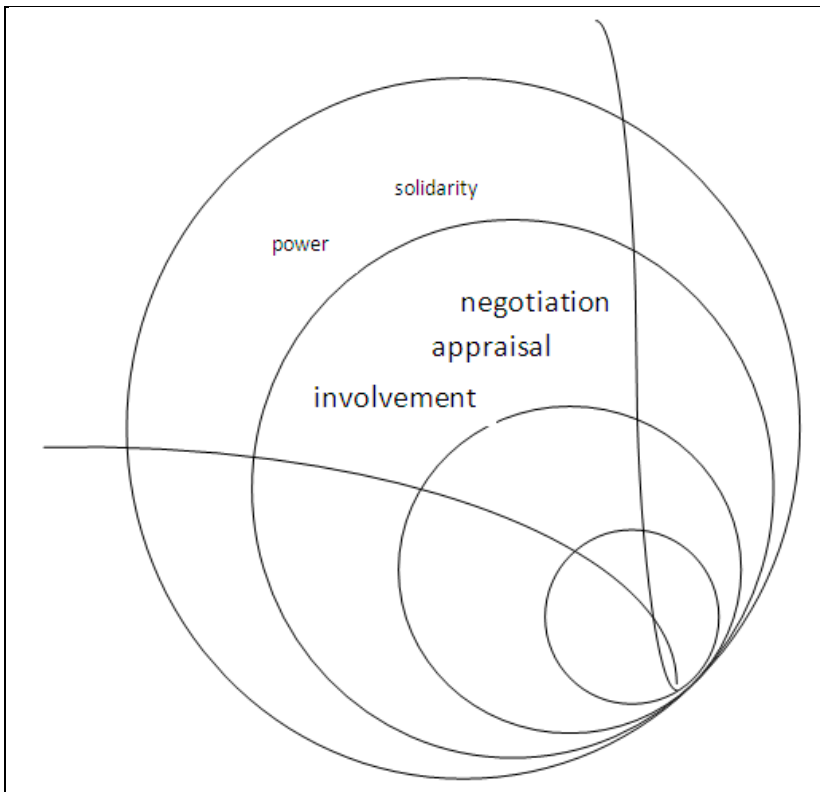
According to Martin (2000), the dimensions within which these resources are accommodated have not sprung up all of a sudden. First of all, as Martin recalls, there is the appearance of affect filling in that missing point in the work of narratives developed in that project. Thereafter, judgment arises out of affect focusing on the issue of “objectivity in media”, “science” and later on “history discourse”. Appreciation as the last component part of the dimensions known altogether as Attitude comes up with aspects of “value in arts and the sourcing of responsibility in administrative discourse” (Martin, 2000, p.208). Within SFL, following Martin, there was a call to reflection in considering the usefulness of those resources in the application of discourse analysis so that it could be perceived both how the evaluative

---

intervals, of an employee’s performance at work, also known as appraisal performance (in business, industrial relations), Other compound words are also identifiable with the term ‘appraisal’ ,whose application suits other contexts other than business.

lexis behaved in texts and how interpersonal meaning and social relations met in the construal of the social context mainly when the realm of solidarity is at stake.

Viewed as an alternative for interpersonal discourse semantics, (Martin, 2004) (see Figure 3.1), appraisal along with negotiation and involvement, as Martin recalls, serve the purposes of construing tenor relations within which status (power) and contact (solidarity) are constitutive parts.

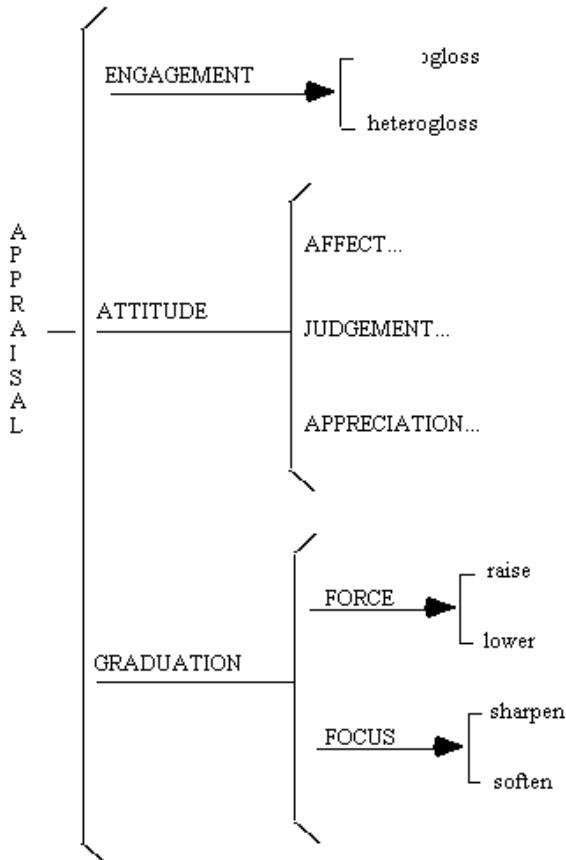


**Figure 3.1:** Interpersonal semantic systems and tenor variables. Retrieved from Martin and White (2005, p. 34). [Slides provided by Martin as part of the Discourse Analysis classes at the University of Sydney in 2012].

The evaluative lexis with what appraisal is concerned brings into discourse semantics a personalized sense that seems to be missing in

Halliday's interpersonal meaning (Hood & Martin, 2007). This acknowledgement does not mean that flaws are identifiable in Halliday's interpersonal meaning within SFL, as Hood and Martin observe. The differing point between the Hallydaian's and appraisal is, as the scholars advocate, the change in focus "from the exchange of goods and services, or information to negotiation of feeling" (p.741).

In sum, the whole system of appraisal is accommodated within three broad systems: ATTITUDE, GRADUATION and ENGAGEMENT (Martin & White, 2005) (as schematized in Figure 3.2). Comprehensively considered, attitude is concerned with our feelings reflecting "emotion reactions", "judgments of behavior" and "evaluation of things". Graduation, as the scholars put it, relates to the elements used in raising and lowering (force) or sharpening and softening (focus) the strength of attitude. Engagement deals with sourcing attitudes and the presence of voices in discourses, defined as being "monoglossic" or "heteroglossic". Martin (2004, p.34) conceptualizes the former the voice that "construes a proposition or proposal badly, with no referencing to sources or alternative positions." The latter, in contrast, as put by the author, "opens things up in various ways - modalization, projection and negation, counter-expectation and restricted provenance".



**Figure 3.2:** An overview of appraisal resources. Retrieved from Martin and White (2005, p. 38). [Slides provided by Martin as part of the Discourse Analysis classes at the University of Sydney in 2012].

### 3. 2 the attitudinal system

This subsystem provides discourse analysts with resources for delineating feelings in texts (Martin & White, 2005; Martin & Rose, 2007). According to Martin and White (2005), these feelings are categorized into “emotion”, “ethics” and “aesthetics”, theoretically termed AFFECT, JUDGMENT AND APPRECIATION, respectively. Affect, as these scholars postulate, encompasses feelings towards an

event or situation that can be positively or negatively evaluated. This evaluative dimension works in translating the feelings of heart. Interpretatively, it is our inner side speaking by itself communicating emotional responses motivated or not by outer stimuli.

Martin and White (2005) subcategorize effectual meanings into three variables: “un/happiness”, “un/sadness”; “dis/satisfaction” and “in/security”. In the discourse of the company under investigation, affect is represented in an expressive number if compared to its presence in other text types, displaying instances in the three categories mentioned. To illustrate, below is an example of the ‘unhappiness’ kind (**in bold**):

#### **Example I: Affect**

(...) **Unfortunately**, the world’s natural resources are limited (...).

The modal adjunct ‘unfortunately’ announces that there is a personal evaluative sense present in affect. It is this sense that makes affect distinctively differentiated from judgment and appreciation. Although judgment and appreciation share a common trace in that external phenomena are observed from a beholder’s perspective, these dimensions point to different directions. According to Martin and White (2005), judgment treats the questions involving moral behaviors which contemplate either the side of admiration or condemnation. In this context, as the authors clarify, people and institutions’ character and positions are included. Appreciation, in contrast, focuses on evaluating “semiotic and natural phenomena” and as such the quality of aesthetics is investigated in texts (Martin & White, 2005). To exemplify, realizations of judgment and appreciation (**in bold**), respectively, are perceived in the proposed data:

#### **Example II: Judgment**

(...) Every day our success depends on more than 125,000 **capable, dedicated and diverse** employees

#### **Example III: Appreciation**

(...)And done **right**. We know building sustainability is **good** (...).

In parallel with the three subsystems above is GRADUATION. As acknowledged by Martin and White (2005), graduation offers resources of amplification to either scale up or scale down the strength of evaluation of either one of those dimensions (Affect, Judgment and Appreciation). For the sake of illustration, we retrieve the same clause used as an example in appreciation in order to demonstrate how the

resources available in graduation can couple with attitude in the reinforcement and amplification of the meaning. For instance:

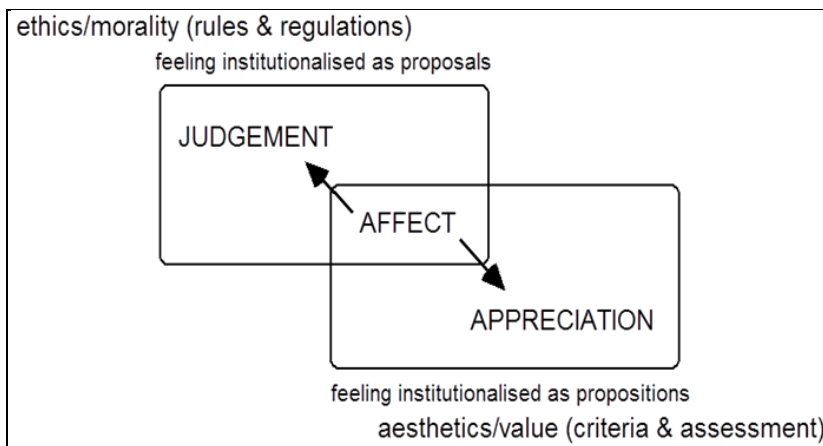
**Example IV: Graduation**

(...) we know building sustainability is **good[appreciation]** for the planet, the people and **ultimately [Graduation]** our profits.

In a nutshell, this section generalizes the essential points underlying affect, judgment and appreciation. Based on the generalizations made, we have already perceived that the three dimensions accommodate distinctive specifications. The common features that these dimensions share is the fact that all of them encode feelings and that the feelings encoded can be expressed explicitly and implicitly (Martin, 2000). Of the three subsystems within attitude, Martin believes that affect is the basic one, this subsystem being present in our life almost since our birth (Painter, 2003 in Martin & White, 2005) while the other two dimensions are acquired as we grow older (Martin, 2000). As recalled by Martin, Judgment and appreciation are sprinkled with the feeling that is ventilated in affect when producing uncommon sense discourse. In detail, Martin (2000) explains this phenomenon:

Affect is recontextualized as an evaluation matrix for behavior, with a view for controlling what people do. As to appreciation, affect is recontextualized as an evaluation matrix for the products of behavior (and wonders of nature), with a view to valuing what people achieve” (p.207).

In Halliday’s terms, as Martin emphasizes, the types of feelings ventilated within judgment and appreciation can be acknowledged as the ones of “proposals” (about behavior) and of “propositions” (about things). Martin draws a map exhibiting this recontextualization as shown below in Figure 3.3.



**Figure 3.3:** Judgment and Appreciation as institutionalized Affect Retrieved from Martin and White (2005, p.45). [Slides provided by Martin as part of the Discourse Analysis classes at the University of Sydney in 2012].

In sum, in the present thesis, attitude and graduation altogether constitute the mechanisms used in the identification of inscriptions of sustainability knowledge. Sections ahead explore the subsystem of graduation in depth. Meanwhile the following three sections concentrate on the intricacies of affect, judgment and appreciation found in the data proposed.

### 3.2.1 Affect: the “voice” of the heart

The key word in affect is emotion. In Halliday’s terms, as informed by Martin and White (2005), the following grammatical structures realize affect: a) “modification of participants”; b) “processes”, c) “affective mental and behavioral processes”, d) “modal adjuncts” and “grammatical metaphors.” Succinctly, Martin and White exemplify each realization mentioned as follows (p.46):

- Affect as quality	examples	grammatical structure
- describing participants	a sad captain	Epithet
- attributed participants	the captain was sad the captain left sadly	Attribute Circumstance

### Manner of processes

- Affect as process	his departure upset him	process (effective)
- affective mental	he missed them	process (middle)
- affective behavioral	The captain wept	process
• Affect as comment		
- desiderative	Sadly, he had to go	Modal Adjunct
• Grammatical metaphors	joy; sadness; sorrow grief; sobs; constriction in his throat	nominalized realizations of qualities processes

This layout is an attempt to reduce the difficulty in classifying instances of affect (Martin & White, 2005). According to the authors, this difficulty occurs because the lexis whereby affect is classified is not an issue on which grammarians should be focused. Additionally, the scholars recall that there are no defined aspects of grammar and lexis upon which feelings of this type could be expressed

Given these aspects, systems of oppositions where affect is evaluated as ascribing positive and negative feelings are provided (Martin & White 2005; Martin & Rose, 2007). As pointed out by these authors, the one impacted by these emotions is called “Emoter” and the phenomenon from where this emotion derives “Trigger”.

Martin and White (2005) suggest six different factors on which the classification of emotion should be based. Didactically, below are two of these factors briefly exposed and exemplified according to the authors’ considerations because they are the ones observable in the texts under analysis:



- 1) Feelings at a more or less intense degree. This category refers to the lexicalizations available in grading degrees of intensity in a scale ranging from lower to higher valued end. The example below is taken from the data analyzed:

The world's natural resources are limited and increasingly in **demand [Affect]**

- 2) Feelings categorized into three major variables: un/happiness, in/security and dis/satisfaction. These emotional dispositions can be responsive not only to the Emoter's momentary state of being, such as happy or sad, but they can also be a result of behaviors that emerge unexpectedly (Martin & White 2005). Categorically, the examples are extracted from the data proposed:

in/security	We strive to earn <b>trust</b> [Affect: <b>security</b> ] every day
dis/satisfaction	(...) and feel good [Affect: Satisfaction] about (...)
un/happiness	Unfortunately [Affect: unhappiness] the world's natural resources are limited

The following table offers the configuration of meanings comprising each variable (in/security, dis/satisfaction, and un/happiness). This configuration is the basis on which each of those categories can be contextually investigated. For each variable the authors provide instances of "dispositions" and "surges of behavior" in addition to showing the three degrees of intensity that can be present in context.

**Table 3.1:** The three variables in AFFECT. Readapted from Martin and White (2005, pp. 49,50,51,52).

<b>UN/HAPPINESS</b>	<b>Surge (of behavior)</b>	<b>Disposition</b>
<b>unhappiness</b>		
misery [mood: 'in me']	whimper cry wail	down [low] sad [median] miserable [high]
antipathy [directed feeling: 'at you']	rubbish abuse revile	dislike hate abhor
<b>happiness</b>		
cheer	chuckle laugh rejoice	cheerful buoyant jubilant
affection	shake hands hug embrace	be fond of love adore
<b>IN/SECURITY</b>	<b>Surge (of behavior)</b>	<b>Disposition</b>
<b>insecurity</b>		
disquiet	restless twitching shaking	uneasy anxious freaked out
surprise	start cry out faint	startled confident staggered
<b>security</b>		
confidence	declare assert proclaim	together confident assured
trust	delegate commit entrust	comfortable with confident in/about trusting
<b>DIS/SATISFACTION</b>	<b>Surge (of behavior)</b>	<b>Disposition</b>
<b>dissatisfaction</b>		
ennui	fidget yawn	flat stale

	tune out	jaded
displeasure	caution scold castigate	cross, bored with angry, sick of furious, fed up with
<b>satisfaction</b>	attentive	involved
honest	busy industrious	absorbed engrossed
pleasure	pat on the back compliment reward	satisfied, impressed pleased, charmed chuffed, thrilled
<b>Affect</b>	<u>positive</u>	<u>negative</u>
dis/inclination	miss/long for, yearn for	weary, fearful, terrorized
un/happiness	cheerful, buoyant, jubilant, like, love, adore	sad, melancholy, despondent; cut-up, hearten-broken ... broken-hearted, heavy-hearted; sick at
in/security	together, confident, assured; comfortable, confident, trusting	
dis/satisfaction	involved, absorbed, engrossed; satisfied, pleased, chuffed/	uneasy, anxious, freaked out, startled, surprised, astonished
		flat, stale, jaded, cross, angry, furious, bored with, sick of, fed up with

In relation to the Table, the un/happiness meanings appear to rank high among the others mentioned, since the moods of feelings happy and sad expressed in this variable are the sensations most commonly observable among human relationships. Also, the emotions produced within this category can be responsive to a trigger. As indicated, this

variable is one case in point in the previous example. By deploying the lexical choice ‘unfortunately’, the social actors in the researched company turn attention to their feeling of unhappiness motivated by the trigger – ‘the fact that the natural resources are limited’. As to in/security, the emotional inclinations are of “peace” and “anxiety” about the “environs” and the people with whom these environs are shared. As regards the dis/satisfaction variable, it encompasses the feelings that express our accomplishments and discontents related to the tasks of our interest.

A final consideration about affect which is observable in the data proposed in this investigation is concerned with authorial affect. Martin and White explain that this type of affective meaning has to do with the use of resources that express the speaker’s emotions towards a phenomenon. As noted by the scholars, in authorial affect there is very often an attempt to appeal to the audience’s sensitivity with the intention to gain an emotional response towards what is being said. If this objective is fulfilled, empathy and solidarity are at play.<sup>13</sup> To illustrate, below is an instance of authorial affective meaning observable in the data proposed in this investigation:

Example I: **We encourage [Authorial Affect]** and support our employees (...)

### 3.2.2 Judgment

Judgment is somewhat similar to affect in that both deal with positive and negative values under the inscribed and invoked modes. However, judgment has specific characteristics that make it distinctively differentiated from affect. The evaluation of behavior is what distinguishes judgment from the other two dimensions in attitude (Martin & White, 2005; Martin & Rose, 2007). According to these authors, this evaluation has to do with “measuring” one’s character, of which “virtues” and “moral values” as well as “ethics” are constitutive parts.

Semantically, because qualities are at the core of evaluating behavior, adjectives in grammar tend to realize the instances of judgment (Martin, 1995) (e.g.. great partners). When a behavior is

---

<sup>13</sup> The Appraisal System in more details: Affect. Retrieved in March 2013. Available at <http://www.grammatics.com/appraisal>.

judged directly, as the author alert, nominalizations can serve the same purpose.

As already mentioned, judgment is considered the second subsystem to be thought of after affect, corroborated in a media study carried out by Iedema et al. (1994 in Martin, 2005). As informed by these authors, judgment is modeled on Halliday's accounts of the variables of English modality, namely, "probability", "usuality", "obligation", "inclination" and "ability". These variables are distributed in the categories of "social esteem" and "social sanction" which are at the heart of judgment (Martin, 2000).

With respect to these categories, social esteem attends to "normality" ('how unusual someone is'), "capacity" ('how capable they are') and "tenacity" ('how resolute they are') whereas that of social sanction is concerned with "veracity" ('how truthful someone is') and "propriety" ('how ethical someone is') (p.65). About the variable normality within social esteem, Souza (2010) has suggested the term *distinctness* in replacement of *normality* as an attempt to prevent misinterpretations that the sense of the word normality may cause to arise.

In practical terms, telling these categories apart, social esteem is to personal judgments of admiration and criticism just as social sanction is to moral judgments of praise and condemnation (Martin & Rose, 2007; Martin, 1995). The former is generally a product of informal contexts such as "jokes", "gossip", and "chats", for instance, from where social bonds are built (Eggs and Slade, 1997 in Martin and White, 2005). Judgment of praise and condemnation, on the other hand, is often a product of written communication which includes not only regulations and laws that dictate the ways in which one should behave in society but also penalties and punishments for those contravening these regulations and laws (Martin & White, 2005). In brief, as clarified by the authors, civil obligation and religious values are at the heart of social sanction. And some pieces of writing illustrating instances of this category include "decrees", "edicts" and "rules."

At its simplest, Martin (2000) endorses this difference by highlighting that the constant negative judgments of social esteem one may suffer imply the need for a therapist to be seen. In the same way, the uninterrupted negative judgments of social sanction with what one may be bombarded presume the assistance of a lawyer. Thus, both forms of judgment are at the extreme edge of opposite sides enabling positive and negative evaluations, where social esteem may involve

psychological issues and social sanction legal implication where a lawyer is required.

Among the several realizations and examples approaching the differing aspects of these categories, the following tables (I and II) give an overview of these aspects. Martin and White (2005) alert that these tables do not intend to exhaust the explanatory power of social esteem and social sanction. In truth, as the authors inform, the purpose is to provide examples of positive and negative realizations of judgment upon which one can rely to scaffold this type of attitude in texts.

**Table 3.2:** Judgment in social esteem. Readapted from Martin and White (2005, p.53).

<b>SOCIAL ESTEEM</b>		
	<b>Positive [admire]</b>	<b>Negative [criticize]</b>
<b>normality</b> How special?	lucky, fortunate, charmed ...; normal, natural, familiar ...; cool, stable, predictable...;	unlucky, hapless, star- crossed...; odd; peculiar;eccentric .;.
<b>capacity</b> 'how capable'?	powerful, vigorous, robust ...; sound, healthy, fit ..; adult, mature, experienced ...; witty, humorous, droll...;	mild, weak, whimpy ...; unsound, sick, crippled ...; immature, childish, helpless
<b>tenacity</b> 'how dependable'?	plucky, brave, heroic ...; cautious, wary, patient ...; ...;	timid, cowardly, gutless ...; rash, impatient, impetuous ...; ...;
<b>SOCIAL SANCTION</b>		
<b>'Mortal'</b>	<b>Positive [praise]</b>	<b>Negative [condemn]</b>
<b>veracity</b> [truth] 'how honest'?	truthful, honest, credible ...;	dishonest, deceitful, lying ...;

	frank, candid, direct ...; discrete, tactful ...;	deceptive, manipulative, devious ..
<b>propriety</b> [ethics] 'how far beyond reproach?	good, moral, ethical ...; law abiding, fair, just ...; sensitive, kind, caring ...; unassuming, modest, humble ...;	bad, immoral, evil ... corrupt, unfair, unjust ...; insensitive, mean, cruel ...;

Apart from stating these possible adjectival realizations, Martin and White (2005) provide a series of other instances of the judgment types interfaced with Halliday's variables of mood and modality. To categorize these pieces of information in a more didactic way, we grouped them in two distinctive tables: one for realizations of propositions (modalizations) and the other of proposals (modulations). In relation to the types of realization displayed in these tables, they are of the congruent and metaphorical types for "probability", "usuality" and "capacity" and then for modulations of "inclination" and "obligation" (See tables 3.3 and 3.4).

**Table 3.3:** Types of realization in propositions. Readapted from Martin and White 2005).

<b>PROPOSITIONS</b>	
<b>Grammaticalization</b>	
<b>Lexicalization</b>	
<b>(Mood</b>	<b>and</b>
<b>(Judgment types 'social esteem')</b>	<b>modality)</b>
Probability : [judgments of veracity]	He's naughty He's certainly naughty It's certain he's naughty It's true he's naughty It's true, honest, credible, authentic, bogus, etc. <b>[judgment : veracity]</b>

Usuality: [ judgments of normality]	<p>He's naughty          He's often naughty          It's usual for him to be naughty          It's normal for him to be naughty          It's normal, average, fashionable, peculiar, odd, etc.</p> <p><b>[judgment : normality]</b></p>
Ability and capacity: [judgments of capacity]	<p>He can go          He's able to go          He's capable of going          He's strong enough to go          He's healthy enough, mature enough, clever enough, etc.</p> <p><b>[judgment: capacity]</b></p>

**Table 3.4:** Types of realization in proposals. Readapted from Martin and White, (2005).

**PROPOSALS**

<b>Grammaticalization Modulations</b>	<b>Lexicalizations Judgment types: social sanction</b>
Inclination:[judgment of tenacity]	<p>I'll go          I'm determined to go.          I'm intent on going          I'm resolved          I'm resolute, steadfast, unyielding, unflinching, etc.</p> <p><b>[Judgment: tenacity]</b></p>
Obligation [judgment of propriety]	<p>Go.          You should go          You're supposed to go          It's expected you'll go          It'd be fair for you to go          I'd be corrupt, insensitive, arrogant, selfish, rude, etc.</p> <p><b>[judgment: propriety]</b></p>



---

### 3.2.3 Appreciation: the gaze at the aesthetic value of the “thing”

Things being assessed in texts and processes mean that appreciation is at play (Martin & White 2005; Martin & Rose, 2007). According to these authors, this type of attitude contemplates the valid social rules in a culture which determine the ways in which products, performance and natural events are viewed and interpreted. As noted by the authors, appreciation is somewhat similar to affect and judgment in that its dimensions can also be positively and negatively expressed. In this evaluative process, the thing evaluated is known as “appraised” and the one who evaluates this thing is acknowledged as “appraiser”. Structurally, this subsystem is framed by three variables: reaction, composition and valuation (Martin & White, 2005; Martin & Rose, 2007). With respect to these variables, we reproduce Martin’s (1997) accounts of each variable verbatim, as follows:

[...] Reaction has to do with the degree to which the text/process in question captures our attention (reaction: impact) and emotional impact on us. Composition has to do with our perceptions of proportionality (composition: balance) and detail (composition: complexity) in a text/process. Valuation has to do with our assessment of the social significance of the text/process (p.408).

Interpreting Martin’s wording, it is possible to assume that reaction relates to the extent to which one negatively or positively reacts to an item appraised “[impact: did it grab me?]”(Martin & White, 2005; p. 56), or to the level at which one’s sensitivity is appealed because of the ‘quality’ that the item ventilates “[quality: ‘did I like it?’]”(Martin & White, 2005; p. 56). Of the illustrative examples of impact and quality within reaction extracted from the analyzed data, they are as follows:

- I) More recently companies and communities have had **exciting [reaction: impact] experiences [positively appraised item]** participating in programs designed for the conservation of the natural resource systems;

- II) Appealing [**reaction: quality**] claims for the implementation of public sustainability policies have been commonplace in every sphere of society.

As to composition, it focuses on meanings conveying either the idea of “proportionality [‘composition: balance/ did it hung together?’] or ‘depth’ [‘composition: complexity/was it hard to follow?’]”(Martin & White, 2005; p.56), as in:

- I) A **unified[composition: balance]** policy [**appraised item**] encompassing the three dimensions of sustainability should be pursued by companies claiming to be ‘green’;
- II) (...) requires **detailed [composition: complexity]** planning [**appraised item**]

Concerning valuation, it refers to the way the value of things is culturally signified. For example:

- I) (...) it’s **critical[val.]** that we run our business in **ways [appraised item]** that are environmentally, socially and economically **sound[val.]** and **sustainable [val.]**

Yet, regardless of context, as with affect and judgment, Martin and White (2005) put at disposal of language users illustrative realizations of types of appreciation (See table 3.5). Needless to say that as with affect and judgment, the realizations provided for appreciation, as the authors observe, are numberless and thus not restricted to the amount displayed:

**Table 3.5:** An overview of types of appreciation. Source: retrieved from Martin and White, (2005; p. 56).

	Positive	Negative
<u>Reaction:</u> impact ‘did it grab me?’	arresting, captivating, engaging, fascinating, exciting,	dull, boring, tedious; dry, ascetic, uninviting; flat, predictable, monotonous ...;
<u>Reaction:</u> quality ‘did I like it?’	okay, fine, good; lovely, beautiful, splendid ...;	bad, yuk, nasty; plain, ugly, grotesque ...;

<u>Composition:</u> balance: did it hang together?	balanced, harmonious, unified; symmetrical, proportioned ...;	unbalanced, discordant, irregular, uneven, flawed ...;
<u>Composition:</u> Complexity 'was it hard to follow?'	simple, pure, elegant; lucid, clear, precise; intricate; rich, detailed, precise...;	extravagant, byzantine ...;
<u>Valuation</u> 'was it worthwhile?'	penetrating, profound, deep innovative, original, creative long awaited, landmark ....	shallow, reductive, insignificant; derivative, conventional, prosaic; dated, overdue, untimely ...;

---

In grammar terms, the appreciation variables are expected to be realized through mental processes insofar as reaction, composition and valuation attend to our gaze at things, as Eggins (in Martin and White, 2005) puts it. The scholar asserts that the framework for appreciation enables a metafunctional interpretation where reaction is tied up with “interpersonal significance”, composition with “textual organization” and valuation with “ideational worth” (p.57) (See table 3.6).

**Table 3.6:** Sub-types of appreciation. Source: Retrieved from Martin (2005, p. 57).

<b>appreciation</b>	<b>mental process type</b>	<b>metafunction</b>
reaction	affection	interpersonal
composition	perception	textual
valuation	cognition	ideational

Not surprisingly, of these subtypes, interpersonal and textual meanings are naturally recognized. Here the point of observance that is worth mentioning concerns the field in which ideational meanings are realized via the connection with valuation (Martin & Rose, 2007). This coupling of ideational and interpersonal meanings is not only a privilege of appreciation. This characteristic also extends to affect and judgment,

since both are in a sense characterized by “institutionalizations of feelings”. In an attempt to show that coupling within appreciation, Martin and Rose expose the following table comprising appreciations of research carried out in the field of linguistics.

Table 3.7: Appreciation in a specialized field (linguistics). Retrieved from Martin and Rose (2007, p.70).

<b>linguistics</b>	<b>positive</b>	<b>negative</b>
<b>reaction:</b> impact [noticeability]	timely, long awaited, engaging, landmark...	untimely, unexpected, overdue, surprising, dated
<b>reaction:</b> quality [likeability]	fascinating, exciting, interesting, stimulating, impressive ...	dull, tedious, boring, pedantic, ...
<b>composition</b> [balance]	consistent, balanced, thorough, considered, unified, logical, well argued, well presented ...	didactic, uninspired ...; fragmented, loose ended, disorganized, contradictory sloppy
<b>composition</b> [complexity]	simple, lucid, elegant, rich, detailed, exhaustive, clear, precise ...	simplistic, extravagant, complicated, Byzantine, labyrinthine, overly elaborate narrow, vague, unclear, indulgent, esoteric, eclectic
<b>valuation</b> [field genesis]	useful, penetrating, illuminating challenging, significant, deep, profound, satisfying, fruitful ...	shallow, ad hoc, reductive, unconvincing, unsupported, fanciful, tendentious, bizarre, counterintuitive, perplexing, arcane

---

This table also accommodates implicit coupling of field with appreciation, as Martin and Rose (2007) explain. As well as this table, the texts under analysis contain instances of appreciation evoking other types of feelings. In the next section, we can confirm this information.

### 3.3 Borders

In line with SFL principles, profiting from the advantage of the realization of attitude being canonically done via adjectives, Martin and White (2005, pp. 58, 59) suggest a frame based on grammar to tell one attitudinal dimension from another apart in texts. For affect, it is suggestive the consideration of the verb *feel* as equivalent to any attributive relational process with a conscious participant:

#### **Affect**

{person feels **affect** about something }

{it makes person feel **affect** that [proposition]}

I feel **happy** (about that/that they've come).

It makes me feel **happy** that they've come.

For **judgment**, the authors suggest that we deploy a relational attributive process to ascribe an attitude to one's behavior:

#### **Judgment**

{It was **judgment** for person/of person to do that }

{(for person) to do that was **judgment** }

It was **silly** of/for them to do that.

(for them) to do that was **silly**.

For **appreciation**, Martin and White (2005) advise that a mental process is attributed to an object as to generate an attitude:

#### **Appreciation**

{Person consider something **appreciation** }

{Person see something as **appreciation** }

I consider it **beautiful**.

They see it as **beautiful**.

By the same token, Martin and White (2005) turn attention to the criteria underlying the “source” and “target” of evaluation. The exploration of these criteria specifies particular aspects in affect, judgment and appreciations that make each of them become unique. Regarding affect, there is the presence of a source which is always a

conscious participant. Halliday and Matthiessen (1999 as cited in Martin and White, 2005) regard these participants as being “persons”, “human collectives” and “institutions”. In categorizing them accordingly, Martin and White (2005) cite “woman, boy, mother, streakier, lawyer, client, teacher, student... family, team, platoon, class, professoriate, clergy, congregation, judiciary ...government, commission, court, council, board, company, senate, and tribunal...” (p. 59).

As to judgment and appreciation, targets are the focus of attention. In Judgment, the participant’s behavior stands as the target whereas in appreciation the target is a thing.

Bearing these specifications in mind contributes to refine the text analysis in the sense that the distinction between the strong links among affect, judgments of behaviors and evaluation of things is clearly established. Relying on Martin and White’s (2005) considerations of the links in between attitude, the view of only conscious participants construing emotions in affect and of only things being targeted in appreciation help distinguish between affect and the appreciation variable reaction:

**affect**

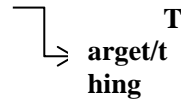
*I’m sad/weeping*



**Someone/conscious participant**

**appreciation:** reaction

*a weepy rendition of the song*



Likewise, the awareness that judgment targets the behavior of conscious participants and that appreciation targets things aids in marking the differing line existing between these two subsystems, mainly when it comes to some specific apparently hybrid realizations. According to Martin and White (2005, pp. 58, 59), one of these realizations is with respect to Skill, as in:

He played skillfully

He’s a skillful player

It was a skillful innings

Judgment

Judgment

Appreciation

So far, the exposure of the theoretical accounts has sought to recapitulate the essential points regarding the inscribed mode of attitude and graduation as a way to contour the boundaries of this research.

However, it is important to emphasize that some inscribed realizations inevitably invoke attitude (Martin & White, 2005), which cannot be neglected in the context of the proposed investigation. In this line of thought, Martin and White trigger attention to the fact that positive and negative evaluations of things can presume positive and negative judgments of someone's capacity to create or perform. To illustrate, the clause below retrieved from the texts under analysis encompasses three positive appreciative meanings invoking three positive instances of judgment:

(...) **Success** requires **vision** and **determination** (...)

The first two instances of appreciation invoke judgment of capacity whereas the former judgment of tenacity. Although the consideration of indirect realizations is not the central focus of this investigation from the view that it primarily deals with the inscribed modes of the attitudinal subsystem, at times the indirect realizations can be helpful in corroborating or expanding the ideas that the inscribed mode targeted in the chapters destined to the analysis communicates.

### 3.4 Theorizing graduation

Graduation constitutes the second major meaning-making apparatus in appraisal (Martin & White, 2005). Notwithstanding the fact that graduation is set within the confines of Attitude, gradability as the central resource within graduation also operates within Engagement, although the nature of the values scaled in engagement and attitude are different. The influence which graduation exercises upon both subsystems in appraisal might justify the reason why Martin and White believe that engagement and attitude might be viewed as the points of interest in graduation.

In tackling gradability, it is interesting to consider that Martin and White (2005) understand it as "a defining property of all attitudinal meanings" (p. 135). Interpretatively, this means that through gradability the degree of intensity of positive and negative values of affect, judgment and appreciation conveyed in texts is measured (See Table 3.8). To simplify things, Hood and Martin (2007) affirm that gradability "allows us to turn the volume of our feelings up and down, using a range of resources" (p.380). Rather, the same authors add that this dynamics of turning up or down the volume can put affect, judgment and

appreciation at risk. Interpretatively, the risk relates to the fact that some intensifiers can blur or even alter meanings in discourse, that is, describing *sort of real* to an entity is not the same as *real*, for example.

**Table 3.8:** The gradability of attitudinal meanings. Retrieved from Martin and White (2005, p. 136).

	lower			higher
judgment	competent player			brilliant player
	reasonably	good player		extremely good
	good player	quite good player	very good	player
		player		
affected	contentedly	happily	joyously	ecstatically
	slightly upset	somewhat upset	very	extremely upset
		upset		
appreciation	a bit untidy	somewhat untidy	very	completely untidy
	attractive	untidy		exquisite
			beautiful	

The grading resources to which the authors refer are classified within two dimensions of scalability called “focus” and “force”. In a broad sense, following Martin and White (2005), focus relates to “prototypicality” whereas force has to do with grading involving “intensity” and “quantity”. The scalability in both is of different nature. That is to say, it is inherently part of the process in force in which the vocabulary items (*highly, extremely, very*) are intended to intensify the degree of the lexis in attitude or the degree of amount (*a few, many*). In focus, on the other hand, this scalability is realized based on the use of the lexis (*e.g. kind of, sort of*) that makes the upsaling and downscaling of prototypicality possible.

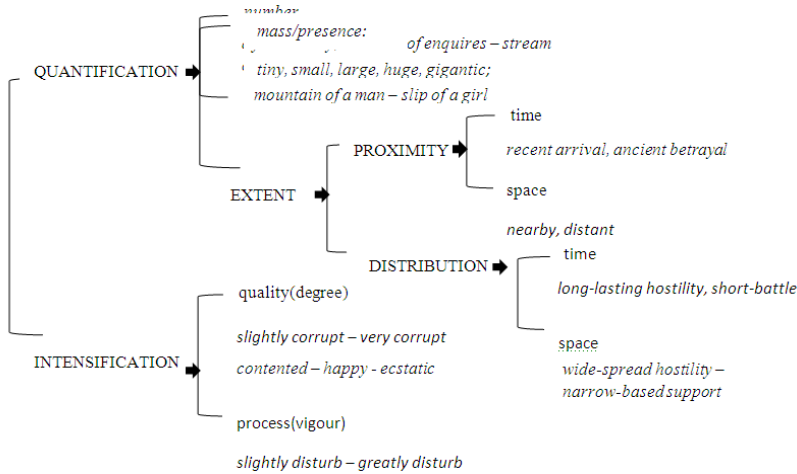
In terms of graduation, the texts under analysis exhibit the predominance of force over focus. The semantics of both dimensions is approached in more details in sections ahead.



### 3.4.1 The semantics of force

Martin and White (2005) theorize force the dimension that “covers assessments as to degree of intensity and as to amount” (p.140); i.e., the mode of intensification and the mode of quantification, respectively. Paraphrasing the authors, intensifiers (e.g. very, much) realize intensification just like quantifiers (e.g. few, little) do quantification. To clarify, in the context of English traditional grammar, intensifiers are linguistic terms classed mainly as adverbs which are used to enhance the values scribed to adjectives or verbs (*my emphasis*). From Martin and Rose’s (2007) point of view, intensifiers enable the comparison of things to express the strength of one’s feelings when comparing people and things to something else. As to quantifiers, in terms of graduation, these resources are acknowledged as a category within intensity intended to quantify abstract and concrete entities.

Therefore, relying on Martin and White’s (2005) premises about the modes of intensification, the resources contained in these modes perform the job of up-scaling or down-scaling the values of qualities and processes along “clines of positivity and negativity” (p.137). Because of the inherent sense of intensification in verbal modalities of usuality, modalities of this type are also integrative components of it. In the modes of quantification, quantifiers precede entities in the intensification of “imprecise measuring of number”, “mass” by reference to “size”, “weight”, or “distribution”, and extent as to “time” and “space” (as the network schematized below in accordance with Martin and White (2005, p. 154).



**Figure 3.4:** An overview of the modes of intensification and quantification within Force (Martin & White, 2005, p. 154). [Slides provided by Martin as part of the Discourse Analysis classes at the University of Sydney in 2012].

The presence of intensification and quantification is acknowledgeable throughout the corpus of the data at stake. For example:

(...) The natural resources are limited and **increasingly [intensification: quality]** in demand

(...) We know building sustainability into our business is good for the planet, people and, **ultimately[quantification: proximity: time]**, our profits.

A last point to address in reference to intensification and quantification is that they are distributed in two distinctive grammar classes defined as “isolating” and “infusion” (Martin & White, 2005), since isolating realizes the up/down scaling of the level of intensity in an individual, isolated pre-modifier (e.g. extremely tired), and infusion fuses the degree of intensity in the meaning of a single term (e.g. tired ^ exhausted ^ drained).

### 3.4.1.1 Isolating in the modes of intensification

As already noted, isolating as the term itself suggests refers to the use of a single word employed in the amplification of qualities, processes, and verbal modalities of usuality such as inclination, obligation and so forth. Didactically, below there is a recapitulation of the grammar aspects of isolating and its corresponding examples which are identifiable in the data analyzed:

**Table 3.9:** Types of realizations of Isolation. Readapted from Martin and White (2005, pp. 141,142, 143).

<b>Isolating</b>		
<b>Modes of intensification</b>	<b>realizations</b>	<b>examples</b>
Pre-modifiers performing scalability	pre-modification of an adjective	a <u>bit</u> miserable; <u>somewhat</u> miserable; <u>very</u> miserable
	adverb	<u>slightly</u> ; <u>somewhat</u> , <u>quite</u>
	verbal processes	this upset me <u>slightly</u> ; this upset me <u>a bit</u> ; this upset me <u>greatly</u>
	localized scalability as referred to intensity (Comparative and superlatives)	<u>less</u> miserable; <u>most</u> probable; <u>happier</u> ; <u>happiest</u>
lexicalizations	‘grammatical’ limited units’ without referential meaning;	<u>slightly</u> built woman; <u>rather</u> hysterical giggle <u>reasonably</u> happy,

---

	attitudinal overtone	<u>amazingly</u> happy,
	is conveyed	<u>deliriously</u> happy;
		<u>perfectly</u> happy

---

Also, Martin and White (2005) highlight the category of “vigour” by mentioning Hood’s (2004) research in which this notion is demonstrated by the use of lexical items, especially adverbs that emphasize or downplay the meanings imbued in the verbal processes used. Martin and White explain that this type of realization puts ideational and interpersonal meanings in a borderline condition in which subjectivity in evaluating a specific event is at play and such subjectivity can also involve something in the outside world. Based on examples, the authors show that *vigour* may convey the notion of “speed”, “physical force”, “consciousness” and “concentration.” The following example is a notion of consciousness found in the texts investigated:

**Example:**

Since 2005 the company **sustainability** sourced

Realizations of isolation are a recurrent theme in the texts under analysis. Throughout the texts this grammar class is realized more often via pre-modifiers such as ‘we focus on the areas that are **most [force: intensification: process: isolation] important** for our business’; ‘we’ve made **great [force: intensification: process: isolation] progress**. In alignment with Hood and Martin (2007), pre-modifiers of this type serve the purpose of making the writing become more appalling to the reader’s eyes in the sense that his attention is drawn to a specific attitude in discourse which can be inscribed or not.

### 3.4.1.2 Infusion in the modes of intensification

In infusion there is no need extra vocabulary items to perform the task of scaling feelings. That is to say, the lexical choice itself does the job of strengthening or weakening the sense of meanings of the feelings conveyed. The lexicogrammatical spectrum upon which infusion in the modes of intensification relies is summarized and exemplified in the following table in accordance with Martin and White (2005, pp. 143,144).

**Table 3.10:** Types of realizations of ‘infusion’. [Readapted from Martin and White, 2005).

modes of intensification	realizations	examples
quality	via adjectives/adverbs	contended, happy, joyous (She performed) competently, skillfully, brilliantly, warm, hot, scalding
Process	via material, mental and behavioral processes	this disquieted me, this startled me, this frightened me, this terrified me, the price inched up, I glanced over the manuscript, the clouds drifted across the sky.
repetition	via the repetition of the same lexical item; or via a list of lexical items semantically correlated.	It’s <u>hot hot hot</u> we <u>laughed and laughed and laughed</u> . In fact it was probably the most immature, irresponsible, disgraceful and misleading address....

Infusion is a less recurrent than isolation in the texts investigated. Below is an example retrieved from these texts:

(...)This collaboration (...) and **accelerates** [**infusion: intensification: process**] development.

### 3.4.1.3 Force in quantification

The process of scaling in terms of force in quantification concerns “amount” and “extent”. As Martin and White (2005) advocate, amount is concerned with measurement of “size”, “weight”, “strength” and “number” whereas extent with that of “the scope of time and space”

(p.149). The authors recall that this imprecise measurement indicates that gradability in this dimension is dual focus as it quantifies abstract entities and concrete entities.

In the texts under investigation, it is in the predominance of this dimension over intensification that the dual focus cited is observable. For example:

(...) we can make the **biggest** [force: quantification: mass/presence] impact (...)



**Concrete entity**

(...) to find opportunities for **continued** [force: quant: ext: dist:time] improvement (...)



**Abstract**

Because of this duality, at times some difficulty in distinguishing one realization from another is possible. In an attempt to minimize the degree of difficulty that may occur, Martin and White (2005) warn that there is a tendency that abstract entities realize attitudinal meanings. The authors suggest examples as follows: (p.150):

**(affect)** I have many worries about your performance./I have a tiny little concern as regards her design sense.

**(judgment)** There is vast corruption in this government./His one small moral weakness is towards ....

(appreciation). There are many beauties of the Nile Valley /There is a slight problem with your essay.

Also, the authors inform that the values construed by abstractions could also have been realized by qualities or processes. For instance: (p.150):

*a slight concern* [quantified entity] versus *slightly concerned* [intensified quality process]

a huge *success* [quantified entity] versus *very successful* [intensified quality]

her many betrayals [quantified entity] versus *frequently betrayed*.

Martin and White recall that the formulations above are grammatical metaphors in Halliday's terms. Relying on these authors, this means "one category (a quality or a process) being presented as if it were another category (a thing/entity)" (p.150). Because of this representational aspect, constructions of this type are both lexicogrammatically and semantically perceived (e.g. *a huge success (entity) vs. slightly successful (quality)*). That is to say, the formulations present one meaning laying over another (lexicogrammaticality versus discourse semantics). Instances of graduation illustrating such description are known as quantification via intensification and are also present in the context of this investigation:

The collaboration (...) and accelerates development and change in **more** areas, **more** commodities (...)

It can be observed from the example that 'more' in '(...) and accelerates development and change in **more** areas, **more** commodities (...)' repeated twice adds up to the idea of accelerating development and change. That repetition which in turn is quantified via number targets the process, thus a typical instance of "quantification via repetition".

#### 3.4.1.3.1 Modes of quantification and Isolation – "infusion" aspects

As previously indicated, quantifiers are what counts in the modes of quantification. According to Martin and White (2005), these resources graduate "imprecise reckonings" of the following categories (p.151):

number (few, many, plenty of ...)  
 mass or presence (e.g. small, large; thin, thick ...)  
 extent in time and space, in which time and space are measured as to proximity (eg. near, far, recent, ancient) or distribution (eg. short-term, wide-spread, sparse ...)

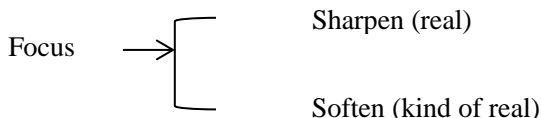
As to isolation and infusion, following Martin and White, the former is a much more a recurrent theme than the latter in quantification. Formulations of the isolation type are already expected as most of the entities being modified necessitate isolated lexemes in the intensification of the quantification (e.g. many, large, recent ...).

### 3.4.2 The semantics of focus

Unlike force, the integrative resources of this subsystem are inherently non-gradable due to the fact that the basis of focus relies on prototypicality (Martin & White, 2005). To clarify, prototypicality refers to the sets of lexis composing “either-or categories” in the construction of experiential taxonomies (e.g. *real* or *false*, *genuine* or *fake*). At first sight what counts here is the act of ‘being or not being’ of a person or thing, providing no room for an intermediary level. For example:

(...) And we’ll keep working to achieve real results (...)

Martin (2012) highlights that “classifications of this type are categorical distinctions” (p. 30), that is, nothing else can be compared to the category chosen. In the context of that clause above, results ARE or ARE NOT real. Nonetheless, graduation in the context of the boundaries of the cited categories adjusts the strength of evaluation enabling also the construction of peripheral thing. In this sense, ‘softening’ is the mechanism capable of making non-gradable categories become gradable. In doing so, resources such as locutions (*kind of*, *sort of*) function to weaken the boundaries between the categories. In practical terms, rewriting the category *real* to *kind of real* in the example above, which is not the case in the context of this research, would imply that other intents could also be regarded central to the company. In sum, based on the authors’ insights, *real* sharpens the focus whereas *sort of real* softens the focus (See Figure 3.9).



As noted, qualities are sharpened and softened and so are things and concepts in general (Martin & Rose, 2007). Paraphrasing Martin and White (2005), it is in this dynamic of sharpening and softening that the authorial voice plays its role. As highlighted by the authors, when negative or positive values are sharpened, it means that the the authorial voice in the “value position” is being put at its highest in order to catch the reader’s eyes onto a given piece of information that is about to



come. By contrast, in softening, as Martin and White argue, the effect intended upon the reader is different: when the value conveyed is negative, it indicates that the information being communicated by the authorial voice in the value position is lessened. Once lessened the value, the aim is “to offer a conciliatory gesture directed towards maintaining the reader’s solidarity with those who hold contrary views”<sup>14</sup> (Martin & White, 2005, p.139). As to the effect in positive softening, it is still argueable, as Martin and White inform.

Within focus are the subsections of “valuer” and “fulfillment”. As noted by Hood and Martin (2007), the former encompasses the variables “authenticity” and “specificity” which strengthen the boundaries of entities giving no room for open meanings. Whereas in authenticity there is “a scale down along the dimension of specificity” (p.754), in specificity there is “a scaling down of specificity [in general] and a scaling up [in particularly]” (p.755). The exemplification *real’ results* can illustrate authenticity. As to specificity, below is an example retrieved from the data proposed in this investigation:

(...) to protect consumers through our **special[Focus: valuer:specificity]** Situations Management Teams-senior-level managers

In this example, a positive value is flagged insofar as in the narrowing of that phenomenon company’s investment on business operations and transaction is highlighted. Thus, positive and negative values can be flagged through the use of authenticity and specificity (Hood & Martin, 2007).

#### Review of the chapter

This chapter aimed at outlining the major aspects of Martin and White’s accounts of appraisal theory, particularly by referring to the inscribed mode of attitude alongside the resources encompassing the

---

<sup>14</sup> The lessening of the value in prototypicality is realized with certain locutions deemed to be vague language (e.g. kind of; sort of). Being a product of casual conversation, as McCabe (2011) highlights, vague language in appraisal can help promote solidarity. Exploring the purposes of vague language in discourse, Overstreet and Yule (1997 in McCabe, 2011) find out that this type of language promotes not only solidarity, but also social connectedness besides being an opportunity for the sharing of experience.

system of graduation, which are the backdrop for an intended in-depth analysis to take place in chapter V. Whenever possible the approach to these subsystems sought to embed itself in the boundaries of this investigation - inscriptions of sustainability knowledge - in order to show how appraisal resources would be lined up to other fields of science, thus shedding lights on the interdisciplinary basis involving this research.

In recapitulating the essential aspects forming that backdrop, of paramount importance is to consider that appraisal theory constitutes an alternative for the development of studies based on interpersonal meaning. Situated within the stratum of discourse semantics, appraisal is somewhat different from Halliday's interpersonal meaning in that it concentrates on the negotiation of feelings rather than the negotiation of goods and services or information. Started as a small project at first, the integrative components that make up appraisal have gradually sprung up during the 1990s in the Department of Linguistics at the University of Sydney, Australia. As informed, AFFECT is the first dimension emerged as a result of work developed in Media research bringing into the stratum of discourse semantics a personal evaluative lexis that lacks other dimensions or frameworks in SFL. Judgment arises out of affect resulting from the work of arts and subsequently appreciation valuing aesthetics. These three dimensions altogether make up the system of attitude that along with the subsystems of engagement and graduation compose the whole framework of appraisal as we know today.

Specifically about the attitudinal system, which is one of the two dimensions explored in this chapter, it is worth mentioning that each of the integrative components of this subsystem has specifications with distinctive functions in mapping out feelings. That is to say, AFFECT attends to the 'hearty' evaluative lexis categorized into three broad variables: un/happiness, in/security and dis/satisfaction. JUDGMENT, in turn, is concerned with evaluating behavior which can be praised, admired, condemned or criticized. In a broad sense, the behavioral analysis in judgment rests upon two categories: social esteem and social sanction. The former is a product generated in daily life contexts such as informal conversations, gossips, jokes whereas the latter is codified in writing such as laws, rules, regulations and so forth. APPRECIATION deals with the aesthetics side of attitude, where the evaluation of things is at the core of this dimension under the variables of reaction, composition and evaluation.

To simplify things, we should bear in mind that each dimension is characterized by a specific value. Affect is to emotions, judgment is to

ethics just like appreciation is to aesthetics. The meanings imbued in these values can be either advanced or lessened via the grading resources comprising the system of Graduation.

As regards GRADUATION, it is categorized into two broad dimensions: FORCE AND FOCUS. In a broad sense, operationally speaking, force copes with intensifiers and quantifiers that deployed to qualities and entities, respectively, upscale or down scale the sense of meaning conveyed. Focus, in contrast, is said not to be gradable unless it is in scale of prototypicality. In this context, locutions commonly perform the job of scalability (e.g. *kind of upset*). In brief, what counts in focus is the sharpening or the softening of feelings.

In a nutshell, it is the coupling of attitude with graduation that contributes to identify that system of very sexy or not so hot ideas in terms of sustainability as in convergence with what social actors in the researched company view as legitimate. From this, the construal of the company's space of possibles and thereby its cosmology is feasible.



### 4 Methodology

Grounded on a qualitative interpretative theoretical paradigm, this study concentrates on textual analysis at the level of verbal language. Flick (2002) remarks that in qualitative research texts serve three purposes: “the essential data on which findings are based, the basis of interpretation and the central medium for finding and communicating findings” (p.29).

The proposed study is part of the research studies conducted within the research group ‘NUPDiscurso’. Below are the company’s profile, the genre selected, the corpus, the handling of the material, and the phases of the data analysis.

#### 4.1 *Kraft Foods* Company’s profile<sup>15</sup>

*Kraft Foods* Inc. (Kraft henceforth) has been regarded the largest food and beverage company in the United States of America and the second-largest in the world for ages. Founded in 1903, with its central headquarters in Illinois, near Chicago, Kraft’s has expanded its business in Brazil and purchased *Lacta* in 1996. In Brazilian territory, the company is headquartered in the South, in the city of Curitiba (PR) (Figure 4.1). As a whole there are six branches of Kraft in this territory: three branches in Curitiba, one in Piracicaba, and one in Bauru (SP), and

---

<sup>15</sup> The images in this section (4,1;4,2)are respectively available at: <http://www.skyscrapercity.com/showthread.php?t=1543177>; <http://www.brandchannel.com/home/post/Kraft-Mondelez-Spin-Off-Barclays-090712.aspx>; <http://www.thedrum.com/news/2012/03/22/Kraft-Food-rebrand-mondeliz-international-later-year>; <http://afoodindustry.wordpress.com>. The figure 4.3 is a combination of images respectively retrieved from <http://www.forbes.com/sites/marketshare/2012/03/07/kraft-foods-dishes-out-their-recipe-on-successful-content-marketing/>; <http://impulsapublicidad.wordpress.com/2013/02/01/kraft-foods-cambia-su-nombre-a-mondelez-internacional/>. The last figure among the three ones in Figure 4.3 is an image readapted form the first site.

another recently inaugurated in Vitoria de Santo Anatao (PE). The products commercialized by Kraft are grouped into one of the five following categories: beverages, cheese and dairy, snacks and cereals, grocery and convenient meals. In Brazil some of the brands include *Diamante Negro*, *Sonho de Valsa*, *Bis* , *Ouro Branco* (candies), *Triunfo*, *Cream Crackers*, *Agua e Sal*, (crackers), and many others traded overseas (as demonstrated in Figure 4.2). Kraft is among one of best one hundred companies to work in Brazil according to a survey undertaken by Great Place to Work Institute (GPWI)<sup>16</sup>.



**Figure 4.1:** The storefront of Kraft's Food headquartered in the South of Brazil, in the city of Curitiba Retrieved in March/2013.

---

<sup>16</sup> Wikipedia, the free encyclopedia. Kraft Foods. Retrieved in March, 2013, from [http://pt.wikipedia.org/wiki/Kraft\\_Foods](http://pt.wikipedia.org/wiki/Kraft_Foods) (Since April 2010)



**Figure 4.2:** Some of the brands commercialized by Kraft's (currently Mondelez) after the division. Retrieved in March/2013.



**Figure 4.3:** Kraft's Foods slogan alongside the certification of the change of the company's name into 'Mondelez International'. Retrieved in March/2013.

More recently, there has been a subdivision of Kraft Foods Inc into two other companies: *Mondelez International* and *Kraft Foods Groups*. The former is in charge of the groups of international snack business whereas the latter is responsible for managing the commercialization of groceries in North America. This division ended

up changing Kraft's name to *Mondelez International* (Figure 4.2). Morphologically considered, coined by two of its employees, the free morpheme *monde* is a French word for *world* and *delez* is a fanciful expression for *delicious*<sup>17</sup>. This goes with Kraft's motto available in its web page across decades: *Make today delicious* (Figure 4.2). Metaphorically, this slogan denotes that by purchasing and consuming their products, customers have at their disposal a "delicious", healthy and socially developed environment where people's bliss and well-being are part of it. Inferring from Bourdieu's conceptualization of space of possibles, it may suggest that the purchase and daily consumption of a Kraft's product includes not only its content, but also the values contained in it: commitment to environment and thus humanity's prosperity for procurement of sustainable development, reinforcing those ideas of "a particular point in time and space" present in the concept of constellations.

In this research, we opted to referring to the company as Kraft despite the change in its name. When retrieved as part of the data, the name in evidence was *Kraft Foods* rather than *International Mondelez*.

#### 4.2 The genre 'Report' in science

The texts investigated are integrative components of Kraft's annual sustainability report. As a discursive genre, reports in science allow for scientific phenomena being described, classified and explained (Martin & Rose 2008; Martin, 1989). According to Martin (1989), reports are communicative tools in which the establishment of relations between "parts" and "wholes" (p.227) is acknowledgeable, which suggests that more information can be added to the basis of description, classification and explanation.

More specifications can be added up to this genre when considering that the report under this investigation is one of sustainability. Dealing with environment issues, the field of sustainability generates discourse of the environmentalist type with features that are particular to this type of register. The general feature of this type of text is that its texture is of an "interpolated genre" from the

---

<sup>17</sup> Forbes. (August, 18, 2013). Kraft Foods looks tasty to \$55. Retrieved in October, 2013, from [www.forbes.com/sites/greatspeculations/2013/23/18/Kraft-food-group-looks-tasty-to-55](http://www.forbes.com/sites/greatspeculations/2013/23/18/Kraft-food-group-looks-tasty-to-55).



view that elements of two different genres are combined (Marin, 1997 as cited in Veel, 1998), what Martin terms “register metaphor”.

Looking through Wignell’s (1998) lens, this combination can be explained by the fact that several scientific areas operate with technicality and abstraction, where the former is generally construed in *reports* and the latter in *explanation*. Martin understands explanation as “the how” of the things being shown—happening upon which an activity is outlined. So, in the case of sustainability which is a type of environmentalist text there are elements of report and of explanation; i.e., describing at a point and explaining in the other, which endorses the idea of interpolated genre or register metaphor.

#### 4.2.1 The generic structure in the environmentalist text

As in any textual generic structure, in scientific discourse the tension between ideational meanings and interpersonal meaning is observable. According to Veel (1998), the latter contributes to stress the presence of the former in context. In the environmentalist text, however, interpersonal meanings stand out from the view that the language in the texts produces a “personal” taste which is uncommon to science. This personalized sense is what involves readers and writers in a way that is different from that of the traditional scientific writing, a fact that makes the relationship between writer and reader become closer. As noted by the author, it is this closeness that marks the major difference between the traditional scientific texts and the environmentalist text.

As noted by Halliday and Martin (1993), the different ways in which man has been dealing with the physical environment in the past decades is responsible for bringing into the textual type cited that personalized taste. That is, the view that man is regarded not only the responsible agent for the environmental destruction, but also for transforming the environment into a more sustainable place as to provide better living conditions for this generation and others to come has corroborated the propagation of this idea.

As far as the generic structure of the environmentalist text is concerned, Veel (1998) found out that the association of “emotive meanings” with “scientific meanings” is commonplace. At the level of the clause, as noted by Veel, the presence of the human agency is recurrent such as “people”, “companies”, “industries” and the first person plural “we.” The scholar observes that the use of these agents is a way to favor the connection of humans to physical events, mainly with

the use of *we* as it gives the impression of more proximity favoring the emotive status to which the environmentalist is linked.

Another factor is concerned with the opening clause of this type of text. According to the results of Veel's research, this clause resembles the one of Martin's thesis in abstraction. To remind us, abstraction is what Martin terms exposition or the telling of a story and what this story is meant as according to Wignell (1989). In there a thesis (a central idea) is defended and sensible arguments are sequenced in support of this thesis. In practical terms, it is like the expression "once upon a time" of the fairy tales from where the whole story develops.

Since the environmentalist text is also a product of abstraction, of which technical terms are not inherently integrative components, Wignell et. al. (1989) inform that the process of technicalizing which consists of "naming the phenomenon and making that name technical" (p. 160) is what enables the sense of technicality in this text type. As noted by these authors, the terms made technical can be recognized in the form of a single noun, of the compound noun type, of the nominal groups of classifiers ^ types, of the classifier ^thing structures, and also in the form of a grammatical metaphor.

### 4.3 The corpus

Out of more than 30 reports examined for four consecutive months alongside the linguistic analysis applied to 6 of those full reports, the one chosen for the present study was the latest issue of Kraft's sustainability report entitled "Creating a more delicious world", published in 2012, portraying the company's achievements of the previous year (2011) towards sustainability issues. The choice for analyzing this specific sample of genre rather than any other type available in mass media lies in the fact that companies in general tend to provide more details about their actions, practices and values in this type of text. Also, judging from the point that most sustainability reports are published annually so that their progress towards sustainability is documented, the latest issue of the investigated enterprise's report contributes not only to evaluate progress, but also to scrutinize particular positions and gazes regarding the matter put into argument, which allows for the understanding of the mastery of sustainability knowledge by Kraft Foods Company - the general objective of this research.

Concerning the choice for a report of this specific company, some particular reasons account for this choice. One of these ranking high is the fact that, from all those reports examined, Kraft's *Creating a world more delicious* is the only report that composes its textual structure with a set of texts at comparable levels in the sense of style and size, in which these texts altogether subsume the company's values, practices and feelings apparently imbued in the principles of sustainability (Ecological prudence, economy efficiency and social responsibility). More importantly, each entity of text explores an aspect of their way of thinking sustainability (e.g. Governance and Compliance), which, again, suggests the company's relations to sustainability. Another reason relates to the fact that in these texts there is an expressive number of appraisal resources enabling the target of a given inscription of knowledge within the area of business. Other motives include the consideration of the texts being of one company recognized worldwide for its sustainable practices, which can be an opportunity to acknowledge their world view in relation to the issues of sustainability, insofar as it is culture-dependent, as previously argued, and the fact that it is an enterprise also headquartered in Brazil and famous for the commercialization of their products.

#### 4.3.1 The handling of the material selected

To facilitate the handling of the material, these texts were retrieved from their original report available in their official web site<sup>18</sup>. The visual language in the form of images and graphics contained in those texts were excluded seen from the view that only verbal language is on focus in this study. Each text describing a specific action of the company was copied and pasted into a template as single entities of text (Figure 4.4). Each clause of a single entity of text was numbered and arranged into a single box of the template accordingly for the analysis (e.g. clause 1, clause 2.....) until the text structure is complete. For the analysis, the clause contained in a single box was doubled or even multiplied and then rearranged into other boxes depending on the number of instances of appraisal resources found. For example, if two appraisal resources were identified in one clause, the same clause was repeated twice and

---

<sup>18</sup> The official web site of the selected report. Retrieved in June, 2012, from [www.mondelezinternational.com/SiteCollectionDocuments/pdf/kraft'sfood\\_deliciousworld2011.pdf](http://www.mondelezinternational.com/SiteCollectionDocuments/pdf/kraft'sfood_deliciousworld2011.pdf).

rearranged each one in a box and signaled under (a), (b), .... . The resources analyzed were coded as follows: pink for Affect, green for Appreciation and blue for judgment whereas the resources of graduation are underlined and **in bold** (See Appendix II).



**Figure 4.4:** The six single entities of texts used in this investigation.

For organizational purposes, since the central focus of this research is sustainability, I relocated Text V, which was then the opening text of the report, to provide room for Texts I and II as they are the ones entitled “Sustainability” with what that focus is concerned and where the central aspects related to this theme are explored, thus these texts being the key texts in the report. Of paramount importance is to say that the change in position of Text V does not compromise the results of the analysis, since the relocation of the text follows up some reasoning within the sustainability knowledge domain in that it explores aspects of social justice, of which exploration is initiated in the previous text *Workplace and culture*. Additionally, text positions are indifferent from the view that the focus in this analysis is to target inscriptions of knowledge that form the constellations which can be found in any part of the text either for composing a stance or emphasizing the one already formed.

#### 4.3.1.1 Phases of the analysis

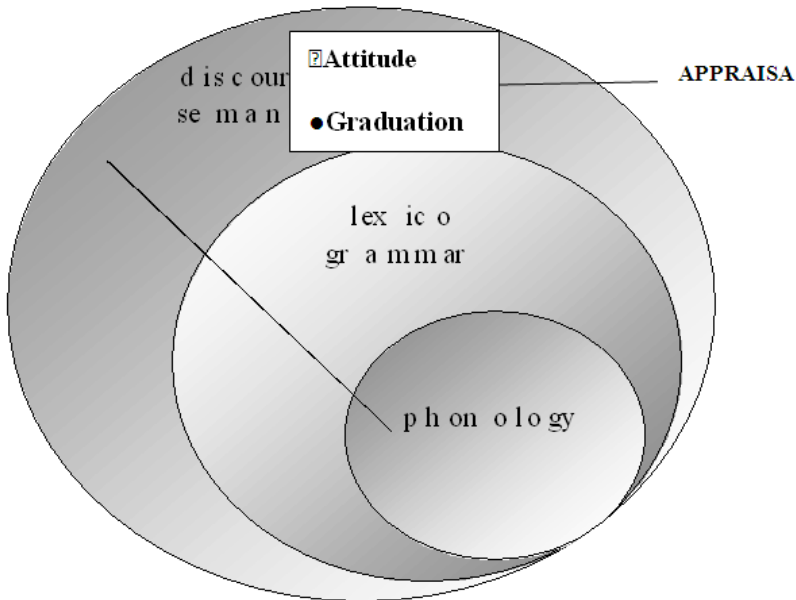
The cosmology-based research analysis deals with two different perspectives: the handling of the internal relations and the external relations. Revisiting the theoretical accounts of these relations, the former has to do with clustering social actors' ideas, practices and beliefs in a given field of science that they are affiliated as to formulate the stances that are going to compose the constellations and then the cosmology. With the handling of the internal relations, the following specific objectives proposed in this investigation are achieved: 1) to delineate the values, roles and practices that the company views as legitimate within sustainability knowledge; 2) to examine the nature of Kraft's constellations and the configuration of meanings that this naturalness communicates. The handling of the external relations, by contrast, attends to the constellations analysis. In this phase, the epistemological and axiological underpinnings in a cosmology are gauged, which allows for the accomplishment of the two last objectives of this research: 3) to understand the relations of the company to sustainability practice through gauging the epistemological and axiological underpinnings contained in the company's discourse; 4) to identify the possible generations of new knowledges and the ways in which Kraft's social actors' practices reveal what type of knower they are.

To deal with the relations cited, this research passes through two different phases: I) linguistic analysis underpinned by appraisal theory operating at the internal level of the internal relations of Kraft's cosmology in which clause by clause is examined for identifying inscriptions of knowledge ; II) constellations-based analysis operating at the external level of the external relations of Kraft's cosmology, a phase when the constellations are examined to figure out the social actor's relations to sustainability and thus ascribing the company the specialization code of their characterization. Both phases are explained in detail in the two subsections ahead.

#### 4.3.1.1.1 The linguistic analysis via appraisal resources

As theorized in the previous chapter, appraisal is one of the three resources available in the discourse semantics to interpret interpersonal meanings. Unlike the exchange of goods and services, it focuses on the negotiation of feelings. Relying on Martin and White (2005), appraisal deals with evaluating the kinds of attitudes negotiated in a given context; i.e., “the strength of the feelings involved and the ways in which values are sourced and readers aligned” (p.25).

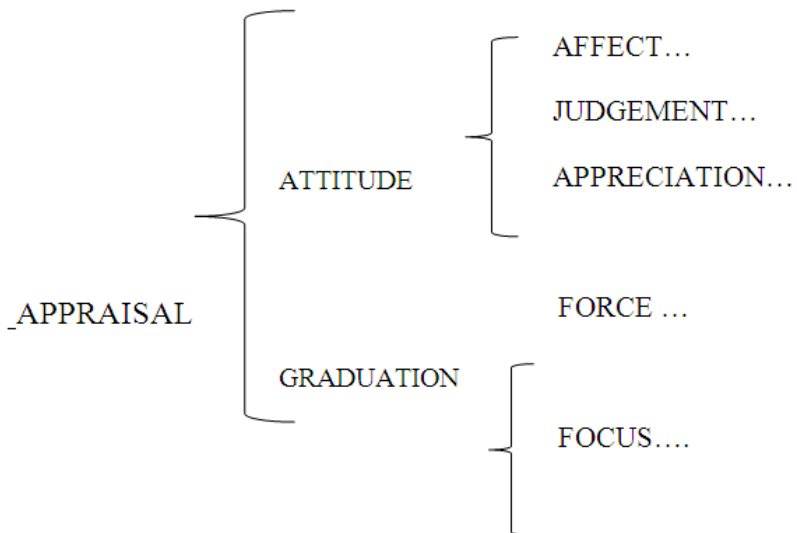
Within Appraisal, this study deals with the inscribed modes of the resources available in the subsystems of attitude and graduation (See Figure 4.5). Although indirect realizations are not the focus of this research, at times they are utilized to underline the inscriptions of knowledge found, which can or not be of sustainability. Speaking of sustainability, in APPENDIX III there is a guideline encompassing the major theoretical accounts of the sustainability phenomena comprising the repertoire of meaning of the company investigated.



**Figure 4.5:** The theoretical and methodological framing in the hierarchy of realization proposed in this research. Source: Readapted from Martin & White (2005). [Slides provided by Martin as part of the Discourse Analysis classes at the University of Sydney in 2012].

About the subsystems used in this research, as previously highlighted, Attitude is concerned with evaluating our feelings towards emotional reactions (AFFECT), judgment of behavior (JUDGMENT) and evaluation of things in general (APPRECIATION), whereas GRADUATION is viewed as a resource “in which attitudes can be amplified or hedged, developing focus and force as complementary dimensions of this system” (Martin and Rose, 2007, p.25), below represented as a system network.

**Figure 4.6:** An overview of the subsystem of Attitude and Graduation.



Source: Readapted from Martin’s overview of Appraisal Systems (Martin and Rose, 2007: p. 59). [Slides provided by Martin as part of the Discourse Analysis classes at the University of Sydney, 2012].

Bearing these theoretical accounts of appraisal in mind, the dynamics of this analysis in Chapter V operates within the internal relations of Kraft’s cosmology for identifying the stances which clustered form Kraft’s constellations. As previously posited, a stance is a unit of meanings resulted from the clustering of ideas, values and beliefs. To identify them, the analysis is done clause by clause. Once an instance or instances of appraisal resources are identified, there is the communication of an aspect within or not the reservoir of meanings of

sustainability. Particularly in the proposed analysis, very often more than one stance is needed to target a specific phenomenon within sustainability (e.g. **unfortunately** [Affect], the world's natural resources are limited and increasingly in **demand** [Affect] by an ever-growing population). In this example, the interplay between attitude (**In bold**) and graduation (*In italics*) altogether contributes to the identification of the stance *environment awareness*. However, it is crucial to inform that if any of these resources had been neglected, this stance would not have been targeted as the meanings these resources altogether communicate are complementary.

As shown, the dynamics of this analysis requires from the researcher the sensibility to combine each instance or instances of appraisal resources identified with corresponding inscriptions of knowledge and then decide within which reservoir of meanings these inscriptions are included. The final product is the target of the stances and then the formulation of Kraft's constellations and thereby cosmology.

#### 4.3.1.1.2 Constellations-based analysis

Now with the constellations and cosmology known, the analysis operates at the external relations of Kraft's cosmology, a phase when the epistemological and axiological underpinnings are gauged from the point of view of Bernstein's knowledge structures aligned with Maton's insights of LCT in terms of knower-structure and the specialization codes. In detail, epistemic relations and social relations are gauged based on Bernstein's concepts of Classification (C) and Framing (F). Again, in simple terms, Classification relates to examining if the social actors' repertoire of meanings of a knowledge structure discourse is within the boundaries of the reservoir of meanings of the knowledge domain being claimed. Framing, in contrast, refers to analyzing if there is some strengthening of control of communication within the categories or contexts. Since (C) and (F) can be at variable levels, they can be represented as +/-C and +/-F, indicating strong/weak classification and strong/weak framing, accounts that inspired Maton to elaborate on the specialization codes of legitimation under which the company investigated is characterized. So, Because **ER** (epistemic relations) and **SR** (social relations) condense each one +/-C and +/-F; i.e., **ER** (+/-C, +/- F) and **SR** (+/-C, +/-F), depending on the ways Kraft classifies and frames their knowledge structure, this structure being weak or strong in



terms of the epistemic relations and the social relations individuated, it is possible to know if the company shows or not inclinations towards the sustainability knowledge and thus finding out the specialization code of the characterization of the company.

Again, concerning these codes, they are:

- *The knowledge code*, '+ER (+C, +F); SR (-C, -F) -**strong epistemic relations and weak social relations**, which indicates that social actors strongly classifies epistemic relations but weakly frames social relations. In other words, this means that there is some possession of knowledge considering its procedures and skills; however, some downplaying at a certain extent of grammar is also recognizable. That is to say, by the side of the epistemic relations, that visibility is noticeable; by the side of the social relations, invisibility is observable.
- *The knower code*, -ER (-C, -F); +SR (-C, -F)- **weak epistemic relations and strong social relations**, is just the other way around; i.e., social relations in a knowledge structure are strongly framed and epistemic relations are weakly classified, describing knowers with their gaze and dispositions privileged over the epistemic referents individuated.
- *The relativist code*, -ER (-C, -F); -SR (-C, -F) - **weak epistemic relations and weak social relations**, where social actors are both weakly classified and weakly framed; i.e., both epistemic relations and social relations are weak , characterizing knowers who present neither the possession of the expert's knowledge nor the knowers' disposition or gaze. That is, invisibility towards both aspects is proven.
- *The elite code* , +ER (+C,+F); +SR (+C, +F) - **strong epistemic relations and strong social relations**, characterizes the right type of knower from the view that both epistemic relations and social relations are strongly classified and strongly framed. Here visibility is proven at both sides.

To endorse, the only way to know the code under which the investigated enterprise is characterized is through classifying and framing its epistemic relations and social relations, a procedure taken in the sixth chapter of this thesis.



## Chapter V

Scientific English has to reconcile the need to create knowledge with the need to restrict access to that knowledge (That is, make access to it conditional on participating in the power structures and value systems within which it is located and defined (Halliday 1998b, p. 96)

### 5 Analysis of Appraisal in Kraft's constellations

#### Introduction

This chapter focuses on identifying the constellations by means of the process of “constellationalizing”. Constellationalizing means dealing with the internal and external relations present in a given cosmology. By now the handling of the internal relations is brought into play. Internal relations refer to the clustering of the ideas, practices and beliefs individuated by social actors claiming for legitimacy in a given field of science as to reach the stance which in combination with other stances form the group of constellations (Maton, *in press*). To remind us, stance represents the unit of meaning resulted from this process of clustering ideas, practices and beliefs. So, the stances grouped constitute the constellations which can be in harmony or in disharmony with other clusters.

This is to argue that constellations can be binary. As noted by Maton (*in press*), the phenomenon of binary constellations relates to the constellations generated in a field of science that straddles the line between two poles because it may appear to social actors that by highlighting a stance within a given field of science, all the other stances in a cosmology are automatically included. Perhaps, this condition can also be explained by the fact that the field of science being claimed possesses its basis within a broad area of science of deep knowledge.

The context of the present investigation is a case in point – sustainable business is a segment within the area of business. Binary or not, the point is that constellationalizing is the process by which cosmologies are built (Maton, *in press*).

In order to identify Kraft's stances through which constellations are grouped and then find out the nature of these constellations, theoretical accounts of appraisal theory (Chapter III), particularly the inscribed modes of Attitude and Graduation are applied to the data proposed. All the inscriptions of knowledge, or, technically considered, the stances will be identified.

Bearing this focus in mind, this chapter presents descriptions and a discussion of the findings, since the constellations are known here. With this view, this chapter takes as point of departure a subsection explaining in detail how attitude and graduation are interfaced for the identification of the stances. Next, there is an outline of the appraisal theory in the generation of the constellations. The resulting product of this chapter is the identification of the constellations and the understanding of the nature of these constellations in the building of Kraft's cosmology. By now two out of the four questions posed in this thesis will have been answered; namely, 1) considering the repertoire of meanings of Kraft Foods towards the reservoir of meanings of sustainability, what does Kraft's Company view as legitimate in the discourse of their Annual Sustainability Report?; 2) How does the company construe their space of possibilities?

In order to facilitate the identification of the stances by the reader, the number of stances targeted in each section as a result of attitude and graduation interface will be arranged in the form of diagrams at the end of each subsection. In the last subsection, when the constellations are known resulting from the configuration of the stances identified across the chapter, all of them will be grouped in the form of a table.

This table allows for the constellations analysis intended to be carried out in the subsequent chapter in order to construe Kraft's knowledge-knower structure. This is the occasion when the epistemological and axiological underpinnings encompassing the company's discourse are scrutinized.

## 5.1 Constellationalizing in the interplay between attitude and graduation

Methodologically speaking, in order to handle the data organizationally, the process of constellationalizing proposed in this chapter is indicated

by the use of codes. The texts and the stages (paragraphs) are signaled as being abbreviated with the initial letters (e.g. **T** for Text; **S** for Stage). The corresponding clause or clauses in these texts and stages are numbered (e.g. (02), (03) ...). In sum, this will be shown such as [**TI/SI-02**]. Regarding the instances of attitude and graduation observable in the text, those of the former are in **bold** and the instances of graduation in *Italics*. As to the stance/constellations targeted, they are indicated as being underlined in the analysis chapter (See Table 5.1)

<b>Targets</b>	<b>Codes</b>
Text I./III	<b>T I/TII</b>
Stage I/II	<b>S I/II</b>
clause number	<b>(02); (03)</b>
Instances of Attitude	<b>In bold</b>
Instances of Graduation	<i>In italics</i>
Stances/ constellations	<u>Underlined</u>

**Table 5.1:** Codes in use in attitude and graduation interface for the identification of the stances in Kraft's discourse.

With respect to the organizational structure, the subsections ahead have the objective to promote the interplay between attitude and graduation for the clustering of the ideas contained in Kraft's annual sustainability report. Once again, this clustering means dealing with the internal relations to identify the stances which altogether form Kraft's constellations and thereby their cosmology. That is, this is the occasion when Kraft's social actors' beliefs, values and practices with respect to the object sustainability, of which the company is claiming for legitimacy, come into play.

In constellationalizing in that interplay, affect and graduation are taken as the point of departure of the following subsections despite the fact that instances of affective meanings are not the predominant ones in the texts investigated. The start with affect-graduation subsection is a deliberate choice. It is motivated by the fact that affective meanings spring up in the very early stage of the first paragraph encompassing the key text 'Sustainability', which alludes to that thesis by Veel that this type of register builds a generic structure based on the

association of scientific and emotive meanings. Interestingly, the meanings manifested in this initial stage contributes to target ‘environment awareness’, which is an issue that is prior to all the other subjects within sustainability knowledge domain in the sense that one argues to be sustainable if some awareness towards the environment is shown.

The realization of these affective meanings is a response to the opening clause of Kraft’s key text, namely:

**[TI/S01-01]** As a food company, we’re dependent on the earth for the ingredients we use to make our food.

In terms of appraisal, this opening clause is unevaluated. However, it is important to underline other considerations in relation to its linguistic structure which in a sense contributes to the overall discussion proposed in this chapter. One of these considerations is concerned with the acknowledgement of the presence of the personal pronoun *we* in that opening clause and also throughout the samples investigated, which is a characteristic of this text type, as a way to soften the impartiality commonly perceptible in the texts of scientific knowledge, as previously stated. Another consideration has to do with the problematization stated in there. That is, the statements announce the company’s awareness towards the interdependence of the manufacturing of their product and thereby their business maintenance and the natural resources available in nature, an argument that causes affective meanings to arise and from these meanings a conclusive statement which sustains the overall discussion in the report investigated. The following statement is illustrative:

**[TI/S01-03]** So it’s critical that we run our business in ways that are environmentally, socially and economically sound and sustainable over the longer term. f

This statement refers to the thesis in exposition. As previously theorized, exposition is abstraction, characteristic of the language of humanities and social sciences. This language differs from that of the natural sciences in that it does not inherently deal with technicality (Wignell, Martin & Eggins, 1989). Simply put by Martin (1989), it is in exposition that there is a statement or a thesis defended in which arguments in support of this statement are sequenced. In Wignell’s (1998) wording, this exposition sounds like telling a story where the

central point is stated and from this other events develop. Because sustainability texts are a product of the three broad areas in science – natural sciences, social sciences and humanities where the two last areas predominate over the former and as such it is realized via the language of abstraction, Martin’s thesis is identifiable in Kraft’s story.

In Kraft’s story, the thesis is realized via appreciation and graduation. For this reason, all the corresponding subsections within this attitudinal dimension interfaced with graduation will be referred to as the thesis. For example, one of these is termed “Appreciating-graduating in the thesis for targeting the stances”. In this subsection, stances related to the identified thesis or closely associated with it are accommodated.

Although appreciative realizations form most of the stances, I opted to replace the corresponding subsections after those of judgment-graduation and affect-graduation, since the several stances originated from appreciation convey several aspects of sustainability which in a way open space for other stances to come out and be investigated in the last subsections entitled “Combining attitude and graduation in the aspects of governance and volunteerism.”

With respect to the dimension of judgment interfaced with graduation, no stances were composed from inscriptions of judgment in isolation. The inscribed and invoked modes of judgment have been used in combination with other instances of attitude and/or graduation for endorsing the formulation of stances throughout this chapter. To illustrate, an instance of inscribed judgment and another of invoked mode can be seen exemplified below:

**[TIII/SIV – 12] (...) We maintain and strengthen our reputation for consistently producing (...) [Inscribed: Judgment]**

**[TIII/SIV-12] (...) acting swiftly when threats to safety issues (...) [Invoked: Judgment]**

Concerning affect-graduation, two stances of the dimension of social responsibility within sustainability were observable. The corresponding subsections in this section open up the data analysis proposed even because affect is the first dimension perceived in the introductory paragraph of Kraft’s key text. Below is the paragraph with the instance of affect introducing Kraft’s discourse:

As a food company, we're dependent on the earth for the ingredients we use to make our products. **Unfortunately [Affect]**, the world's natural resources are limited and increasingly in **demand [Affect] by** an ever-growing population. So, it's critical that we run our business in ways that are ecologically, socially and economically sound and sustainable over the longer term.

Thus, in a broad sense, the structural organization dealing with this question of internal relations starts with affect, followed by judgment and appreciation and then the three dimensions altogether as the last items of the subsections intended to explore the composition of the stances. Once this process is ended, it is possible to recognize Kraft's constellations, which are to be explored in the next chapter through which the company's knowledge-knower structure is known.

## 5.2 The Appraisal theory in the generation of Kraft's constellations

Constellations relate to "groupings that appear to have coherence from a particular point in space and time to actors with a particular cosmology" (Maton, in press, p.8). One may think of constellations of a field of science as something like the group of stars we behold in the sky in that some of these stars might appear to a beholder shiner and more prominent than others in a certain time and place in *cosmos*. As metaphorically put by Maton, they are the sexy or not very hot ideas which make up the groups of constellations and thereby their cosmologies. Since this sexiness depends on the eye of the beholder, there is no doubt that the stances selected by social actors in the building of a cosmology will reflect their interests, goals and commitment in relation to the field they are affiliated. For these reasons, Maton asserts that constellations may vary, or they may not even be directly linked to the object claimed

In constellationalizing in the interplay between Attitude and Graduation, it was possible to acknowledge that in Kraft's constellational structure there are inscriptions of knowledge of sustainable business and tradition business that conflate, an endorsement for Maton's proposition that constellations may relate to other fields of science unrelated to the one that is being claimed.



To recall, as regards the attitudinal and graduational subsystems, Martin and White (2005) postulate that the former deals with feelings categorized into three dimensions: emotions, ethics and aesthetics, which are theoretically termed AFFECT, JUDGMENT and APPRECIATION. Graduation, by contrast, encompasses resources distributed into two broad categories: force and focus, where the former intensifies and quantifies abstract and concrete entities and the latter can graduate resources which are originally unscalable, as noted by Martin and White.

Within attitude, of the resources distributed across the six samples that constitute the company's report, instances of appreciation outnumber those of affect and judgment. To be more precise, appreciative meanings stand out in the mentioned samples. Below one of these meanings taken from one of the samples is exemplified:

**[Text III/S II-02]** Since 2010, we have increased **sustainable [Appreciation]** sourcing (36%).

In alignment with Martin and White (2005), appreciation is concerned with culturally signifying things and events; in other words, the value we give to things. About this predominance, this is somewhat predictable as appreciation has as one of its variables a component called valuation that is experiential-sourced from the view that it allows for the portrayal of a given environment, its people and things.

Because Kraft's discourse is realized via a report, the fact that the variable valuation ranks high is observable. Reports, by nature, involve descriptions of activities and explanation of events (Rose & Martin, 2008), and this is clearly observed in Kraft's sustainability report, since it is, in some sense, a kind of environmentalist text where descriptions tend to be intensified because this type of text combines elements of two different genres, description and explanation (Veel, 1998). Thus, it is not surprising that the variable valuation is of high incidence in the texts investigated. The exemplification posited above is a case in point in addition to many other instances identifiable as the texts unfold. Some of these meanings contained in a single clause taken from Text (I) are illustrative:

**[TI/SI-03]** So, it's **critical [Appreciation: Valuation]** that we run our business in ways that are environmentally, socially and economically **sound [Appreciation: Valuation]** and

**sustainable [Appreciation: Valuation]** over the longer term.

With respect to judgment and affect, instances of both resources are identifiable at comparable levels in the samples investigated, with the latter presenting only three instances ahead of the former. An instance of judgment and another of affect can be seen in the examples below:

[Text III/S12] By adhering to strict standards, acting swiftly when threats to safety arise and **communicating with consumers effectively [Judgment]** (...)

[Text VI/ S- 02] We strive to earn **trust [Affect]** every day by doing what we say we will do (...)

The examples above show that affect deals with the feelings of the heart whereas judgment with evaluations of behavior and character (Martin & White, 2005). Judging from the view that the register proposed is one of science, which is supposed to deal with an “impersonal” language, as Veel (1998) observes, the occurrence of affective meanings identifiable in the samples is expressive. This finding confirms Veel’s thesis that in the environmentalist text type emotive feelings usually attaches to science and this attachment can be explained by the effects of a difference in man’s behavior towards the way he has interacted with the physical environment in the past decades (Halliday & Martin, 1993). Moreover, it is noticed that the texts investigated possess a generic structure that mixes up different styles of writing where ‘impersonality’ can be noted merely by looking at the employment of some linguistic features in the textual texture such as the frequent use of *we*. Although *we*, in general, is used to signal interactions in the text, in the environmentalist text, as inferred from Veel, the function of this pronoun goes beyond interaction; it is also a way to sensitize the reader to become a co-participant of the scenario described.

Back to the question of the combination of emotion with science, I will dare posit here that even the instances of judgment detected somehow sustains this thesis. All the inscriptions of judgment in the data are included in the category of social esteem rather than social sanction. Besides the instance of judgment previously exemplified, the following example illustrates another instance of judgment within the category of social esteem:

**[TI/SIV-11]** Success requires vision and determination, **great [Judgment: Social esteem]** partners (...)

In the category of social esteem, as also pointed out by Martin and White (2005), the feelings expressed are of admiration and criticism. The former is the one being exemplified. The preference for the use of resources within the cited category may indicate Kraft's disposition towards shaking the audience's heart in a sort of "familiar" environment. In a way, it helps provoke a closer approach and then trust building, which is a very important aspect of social responsibility, one of the dimensions of sustainability.

About the grading resources, those within the semantics of force rank high in the samples analyzed. In a broad sense, force has to do with graduating within the categories of intensity and amount - respectively the modes of intensification (e.g. fairly, very, extremely,) and quantification (e.g. many; a few, a little), as advocated by Martin and White (2005). Of all the resources, the specific code ascribed to specify time, which can be represented in two ways, [Force: quantification: proximity: time; Force: quantification: extent: distribution: time], as they signal time differently, in the sense that the former focuses on specifying the extent of a specific time in space and the latter the extent of time distributed across a given activity, is one of the most recurrent resources deployed in the analyzed report. These differences in time can be seen exemplified below:

**[Text I/SI-03]** (...) in ways that are environmentally, socially and economically sound and sustainable over the *longer term* **[Force: quantification: proximity: time]**.

**[Text III/SI 05]** *From ingredients to final product* **[Force: quantification: extent: distribution: time]** we have the quality standard in place.

Based on the realm of science on which this research lies, the constant occurrence of the categorization in time can be positively interpreted, since recent studies have indicated new trends in the study of sustainability in which time is a determining aspect. That is, sustainability has been viewed as a process of social learning in which all social actors are involved with the purpose of acquiring the expertise necessary to manage sustainable systems and become responsible for the functioning of these systems (Tabara and Phal-Wostl, 2007). Judging from this point, we can say that 'future-oriented' constitutes a stance in

Kraft's constellations. The following table is an overview of the totality of instances found in attitude and graduation in the texts analyzed. Here they are expressed in number only for the purposes of illustration. But, throughout the chapter these instances are explored to compose the stance and the group of constellations for the building of the company's cosmology.

Texts	Attitudinal System			Graduation	
	Appreciation	Affect	Judgment	Force	Focus
Sample I	15	02	01	21	0
Sample II	04	0	01	07	0
Sample III	14	02	02	14	02
Sample IV	11	04	03	19	0
Sample V	16	0	01	17	04
Sample VI	15	04	01	14	01
<b>Total</b>	75	12	09	92	07

**97 total amount of instances in Attitude**

**99 total amount of instances in Graduation**

**Table 5.2:** The totality of instances in the subsystems of attitude and graduation

### 5.2.1 Affect-graduation in the composition of Kraft's stances

As previously mentioned, affect attends to the feelings of the heart. Interpretatively, it is the inner side voice communicating emotion. Distributed in subcategories, these emotions can be negatively or positively appraised by means of a quality, process or comment (Martin & White, 2005). Of the twelve instances of affective meanings

identifiable in Kraft's annual sustainability report, nine items out of this sum belong to the category of –in/security type, with one of them being negatively appraised. Two instances of affect, one of the positive and another of the negative dimensions, are exemplified as in:

[TIV/SI-01] We value **trust** [+ **Positive: Affect**] . . . of consumers, customers (....)

[TIV/SIV-10] Under our *Speaking Up Policy*, we empower employees to ask questions and raise **concerns** [- **Negative Affect**] about business practices

Another item negatively appraised is of the ‘un-happiness’ subsection, followed by a positive one of the ‘desiderative’ type. To these feelings resources of force in the modes of quantification and intensification as well as one resource in focus are attached. In detail, the mode of quantification is perceived in the form of two instances of number and of the extent of scope in space, whereas intensification is realized via ‘process’, ‘quality’ and ‘repetition’. In relation to focus, the resource used is one of the ‘sharpen’ type. In sum, affect and graduation interface, or, at times, affect in isolation aided in detecting two of the stances in Kraft's sustainability constellations. Again, below is a table with the purpose of illustrating the totality of instances of Affect detected in the texts investigated:

<b>Affect</b>		
<b>Classification</b>	<b>Evaluation</b>	
	<b>positive</b>	<b>negative</b>
Desire/Inclination	01	
Un/happiness	0	01
Dis/Satisfaction	01	0
In/security	08	01

**Table 5.3** The totality of findings in Affect expressed in number.

#### 5.2.1.1 “Affecting-graduating” on the target of Kraft's stances

Regarding appraisal resources, affective meanings open up the discourse in Kraft's key text. Again, we ascertain Veel's thesis that in registers of

this type emotions are very often coupled with scientificity. As shown before, this coupling is perceptible in the very early stage of the introductory paragraph of the key text:

**[TI/SI - 02] Unfortunately**, the world's natural resources are *limited* and *increasingly* **in** demand by an ever-growing population.

The company investigated makes use of 'unfortunately' which is a resource of the unhappiness kind included in the category of 'un/happiness' to express negative emotion. Within affect this category is known for accommodating the most impact of the feelings (Martin & White, 2005). Elaborating on this idea, Martin and White might consider these feelings 'impacting' because they are the ones positioned at the extreme edge of positive or negative emotion, i.e., one can feel happy or sad, leaving no room for intermediary emotions. In brief, the feelings conveyed thanks to the realization of the resources belonging to this category are able to make life appear either wonderful or senseless.

In the context presented, with the choice for the modal adjunct 'unfortunately' by Kraft, sadness is the emotion conveyed motivated by the presence of the Trigger 'resources are limited and increasingly in demand by an every growing population'. To inform, Trigger is the phenomenon from where emotion derives (Martin and White, 2005).

In this Trigger, there are instances of the modes of quantification and intensification that complement the overall idea in the context at stake. In quantity, the company employs the resource 'limited' which is encoded as extent of scope in space. Since the resources available in this Scope translates the meaning related to width (Martin & White, 2005), the use of this resource, as in the example above, by the investigated enterprise in the specification of natural resources has the intention to turn the readers' eyes to the status of these resource in nature. In intensity, the company employs 'increasingly' and 'in demand' in which the former belongs to the category of 'isolating' and the latter to the category of 'infusing'. According to the authors, isolating attends to individual items used in scalability such as adverbs whereas infusing the item itself performs the sense of scaling (e.g. warm, hot, scalding; p. 144). That is, by employing 'increasingly' (in demand) in which 'in demand' can be read 'greatly desired' by virtue of the sense of intensity infused in the cited term which in turn is an affective meaning of the desiderative type, the company is showing their concern with the pressure put on the natural resources by man's actions.

In practical terms, by combining affect [unfortunately, in demand] and force [limited, increasingly], the company is making a personal judgment of the utilization of the natural resources by showing their feelings of sorrow and concern about the possible depletion of these resources on Earth if not conserved<sup>19</sup>. With it, the company demonstrates that they are updated on the classical debates about the use of the natural resources (limited vs. in demand). In contexts where the sustainability knowledge is at stake, the realization of adjuncts in a negative sense which expresses the same notion as that [unfortunately] does sound positive as it presumes the importance of conserving the natural resources for a better environment and thus a better quality of life. On these grounds, the inscription of sustainability knowledge ‘environment awareness’ is brought into play as one stance in the “good-hand side” of Kraft’s constellational structure. This stance is opposed to indifference to environment issues, a value in traditional business.

Another stance resulted from affect and graduation interface emerges thanks to the clustering of ideas present in texts III, IV and VI:

TIII/S1	TIV/SII	TVI/S3
(02) People expect safe food and maintaining their <b>trust</b> means offering quality product and feel <b>good</b>	(10) We work hard to keep <i>all</i> our employees <b>safe</b> and aim for zero accidents in the workplace.	(01)We value <b>trust</b> ...of <i>consumers, customers, communities, regulators, suppliers and employees above all</i>  (02) <sup>20</sup> We strive to earn <b>trust</b> <i>every day</i> ..(...) by doing what we say we will do and holding ourselves accountable.  (12)Of <i>all</i> of our assets, the

<sup>19</sup> In terms of sustainability, ‘conserved’ is the verb of reference within the reservoir of meanings of the Theory Conservationism – the basis on which sustainability lies. According to Vieira (2007), the theory of conservationism is the act of using the natural resources respecting their boundaries and capacity of renewal. As opposed to conservation is preservation, this latter means not using the natural resources even when they are a source of profitability. In Brazil, there are regions that remain untouched by being preserved by federal laws as the use of the resources can mean exhaustion at an irreversible level. In brief, ‘the verbs conserve and preserve possess different connotations.

<sup>20</sup> To clarify, there are two clauses in number (2) in table 5.3. One of these is an integrative component of text III and another of text VI.

about.		public's <b>trust</b> is the one we value <i>most</i> .
--------	--	---

**Table 5.4** Finding of the stance 'trust building'

Except for example (10) above the nominalization 'trust' is observable in all the examples. Trust is an instance of affect belonging to the in/security category. Because it possesses a positive dimension, trust is an item of the security type. According to Martin and White (2005), the in/security subsection encompasses resources that express emotional inclinations towards peace and anxiety about the environs and the people with whom these environs are shared. Therefore, the substantial employment of this resource indicates that the company recognizes this value as being in the order of importance of the company in regulating people's relations and actions. In example (1), the company makes use of an instance of focus, which can either sharpen or soften the meanings of qualities, things and concepts in general, as Martin and White (2005) suggest. In the context presented, by employing the adverb 'above all', the company sharpens the categorical meanings of 'trust of ... customers, communities, regulators, suppliers and employees'. With this realization, Kraft specifies their interest in conquering these people's trust.

Actually, in some sense, this idea is corroborated in example (12). The instance of affective meaning 'trust' targets 'public's'. To this idea is added an instance of intensification of process [most]. Of the isolating categorical type, the resource 'most' adverbially modifies the process 'value'. With it, the company is assuming that everyone's trust regardless of being direct or indirectly linked to business is their priority. In a way, this is presumed when considering that instance of focus. In the same context, in considering the instance of quantification, a new piece of information is vented. That is, since quantification of number is a subsection in the mode of quantification which encompasses resources that quantify abstract and concrete entities (Martin & White, 2005), the resource 'all' used to quantify the entity 'assets' alongside the analysis already made highlights that public trust is not only a priority but the priority in the company's view.

Within sustainability knowledge domain, it is consensus that trust is an indispensable value which should permeate the socioeconomic and ecological relations. More specifically, building trust is the first step towards reaching material growth in concomitance with social development, this value being central to sustainable development. In the modality of sustainable business, interpreting Friend (2009), this



trust is gained by the offering of quality products and services aligned with the principles of sustainability and the promotion of solid and close relationships between shareholders and stakeholders. The closer are the ties the more the company is able to sensitize social actors not only to the consumption of products, but also to a change in behavior towards environmental issues and improvement of quality of life.

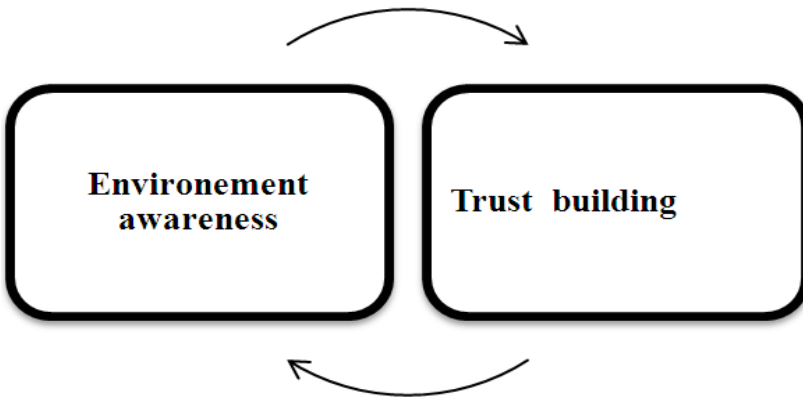
In the discourse investigated, social actors in Kraft appear to know that in terms of sustainability building trust and not only talking about trust is what matters. At a first glance, this idea can be recognized in the first example through the realization of the grading resource ‘every day’ [Force: quantification: extent: distribution: time] in the clause ‘we strive to earn trust every day’ [T III/S3-02]. In considering that in this Scope what is in question is the uninterrupted period of time taken in an activity (Martin & White, 2003), the employment of ‘every day’ in the specification of trust signals the company’s effort and anxiety about continuously being struggling to maintain this value in their business relations and operations.

Other traces of the attempt to build trust can be noticeable in examples (02) and (10). In example (02), the instance of affect ‘good’, this adjective being a constitutive component in the category of in/satisfaction, represents one of these traces. As conceptualized by Martin and White (2005), the dis/satisfaction category involves feelings of “achievement” and “frustration” resulted from the activities we are either participating or observing. Because the word chosen [good] to positively appraise ‘people’ possesses a positive dimension, feelings of achievement are being conveyed. With this choice, it is possible to say that the company communicates the idea that the product and services provided impact people’s life in a positive way as to provide comfort and well-being.

In example (10), another trace of building trust is shown. Basically, the resource ‘safe’, of the security type, construes it. Reminding that this category has to do with feelings of anxiety and peace (resulting from the environments we participate in and the people with whom such environments are shared), as theorized by Martin and White (2005), by employing ‘safe’ to positively appraise ‘employees’, which in turn is an entity quantified by the realization of the resource ‘all’ in the exemplification at stake, it is possible to infer that Kraft has the intention to inform that the workplace atmosphere provided is motivating and peaceful for the building of trust among people, insofar as values of confidence and thus dignity appear to permeate it.

In light of what has been said, in Kraft's understanding trust building involves people directly or not affiliated with their business; it is to cause positive impacts upon people's life. In terms of sustainability, this is what is to be accountable, which is an attribute that the company clearly assumes to possess when realizing the resource 'accountable' [Positive: Appreciation: Valuation] in example (02). Although appreciation is not the concern of this section, the judgment of propriety invoked as a result of the appreciative meaning [accountable] in a way summarizes all that building trust is about. That is, considering that propriety is a variable in judgment that deals with ethics and veracity (Martin & White, 2005), this invoking ventilates the company's purpose to demonstrate moral obligation and commitment to the principles that they claim to be involved; i.e.; sustainable principles. Again, this is a way to say that they act accordingly and, by doing so, trust is gained, and, consequently, built. All in all, trust building is a stance in Kraft's constellational structure rather than reputation maintenance.

As shown, the instances of affect and graduations interfaced allowed for the formulation of the stances of environmental awareness and trust building. By now the first steps towards the composition of the group of Kraft's constellations can be observed. Didactically, the diagram below shows that the stances identified in this section are harmonically clustered, since the ideas condensed in them comply with those of sustainability. Thus, these stances are in the good-hand side of Kraft's constellations.



**Figure 5.1:** The stances of environment awareness and trust building placed in the good-hand side of Kraft's constellations.

In contrast to these stances seen in figure 5.0 above, indifference to environment awareness and reputation maintenance, respectively, are unidentifiable in Kraft's report. This finding indicates that **so far** there is no evidence of ambiguity in Kraft's discourse as the ideas individuated are in compliance with the reservoir of meanings of sustainability.

### 5.2.2 In Judgment-graduation

Generally put, judgment is concerned with the evaluation of behavior and character (Martin & White, 2005; Martin & Rose, 2007). As previously posited, this characteristic is what differentiates judgment from appreciation and affect. In the data analyzed, of the two existing broad categories in judgment, social esteem and social sanction, all the nine inscriptions of judgment detected are included in the category of social esteem. Of these inscriptions, five of them are identifiable with variable capacity, three of these with variable distinctness and one with tenacity (See table 5.4<sup>21</sup>). Like affect and appreciation, judgment has positive and negative dimensions. However, in the analyzed data, no negative judgment is observable. As to graduation, of the few resources that go with judgment are included those of the category of force in the modes of intensification and quantification and focus. The following clauses are the instances of force and focus that go with judgment:

[TI/SI-12] Success requires vision and determination, **great** [Force: Intensification: quality] partners [Target] (...) [judgment of capacity]

[TIII/S04-12] We maintain **and strengthen our reputation for consistently** [Force: Intensification: quality] **producing delicious safe foods** [judgment of tenacity]

[TIV/S I/01] Every day, our success depends on **more than 125, 000** [Force: quantification: number] **capable (...)** [Judgment of capacity]

---

<sup>21</sup> Again, the purpose of the table signaled is only to give the reader an overview of the totality of the instances of judgment found in the texts investigated.

[TV/S05-12] (...) can we truly [Focus: Sharpen] tackle these issues [Judgment of capacity] (...)

judgment		
Variables	Evaluation	
	positive	negative
Distinctness	03	-
Capacity	06	-
tenacity	01	-

**Table 5.5:** The totality of findings in judgment expressed in number

Inasmuch as this research does not directly deal with invoking unless it is to give some emphasis on an idea posited, the two invoked instances of judgment identifiable with this purpose are available in the subsections ahead. One of these, of the propriety type, was used in the previous subsection in order to endorse an idea vented in there. Of the inscriptions of judgment, which is the concern of this subsection, the ones to follow are those that either have some relation to a stance basically realized via appreciative meaning or relate to realizations of judgment that imbue ideas that are characteristic to both modalities of business, traditional business and sustainability-driven business. These clauses are illustrative:

[TII/S01 – 08 ] (The company) Received SmartWay **Champions** award for a strong and lasting contribution to SamrtWay’s mission to reduce the footprint of moving goods.

[TIII/S04 – 12] (...) and communicating with consumers **effectively**, we **maintain and strengthen our reputation consistently producing delicious safe food**.

[TIV/S03 – 11] (...) That employee must follow all safety laws and guideline, operate equipment **properly** and never use (...)

[TV/S 05-15] We know that only by working hard we **can truly tackle these issues** in ways that are both sustainable and scalable.

Examples (05) and (15) contribute to compose stances realized basically via appreciation. In example (05), by using ‘champion’ the company makes a positive judgment of normality /distinctness. To clarify, the term distinctness is a suggestion by Souza (2010) to rename normality as an attempt to avoid speculations surrounding its sense. As inferred from Martin and White (2005), normality is a variable in judgment in the category of social esteem that encompasses resources that relate to personal traits that are recognizably noticed for making one become distinctively differentiated from the overwhelming majority. With the employment of this variable realized via the use of ‘champion’, the company is drawing attention to how special they are in conquering the SmartWay<sup>22</sup> award for the positive environment impacts they have generated upon the planet and, consequently, people’s life by reducing gas emissions. In a way, this idea makes reference to the ‘reduction of environment harms’, an issue to be explored in the following subsection.

In example (15), the company deploys ‘can we tackle these issues’ to make a positive judgment of capacity, which is a variable in judgment related to the sense of capacity or ability. In this context, ‘these’ in this context is an anaphoric element retaking the nouns hunger and obesity in the samples investigated: Kraft signals that it can deal with these problems. In communicating this idea, the company raises the issue of engagement with social problems within sustainability knowledge domain, which is better discussed in the subsection ahead so as to make up another stance.

The two remaining examples involve the inscriptions of judgment that refer to the ideas reflecting the two modalities of business in question (11; 12). About these examples, the company employs circumstances of manner [effectively, properly] to make positive judgments of capacity. By using ‘effectively’ it informs the company’s

---

<sup>22</sup> SmartWay is a project that encourages partnerships between EPA (United States Environment Protection Agency) and companies, commercial manufacturers, the public and private sectors for the improvement of strategies that work at the level of fuel efficiency in order to reduce gas emissions. About Smart way. Retrieved in June, 2013, from [www.epa.gov/smartway](http://www.epa.gov/smartway). [ A page provided by EPA’s Office of Transportation and Air Quality (OTAQ) since 2004]

capacity in establishing communication with consumers. With the employment of ‘properly’, Kraft highlights the employees’ capability of dealing with equipment, which is an alignment with modalities of business in general, mainly in the present time when communication has been facilitated by virtue of the advances in technology. In example (12), Kraft makes use of the positive judgment ‘maintain and strengthen our reputation consistently producing delicious safe food’. This time the variable is tenacity. As explained by Martin and White (2005), tenacity attends to a repertoire of meanings that characterizes personality traits related to reliability (cautious, heroic, resolute ...p.53). With the employment of this resource, the company suggests that they are cautious about preserving their reputation which is associated with providing consumers with good quality products and services. Again, this is not innovative, since every business strives in one way or another to offer good services as a way to guarantee reputation. In truth, it is reputation that sustains a company on the market in the long run (Friend 2009).

### 5.2.3 Appreciation-graduation interface for the composition of Kraft’s stances

Appreciation concerns the attributes given to products, performances and natural phenomena (Martin & White, 2005; Martin & Rose, 2007). As noted by these authors, the valid social rules present in a culture are what determine the ways in which these products, performance and natural phenomena are interpreted. Categorized into variables, just like affect and judgment, appreciation is positively and negatively expressed, as Martin and White argue. Of the amount of the seventy-eight instances of appreciation identifiable in the samples analyzed, most of them are of the variable ‘valuation’ (68), of which four of this amount is negatively evaluated. To illustrate, here is an example of appreciative meaning with negative dimension:

[TIV/SIV-10] (...) when they see something [Target] they think may be **wrong [Negative: appreciation: valuation] (...)**

The remaining findings detected are of reaction (06) and composition (04). In the category of composition, one out of four

has a negative evaluation (See Table 5.5<sup>23</sup> ahead). Below there is an instance of each category exemplified:

**[TIII/-SIV-12]** (...) we maintain and strengthen our reputation for consistently producing delicious **[Positive: Appreciation: Reaction]** safe foods [Target].

**[TVI/SII/04]** Living up to these expectations and obligations requires **detailed [Positive: Appreciation: Composition]** planning [Target] (...)

Appreciation		
Variables	Evaluation	
	positive	negative
valuation	64	04
reaction	06	0
composition	03	1

**Table 5.6:** Appreciative meanings expressed in number.

As regards the grading resources, unsurprisingly, the ones within force stand out. The modes of intensification via quality and quantification via extent of distribution of time are recognizable in a higher number. In the category of ‘focus’, five resources work for sharpening or softening the appreciative meanings identified. The following exemplification is an instance of focus:

**[TIII/SIII-04]** We take immediate steps to protect consumers through our Special Situations Management Teams—senior-level

---

<sup>23</sup> Just like the tables displayed in the previous sections, the one signaled has only the objective to provide an overview of the totality of findings in appreciation.

### 5.2.3.1 “Appreciating-graduating” in the thesis<sup>24</sup> for targeting Kraft’s stances

Thanks to the results of appreciation and graduation interface, or appreciation in isolation, the overwhelming majority of the stances in Kraft’s sustainability cosmology are identifiable. More specifically, the variable valuation does a big part of this job. According to Martin and White (2005), valuation relates to the way things are culturally valued. The substantial use of this variable across the six samples proposed, sustained, at times, by the grading resources has not only shown the place of the hierarchy and of the hierarching principles in Kraft’s cosmology, but also attempted to create a sustainable world in that most of the lexical items positively individuated by the social actors match the repertoire of meanings available in the science of sustainability.

Of the several clauses from where the stances are generated via attitude and graduation interface, two in particular contained in the opening text “Sustainability: Now and for future generations”, of the investigated company’s annual Sustainability report, merit special attention because of the ideas ventilated in these clauses. Regarding these ideas, the one located in the introductory paragraph introduces the basis on which sustainability lies and the one in the concluding paragraph retrieves the same information given in the initial paragraph and reinforces it in the latter.

Perhaps, this is a strategy used by the company to emphasize one of the sexist ideas in Kraft’s cosmology which in turn is the thesis in the company’s story. This “sexy idea”, technically known as stance, is unveiled after the analysis of those introductory and concluding clauses which are now available below:

---

<sup>24</sup> In this subsection, thesis refers to Martin’s (1989) understanding of thesis as being the central clause in an exposition, or in a story that is being told (Wignell, 1989), from where other events are sequenced. So, in this context, thesis is used to refer to the central idea in Kraft’s story from where all the other events exposed are dependent.



The clause in the introductory paragraph	The concluding clause in the last paragraph
(03) (...) So it's <i>critical</i> that we run our business in ways that are environmentally, socially and economically <b>sound</b> and <b>sustainable</b> over the <i>longer term</i> .	(15) (...) And done <b>right</b> , we know building sustainability into our business is <b>good</b> for the planet, people and, <i>ultimately</i> , our profits

**Table 5.7:** Finding of the stance ‘environmentally, socially and economically-integrated’ (The thesis in Kraft’s Annual Sustainability Report).

In example (3), by employing the resources ‘sound’ and ‘sustainable’ to positively evaluate ‘ways’ (environmentally, socially and economically), Kraft is informing that their business operations embed themselves in the three bottom lines of sustainability: ecological prudence, economy efficiency and social responsibility. As a matter of fact, only with a brief look at the resource ‘sustainable’ this inference would be possible. The point is that *sustainable* is sort of a technical term that carries a symbolic value in the field of sustainability. That is, relying on Sachs (2009), to refer to something as sustainable means that “eco-techniques”<sup>25</sup> designed to exclusively manage the natural resources respecting their boundaries and capacities of renewal are being taken for granted in a given process. The final result of this practice is the reduction of the use of the natural resources and the acceleration of production for generating profitability that will be reinvested in the form of positive environment, social and economic impacts.

To the introduction of this idea the adjective ‘critical’ is used to specify ‘that we run our business/ways’ (03). The word ‘critical’ is a resource belonging to the mode of intensification of the quality type. It is noticed that in this context infusion is present, since critical means ‘very important’ and as such it upscales the described behavior (we run our business in ways). With it, the company is underlying the social

---

<sup>25</sup> Eco-techniques is a term coined by Sachs (2009). As explained by the author, this is to refer to a set of strategies specifically designed to explore the use of the natural resources in a sustainable way. ‘Permaculture’ in the field of agriculture can illustrate such eco-techniques.

actors' commitment towards integrating the three pillars of sustainability in their operations.

About the resources contained in the concluding clause (15), Kraft employs the attributes 'right' and 'good' to positively evaluate 'building sustainability.' Still in the same passage, there is the presence of the resource 'ultimately' which is encoded in the the mode of quantification of proximity in time. Paraphrasing Martin and White (2005), the resources in this subsection translate "how recent" an action takes place. Here, by deploying 'ultimately' (our profits) to specify 'good', the company recognizes the good advantages of building a business based on a sustainable policy for a near future in terms of environment, social and economic aspects. Thereafter, there is no other stance to be considered unless the one of environmentally, socially and economically-integrated, which, definitely, lays the hypothesis, at least discursively, of the company being economically-centered.

In order to display another instance of knowledge individuated by the company, which, in some sense , contributes to the accuracy and completeness of the idea contained in the stance environmentally, socially and economically-integrated , the retrieval of the clause '(...)' So it's *critical* that we run our business in ways that are environmentally, socially and economically sound and sustainable over the *longer term*' is crucial by virtue of the meaning conveyed by the realization of the circumstantial element '*longer-term*'. Again, with another resource in extent of proximity in time [longer-term] targeting the same item previously appraised [ways -environmentally, economically and socially), the company is assuming that attaining the integration of the three pillars of sustainability is a process and as such it necessitates time.

More emphasis on this idea is given in other excerpts of sample I:

TI/S4	TI/S4
(12) It's a <i>journey</i> [force: intensification: extent: proximity: time]	(13) It'll take <i>years</i> [force: intensification: extent: proximity: time]

**Table 5.8:** Finding of the stance 'future-oriented' as a complementary idea of the thesis.

The coding of the nominalizations '*journey*' and '*years*' is the same as that of the resources 'ultimately' and '*longer-term*' (12;13); i.e., force in the extent of proximity in time. Both nouns target 'success.'

Specifically about ‘journey’, it invokes appreciation with variable complexity. The employment of ‘journey’ is hung to the overall context presented, and it is related to the “textual organization” (Martin & White 2005, p.57). Although this type of realization is an indirect one and is not within the confines of this investigation, it is important to mention it here as a matter of emphasis on the question of time despite the use of ‘year’ by itself being emphatic in relation to this issue. All in all, the company deploys these lexical choices in that context to evaluate the company’s success.

Success in this context means that the goal of integrating those dimensions is achieved and as such material growth and social development are aligned enabling the so called sustainable development within which sustainability is included. To inform about this modality of development, the most widely quoted definition of sustainable development is that of the Commission of Brundtland: sustainable development is “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”<sup>26</sup>.

Considering the results of this analysis in convergence with that of the ‘thesis’, it is possible to infer that the company reinforces that the attainment of the integration of the dimensions of sustainability is a process and as such time is a determining aspect. So, with this view, the stance ‘future-oriented’ is introduced to Kraft’s constellations, providing no room for ‘short-sighted-business interest’, which is characteristic of the traditional business design.

Regarding the issue of growth and development, Kraft’s discourse in terms of success in this sense is observable as follows:

[TI/S2-clause 10] This collaboration *boosts scale* and *accelerates development* and change it in *more* areas, *more* commodities, *more quickly than* if we were to go it alone.

The company makes use of the grading resources ‘boosts’ (scale) and ‘accelerates’ to specify ‘collaboration’ and ‘development’. Encoded as force in the mode of intensification, both resources are ‘infused’, that is, in this case, the realization of boost (scale) via a quality upscales ‘collaboration’ and ‘accelerates’ via process upscales ‘development’.

---

<sup>26</sup> Datum available at SD Features.

<http://www.gdrc.org/sustdev/definitions.html>. Retrieved in March, 2014.

Since the term ‘development’ in sustainability knowledge domain carries the sense that material growth and social development are aligned, the scalability deployed to both items (collaboration and development) suggests that the company believes that material growth and social development are constitutive components in their business operations and that this is only possible because of the collaboration conquered.

This inscription of knowledge is also recognizable in:

Our Ceo<sup>27</sup> and senior executive drive home the **central** message of our Code of Conduct – that integrity and growth go hand in hand’ [TVI/SII-08].

By employing ‘central’ with variable valuation to positively appraise ‘message’, the company highlights that integrity and growth are the most important values in regulating the company’s business operations. Here, integrity is a kind of synonym for development given to the meanings imbued in the latter in the realm of sustainability, that is, ecological, social and economic aspects. The three aspects altogether imbued in the term establishes the boundaries between growth and development. Within this area, there are theoreticians using the nominal group ‘social development’ other than merely ‘development’ to refer to it. Thus, as opposed to material growth, which is the value pursued by traditional business, growth and development constitutes one of Kraft’s stances.

Having stated the thesis, sensible arguments translated into other inscriptions of knowledge are followed across the end of this section and in other subsections ahead in order to clarify how this thesis is being interpreted by the company. The following arguments in this section concentrate on drawing the social actors’ professional profile and values en route to that success they believe to have.

As a start, we go back to the term ‘development’ individuated by the company in ‘(...) this collaboration boosts scale and accelerates development and change in more areas, more commodities’. This appreciative meaning is used to positively appraise ‘areas and commodities’. To these appraised items the adverb ‘more’ is added which intensifies areas and commodities via the category of force in the

---

<sup>27</sup> **CEO** is an abbreviation for **chief executive officer**. Source: Collins Cobuild Dictionary (2006).

modes of quantification and intensification. With respect to the former, the quantification of number is at play as ‘more’ is deployed twice [more areas; more commodities]. The repetition of the grammatical item two times intensifies the processes ‘development’ and ‘change’, that is, development and change in more areas....development and change in more commodities. This type of realization is what Martin and White (2005) term intensification via repetition which consists of repeating the same lexical items or items in a series that are semantically correlated. The former is a case in point here.

Judging from this analysis, it is possible to infer that the company’s belief is that in order to attain growth and development and thus success, development and change should go hand in hand in business operations. For this reason, they refer to both actions as already being introduced in their operations, a fact that translates the idea that social actors in Kraft’s appear to be dynamic, transformational and innovative, three important attributes necessary in a sustainable policy, with these attributes being superior to being flexible and independent investors, qualities required in the traditional business.

Other specific attributes that the company appears to have in the pursuit of that success are expressed in:

TI/S02	TI/S04
(04)We’ve made <i>great</i> <b>progress</b> , but the dynamics are <i>ever-changing</i>	(11) <b>Success</b> requires <b>vision</b> and <b>determination</b> (...)
(07)We set goals for each area, track our <b>progress</b> and hold ourselves <b>accountable</b> .	(14) But we’re in business for the <i>long-term</i> , which means we can’t afford not to be <b>invested</b> .

**Table 5.9:** Inscriptions of knowledge referring to attributes and values with respect to ‘success’ within the field of sustainability.

Before tackling the issue of the attributes, it is important to highlight that the appreciative meanings [progress (04, 07); success (11)] contained in the context presented reiterate the company’s commitment to that success. All the resources cited invoke judgment with variable capacity, communicating the idea that social actors in Kraft have the capacity to run their business in an environmentally, socially and economically-based patterns. Again, another type of indirect realization is being considered for the purposes of emphasis.

However, the company admits that managing business under this condition is challenging, as expressed in ‘but the dynamics are ever-changing’ (04). The utilization of the resource ‘ever-changing’ encoded in the mode of quantification of extent of distribution in time in the specification of ‘dynamics’ construes it. In this Scope, the resources depict how long activities last, whether “long-lasting” or “short-term” (Martin & White 2005, p. 151). In using it, Kraft is externalizing that they are conscious of the uninterrupted changes which a process of making a business sustainable involves. In other words, they appear to figure out that obstacles to be hit and challenges to rise will exist and it is their responsibility to continuously be on the alert even though not aware of what these challenges and obstacles will be like. With this argument, the enterprise investigated probably wishes to reinforce the possible accurate knowledge they have about the management of a green company by implicitly showing some awareness towards the risks and unexpected events to which this modality of business is susceptible. In this sense, it is observable that forward thinking can be one of the values to be included in Kraft’s constellational structure, a condition reflected in sustainability as a way to predict the possible impacts that come out during the course of action.

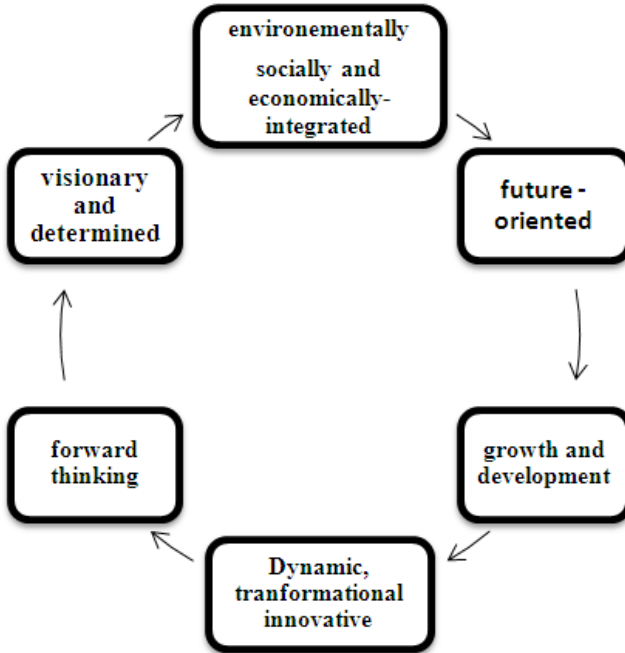
To close it, it is crucial to emphasize that in traditional business this state of alertness and uneasiness is very often avoided. Unlike social actors in a green company, those of traditional business tend to have well-defined and very often packaged processes and structures. It is obvious that mishaps may appear across the course of action in this type of business, but they are generally of the predictable types in which the actions delineated to beat them are planned in advance and suitable as traditional business has been what it has been for ages. Then, in this context, what counts is objective and strategic thinking rather than forward thinking.

Two other attributes are explicit in example (11) in the form of nominalizations [vision and determination]. These instances of appreciation positively evaluate the company’s success. These evaluations invoke two types of judgment with positive dimensions: ‘vision’ with variable capacity and ‘determination’ with variable tenacity. About the former, this means that social actors in Kraft’s have the capacity to see ahead of their time in relation to that success. As regards the latter, since tenacity is a variable included in the category of social esteem which deals with attributes related to determination and courage or the opposite of these feelings (Martin & White 2005), the use

of the nominalization ‘determination’ suggests that that success is possible because social actors in Kraft’s are resolute and determined.

In some sense, these ideas are vented in examples (07) and (14) (See table 5.8). In these examples, by employing ‘invested’ [Positive: Appreciation: Valuation], which in that context means ‘committed and devoted’, and ‘accountable’ [Positive: Appreciation: Valuation], meaning ‘responsible and resolute’, the company is assuming that they have such qualities which are somehow semantically interrelated with the quality of being determined. This sense of determination becomes more explicit when considering the judgment of propriety invoked due to the use of the realization of the appreciative meaning ‘accountable’. About propriety, it is a variable within the category of social sanction. As noted by Martin and White (2005), this category includes ‘feelings’ of veracity (truth) and propriety (ethics). Because the latter is one case in point here, the idea conveyed is that conducting business operations embedded in ecological, social and economic dimensions is not only the company’s wish but also its obligation as moral implications are involved. Taken this question of morality for granted, there is no doubt that determination is by far an important value in Kraft’s cosmology. As a result of the analyses made, it is possible to conclude that those two attributes mentioned refer to visionary and determined. These values are somewhat different from those of strategically- oriented and determined, belonging to traditional business.

In sum, this section on appreciation and graduation interface enabled the identification of six stances. Clustered in harmony with the issues of sustainability, to them are added the other two stances detected in the section of Affect-graduation, thus strengthening the good-hand side of Kraft’s constellations. Just like the stances in affect-graduation are presented in the form of schema, so too the six stances identified here are schematized below as a way to facilitate their identification by the reader:



**Figure 5.2:** The six stances of sustainability in Appreciation-graduation interface.

By looking at a clockwise direction in the schema above from the departure of the stance environmentally, socially and economically-integrated, the clusters in contrast to those six stances are economically-centered, short-sighted business interest, material growth, strategically oriented and determined, objective and strategic thinking strategically oriented and determined. Within the repertoire of meanings of traditional business, these stances integrate Kraft's cosmology only if there is any trace of binary constellation ahead. As previously posited, binary constellations are a product of the social actors' consideration that because one stance is identified within a given field of science all the others in a cosmology are within the same reservoir of meanings.



### 5.2.3.2 “Appreciating-graduating” in the core of the thesis<sup>28</sup> for targeting Kraft’s stances

Every discussion in any type of business revolves around the product. In the context of sustainable business, this is not different. However, in this modality the approach to the product is distinctively differentiated as it involves the application of *eco-procedures* in the different stages of the process of manufacturing a product through which the generation of profitability and the conservation of the natural resources is simultaneously possible. In a broad sense, this is what environment management is for. According to Weber (2000), environment management constitutes a set of strategies that, when adapted and applied to a given environment, are utilized to explore the natural resources variables offered by this environment to its users so as to transform them into economic variables.

This set of strategies represents the starting point to identify whether the integration of the dimensions of sustainability is being taken for granted. Inscriptions of knowledge focused on the strategies used by Kraft’s system are basically realized via appreciation with variable valuation and force. One of these inscriptions is expressed in:

[TI/S2- 06] To maximize our efforts, we focus on areas that are *most important* to our business and where we can make the *biggest* impact: agriculture commodities, packaging, energy, water, waste and transportation/distribution.

Here Kraft employs the adjective ‘important’ to positively appraise ‘areas’. To this is added ‘most’ that upscales the attitudinal meaning posited. Considering that submodifications of this type produce a writing style more appealing to the reader’s eyes in the sense that it draws his attention to a specific point (Hood & Martin, 2007), the consideration of the inscribed appreciative meaning ‘important’ intensified through the resource ‘most’ indicates that the company’s intention is to trigger attention to the fact that the strategy used by them

---

<sup>28</sup> The word ‘thesis’ employed to the signaled subsection is used to indicate that all the stances targeted here translate the ideas which are at the core or closely associated to Kraft’s thesis which is represented by the stance ‘environmentally, socially and economically-integrated’.

in integrating the pillars of sustainability starts with the selection of specific areas rather than others. In the same context, with the employment of the resource of quantification of mass/presence ‘biggest’, which is a non-specific resource in quantification, the company specifies ‘impacts’. As noted by the authors, when employing the nonspecific resources in quantification, it is believed that a degree of appreciation is flagged within which a sense of reliability is conveyed. From this perspective, considering the complementary information [agriculture commodities, packaging, energy, water, waste and transportation/distribution] given as part of the appraised item [impact], it is possible to infer that the point of departure of the company investigated for the attainment of that integration is to deal with environmental impacts.

Other pieces of evidence on the environmental impacts are found in the following example:

[TII/S1-06] We completed a **first of its kind** project that mapped our company’s *total* environment footprint<sup>29</sup> carbon (air), land and water (...).

In this example, the appreciative meaning with variable valuation ‘first-of –its- kind’ used to positively evaluate ‘project’ and the resource ‘total’ encoded as force in the mode of quantification, again used here to quantify a non-specific term, ‘mapped our environment footprint: carbon, land and water’, leave no doubt that the company’s intention is to communicate that they have a project intended to attend to the environmental impacts. Within sustainability knowledge domain, according to Weber (2000), the issue of impacts, especially those concerned with environment, is the first step towards planning the best strategies to match ecological variables with economic variables, since it is in this stage that the company takes important decisions about the strategies to be used in reducing the use of the natural resources without reducing productivity. All in all, the stance projects centralized on

---

<sup>29</sup> According to the Oxford University Press Dictionary of Environment and Conservation, footprint is meant “a measure of the environment impact of particular human activities based on the amount of natural resources they consume and the amount of greenhouse gases they produce”. Available at <http://www.oxfordreference.com/> Oxford University Press Dictionary of environment and conservation (Online Version, 2012). Accessed in March, 2014.

environment impacts are in the good side of Kraft's constellations, as opposed to non-specific strategies on environment impacts.

The two following examples retrieved from text (II) contributes to bring into play the central phenomenon within sustainability knowledge related to the issue of environment management:

<b>Text II/S01</b>	
(01) (100%) The percentage of coffee beans to be <i>sustainably</i> sourced by our European coffee brands by 2015.	(03) Since 2010, we have <i>increased</i> <b>sustainable</b> sourcing (36%)

**Table 5.10:** Finding of the stance 'natural resources management systems'.

In example (03), the single instance of appreciation under variable valuation 'sustainable' used by the company to positively appraise 'sourcing', by itself, underlines the idea that Kraft's business operations are based on the principles of environment management. No further comments are needed, insofar as the term sustainable is already suggestive in accordance with what has been previously stated about the symbolic value imbued in this word when it comes to the issues of sustainability.

More importantly, the company informs that the sourcing cited is a practice in progress in their business operations as translated by the use of the resource 'increase' [Force: quantification: number] alongside the ungraded resource [Since 2010] posited in there. From this graduational evaluation, judgment of capacity is invoked endorsing that social actors in the investigated enterprise have the capacity to sustainably manage the natural resources they use in their operations since 2010. Based on these considerations, it is possible to infer that the stance natural resources management systems is brought into play, this stance being opposed to the unconscious use of the natural resources, which very often happens in traditional business (Friend 2009).

Still in reference to this inscription of knowledge, it seems that the investigated company tries to convey the idea that they comply with the principles of environment management since the introductory clause of text II. The employment of the grading resource 'sustainably' [Force: intensification: process] to intensify the process 'sourced' in a way contributes to this (01). However, truth is not a guarantee in this idea

because of the specific features of the process *vigour* within which ‘sustainably’ is classified. As noticed in Hood’s research (2004 as cited in Martin and White, 2005, p.146), it is the upscaling or downscaling of lexical adverbs, in particular, that the notion of *vigour* is acknowledgeable, of which notion communicates different senses. As claimed by Martin and White (2005), these senses can be of speed, physical force, illumination, consciousness and concentration. In the proposed context, again, *vigour* is realized via ‘sustainably’, which is a circumstance of manner that can be understood as realizing a process of the consciousness type from the view that social actors appear to be aware of the technical contents related to the use of the cited term. According to Martin and White (2005), the employment of lexicalized realizations when graduating, which is the case here, straddles the line between interpersonal meaning and experiential meanings, in which the values originated from these meanings combined with the degree of *vigour* deployed to an event in the outside world suggests subjective assessment.

Perhaps, because of this subjectivity, other inscriptions of knowledge unrelated to the ones confined within sustainability are brought into play. One of these inscriptions is expressed in:

[TIII/S1- 06] Our system is based on the *internationally recognized* quality management standard ISO<sup>30</sup> 9001-2000.

In this example, with the adjective ‘recognized’ used to positively evaluate ‘quality management standard ISO 9001-2000’, the company announces the standard upon which Kraft is certified. In quantity, the use of an instance of extent of scope in space announces the current high acceptance of this standard in business. As explained by Hood and Martin, (2007), in Scope in space the use of locutions such as nouns and adverbs can express the sense of space. In the context investigated, the sense of space is realized via the adverbial locution ‘internationally’. The use of this circumstantial element in the

---

<sup>30</sup> ISO stands for International Organization for standardization. It operationalizes with standards. Standard is a document that dictates the requirements, guidelines specifications and criteria designed to warrant that the products, process and services offered in business fit their purposes. In ISO: What is a standard? Retrieved in December, 2013, from <http://www.iso.org/iso/home/standards.htm>.

specification of ‘recognized’ translates the idea that Kraft is certified under international patterns that are known worldwide.

As previously considered, ISO stands for International Organization for standardization. This organization does not establish the principles that an enterprise should be based. The enterprise is responsible for designing their own principles and criteria. Operationalizing with standards, ISO dictates to the enterprises the regulations and criteria whereby these enterprises can rely in order to be certified or not in the offering of a given type of product or service<sup>31</sup>.

The quality management standard - ISO 9001-2000<sup>32</sup>, which is Kraft’s certification, can be required by any company independent of size, type and product and services provided. In case any of the requirements of this standard does not match with those of the company’s profile, no conformity to adapt to this international standard is normally accepted unless the enterprise proves having inability to handle the requirements for the guarantee of the quality of the product.

So, ISO 9001-2000 has regulations and criteria for standardizing the offering of quality services and products with the intention to guarantee the customer’s satisfaction, which is what most traditional business pursues. In this standard, there is no mentioning for regulating business based on environment management systems, like there is in ISO 14001 and its series.

According to Friend (2009), the 14001 or any component of its series is the green certified quality standard<sup>33</sup> designed for sustainable business. This series is specifically designed to deal with regulations and criteria involved in the environment management system as the concern of ISO 14001 and its series is with the integration of the pillars of sustainability (ecological prudence, economy efficiency and social responsibility). Although there are several similarities between ISO 9000-2001 and 14001 in terms of acting, planning and inspecting, the

---

<sup>31</sup> Glossário de termos (Glossary of Terms. Retrieved in October, 2013, from [www.ecodesenvolvimento/glossariodetermostecnicos](http://www.ecodesenvolvimento/glossariodetermostecnicos). [Digital page of the Eco-development Institute]

<sup>32</sup> Available at [www.iso.org/Iso\\_9001:2000](http://www.iso.org/Iso_9001:2000). Accessed in March, 2014.

<sup>33</sup> To inform, the series of 14001 are 14004 (Implementation guidelines); ISO 14010 (Environment auditing); ISO 14024 (Environment labelling); ISO 14031 (Environmental Performance Evaluation); ISO 14040-14044(Life Cycle Analysis); ISO 14050 (Terms and Definitions); ISO 14060 (Inclusion of Environment in Product Standards); and ISO 19011: Auditing 1400 and 9000 (Friend, 2009, pp. 182 -183).

differing aspect that turns them into opposite routes concerns the issue of environment management<sup>34</sup>.

Thus, in differentiating the functional aspects of the cited standards, ISO 9001:2000 is to quality management systems just like ISO 14001 is to the management of the natural resources, which proves that the quality management standard is not the one recommended to be applied to sustainability-driven business. In light of what has been considered, ISO 9001-2000 is launched in Kraft's constellations rather than ISO 14001 or any other green certified standard.

Interestingly, across text (III), although not using the recommended standard for sustainable business transactions, the company appears to give the impression that with ISO 9001-2000 they manage to integrate the pillars of sustainability, which would not be inappropriate as the company is the one that establishes its own principles and criteria and the implementation of ISO 4001 is possible for companies certified in the 9001 series if some measures are taken. In some sense, this perception is suggestive in:

[TIII/S01-07] We supplement ISO standards with safety and quality criteria that we've developed *specifically* for our business'

[TIII/S1-04] *'From ingredients to final products, we have quality standards in place*

In these examples, focus and force interplay is being used to translate the company's intention to that end - ISO 9001-2000 not compromising the integration of the pillars of sustainability. The instance of focus [specifically] is that of the coding valuer (7). Since this coding either weakens or sharpens ideational meanings leaving no room for new meanings (Hood & Martin, 2007), 'specifically' in that context means distinctively differentiated from the others, i.e., suggesting that other principles added by the company to the existing set of regulations of the cited standard particularly fit their business and not others. Still, considering 'specifically developed' criteria as meaning 'specific criteria', this inference could be taken as invoking appreciation with variable valuation, which conveys the idea that because of the

---

<sup>34</sup> ISO 14001 e ISO 9001: Uma comparação entre a ISO 14001 e ISO 9001 ("ISO 14001 and ISO 9001: A comparison between ISO 14001 and ISO 9001. Retrieved in October, 2013, from [www.bsibrasil.com.br/iso14001/comparison](http://www.bsibrasil.com.br/iso14001/comparison). .

specifications included in that standard which made it unique, it suits the purposes of a sustainable business. However, judging from what has been previously considered, ISO 9001:2000 encompasses well-defined regulations and principles that match with business management rather than environment management systems.

As to force, the instance of extent of distribution in time [from ingredients to final product] is observable. Again, because this Extent signals the time distributed in a given event (*my emphasis*), the use of the resource at stake specifies that the adaptations made to the quality standard used by the company are reflected mainly in the whole process of producing food (04), which is where it is supposed to be in order to guarantee the offering of quality product.

With respect to this quality, the company argues to offer it, as in:  
**[TIII/SI-02]** People expect safe food and maintaining their trust means offering **quality** products.

This instance of appreciation with variable reaction used to positively evaluate ‘products’ highlights such value. In appreciation, “reaction has to do with the degree to which the text/process in question captures our attention” (Martin, 1997, p. 408). In the analyzed data, the company possibly wishes to draw attention to the value ‘quality’ considered in the manufacturing of their product.

However, the semantics of quality in business is arguable as it can be varied and subjective. A standardized definition for the term is “the totality of features and characteristics of a product or service that bears its ability to satisfy stated or implied needs”, a definition by ISO 8402-1986.<sup>35</sup> This definition, by nature, suggests the sense of subjectivity and diversified meanings involved, insofar as it will depend upon the modality of business, of which the quality standards adopted is a determining aspect for satisfying the needs of the company. Therefore, depending on the quality management standard, ‘quality’ can be a synonym for ‘reliable’ or ‘sustainable’.

Relying on Friend and his colleagues’ (2009) ideas about green business, Kraft can be considered a green enterprise only if the product they offer is green, which is also an idea corroborated by Laville (2009). As asserted by the scholar, it is the green company’s responsibility to make the product become “100% ecologically sustainable” in the long run<sup>36</sup>. The term ‘ecologically sustainable’ is a synonym for green and

---

<sup>35</sup> Available at [www.businessdictionary.com/definition/quality.html](http://www.businessdictionary.com/definition/quality.html)

<sup>36</sup> Paraphrased from the Portuguese version.

both can be considered as two derivatives for the word sustainable; i.e.; eco-techniques applied during the whole process of food production where the natural resources are conserved without impacting the quality of the production. The point here is to stress that making a product ecologically sustainable is what the natural resources management systems are for. Actually, that is why they are at the core of the thesis [environmentally, socially and economically sound and sustainable over the long term] and in turn the product itself.

On surface, it is possible to understand the conceptualization of a green product through bifocal lenses; i.e., both the top and the bottom lenses are necessitated in this understanding. The top part of the lenses directs its look at making an environment better from the view that it focuses on the mitigation of the negative environmental impacts whereas the bottom part of such lenses concentrates on the maximization of impacts upon health. To some extent Kraft's lenses appear to be accurate in both perspectives. This is perceptible in combining some excerpts from texts (II) and (V).

Below is the expression of the top part of the lenses looked through Kraft's eyes:

TII/SI
(02) (60%) <i>Reduction</i> of plastic achieved with our foodservice YES pack.
(03) Cut packaging (20 500 metric tons (45 million pounds)
(04) Eliminated travel miles (12.50 million kilometers)
(05) And <i>reduced</i> energy, greenhouse gas emissions, water and waste by measured against total production
(07) We completed a first-of its kind project that mapped our company's <i>total</i> footprint: carbon (air), land and water.
(08) received SmartWay Champions award for a <b>strong</b> and <i>lasting</i> contribution to Smartway's mission <i>to reduce</i> the footprint of <i>moving</i> goods.

**Table 5.11:** Inscriptions of knowledge of the 'reduction of environment harms'.

In analyzing the whole paragraph above, evaluation is identifiable throughout it. The employment of material processes [cut, eliminate and reduce] specifies the process of 'reducing the footprint of moving goods.' Since material processes represent the "doings" of the social actions in the construal of an experiential world, as advocated by Halliday (1994) and Halliday and Mathiessen (2004), the choice for



those processes by the company has contributed to underline the social actor's "doings" in relation to several impact demands such as energy, packaging, waste, water and gas emissions. As regards coding, it could be encoded as flagged since all the processes used relate to quantification which in a way graduates signaling an evaluation within the attitudinal subsystem, as warranted by Martin and White (2005). In terms of prosodic structure, domination stands out by virtue of the processes 'increased, cut, eliminated, and completed' which draw a line of the company's behavior, a positive value which is announced by the expression "Received SmartWay Champions award".

As shown, the company's footprint is on the transportation of goods. This means that the company is striving to reduce gas emission as a way to reduce the environment impacts on the air which in turn aids in improving the care for the planet and thereby the offering of a better quality of life to the inhabitants on Earth. Therefore, a possible inference from that analysis is that environment harms constitutes one of the priorities of the company, especially the one related to climate change which is a way to show that they contribute to the mitigation of the global warming. Thus, contribution to climate change can be considered an integrative component in Kraft's constellations, opposing to non-specific environment target, the one in traditional business

In spite of every business somehow devoting some attention to the reduction of the environment impacts, even because there is some social pressure that companies in general do so, insofar as the industrial growth is blamed to be the second cause for the natural resources depletion ( Deussare, 1999), what differentiates the modality of sustainable business from the traditional one in this sense is that the former possesses a long-lasting strategic planning as part of their business operations and the latter does not.

Thus, the activities described in table (5.6) suggest that the company has a strategic planning. More importantly, those activities are the ones of the 'first-of-its kind project' [Appreciation: valuation ^ Target]. If this is the first project it means that others will come out, an idea highlighted in 'our 2015 goal is 15%' [T II/S1- 05]. With the employment of the nominalization 'goal' to positively appraise '2015', it is suggested that the company's present and forward thought is to concentrate on the reduction of environmental harms. For this reason, it is possible to affirm that besides being future oriented, the company investigated focuses on long-term goals, thus this stance is in the good-hand side of Kraft's constellations, as opposed to short term- goals.

In the field of sustainability, neither the contribution to climate change nor the reduction of any environmental harm suggests that a company is sustainable. As a matter of fact, what makes a big difference in the process of producing food so that a product is considered a green product is the ability one has to be eco-efficient, an attribute deriving from the term *eco-efficiency*. Employed in the context of business, eco-efficiency, as understood by Friend (2009), relates to the actions designed to improve the environment quality, efficiency and profitability. In practical terms, as simplified by Buckminster Fuller (in Friend, 2009, p. 47), it is the ability a company has of “doing more and using less”. The key question in this dynamic is to have the sensibility and expertise to identify the opportunities specifically in the stages of the product’s production so that eco-efficiency plays its role.

There is a specific managerial belief related to eco-efficiency recognizable in Kraft’s discourse. The stance relative to this aspect is detected through the clustering of the following ideas:

TI/S02	TI/04)
(05) (...)we <i>regularly</i> step back and take a look at how we source, produce and transport our products to find opportunities for <i>continued improvement</i> .	(11) (...) great partners and <i>seizing</i> opportunities – <i>from farm to fork</i>

**Figure: 5.12:** Finding of the stance ‘opportunities-efficiency

In quantity, the instances of extent in time [regularly, continued (06); from farm to fork (11)] are the domination structure. The idea of periodicity in these terms brings into play the importance of the value ‘continuous improvement’ which is characteristic to every business. In detail, by employing the adjective ‘continued’ [Force: quantification: distribution: time] to specify ‘improvement’, the company assumes that this improvement is an uninterrupted practice in their business operations. With the employment of the resource ‘regularly’ [Force: quantification: extend: distribution: time] in the specification of ‘we step back and take a look at how we source, produce and transport our products’, the company’s interpretation of improvement linked to the whole course of action extends from the stages of the product’s lifecycle to delivery, and involves operations analysis such as assessment and reassessment of the product. Also, the nominalization ‘improvement’ being a positive appreciative meaning invokes a judgment of capacity,

which endorses the idea that the company is capable of assessing and reassessing their business operations and thus improving their business operations.

As shown, the company highlights continual improvement which is not inappropriate from the view that through it the quality of a product is warranted, whether this product is green or not. Perhaps, the intention of the company in highlighting ‘continual improvement’ is to convey the idea that they are aware of the fact that it is through improvement that eco-efficiency is viable. Specifically in example (11), this issue of eco-efficiency is seen. Considering that ‘seizing’ is encoded as an intensification of process, in which attitude is infused in the term used as in accordance with what Martin and White (2005) declare about intensity of process, the employment of this resource suggests that some effort is being made by the company in the identification of opportunities to enable that process of using less and doing more that eco-efficiency is concerned. By employing the resource ‘from farm to form’ [Force: quantification: extent distribution: time], the company shows their knowledge about the place where these opportunities are found; i.e., during the whole process of producing food: harvesting, product’s engineering, packaging and delivery. ‘From farm to fork’ in the cited example positively appraises ‘vision, determination, great partners and seizing opportunities’, which suggests that the capture of the opportunities is possible because of the social actors’ expertise (seizing opportunities), collaboration (great partners) and professional profile (visionary and determined). All in all, in terms of eco-efficiency, the description provided goes with opportunities-efficiency. In contrast with it are business-enhancement opportunities.

So far, in terms of producing food, in particular, the company’s beliefs have appeared to be in compliance with the scientific reasoning of sustainability knowledge. That is, there is improvement and it is in this improvement that social actors’ expertise is applied to find out opportunities where the use of the natural resources can be reduced without compromising the process of food production. This process is even maximized (“Using less and doing more”). However, still in reference to the aspect of producing food, another inscription of knowledge is launched by the company that puts that scientific reasoning at risk; namely:

[TII/SI/08] “We *routinely* conduct audits, which are **key** to measuring and reporting compliance

with regulations and internal policies and to driving **good** practices”.

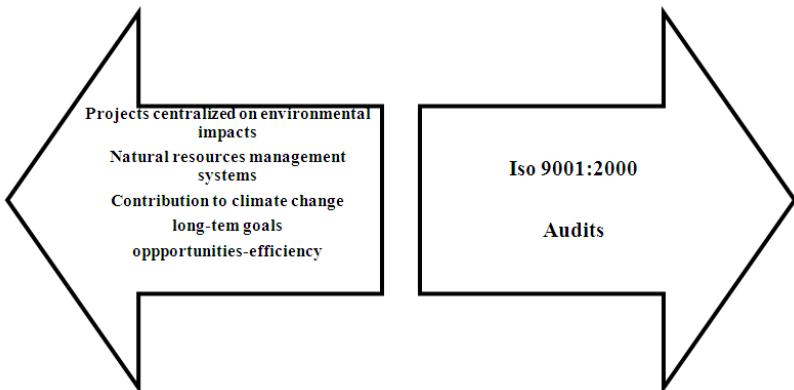
In this example, the instances of extent of distribution in time [routinely] and appreciation [key] are taken together to appraise a phenomenon within sustainability knowledge domain: Audits. The instance of appreciative meaning [good] in the specification of ‘practices’ conveys the idea that the usefulness of audits deployed to the stages of the food production is what guarantees business quality maintenance. Conversely, in the context of sustainable business, eco-audits are the recommended device rather than simply audits from the view that eco-audits are the means through which the regulations and principles of sustainable business systems are assessed (Friend, 2009). Perhaps, the company launches the stance ‘audits’ rather than eco-audits to show that they act accordingly in their business, since audits are the devices that assess the practices of the enterprises certified under ISO 9001:2000, which is the quality management standard used by Kraft’s Co. Maybe, in this inference there is also the explanation for the subjective assessment conveyed by the company with the use of the resource ‘sustainably’ in ‘sustainably sourced’.

With this analysis, the subject of environment looked through the top lenses is exhausted. Encapsulating the major points captured by these lenses, it is possible to say that the company appears to be committed to mitigating the negative environmental impacts by implementing projects focused on this issue, as translated by the stance ‘projects centralized on environment impacts’. Likewise, the company gives the impression that they are engaged with the issues related to the environment management as the stance ‘environment management systems’ is individuated. Through identifying the stance ‘contribution to climate change’, the first piece of evidence related to positive impacts resulted from the implementation of that project is shown.

Apart from these stances, the capture of two other inscriptions of knowledge is evidenced in the form of ‘long-term goals’ and ‘opportunities efficiency.’ The identification of ‘long-term goals’ indicates that social actors in Kraft are aware of the fact that in terms of sustainability actions and plans are to be viewed in the long run. With respect to the detection of opportunities-efficiency, the company’s awareness is explicit in the perception of opportunities during the process of producing food that sustainable practices may be intensified causing the whole system to produce much more with much less use of the natural resources.

This line of reasoning following that of the reservoir of meanings of sustainability is interrupted when the company individuates two other inscriptions of knowledge rendered into the stances ‘ISO 9001:2000’ and ‘audits’. The point is that by saying that ISO 9001:2000 is their management standard and that audits are used in their business operations and transactions, the company assumes that their business operations are regulated by the same requirements and criteria as those of the traditional business, since ISO 9001:2000 is the quality management standard commonly used in traditional business and ‘audits’ are the means by which it is possible to inspect if the ISO 9001:0000 requirements and criteria recommended are met.

All the stances in this section are arranged below:



**Figure 5.3:** A trace of opposed clusters in Kraft’s cosmology.

Thus, this figure demonstrates that there are two different types of clusters in Kraft’s cosmology. The cluster on the left-hand side accommodates the constellations within the reservoir of meanings of sustainability and the cluster on the right the constellations within the reservoir of meanings of traditional business. This is the first evidence that in Kraft’s cosmology there is a cluster in contrast with another cluster, confirming that Kraft’s cosmological structure possesses constellations not only in the “positive”-hand side of the constellations; i.e. in the expected side of the field claimed, but also in the “negative”-hand side of the constellations, which in this context means the area of traditional business. So, ambiguities in the discourse investigated are detected.

So, with the recognition of ambiguities, the other corresponding stances opposing the cluster of the good-hand side of the constellations, which is represented in a higher number and placed on the left side in Figure 5.3, are non-specific strategies on environment impacts, unconscious use of natural resources; non-specific environment target; short-term goals and business-enhancement opportunities, respectively. As to the unidentifiable stances that gave place to the stances individuated in the negative-hand side of the constellations, they are ‘ISO 1400’ (or any other green certified standard) and ‘eco- audits’, which are the inscriptions of knowledge which were expected to be individuated within the reservoir of meanings of sustainability.

By now the analysis moves towards the bottom lenses which are concerned with health impacts. In Kraft’s bottom lenses, this issue is expressed as follows:

T5/S2	T05/S04
(04) We make products that offer <b>appealing</b> nutritional profiles, including <i>less</i> fat, sugar and sodium, as well as products that contain <b>beneficial</b> ingredients, such as whole grains.	(06) In short, we offer a <i>wide range</i> of options from which consumers can choose, including <i>a variety of flavorful-(better)-for</i> your foods.
(05) Foods that have <i>few</i> <b>artificial</b> ingredients are likewise and (...)	(10) When it comes to product packaging, <i>all</i> of our packaging has <i>clear</i> nutrition labeling (...)

**Table 5.13:** Inscriptions of knowledge concerning health impacts

Taking the overall context of these examples, the three variables in appreciation [reaction, valuation and composition] and the modes of intensification of quality and quantification of number contribute to signify not only the general aspects related to the product commercialized by the company but also the features that characterize the nutritive value contained in this product. Considering that valuation carries the ideational significance and as such it gets across personal opinions, as simplified by Martin and White (2005), the use of the resource ‘beneficial’ employed to positively appraise ‘ingredients’ translates the social actor’s belief that their product’s consumption impacts health (04).

In complementing this idea, there is the interface of a specific instance of quantification of number [variety of] quantifying 'foods' (06) with an intensification of quality [flavorful- better] specifying the entity quantified [foods]. Since intensification of quality carries attitudinal meaning (Martin & White, 2005), the use of 'flavourful-better which unpacked is read 'delicious' invokes appreciation with variable reaction. Reaction is somewhat linked to affect in the sense that the semantics of this variable also provokes some emotion, as the authors observe . With this view and the consideration of the resources posited so far, it is possible to say that the company not only emphasizes the idea of health with the offering of their product, but also compliments it by saying that consumers have at their disposal tasty products. In short, the line the company draws about the product they commercialize is that of aligning health and flavor.

Concerning aspects related to nutrition, the general idea is expressed in examples (04) and (10). The instances of appreciation [appealing and clear] translate this idea. With the use of the resource 'appealing' with variable reaction in the positive appraisal of 'nutritional profiles' (04), in which the interpersonal significance is explicit, the company tries to draw the readers' attention to the fact that the company has special attention in selecting the quality ingredients to be used in the manufacturing of the product. As to the resource 'clear', inasmuch as it is under the variable composition and as such the writers'/speakers' perception is at play (Martin & White, 2005), the use of this resource to positively evaluate 'nutrition labeling' suggests that in the company the information provided about the nutritive value of a product is available to any consumer of any social status. Still, the quantified entity [packaging] by the use of 'all' clarifies that the attitude described is extensive to every product that the company commercializes. Implicitly, this is a way to say that the company fosters the readers' interest about knowing what they are consuming in a way to show that the company also sensitizes people to take responsibility for their health and well-being.

With regard to aspects related to the ingredients, they are observable in examples (04) and (05). The instances of quantification of number, in particular, and an appreciative meaning with variable valuation interpret these aspects. In quantity, the resource 'few' is used to quantify the entity 'ingredients' from the nominal group 'artificial ingredients'. In considering that the appreciative meaning 'artificial' negatively appraises ingredients, the sense conveyed is positive as the company communicates their attitude in producing more –natural

products, inasmuch as there is the reduction of the use of unnatural ingredients. Corroborating this idea is the consideration of the adjective ‘less’ used in the quantification of abstract entities (fat, sugar and sodium). Since abstract entities indicate the presence of attitudinal meanings (Martin & White 2005), the quantified entities in the form of nominalization ‘fat’, ‘sugar’ and ‘sodium’ can be interpreted as a ‘balanced product’ or ‘more- natural product’, again, communicating the sense that a better nutritive value is taken for granted in the selection of the ingredients viewing positive impacts on people’s health.

This sense of quality does not contemplate one of the reservoirs of meanings of sustainability, since in terms of green product, it does not suffice to have “more-natural made” products (Friend, 2009). Friend explains that the products should be all-natural and “made with organic, recycled, recyclable materials, these products being ‘free-range and cruelty-free” (p.72). Since Kraft’s products are more natural-made rather than all-made natural, it means that in their labeling there is no use of *Eco-labels*- the tools that communicate the environment impact of the process of producing a product, as noted by the author. As reproducing Friend’s (2009) speech verbatim, “when a label is established, it provides companies with a simplified way to communicate their environmental credentials” (p.72). So, purchasing a green product means that consumers are taking home not only the product itself but also the environment and social values that the product imbues such as the support for agricultural techniques, recycling and life improvement - Product’s value propositions.

Quality, thus, as a synonym for sustainable does not comprise Kraft’s repertoire of meanings, nor do the options of semantics in Kraft’s report express the sense of safety that differs from the traditional form of interpreting it. The following table illustrates it:

T1II/S1	T1II/S3	TIII/S4
(01) In our code of conduct, the <b>first</b> rule is to make food that is <b>safe</b> .  (03) People expect	(10) If a food safety <b>issue</b> arises, we take <i>immediate</i> steps to protect consumers through our <i>Special Situations</i> Management Teams – senior-level from <i>across</i> the company	(11) Our <b>early-alert</b> system and processes help us make decisions quickly and in the <i>best</i> of consumer safety.



<p><b>safe</b> food, and maintaining their trust means offering <b>quality</b> products they <b>can rely on</b> (...)</p> <p>(04) This is the <i>cornerstone</i> of our heritage and an <i>essential</i> part of our culture</p>	<p>who has experience in handling <i>critical</i> situations</p>	<p>(12) (...) and <i>strengthen</i> our reputation for consistently producing <b>delicious safe</b> foods.</p>
--	--	--

**Table 5.14:** Inscriptions of knowledge based on the safety of the product.

In examples (01), (03), (10) and (12), the same instance of appreciation with variable valuation [safe] is individuated three times to positively appraise ‘foods’ or ‘make food’ (01). An instance of appreciative meaning [issues] negatively evaluates ‘food safety’. In one way or another, all these instances refer to food safety. With a nominalized adjective [quality] and an adjective [delicious] used in the positive appraisal of product and foods, respectively, the company is assuming that quality is associated to safety and flavor. And to this sense of quality more emphasis is given when considering the verbal group ‘can rely on’ used to appreciate ‘products’ (03). In this context, ‘can rely on’ is read reliable which a synonym for safe is. Thus, in terms of the offering of products, the values reliability/safety and flavor are the ones which comprise the company’s repertoire of meanings.

Furthermore, energy seems to be devoted towards the maintenance of these values. This is observable in example (10). In this example, the company graduates ‘special’ to specify ‘teams.’ Here special is coded as focus: *valuer*, from the view that in this context no other meaning is possible in replacement of the word special unless specific. That is, here ‘specific’ means designed for a particular task, and it does not correspond to any meaning related to ‘fate’ which is what Martin’s normality refers to. In this same example, in employing the grading resource ‘immediate’ in the mode of intensification of quality to specify ‘steps’ and the adjective ‘critical’, which here means extremely risky and bad, to negatively evaluate situation, the company informs what those specific/special teams are for. That is, the company suggests that if any negative impact arises during business operations and transactions, they are prepared to act accordingly as there are special/specific professionals to this end. More importantly, the actions

of these groups are reflected in all the sectors of the company, this being made explicit via the realization of an instance of extent of scope in space [from across].

Kraft also uses intensification of quality as example (11) illustrates. Of the two categories available in this mode of intensification, isolating and infusing, as advocated by Martin and White (2005), the company individuates the resources belonging to the category of isolating. Of the lexico-grammatical items available in this category, the company employs the adjective ‘early’ in the composition of the nominal group ‘early-alert’ to specify systems. In this realization an appreciative meaning is invoked. Interpretatively, this term ‘alert-system’ could be read ‘preventive-system’ which implies that the company possesses strategic planning to deal with mishaps and outcomes that may arise by virtue of the company’s actions and attitudes. In terms of sustainability, this means that the company has thought of the prediction of impacts. Still in reference to the resources of intensification of quality in example (11), Kraft employs the adverb ‘quickly’ in the upscaling of the verbal process ‘make decision.’ Lastly, the company makes use of the superlative ‘best’ in the specification of ‘interest of customers’ safety.’ With it, the company refers to the actions taken when food safety is at risk and this is only possible because of that preventive system or early-alert system [Force: intensification: quality ^ Target] they have developed.

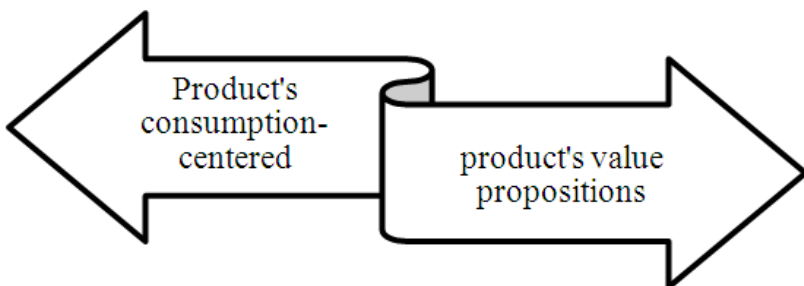
All aspects analyzed related to quality in ‘quality product’ are linked to the sense of ‘reliable’ rather than ‘sustainable’. This means that in terms of health impacts the company does not comply with the principles of sustainability. However, this is not to argue that they do not cause impact to health. They do on the account of the fact that safe products are being offered. The point is that in sustainability safer products, or better said, natural products rather than more-natural products is what counts. Metaphorically speaking, the bottom lenses through which the product is seen are more blurred than the top lenses, since the company appears to be more involved with mitigating environmental impacts than with maximizing health impacts.

Conversely, in the field of sustainability there is no open spaces for ‘going-in-between’, things in there are either-or choices. If one of the bifocal lenses is not accurate, i.e., there is no total accuracy in the approach of health impacts. In relation to the analyzed data, it means that the manufacturing of the products in Kraft is not carrying the value propositions that are characteristic of green products. So, in these terms, the company is traditionally-business oriented as green products are not

being produced. All in all, the company is focused on products consumption-centered rather than product's value propositions, which would be the stance of the good-hand side of the constellations as it is in the latter not only the interest in the commercialization of the product but also the interest in positively impacting people's lives.

Summarizing the ideas captured by the bottom lenses, the investigated company appears to associate health with the offering of quality product in the sense of reliability which is unproblematic, insofar as Kraft appears to have put efforts and energy to commercialize more natural products. However, in the context of sustainable business, the interpretation of health goes beyond this sense. It involves the offering of sustainable products manufactured under the patterns of environmental management principles in that health is seen not only in the sense of conservation of the natural resources so that environment's health is warranted, but also in the offering of natural products with the purposes of positively impacting people's quality of life. Therefore, in sustainable business, these values should be imbued in the product commercialized.

Thus, the commercialization of the product by Kraft appears to be focused on consumption as the management of the product occurs in a traditional way where no values such as environmental and health impacts are considered at their fullest extent, an idea translated by the stance 'product-centered consumption' rather than 'product's value propositions', which is the stance expected in sustainable business. Then, these stances take two different roads and the one taken by Kraft is not the right road, since the focus is still centered on consumption. Illustratively, the opposing stances are posited below:



**Figure 5.4:** The stance 'product's consumption-centered' opposing the stance 'product's value propositions'

5.2.3.3 “Appreciating-graduating” in the aspects of governance and volunteerism

The aspects discussed in this subsection refer to the social impacts identifiable in Kraft’s cosmology. Here the point of departure is a look back at the grading resource ‘biggest’ comprising the following excerpt analyzed elsewhere in this chapter:

[SI/SI – 06] (...) where we can make the *biggest* impact: agricultural commodities, packaging, energy, water, waste, and transportation/distribution’.

That is to say, if there are the biggest impacts it is because other smaller or peripheral ones are contemplated, a thought endorsed in the following comments:

<b>T5/S1</b>	<b>T5/S4</b>	<b>T5/16</b>
<p>(01) <i>Today</i> the world faces a dual <b>challenge</b> of simultaneously addressing hunger and obesity.</p> <p>(02) As the world’s <i>second (largest)</i> food company, we have an <b>important</b> role to play in tracking both of these issues by helping people eat and live <i>better</i>.</p> <p>(03) Our broad portfolio and <i>global</i> presence give us many ways to help and we’re making <b>good</b> progress (...)</p>	<p>(15) (...) can we truly tackle these <b>issues</b> in <i>ways</i> that are both <b>sustainable</b> and <b>scalable</b></p>	<p>(16) Tackling hunger and obesity is <b>not easy</b>.</p>

**Table 5.15:** Finding of the stance ‘engagement with social problems’.

In considering the whole context exposed, the domination structure is one of inscribed appreciation with variable valuation. In a broad sense, all the instances taken together [challenge, important, issues, sustainable and scalable, not easy, progress], in some sense, relate to the issue of social problems. The other instances in parallel with appreciation are resources of extent of scope in time and place [today; global] that spatially or temporarily locate the practices.

In detail, of the appreciative meanings mentioned, the ones with negative dimensions [challenge, issues] appraise ‘hunger and obesity.’ These instances alongside the consideration of that of extent of proximity in time [today] suggest that Kraft is updated and sensitive to the problems of hunger and obesity brought about by bad nutrition that affects humankind worldwide. With the employment of ‘not easy’, used to negatively evaluate ‘tackling hunger and obesity’, the company admits that beating these problems is challenging (16).

In examples (02) and (03), Kraft demonstrates the reasons why they have risen to this challenge. One of these has to do with the fact that social actors in Kraft are deeply involved with hunger and obesity as conveyed by the use of ‘important’ in the positive evaluation of ‘role’. Another motive is concerned with Kraft having their course of action extended to every branch of the company, as translated by the employment of the resource ‘global’ [Quantification: Scope: extent: distribution: time]. Lastly, by employing ‘good’ to positively evaluate ‘progress’, it is stated that progress on beating hunger and obesity is being made.

Examples (02) and (15) express the ways in which hunger and obesity are beaten. The employment of the resources ‘sustainable and scalable’ in the positive evaluation of ‘ways’ indicates that beating these problems has not only been progressive but also respectful to what the principles of sustainability determine. In this context, the principles are good nutrition and quality of life. About it, Kraft graduates ‘better’ in the mode of intensification of process to specify ‘eat and live’ (02) to demonstrate that the company does comply with these values.

Briefly, the analysis with respect to Kraft’s approach to social problems has revealed that the company in this sense is in compliance with aspects related to social impacts within the field of sustainability. That is, the company appears to be making an effort to mitigate the bad affects that hunger and obesity cause to arise. They appear to be improving and accelerating the actions directed at this end. In other words, these are the measures supposed to be taken when the question of minimization of negative impacts is at play, in this case, a social

negative impact. By the same token, the company is contributing to the maximization of positive impacts such as providing a healthier lifestyle which suggests a better quality of life. All in all, engagement with social problems constitutes a stance in Kraft's constellational structure, which goes against temporary participation in the beating of social problems, a value very often present in traditional business.

The following chart comprises more examples of maximization of social aspects:

TIII/S02	TIV/S04
<p>(06) (...) employees in living <i>healthier</i> lifestyles (...)</p> <p>(07) We provide <i>various</i> tools and resources about health and well-being (...)</p>	<p>(08) In 2005, we introduced an <b>innovative</b> policy that <i>limits</i> what we advertise to children under age 12. For children ages 6 through 11, we only advertise those products that meet <i>specific</i> nutrition.</p> <p>(11) (...) to help consumers achieve <i>healthier</i> lifestyles.</p>

**Table 5.16:** Finding of the stance ‘people’s health and well-being’

Basically, the stance resulting from the clustering of the ideas contained in these examples is construed via force and focus interface. The company graduates ‘healthier’ twice (06; 11) to specify ‘lifestyles.’ The repetition of this resource may be deliberate in order to suggest that the company is committed to offering ways that help people improve their lives through the commercialization of their products. Interestingly, in this context, the company opts to double individuate the same resource of intensification [healthier] rather than healthy. In sustainability, just like a product has to be safer, the products and services offered by the company should praise for healthier lifestyles.

In some sense, all the other examples sustain this issue of improvement of life quality (07; 08). In example (07), with the employment of the instance of quantification of number ‘various’ in the quantification of ‘tools and resources’ (about health and well-being), the company informs that it is at people’s disposal other sorts of mechanisms other than only more-natural products that they can rely on to reach better results in terms of improving their quality of life.

In example (08), by employing the adjective ‘innovative’ to positively appraise ‘policy’, Kraft is communicating that new strategies are in course. The use of the grading resource ‘limit’ [Force: quantification: extent: scope: space] and the one of focus: valuer explain what these strategies are about. That is, with the former specifying ‘what we advertise to children under age 12’, the enterprise in question signals that it has a concern about selecting the products announced for children’s consumption, which is a clever attitude insofar as most of the products they produce are appealing to children’s taste such as candies and cookies. Here the company is assuming that their focus is also on children’s health. With the employment of focus in valuer [specific], this is made explicit. That it, considering that this coding leaves no place for open meanings, the use of this resource in the specification of ‘nutrition’ suggests the idea that among the products they commercialize, the ones which are announced for children aged 06 through 11 are of selected nutrients for a balanced lifestyle, which, once again, brings into play the idea that the company is interested in contributing to beat obesity and hunger. Likewise, this may demonstrate the company’s alertness towards the problems of obesity and the related diseases brought about by this condition, which can also be a way to say that the company takes care of this generation that is growing and is concerned with educating them to educate<sup>37</sup> other generations to come in terms of eating and living better, thus showing their interest on this and the other generations ahead.

Through this exposition Kraft manifests the inscription of knowledge life-enhancement (peoples’ health and well-being), which is opposed to business-enhancement, what traditional businesses pursue.

The analyses in this chapter have identified inscriptions of knowledge related to prediction of impacts, environment impacts and social impacts. For the sake of didactic purposes, an example of each impact detectable in different stages of this chapter is exposed:

---

<sup>37</sup> In the field of environmental sciences, the word education is a synonym for environment education. According to Stapp et. al. (1969), environment education is understood as the knowledge generated about the biophysical environment and its associated problems. As noted by the authors, this knowledge acquired by any segment enables the familiarity with strategies suitable to deal with the cited problems.

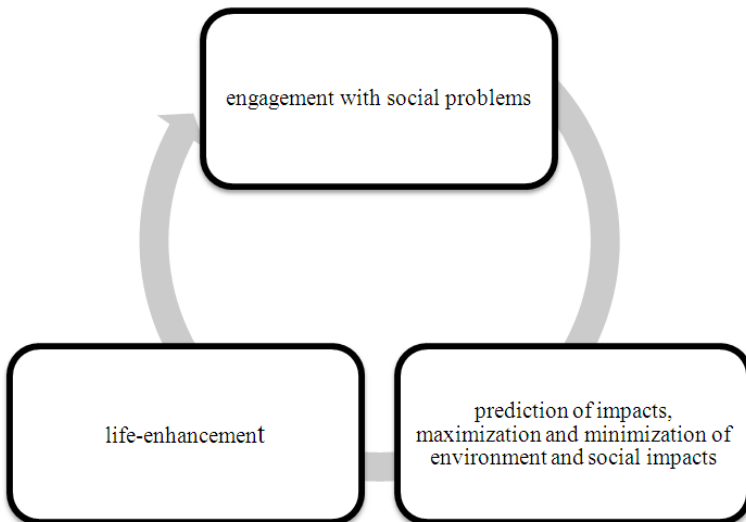
Impacts		Examples
<b>Prediction</b>	[TIII/S03- 10]	If a food safety <b>issue</b> arises, we take <i>immediate</i> steps to protect consumers through our <i>Special Situations Management Teams</i> (...)
<b>Environment</b>	[TII/S01- 04]	And <i>reduced</i> energy, greenhouse gas emissions, water and waste by measured against total production.
<b>Social</b>	[TIV/S01-02]	As the world's <i>second( largest )</i> food company, we have an <b>important</b> role to play in tracking both of these <b>issues</b> (hunger and obesity) by helping people eat and live <b>better</b>

**Table 5.17:** Finding of stance ‘prediction, maximization and mitigation of environmental and social impacts’.

These examples display the company’s knowledge towards the fact that impacts should be managed in sustainability policies and that they are not only of the environment type and that it is the company’s function to parallel the maximization of the positive impacts with the minimization of the negative impacts. The analyses have shown that the company’s carbon footprint appears to have resulted in the reduction of air emissions which contributes to cleaner air and, consequently, a better quality of life (6). By the same token, Kraft appears to have been contributing to beat hunger and obesity which in turn improves people’s nutrition proving them with a healthier diet and a better lifestyle (02). Thus, there are pieces of evidence in Kraft’s discourse that positive impacts are being maximized and negative ones minimized (Gas emissions x contribution to climate change; social problems x healthier lifestyle). Also, in some sense, it appears that social actors in Kraft are alert to any unforeseeable event that may occur across business transactions, the conditional ‘if’ along with the appreciative and gradational meanings are illustrative (10). Based on these considerations, prediction of impacts, maximization and minimization of environment and social impacts can be a stance added up to the good side of Kraft’s constellations. This stance contrasts with that of maximization of economic impacts, which is a characteristic of conventional business.



In brief, “Appreciating and graduating in other aspects of the thesis” contributed to cluster inscriptions of knowledge corresponding to the reservoir of meanings of sustainability, particularly relating to the dimension of social responsibility and ecological prudence. These inscriptions of knowledge are rendered into the stances ‘engagement with social problems’, ‘life-enhancement’ (people’s health and well-being) and ‘prediction of impacts, maximization and minimization of environment and social impacts’, which can be seen below:



**Figure 5.5:** Finding of two stances within the social responsibility dimension (engagement with social problems and life-enhancement) and one of ecological prudence (prediction of impacts, maximization and minimization of environment and social impacts).

#### 5.2.3.4 Combining attitude and graduation in the aspect of governance and volunteerism

The combination of the resources available in Attitude and Graduation is necessary since it allows for a thorough understanding of how the company thinks of governance. Governance is concerned with “collective decisions made in the public sector, the private sector, and civil society” (Bell, 2002, p. 13). Furthermore, “it suggests the need for collaboration among these sectors to address the kinds of broad,

horizontal changes associated with sustainability” (Bell, 2002, p. 13). Besides, as the author recalls, regardless of the collective sense in governance each sector should play its role for sustainability to occur. In sustainable business, this is about the same and, as Friend (2009) argues, every employee’s knowledge is taken into account in the process of making decisions. That is, decisions are socially negotiated rather than centralized, and knowledge is built as a result of employees’ participation in the decision-making processes.

Acquainted with these aspects of governance, it is possible to analyze whether Kraft’s beliefs towards this issue is in full compliance with what is theoretically considered. One of the inscriptions of knowledge shown about it is concerned with collaboration. The following clauses are illustrative:

TI/S 03 ; S/ 04	TV/S04 ; S05
(11) Success requires vision, determination, <i>great</i> partners and seizing opportunities	(14) That’s where our <i>many strategic</i> partnerships come into play – from community investments with <i>leading</i> nongovernmental and <i>multilateral</i> organizations.

**Table 5.18:** Finding of the stance ‘horizontal and vertical collaboration’

The picture of collaboration drawn by the company is realized via focus interfaced with force in the modes of quantification and intensification. In Focus, the company employs the adjective ‘strategic’ to characterize ‘partnerships’ (14), related to the coding of focus: *valuer*. That is, strategic here also means designed for a specific purpose, target. Then, in unpacking ‘strategic’ it can be a synonym for central, key and also specific as in special team, providing no space for other meanings except the ones mentioned. In using this resource, Kraft conveys the idea that they count only on specialized partnerships that can help them attain the integration of the pillars of sustainability.

The modes of quantification and intensification unveil the nature of the partnership that Kraft establishes. In quantity, of the two existing instances of number, the one in example (14) [multilateral] serves this purpose. Following Martin and White (2005), in this clause the use of ‘multilateral’ illustrates the case of quantification in which locutions carry the sense of amount infused. That is, ‘multilateral’ means the involvement of three or more organizations. This amount already informs that Kraft counts on three or more organizations engaged in

the purpose of attaining that integration. And because ‘multilateral’ is a resource within graduation that is a system that permits subjective assessment, we may infer that these three organizations may be public organs or the public sector in general, an inference confirmed in a way through the identification of the grading resource ‘around the globe’ which is a circumstantial element composing the unevaluated clause ‘We work with governments and industry partner’ (See table 5.18 below).

The idea of collaboration is complemented by intensification, particularly the resources of ‘leading’ (11) and ‘great’ (14). In the former, the sense of intensity is infused in the scalability of nongovernmental organizations. This indicates that the company focuses on the most prominent organizations. Lastly, the adjective ‘great’ is an intensification of quality which is being used to upscale ‘partners’ and with the same resource the company is making a positive judgment of capacity, meaning that all the partners with whom they establish contact are committed to integrating the principles of sustainability.

This analysis appraises a phenomenon within sustainability knowledge domain: Horizontal collaboration. As advocated by Artmitage e.t.al. (2008), horizontal collaboration refers to the connections made across different levels of organizations. However, this type of collaboration should go with vertical collaboration. The following instances of graduation target vertical collaboration:

TIV/S 02	TIH/S02
(08) (...)contributions of time, money and skills where they are needed <i>most</i> in our communities <i>around the globe</i> ’	(09) We work with governments and industry partners <i>around the globe</i> to share learnings, because we know that all food safety issues

**Table 5.19:** Inscription of knowledge ‘vertical collaboration’

Considering that vertical collaboration refers to the institutional, social and ecological connections among individuals across geographic spaces (Artmitage e.t.al, 2008), the examples above of the grading resources ‘around the globe’ [Force: quantification: extent: distribution: space] (08; 09) and ‘most’ (08) [Force: intensification: quality] illustrate the idea of vertical collaboration.

Since ‘most’ [Force: intensification: process] is used for emphasis, by employing this grading resource the company tries to trigger attention to the process [where they are need] (08). In this process, taking into consideration the fact that the pronoun ‘they’ is an

anaphoric element that retakes ‘contributions of time, money and skills’, the social and ecological dimensions that vertical collaboration deals with are specified, since the unpacking of the pronominal referent implicitly conveys the idea that the company devotes time and investment (money) in projects that guide and teach communities in the task of conserving the environment for a better quality of life. So, the question of socialization and ecological prudence in the type of collaboration is highlighted.

The resource in Scope in space [around the globe] brings into play the question of institutional connection which completes the ecological and social connections in vertical collaboration. Since the idea conveyed by the realization of the resource ‘around the globe’ is that of “how widely distributed” (Martin and White, 2005, p.147), by employing this resource in examples (08) and (9) the company highlights that public and private institutions as well as communities everywhere are involved in the conduct of the practices described above [time, money and skills].

With the institutional, ecological and social dimensions posited in these examples, the identification of the instance of vertical collaboration is possible. So, the stance ‘horizontal and vertical collaboration’ is included in Kraft’s constellational structure which is opposed to that of ‘momentary partnerships’ in traditional business.

Because of the deployment of the resource of extent of distribution in space by the company, which highlights the company’s actions being extended to all the branches settled down in every corner of the world, it is possible to identify another stance being launched to Kraft’s constellational structure: a holistic vision rather than a local vision. In sustainable business, this value is fundamental to bond ties among people making prosperity and unity possible. It seems to emphasize the idea that the company is a single unit although it has branches spread in other regions and as such sustainable practices are reflected in these branches in a homogeneous way with no distinction.

A way to figure out the company’s managerial approach is through observing how the company engages its employees and stakeholders in their general business operations. As regards employee’s engagement, Friend (2009) argues that one of the most important factors in considering about greening a business is that employees are to be directly involved in this act. Friend’s idea resonates with the understanding of *empowerment* within the general theories of sustainability. A term launched in the 70s, *empowerment* is defined as a process of decentralization of a given socio-economic system, which

privileges all social actors belonging to this context, in the sense of acquiring knowledge about how its principles work so that automaticity is given to these actors in solving problems and participating in the decision-making processes of such system (Romano & Antunes, 2002). So, in sustainable business, employees' engagement is somewhat similar to employees' empowerment in that the company should take the responsibility not only to train their staff in social learning, but also make them become self-reliable in dealing with problems and making decisions. Below is how employees' empowerment is expressed in Kraft:

T IV/S05	T IV/S1-04
<p>(1) <i>Every day, our <b>success</b> depends on <i>more than</i> 125, 000 <b>capable, dedicated and diverse</b> employees.</i></p> <p>(02) They create <b>new</b> products</p> <p>(03) Make and sell our <b>delicious</b> brands</p> <p>(04) Treating our people well and providing a workplace that is <b>safe, rewarding and inclusive</b> is a proven recipe.</p>	<p>(13) A performance-driven and values-led culture builds a <i>stronger</i> company and provides a workplace that attracts and retains <i>thinkers, problem-solvers and doers</i>.</p>

**Table 5.20:** Finding of the stance 'employees' empowerment'

In these examples, intensification via repetition is the domination structure. As previously posited based on Martin and White's considerations, this type of intensification is realized by repeating either the same lexical item or the correlate semantic items in a series. The latter is one case in point in examples (01), (03) and (13). In example (1), grammatically, three adjectives [capable, dedicated, and diverse] are drawn in the emphasis of the employees' profile. Simultaneously, by giving emphasis to these adjectives, explicit positive judgment concerning the employees' capacity [capable: judgment: capacity] and character [dedicated, diverse: Judgment: distinctness] is simultaneously made.

In this context, the choice for this specific type of intensification by the company may be strategic in order to convey the idea that Kraft both makes investment on human resources and values a varied staff in terms of different cultures and thereby different types of knowledge, a consideration that complies with the issues of sustainability, since the cited characteristics are the ones necessary in social learning which is what sustainability has come into being lately.

In a way, these ideas are endorsed when referring to the workplace (04 and 13). In example (04), again, through *repetition* the company employs the adjectives ‘safe, rewarding and diverse’ to picture the company’s workplace. That is, in Kraft’s workplace there is the consideration for employees’ safety and satisfaction which may imply that in there the cultivation of important values such as respect, social learning and personal development is a reality. Specifically about the resource ‘inclusive’, this is somewhat similar to that of the attribute ‘diverse’ in ‘capable , dedicated and diverse’ ascribed to Kraft’s employees in that the sense of meaning conveyed by ‘diverse and inclusive’ are semantically interrelated as they suggest diversity which in turn means difference that in this context suggests differences in terms of knowledge and culture.

Thus, a picture of an open-minded company able to respect diversified culture and types of knowledge and praise for the employees’ skills development is drawn, as can be observed by the use of ‘thinkers, problem-solvers and doers’ graduated by the investigated company (13). Also within intensification via repetition, the overall meaning suggested by this realization is the sense of capacity that employees appear to have in dealing with business issues, thus invoking a judgment of capacity within appraisal. In this process of intensification, a negative evaluation with variable valuation [problem] is perceived in the specification of ‘solvers.’ With this evaluation, the company highlights the employees’ ability to solve problems. A possible inference from this analysis is that the company believes that because of the varied staff where individual knowledge and culture are regarded, employees are not only able to think, but also make decisions and carry out the decisions made. Indirectly, the company assumes that they give their employees autonomy.

More explicitly, this autonomy is perceptible when considering examples (02) and (03) and the process in ‘they manage our company’ [IV/S01-04]. Although transitivity is not at play here, if considering that ‘manage’ is a material process by means of which the employees’ ‘doings’ are translated, the company conveys the idea that Kraft Foods

Co. is run by the employees. By using the appreciative meanings with variable valuation ‘new and delicious’ in the specification of ‘products’ and brands’, respectively, it is explicit that it is on the behalf of the employees the creation, manufacturing and commercialization of their products.

Thus, in light of what has being said the phenomenon employees’ empowerment stands as a stance in Kraft’s constellations, as opposed to employees’ participation, which often happens in the modality of traditional business.

If there is employees’ empowerment it is because business operation and transactions in Kraft appear to be socially negotiated, which is a characteristic of a managerial constructionist approach. In order to confirm or refute this hypothesis the following ideas are illustrative:

TVI/S/03	TVI/S04
(07) Our board of Directors sets the <b>right</b> tone <i>from the top</i> by governing Kraft Foods in line with our Corporate Governance Guidelines	(09) To support the <b>right</b> behaviors <i>throughout</i> the company, we have a <i>chief</i> compliance officer, five <i>regional</i> compliance officers and a team that educate <b>employees worldwide about</b> our ethics and compliance practices. (10) Under our speaking up Policy, we empower employees to ask questions and raise <b>concerns</b> about business practices when they see something they think may be <b>wrong</b> .

**Table 5.21:** Finding of the stance disciplinarian/authoritarian/conservative’.

The realizations of appreciation and judgment as well as focus and force construe the overall context presented. The appreciative meaning and force interface in the first example (07) already announces that collective negotiations do not appear to be part of Kraft’s philosophical business concepts. In the context of that example, the company employs ‘right’ with positive evaluation with variable valuation to characterize ‘tone,’ the appraised item. Besides, there is the use of the resource ‘from the top’ encoded as force in the mode of quantification of extent of scope of space which signals that the company’s managerial basis is hierarchically structured and as such the general atmosphere in the company is dictated by those who hold the highest status. This leadership is confirmed in example (09). In there Kraft graduates ‘chief’ to specify ‘compliance officer.’ The grading

resource ‘chief’ is encoded as focus: sharpen as the meaning imbued in the attribute employed is upscaled at its highest. That is, that officer is the first one in the order of importance of the company. In the same example, graduating ‘regional’ which possesses the same coding as that of the resource ‘from the top’, the company informs that Kraft also counts on other officers distributed across different regions. In this example, the company characterizes behaviour by using the same positive evaluation [right] as that of example (07). With this positive evaluation and the grading resource ‘throughout’ [force: quantification: extent: scope: space], the enterprise at stake conveys the idea that there is a standardized behaviour to be followed which regulates employees’ actions across the different sectors of the company. This standardization appears to be taught by a qualified team specialized in establishing the contours of what the company considers to be a good behaviour as can be seen by means of the positive judgment of capacity invoked [educate employees worldwide about our ethics and compliance practices].

It is important to say here that there is no evidence that the sense of education conveyed above is that of environmental education, since the leadership shown so far leaves no room for the principles of environmental education to be established. To recall, environment education is concerned with collective sharing of the knowledge accumulated about environment so that issues and problems related to it are thought of and solved (Stamp et.al., 1989).

Judging from the analysis, it is difficult to recognize negotiation in the report. Nor is there the possibility of detecting traces of sustainability learning. As defined by Phal-Wostl and Tabara (2007), sustainability learning deals with the contents to be acquired by all the social actors involved in a sustainability policy so that these contents are digested as to enable these social actors to integrate the ecological and socioeconomic dimensions in their business strategies. As such, the ideal environment for this learning to take place is the one free from hierarching principles with unlimited access to questions, viewpoints and arguments from where a single consensus is reached. This is what that negotiation is and social learning in sustainable business should be. In truth, social learning and negotiation are interdependent in sustainability.

In Kraft Company, their view appears to differ from that exposition, as there seems to be traces of employees’ limited access to questions. The ideas conveyed by the realizations of the attitudinal inscriptions [concern, wrong] leave no room for doubting it. That is, by appraising ‘concerns’ with negative affectual meaning with subsection



of the insecurity type and the adjective ‘wrong’ with negative evaluation with variable valuation targeting ‘something’, the company gives the impression that the employees’ participation is restricted and that this participation is only open if they happen to feel uncomfortable in relation to business practices. It goes without saying that things still sound conservative just like they are in the traditional business.

In light of what has been said, the stance ‘disciplinarian/authoritarian/conservative’ is added to Kraft’s constellations which is not in the good side of the constellations. The stance expected in the good side of the constellations would be ‘socially-negotiable.’

Furthermore, the aspect of volunteerism also resulted from the combination between attitude and graduation, and the following clauses illustrate it:

TV/S 02
(06) We <b>encourage</b> (...) in fostering their <b>spirit</b> of giving back to the communities.
08) Our <i>robust</i> project encourages contributions of time, money and skills where they are needed <i>most</i> in our communities <i>around the globe</i>
(09) Fostering volunteerism is <b>good</b> for the community, our employees and our company

**Table 5.22:** Finding of the stance ‘volunteerism’.

To confirm the cited aspect in Kraft’s constellations, the adjective ‘good’ is used to positively appraise ‘fostering volunteerism’ (09). Within sustainability knowledge domain, it is a consensus that volunteerism is a movement that involves all social actors in the task of conserving the environment as to provide life-enhancement for every living being on Earth, which signals that every slight conduct one may have in terms of environment issues makes a big difference.

In example (08), the instances of intensification [robust, encourage] show that the question of volunteerism is taken seriously by the investigated company. By employing ‘robust’, which unpacked means ‘very strong’ or ‘very healthy’ [strong ^robust], as it is a case of infusion in which the word in isolation up scales the meaning in question (Martin & White, 2005), the company draws attention to the good quality of their volunteerism project. Added to this idea is an instance of intensification of process [encourage], which in the context under analysis means stimulating a given activity to happen and increase. In the cited example, because the activity in progress as part of

that project refers to ‘contribution of time money and skills’, the issue of volunteerism is, again, recognized in Kraft’s cosmology.

Volunteerism is also strengthened in example (06) by the realization of an instance of authorial affect [We encourage]. Used in the first person plural here, this type of affect refers to an individualized mode of evaluation where the speakers/writers’ subjectivity assessment is strongly present in the communicative events.<sup>38</sup> In practical terms, it is the emotional investments one makes towards a thing, person, or situation, i.e. the speakers/writers’ attitudinal positioning.

As observed by Martin and White, this type of affect is viewed as a strategy to create empathy with the reader. Resonating this idea with the cited context of the example, this means that the company employs ‘we encourage’ to highlight the company’s attitude towards motivating their customers and employees in terms of the desire for volunteerism [fostering the spirit of giving back to the communities], which is possibly a way to draw the readers’ attention to the fact that the company honor their commitment to social responsibility.

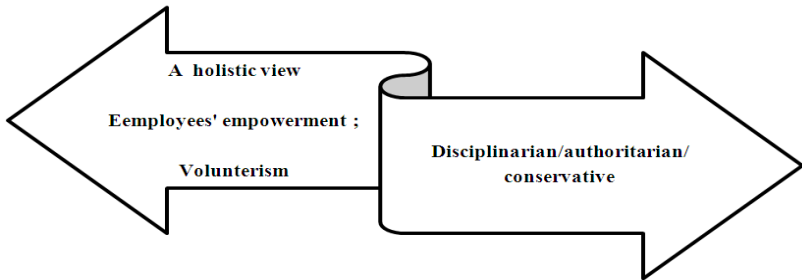
In the same example, the noun ‘spirit’ [Positive: Affect: security] is another instance of affect that corroborates the idea of volunteerism. Since in the category of in/security are included the resources that translate feelings of peace and anxiety (Martin & White, 2005 & Martin & Rose, 2007), by employing ‘spirit’ in the specification of ‘giving back to the communities’, the company probably intends to impart people the sensation of peace that the practice of volunteerism can provoke. It is a way to say that social actors in Kraft persuade people to volunteering, suggesting that the company’s idea is to sensitize people to union and fraternity, which are also ingredients that improve the quality of life. .

Judging from the clustering of the ideas in examples (6), (08) and (09), there is no doubt that volunteerism constitutes a value in Kraft’s cosmology, leaving no space for participation-recruited, a belief in traditional business.

Thus, the combination of the resources of the subsystems of attitude and graduation brings into play four stances: a holistic view; disciplinarian/authoritarian/conservative; horizontal and vertical collaboration and volunteerism. Just like the stances in the other sections, below are the ones identifiable in this section:

---

<sup>38</sup> Form Appraisal Theory webpage. Available at [www.grammatics.com/appraisal](http://www.grammatics.com/appraisal). Accessed in March, 2013.



**Figure 5.6:** Another trace of ambiguity in Kraft’s cosmology

Of these stances, disciplinarian/authoritarian/conservative, positioned in the right hand side of the arrow is the only one individuated within the reservoir of meanings of traditional business, confirming another trace of ambiguity in Kraft’s cosmology. The stance ‘socially-negotiated’ opposes ‘disciplinarian/authoritarian/conservative’, the former being expected to strengthen the good-hand side of Kraft’s constellations represented here in the right-hand side of the arrow. To inform, in this arrow the opposite stances would be ‘local view’, ‘employee’s participation’ and ‘participation-recruited’, respectively.

This is the end of Kraft’s story. As shown, this is not an ordinary story that has either a happy or sad ending, nor is it a story that starts with the classical expression “once upon a time”. It is, though, a story that instantiates the reservoir of meanings of a field of science in which a thesis is stated and other reasoned arguments are followed in the underpinning of the thesis and thus the constitution of the ‘plot’ described across this chapter.

In this plot, twenty-four inscriptions of knowledge were identifiable, of which four of them do not integrate the reservoir of meanings of sustainability [ISO 9001:2000; audits; product’s consumption-centered; disciplinarian/authoritarian/conservative]. Notwithstanding the fact that these four stances instantiated within the traditional knowledge are in much lower number, they signal the presence of ambiguity in Kraft’s cosmology. Technically, as postulated by Maton (2008), this is to argue that constellations are binary; i.e., they are in the borderline between two poles within the broad area of business.

Since the constellations are binary, all the corresponding stances that oppose the ones identified are arranged in the table below:

Sustainability-driven business	Traditional business
environment awareness trust building ecologically, socially and economically-integrated principles future-oriented dynamic, transformational and innovative forward thinking visionary and determined projects centralized on environment impacts	indifference to environmental issues reputation maintenance economically-centered  short-sighted-business interest flexible and independent investors  objective and strategic thinking strategically-oriented and determined non-specific strategies on environment impacts
material growth and social development natural resources management system ISO 14001 or other green certified standard contribution to climate change long-term goals opportunities-efficiency eco-audits Product's value propositions	material growth unconscious use of the natural resources ISO 9001 - 2000  non-specific environment target short-term goals business-enhancement opportunities audits Product's consumption-centered
Engagement with social problems  life-enhancement Prediction of impacts, maximization and mitigation of environment, social and economic impacts horizontal and vertical contribution holistic vision employee's empowerment socially negotiable  volunteerism	Temporary participation in the beating of social problems business-enhancement maximization of economic impacts   momentary partnerships local vision employees' participation disciplinary, authoritarian/conservative participation-recruited

**Figure 5.23:** Kraft's binary constellations and cosmology. Source: Moncayo, 2014.

As can be seen in this table, the nature of Kraft's constellations is ambiguous, or technically put, constellations are binary, since the investigated company construes their *space of possibles* split into two opposing environments: Traditional Business VS. Sustainable Business. Relying on Maton (*in press*), this result is sort of predictable by the fact that when individuating a stance within a given field of science, social actors tend to believe that all the other stances are included in this field.

Similarly, it is also predictable that stances individuated within sustainability would predominate over the stances within traditional business in Kraft's cosmology. As problematized by Rose (1998), this phenomenon in enterprise's discourse is observable as the teaching of scientific knowledge tends to be stood out in detriment of the acknowledgement concerning the industrial basis on which growth lies.

In short, the answer to the first research question posited, 'Considering the repertoire of meanings of Kraft's Food towards the reservoir of meanings of sustainability, what does Kraft's Company view as legitimate in the discourse of their Annual Sustainability Report?' is that the process of constellationalizing based on the inscribed modes of the attitudinal and the graduational subsystems within appraisal has enabled us to see that in Kraft's annual sustainability report social actors see as legitimate twenty four stances, which form the enterprise's cosmological structure. Appreciation and Graduation interplay has identified most stances and highlighted the epistemic referent 'natural resources systems management' upon which the company's sustainability discourse is underpinned and it is where sustainability discourses should find feasibility indeed. Notwithstanding this, the process of constellationalizing, also based on appreciation-graduation interplay, has revealed that in Kraft's cosmological structure there are stances not only within the confines of sustainability, but also within the confines of traditional business, which implicates in saying that in Kraft the constellations are binary as they straddle the line between two different segments within the area of business, thus answering the second research question 'How does the company construe their space of possible?'

With this constellations analysis, two specific objectives stated in this research, i.e.. 1) to delineate the values, roles and practices that the company view as legitimate within sustainability knowledge; 2) to examine the nature of Kraft's constellation and the meaning that this naturalness communicates in Kraft's cosmological structure, are accomplished. Bearing the results of the constellations

analysis in mind, it is possible to construe Kraft's knowledge-knower structure, which is the concern of the next chapter.

## Chapter VI

For every knowledge structure there is also a knower structure (Maton, 2006, p.58; 2013, p.72)

### **6 Kraft's sustainability cosmology: A constellation-based analysis**

#### Introduction

In the previous chapter, the analysis of attitude and graduation interface allowed the discussion of the internal relations resulting in the stances that formed Kraft's constellations and thereby its cosmology. Revisiting the definition of constellations, it refers to "groupings that appear to have coherence from a particular point in space and time to actors with a particular cosmology" (Maton, *in press*, p.4). Resonating this concept with the context of this investigation, constellations has to do with Kraft's social actors' thoughts, beliefs, attitudes and values towards the field of sustainability which can be distinctively differentiated from other social actors' thoughts and beliefs in other scenarios of sustainable business.

The table (5.23) encompassing Kraft's constellations identified in the last chapter is back for the purpose of constellations analysis, which is the concern of this chapter. The constellations analysis is concerned with handling the external relations in Kraft's cosmology. Maton (*in press*) understands external relations as the investigation of the epistemological and axiological condensation and charging in the constellations of meanings. This procedure is also an opportunity to know whether the condition of strong grammar which is characteristic of sustainability knowledge domain is preserved. As previously conceptualized by Bernstein (1999), fields with strong grammar are those that have languages with "an explicit conceptual

syntax structure capable of ‘relatively’ precise empirical descriptions” (p.164).

Back to Kraft’s epistemological and axiological underpinning, it will be investigated via Maton’s accounts of knowledge knower structure framework and the specialization codes of legitimation based on Bernstein’s concepts of classification and framing which serve as basis for gauging epistemic relations (**ER**) and social relations (**SR**) within a given cosmology. Again, as interpreted by Maton (2007), “Classification (C) refers to relative strength of boundaries *between* categories or contexts; Framing (F) refers to relative strength of control *within* these categories or contexts” (Maton, 2007, p.94). Resonating Maton’s interpretation with the context of this investigation, classification gauges the strengthening of epistemic relations between the contexts of Kraft’s discourse and the sustainability knowledge domain whereas framing gauges the strengthening of communication control within the boundaries of sustainability by Kraft’s social actors; i.e., the extent to which information is controlled in Kraft’s discourse. So, as previously posited by Maton, ‘ER’ condenses +/-C, F+/-, where ‘+’ means strong or relatively strong and ‘-’ weak or relatively weak, and so does ‘SR’.

This (+) and (-) strengthening depends on how Kraft classifies and frames epistemic relations and social relations within their cosmology, this strengthening can be exhibited like +/-**ER**; +/- **SR**. Understandably then, as proposed by Maton, the four sets of specialization codes of legitimation under which the investigated company can be described are as follows:

- *The elite code* ,+**ER** (+C, +F) ; +**SR** (+C, + F), indicating that both epistemic relations and social relations are strongly classified and strongly framed - The right type of knower, as defended by Maton;
- *The knowledge code* ,+**ER** (+C,+F) ; – **SR** ( - C, – F), signaling that epistemic relations are strongly classified and social relations are weakly framed;
- *The knower code* described,-**ER** (-C, –F); + **SR** (+C,+F), meaning that in a certain knowledge structure epistemic relations are weakly classified and social relations are strongly framed.
- *The relativist code* ,–**ER** (-C, --F);–**SR** (-C, -F), conveying the idea that in a given knowledge structure epistemic relations and social relations are neither classified nor framed, i.e., there are



no traces of specialist knowledge, not are there knowers' attributes and gaze towards the knowledge claimed.

In sum, the four codes are: **+ER** and **+SR** (*elite code*); **+ER and -SR** (*knowledge code*); **-ER and +SR** (*knower code*), and **-ER and -SR** (*relativist code*).

These methodological procedures enable the responses to the two last out of the four questions posed in this research: 3) What are the relations of the company to sustainability knowledge practices? ; 4) What does Kraft's cosmological structure reveal about the knowledge-knower structure? In which ways do Kraft's social practices reveal whether or not they are the right type of knower?

As to the organizational structure, the point of departure of this chapter is a subsection intended to give an overview of Kraft's cosmology. The subsequent subsection will concentrate on Kraft's Food company's constellations. This is the occasion when the table encompassing the arrangement of the constellations is back. The other two subsections deal with the exploration of the knowledge-knower structure based on the analysis of the constellations of meanings generated and the legitimation specialization codes for the characterization of the company's profile in relation to sustainability knowledge management. For didactic purposes, like in the previous chapter, diagrams and a table are provided to illustrate the findings.

## 6.1 An outline of Kraft's sustainability cosmology

For the purposes of reiteration, *the space of possibles* construed as a result of the investigation of Kraft's discourse in the company's annual sustainability report is of an axiological cosmology. As defined by Maton (*in press*), axiological cosmology is the place "where stances are measured in terms of their comparative capacity to place knowers in a good light" (p.6) and as such it is built through a given knower's configuration of moral and ethical values, beliefs and practices whereby epistemic relations are expressed.

This categorical type in Kraft is rather predictable if considering the basis on which the production of this report lies- sustainability, which is a field of science communicated by means of abstraction that is typical of the languages of the social sciences and humanities where interpretations and generalizations fit well (Wignell 1998; Martin 1993a; Wignell, Martin & Eggins 1989). Perhaps, an explanation for

this predictability lies in the fact that sustainability has become a product of those “cultural wars” that Maton refers to. The over 300 definitions assigned to the term sustainability (Ehrenfeld, 2008 in Zaman & Goschin, 2010), the several ambiguities and the culturally-dependent interpretations (Tábara & Phal-Whostl, 2010) have made it become a cultural phenomenon and thus an integrative component of the culture.

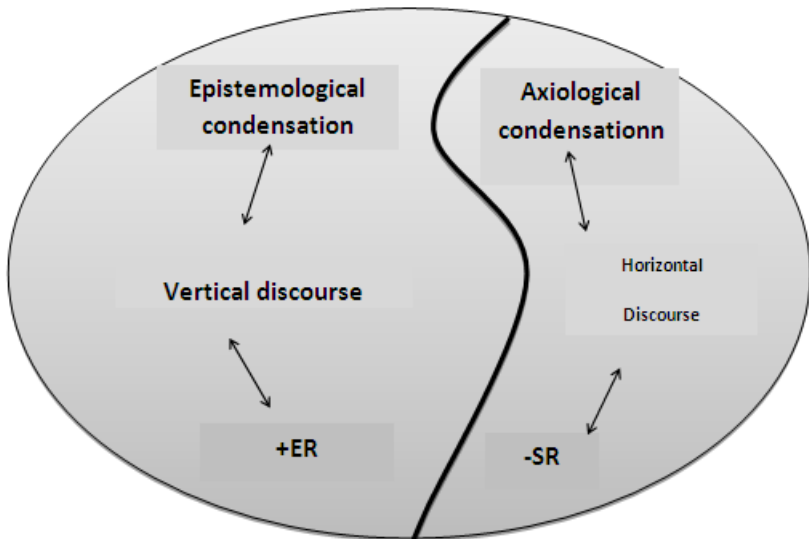
However, this is not to argue that Kraft’s sustainability cosmology does not condense epistemological meanings. On the contrary, it surely does otherwise this cosmology would not be one of a vertical knowledge discourse. Below is Bernstein’s (1999) consideration about this type of discourse:

Vertical discourse takes the form of a coherent, explicit, and systematically principal structure, hierarchically organized, as in the sciences, or it takes the form of a series of specialized language with specialized modes of interrogation and specialized criteria for the production and circulation of texts, as in the social sciences and humanities (p.159).

Thus, every cosmology of a field of science possesses two different regions, a hierarchal structure whereby the theories and propositions rest and a horizontal structure where the corresponding specialized languages of the theories and propositions lie, both regions altogether forming the wholeness of what vertical knowledge is about. So, regardless of being epistemological or axiological, as highlighted by Maton (*in press*), more or less epistemological and axiological meanings can be condensed in every cosmology. That is, paraphrasing the author, these meanings can be emphasized or downplayed; at times epistemological and axiological condensations can be at relatively comparable levels, also at times epistemological meanings can be privileged, or vice-verse.

In the investigated sustainability cosmology, it is acknowledged that the epistemology condensation axis is denser than the axiological condensation axis as epistemic relations are strongly classified and strongly framed in the enterprise’s discourse. That is, most stances individuated in their sustainability discourse are within the boundaries of the sustainability knowledge domain. Technically, there is the exploration of the basis of sustainability which is the natural resources

management systems (Weber 2000), originating from the concepts of conservation biology from within the natural sciences – the foundation of the classical science. Relying on Bernstein, this finding means that vertical knowledge structure is privileged over the horizontal knowledge structure. In Maton's (*in press*) wording, this indicates that Kraft's epistemic relations to the field claimed are strong (+ER), and, consequently, the enterprise is inclined towards the knowledge structure. The following figure is illustrative:

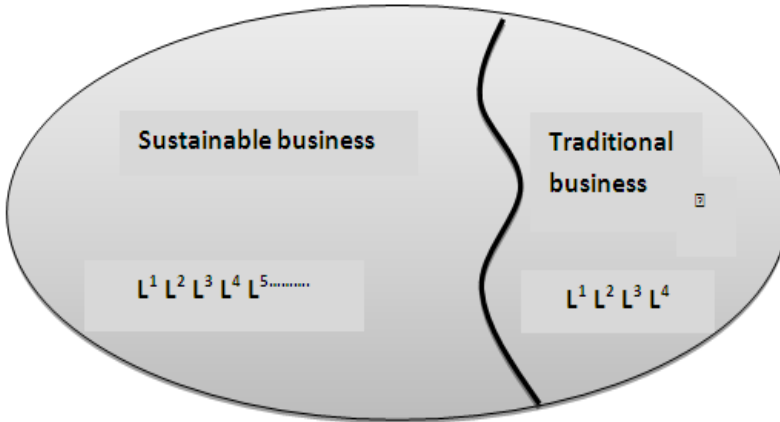


**Figure 6.1:** The vertical-horizontal axes in Kraft's sustainability cosmology

As can be seen in this figure, the epistemology axis denser than the axiology axis signals that Kraft's repertoire of meanings possesses specialized languages that privilege the realization of the theories and propositions as well as their corresponding empirical relations underlying the field of sustainability over other specialized languages different from the ones of the field mentioned present in the company's discourse, which the analyses of the internal relations for the formulation of the constellations have shown in the previous chapter. That is to say, four of the stances identified possess languages whose conceptual structures relate to the empirical descriptions and relations of the traditional business. In a more technical way, as inferred from

Bernstein (1999), this signs that Kraft's cosmology possesses languages "based upon collection or serial codes; integration of language; in one case and accumulation of languages in the other" (p.163). Since Bernstein represents the series of specialized languages characteristic of horizontal structure by using a segmentation of L which stands for language; namely,  $L^1L^2L^3L^4 \dots\dots$ , the representation of these languages condensed into stances in Kraft's cosmology can be seen as follows:

### KRAFT'S COSMOLOGY



**Figure 6.2:** The horizontal knowledge discourse in Kraft's cosmology.

As shown in this figure, the left-hand side of the diagram represents that integration of languages and on the right-hand side that accumulation that Bernstein refers to. Although this accumulation is perceived in the use of fewer numbers of stances, it is a proof that there are specialized languages in Kraft that are weakly classified and weakly framed, i.e., the four stances individuated by the company have no relations to sustainability knowledge domain – the downplaying of the horizontal structure. Relying on Maton (*in press*), this finding demonstrates that Kraft's relations to the knower structure are weak, thus presenting weak social relations (-SR).

Still in reference to the accumulation of languages detected, it is crucial to emphasize that it does not have the power to weaken the sustainability hierarchy individuated, since the four stances identified are not underpinned by any hierarchy where they could be justifiable. Without a hierarchy, the four stances detected become loose and decontextualized knowledge as there is no basis of scientificity upholding the knowledge conveyed in discourse. The stance ‘audits’ is an example out of the four stances in this condition.

A final consideration is that since the sustainability hierarchy is observable in the cited cosmology, it signals that the knower knowledge structure in there is hierarchal, following Maton (*in press*), thus ruling out the possibility of the company being described under the relativist code, **-ER and -SR-**. As explained by Maton (2000), this code is used to describe cosmologies whose social actors proves having neither the possession of specialist knowledge nor social actors’ disposition towards a given field of knowledge.

## 6.2 Kraft Foods Company’s constellations

Constellations, as already seen, refers to “groupings” that appear to have coherence from a particular point in space and time to actors with a particular cosmology” (Maton, *in press*, p. 4). Again, resonating this concept with the setting of the possible green company investigated, it has to do with Kraft’s social actors’ thoughts, beliefs and values towards the field of sustainability.

As explained in the previous subsection, in an analysis of the internal relations of Kraft’s cosmology via the inscribed modes of attitude and graduation, it was possible to detect that the potential constellations that compose the company’s *space of possibles* are distributed across two different “target signifiers”<sup>39</sup>: Sustainability-driven business and traditional business, confirming Maton’s (*in press*) thesis that axiological cosmologies tend to be binary.

Maton (*in press*) conceptualizes binary constellations the field of science that breaches the boundaries between two poles or areas of science. According to the author, this is not unusual in terms of axiological cosmologies because it appears to social actors of a given field of science that by highlighting a specific stance belonging to the

---

<sup>39</sup> A term used by Maton in his *Cosmologies: How to win friends and influence people?* [Provided by Martin before its publication].

area that is being claimed all the other stances are automatically taken into account. For example, in the investigated cosmology, by individuating environmentally, socially and economically- integrated principles, which are a central idea to sustainability knowledge domain, the stances within the traditional business would be included in the reservoir of meanings of sustainability.

In a personal view, another explanation for binary constellations being frequent in axiological cosmologies would be the fact that there are some broad areas within the field of science that accommodate different segments and subareas that share at some specific point some similarities with the aspects of these broad areas, which is the case in sustainability. A segment within the broad area of business management, sustainable business resembles that of traditional business in that the common goal in both areas is the pursuit for the commercialization of products and services as well as the generation of profitability.

Considering that the investigated company claims to be green or sustainable, it stands to reason that the positive -hand side of the constellations is the one that groups the stances within the target signifier *sustainability -driven business* and the stances grouped in the “negative”-hand side of the constellations are the ones belonging to the target-signifier *traditional business*.

More specifically, the four stances identifiable in the negative-hand side of the constellations refer to:

- 1) ISO 9001-2000[Appreciation-graduation]
- 2) audits [Appreciation-graduation]
- 3) product’s consumption-centered [Appreciation-graduation];
- 4) Authoritarian/disciplinarian/conservative/leadership [Attitude-graduation].

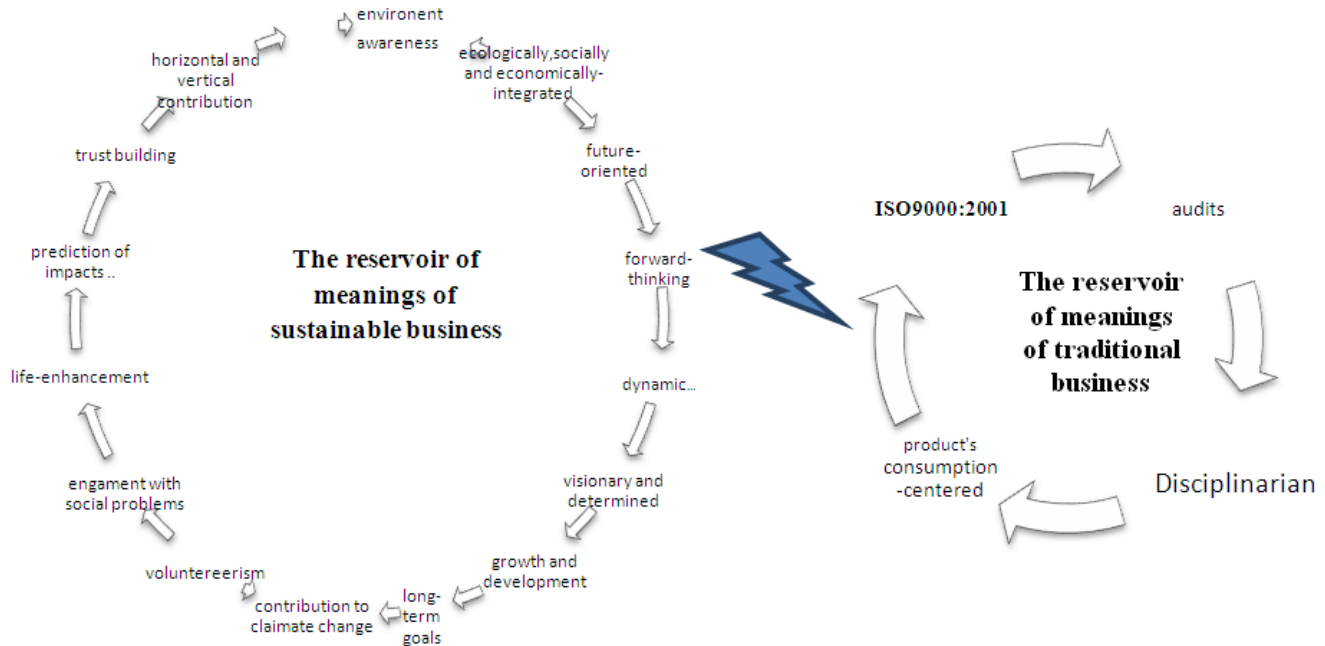
As regards the good-hand side of the constellations, the stances are in a much higher number; namely,

- 1) environment awareness [Affect-graduation];
- 2) environmentally, socially and economically-integrated principles [Appreciation-graduation];
- 3) future-oriented [graduation]
- 4) forward thinking
- 5) dynamic, transformational and innovative [Appreciation-Graduation]

- 6) a visionary, determined [Appreciation]
- 7) material growth and social development [Appreciation-graduation]
- 8) opportunity efficiency [Appreciation-graduation]
- 9) management resources systems [Appreciation-graduation]
- 10) projects centralized on environment impacts [Appreciation-graduation]
- 11) long-term goals [graduation]
- 12) contribution to climate change [Appreciation-graduation]
- 13) employees' empowerment [Attitude-graduation]
- 14) volunteerism-fostering [Attitude-graduation]
- 15) engagement of social problems [Appreciation-graduation]
- 16) life-enhancement [Appreciation-graduation]
- 17) prediction of impacts, maximization and mitigation of environment and social impacts [Appreciation-graduation]
- 18) trust building [Affect-graduation]
- 19) horizontal and vertical collaboration [Appreciation-judgment-graduation]
- 20) holistic vision [Graduation].

Illustratively, these positive and negative sides of Kraft's constellations are shown below:

**Figure 6.3:** Kraft's binary constellations.





As can be seen, on the whole there are twenty-four stances in Kraft's sustainability cosmology. The lightning bolt between the diagrams represents that binary constellationability in Kraft's cosmology, where a cluster of twenty stances within the reservoir of meanings of sustainability on the left-hand side of the diagram above contrasts with the cluster of the four stances within the reservoir of meanings of traditional business on the right-hand side of the diagram.

For didactic purposes, below is the table (5.23) back encompassing the constellations as according to the company's annual sustainability report:

Sustainability-driven business	Traditional business
environment awareness trust building ecologically, socially and economically-integrated principles future-oriented dynamic, transformational and innovative forward thinking visionary and determined projects centralized on environment impacts	indifference to environmental issues reputation maintenance economically-centered  short-sighted-business interest flexible and independent investors  objective and strategic thinking strategically-oriented and determined non-specific strategies on environment impacts
material growth and social development natural resources management system ISO 14001 or other green certified standard contribution to climate change long-term goals opportunities-efficiency eco-audits Product's value propositions	material growth unconscious use of the natural resources ISO 9001 - 2000 non-specific environment target short-term goals business-enhancement opportunities audits Product's consumption-centered
Engagement with social problems  life-enhancement Prediction of impacts, maximization and mitigation of environment, social and economic impacts horizontal and vertical contribution holistic vision employee's empowerment socially negotiable  volunteerism	Temporary participation in the beating of social problems business-enhancement maximization of economic impacts  momentary partnerships local vision employees' participation disciplinary, authoritarian/conservative participation-recruited

**Table 6.1:** Kraft's binary constellations and cosmology. Source: Moncayo, 2014.

As can be seen in this Table, axiological aspects flourish in this sustainability cosmology, since, again, this field is in a horizontal structure where the areas of social sciences and humanities rely with a series of specialized languages and their corresponding speakers. Because of this feature, technical terms are not inherently integrative components. For these terms to be regarded technical, Wignell et. al, 1989 say that a process of technicalizing occurs which consists of “naming a phenomenon and making that name technical” (p. 60). In the present cosmology, based on the authors’ considerations, none of the terms made technical are realized via the realization of a single noun. There is one of the compound noun type [opportunities-efficiency], the nominal groups of classifiers ^ types [natural resources management system], three of them are of the classifier ^thing structures [material growth and social development; horizontal and vertical contribution; product’s value proposition] and one which is composed by the presence of a metaphor [employees’ empowerment]. Except for the latter all the other terms integrate the hierarchy in Kraft’s cosmology.

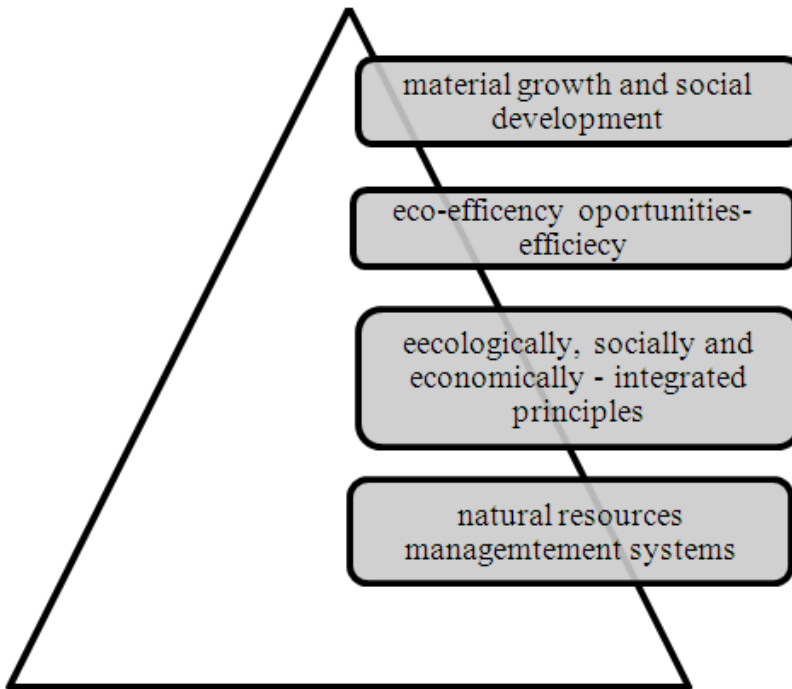
That table also endorses the condition of binary constellationability with ISO 9000:2001, product’s consumption-centered, audits, Authoritarian/disciplinarian/leadership being individuated by the company rather than ISO 14001 or any other green certified standard, product’s value propositions, eco-audits and socially-negotiated, respectively.

To close this section, it is important to highlight that the condition of binary constellationability does not impair an unambiguous analysis of the constellations (Maton, *in press*). In truth, as noted by the scholar, binary or not, through constellationalizing it is possible to find out the “whats”, “whys” and “hows” of the events present in a cosmology. In this investigation, the central focus is to figure out the **HOW**; i.e., the how of the structured form of Kraft’s knowledge structure.

### 6.2.1 Kraft’s Company Knowledge-knower structure

Considering that there is a hierarchy in Kraft’s cosmology, it has already been recognizable that the knower structure in Kraft’s company is hierarchal. According to Maton (*in press*), a hierarchal knower structure indicates that the hierarchy as well as the hierarching principles are acknowledgeable in a horizontal structure.

Specifically about the hierarchy, the place of technicality in horizontal structure, that is, where technical terms are used to depict a world that is systematized differently from the one of the everyday life (Martin, 2003), Bernstein (1999) understands it as the progressive integration of theories and propositions across time, these theories and propositions extending from a lower level to a more abstract level. The author symbolizes it as a triangle. Here is the representation of Kraft's triangle:



**Figure 6.4:** The hierarchy in Kraft's cosmology.

In compliance with the hierarchy within the reservoir of meanings of sustainability, the technical terms above are all explored in Kraft's cosmology except for eco-efficiency which is implicitly approached via oportunities-efficiency. As can be shown in Figure 6.4, the hierarchy in Kraft's cosmological structure is explored according to Bernstein's ideas; i.e., from a lower level [natural resources management systems] to a more abstract level [Material growth and social development]. As such, in between these edges is the

individuation of the other two integrative components of the sustainability hierarchy; namely, ecologically, socially and economically-integrated principles, eco-efficiency via opportunities-efficiency.

Deepening the understanding of the arrangement of this hierarchy, the fact that the technical term ‘natural resources management’ is positioned at the lower level of that triangle may indicate that the company knows where the hierarching principles lie and initiate in sustainability, since it is from the management of the natural resources that all the other issues in the cited field emerge (Vieira, 2011, 2007; Sachs, 2009; Weber, 2000). To reiterate, this finding is realized by appreciation: ‘Since 2010, we have increased sustainable sourcing’ [Positive: Appreciation: valuation ^ Target], as shown in the previous chapter.

Thus, this technical term condenses the basis of meanings in sustainability enabling the integration and progress of the theory. That is, by regarding opportunities-efficiency as one of the stances in Kraft’s cosmology, it means that the company has explored the languages that translate the idea that it is because of social actors’ expertise that opportunities to produce many more products by using fewer natural resources during the process of product manufacturing are found, a sustainability phenomenon known as eco-efficiency. In terms of appraisal theory, graduation allowed for this finding, such as in ‘success requires vision, determination, great partners and *seizing* opportunities – *from farm to fork*’ [seizing: force: intensification: process ^ Target: company; from farm to fork: Force: quantification: proximity ^ Target: vision/determination/partners/seizing opportunities].

In targeting ‘ecologically, socially and economically-integrated principles’ and ‘material growth and social development’, the company sought to use the languages that showed the interdependency of meanings between both stances from the view that the idea of the later is only realized if the ideas in the former are translated. Through the employment of these meanings, it is possible to acknowledge that the company is aware of the fact that the integration of ecological, social and economic dimensions is a determining aspect for the implementation of sustainability, and, more importantly, that social actors in Kraft are acquainted with the fact that this integration is only possible if it departs from the correct management of the natural resources, a consideration that highlights that social actors in Kraft foods company know where the hierarching principles in sustainability lie. As shown in the previous chapter, thanks to the analysis of

appreciation and graduation such meanings are unveiled; namely, this collaboration *boosts* scale and *accelerates* development [boost (scale): force: intensification: quality ^ accelerate: force: intensification process ^ development: positive: appreciation: valuation ^ Target]

As previously shown, the sustainability hierarchy is individuated at its fullest extent in Kraft's cosmology. More importantly, the hierarching principles are delineated according to the reservoir of meanings of sustainability. In the meantime, there is that integration of languages rather than that accumulation of languages which Bernstein refers to. Then, this integration is shown below via the stances arranged on the left in contrast with the ones that would represent that accumulation:

*Natural resources management systems vs. unconscious use of natural resources*

*Opportunities-efficiency vs. opportunities business-enhancement*

*Material growth and development vs. material growth*

*Ecologically, socially and economically-integrated aspects Vs. economically-centered aspects.*

Yet, this finding is no guarantee of truth. It is not because they know where the hierarchy and the hierarching principles lie and initiates that they are regarded to be the right type of knower. To be regarded this type of knower beyond knowing the place of the hierarchy and the hierarching principles, one ought to master the grammar at its fullest extent of the field claimed.

However, following Maton (2004, 2010), the information concerning the hierarchy and the hierarching principles is a basic precondition for a social actor affiliated with a vertical discourse to change it according to his expectations and needs. Reproducing Maton's discourse verbatim: "whoever controls the epistemic device possess the means to set the structure and grammar of the field in their own favor" (Maton, 2004, p. 220), which appears to be what happens in Kraft's sustainability cosmology.

A way to acknowledge the change occurred in the aforementioned cosmology is to observe how its grammar behaves. Again, as theorized by Bernstein (1999), grammar refers to languages with an "explicit conceptual syntax" in which empirical referents and relations peculiar to a field of science are minimally or precisely realized. In the context of this investigation, to reinforce, these empirical descriptions and relations are condensed in the stances formulated as a result of the clustering of Kraft's social actors' practices, beliefs and ideas in relation to sustainability knowledge.

A possible analogy to be drawn about the trajectory of these stances in Kraft's cosmology is of a continuum that is at times dropped by slight deviations. A series of axiological aspects within the confines of sustainability accounts for that continuum. A good start for this discussion is the consideration of the abstract concept 'environmental awareness' individuated by Kraft, since this value condenses strong meanings related to the aspects of environment conservation and environment education, which are the specialized languages and attitudes that ought to rank high in the repertoire of meanings of social actors engaged in the field of sustainability as one can only succeed in developing a sustainability policy if some sensibility towards the aspects of ecological prudence are previously considered. Alongside this value, others with less packed meanings such as *forward thinking; dynamic, transformational and innovative; projects centralized on environment impacts; long-term goals and contribution to climate* integrate Kraft's repertoire of meanings.

Other stances are launched in the investigated cosmology combining a degree of abstraction, or even technicality, generalizations and simplicity. The sense of technicality perceived is rendered into the stances *employee's empowerment, horizontal and vertical collaboration and prediction of impacts, maximization and mitigation of environment, social and economic impact*. As previously theorized, the former refers to empowerment which has to do with giving autonomy to the population to solve problems related to environmental issues. In terms of sustainable business, this autonomy means offering the employees opportunities to solve problems and participate in the company's process of making decisions.

Revisiting the concepts of horizontal and vertical collaboration, also explored in the previous chapter, it has to do with consolidating partnerships among the public and private sectors viewing the accomplishment of ecological, social and economic purposes worldwide. As 'to prediction of impacts, maximization and mitigation of environment, social and economic impact', it refers to a report technically made registering the strategies designed to deal with the maximization and mitigation of environmental, social and economic impacts. As shown, because the three stances condense specific meanings within the field of sustainability and as such they are closely aligned with the epistemic referents identified, some discursive strengthening in terms of the field claimed is perceived; i.e., meanings within the field of sustainability are visibly strong.

As to the generalizations, they include *volunteerism, engagement with social problems, life-enhancement and trust building*, meanings which are more or less unpacked, as these axiological aspects are also suitable to the reservoir of meanings of the uncommon sense knowledge discourse or the discourse of everyday life. That is, the sense they convey is the same as that conveyed in the discourse of everyday life, the only differing aspect is that this sense is recontextualized into sustainable business. Then, in this context, *volunteerism* means fostering in employees the spirit of compassion, for example.

Simpler terms also merit attention such as *holistic view* and *long-term goals*. These are instances of unpacked meanings as they are part of many people's repertoire of meanings both in horizontal knowledge discourse and vertical knowledge discourse. .

Judging from this exposition, so far there is no trace of change in Kraft's cosmology. The meanings condensed in the stances explored range from relatively weak (e.g. holistic view) to relatively strong (e.g. employees' empowerment). This indicates that the syntactical structures of the sustainability languages individuated by the company highly approach the empirical referents and descriptions of the aforementioned field, thus signaling that so far Kraft's knowledge structure is strongly classified and framed - the specialized languages individuated by Kraft's social actors comply with the specialized languages within the boundaries of sustainability knowledge domain. In Maton's terms, this means that epistemic relations in there are strong (+E R) and therefore Kraft's social actors are inclined to knowledge structure rather than the knower structure. Below is the configuration of stances within this category arranged on the left-hand side of the margin:

*environment awareness Vs. indifference to environmental issues*  
*future-oriented Vs. short-sighted business interest*  
*forward thinking Vs. objective and strategic thinking*  
*dynamic, transformational and innovative Vs. flexible and independent investors*  
*visionary and determined Vs. strategically oriented and determined*  
*projects centralized on environmental impacts Vs. non-specific environmental target*  
*long-term goals Vs. short term goals*  
*contribution to climate change Vs. non-specific strategies on environmental impacts*  
*volunteerism Vs. participation-recruited*



*engagement with social problems Vs. temporary participation in the beating of social problems*  
*life-enhancement Vs. business enhancement*  
*prediction of impacts, maximization and mitigation of environment, social and economic impacts Vs. maximization of economic impacts*  
*trust building Vs. reputation maintenance*  
*horizontal and vertical contribution Vs. momentary participation*  
*holistic vision Vs. short vision*

However, as declared by Bernstein, accumulation of languages is likely to happen in horizontal knowledge structure, also an idea corroborated by Maton (*in press*) when he affirms that axiological cosmologies tend to be binary. The slight deviations perceived in Kraft's cosmological structure account for this binary condition; that is, other constellations of meanings oppose the constellations described above. In Bernstein's terms, this indicates that there is the presence of specialized languages and speakers of the modality of traditional business in Kraft's sustainability cosmology. The stances generated as a result of these languages are as follows:

*ISO 9001:2000 Vs. 14001 or other green certified standard*  
*Product's consumption-centered Vs product's value propositions*  
*Audits vs Eco Audits*  
*Disciplinarian/authoritarian/leadership vs. socially negotiable*

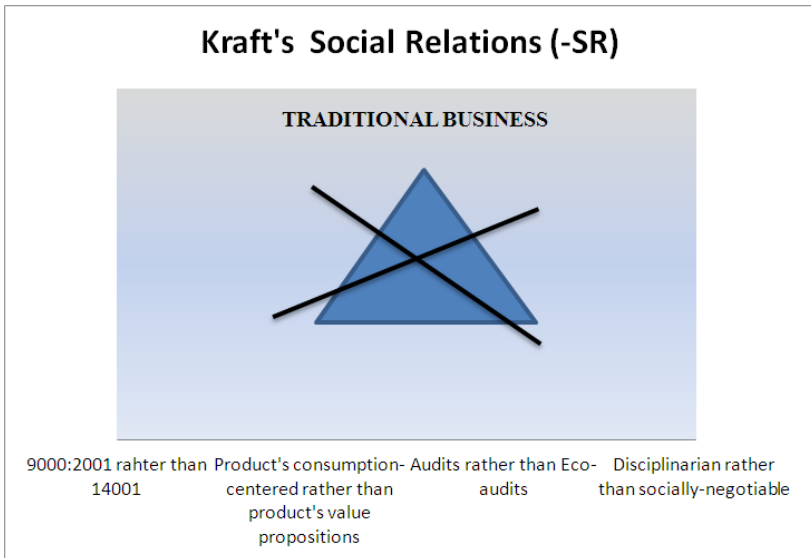
Analogically considered, these stances are somewhat similar to an "electrical current" in that the company individuates them obeying that respective order [ISO 9001:2000 vs. ISO 14001 or other green certified standard; products consumption-centered vs. product's value propositions; audits vs. eco audits] and according to a coherent line of reasoning within the reservoir of meanings of traditional business, causing some disturbance to arise in the overall company's discourse. To inform, the stance 'disciplinarian, authoritarian and leadership' is the only stance individuated in isolation whereas the others are expressed in a linear way. It is noteworthy to emphasize here that this linearity has no relation to that change in text positions in the sense that with or without this change the arrangement of the stances would be the same as the texts are at a skip-text- arrangement in the unaltered or altered version of the report.

The point is that regardless of that linearity these four stances integrate and communicate important and paradoxical meanings within the field claimed. An attempt to interpret these meanings in a contextualized way is to consider that with the individuation of ISO

9001:2000, the company assumes that they use the same quality management standard that most traditional businesses do. By the same token, since audits are the device used in ISO 9001:2000 for inspecting and regulating the patterns established in producing and offering quality products and services, the individuation of this stance by Kraft communicates the idea that the sense of quality characterizing their products and services is that of reliable rather than sustainable, signaling that they are still focused on *Product's consumption-centered* rather than *product's value propositions*. As much as the theory states that the value leadership helps move this dynamics of producing "quality" products and services, the consideration of the stance *disciplinarian/conservative/leadership* by Kraft is also justifiable.

Although clustered and somewhat impacting, the meanings in these constellations come to be decontextualized in the discourse investigated from the view that the cited stances [ISO 9001:2000, products consumption-centered, audits, disciplinarian] do not have a hierarchy where their presence in the discourse could be justifiable. Judging from the nature of the meanings in these terms, they are straightforward and objective, except for ISO 9001:2000 which has some level of technicality.

Unattached to a hierarchy which causes them to become decontextualized, the constellations 'ISO 9001:2000, products consumption-centered, audits and disciplinarian/authoritarian/conservative' do not have the power to weaken the sustainability episteme individuated at its fullest extent in Kraft's cosmology, nor do they have the power to reduce the nature of meanings in the stances of the field of sustainability, which are in a much higher number. Yet, the individuation of these constellations show that social actors' relations to sustainability knowledge structure are weakly classified and weakly framed; i.e., there is very little control of local communication by Kraft's social actors. As rephrased by Maton (*in press*), Kraft's social relations to sustainability knowledge domain and therefore their knower structure is weak (-SR) (See figure 6.5)



**Figure 6.5:** The representation of Kraft's social relations to the field of sustainability

As can be endorsed in this figure, the four stances, ISO 9001:2000, products consumption-centered, audits, and disciplinary, are individuated by Kraft's social actors other than the corresponding stances within the boundaries of sustainability knowledge; viz., 14001 or any other certified green standard, product's value propositions, Eco-audits and socially negotiable. By now, that change is observable in Kraft's sustainability discourse, confirming Maton's (*In press*, 2004) thesis that when social actors possess the hierarchy and know where the hierarching principles lie, they are capable of manipulating grammar and set the discourse in their favor.

Technically put, this is to argue that there is some control of grammar in the enterprise's discourse, which makes it become downplayed but not as to cause it to be weak, insofar as in terms of epistemic relations the company proves being strong as most of the stances individuated revolve around the stance 'natural resources management systems', which is the basis of the hierarchy.

To recap, in answering the third research question 'what are the relations of the company to sustainability knowledge practices?', it is possible to say that Kraft's knowledge structure is strongly classified

and weakly framed. That is to say, the discursive strength is seen in the epistemological underpinning, inasmuch as the hierarchy is explored and the hierarching principles are placed where they are expected to be in Kraft's cosmology. The discursive weakening in turn is observed by means of the axiological aspects, since grammar power is at a certain extent downplayed because of the four stances individuated within the reservoir of meanings of traditional business, proving that communication control exists in Kraft's discourse. In a nutshell, the investigated company's relations to sustainability knowledge practices have proven being inclined to knowledge structure rather than the knower structure.

#### 6.2.1.1 The knowledge-knower code in Kraft's cosmology

Being the right type of knower does not suffice to say that one knows where the hierarchy is positioned, nor that one does know where the hierarching principles lie. In truth, it is much more complex than it may appear at first. Interpreting Maton's (2008) wording, it means that one acknowledges the extent of the hierarchy, from a lower level to a more abstract level and that the grammar explored comply with the hierarchy stated, which is what Bernstein (1999, 2000) considers having a knowledge structure strongly classified and strongly framed. Thus, one shows to have strong social relations with the object claimed if he is aware of the place of the hierarchy, the hierarching principle and the grammar (Maton 2004, 2010). In sum, this is what characterizes the right type of knower that Maton defends.

Technically coding, this type of knower would be described under the code '+ ES ; + SR', or, *the elite code*, in its technical sense. According to Maton, this code stands for strong epistemic relations and strong social relation, which signals that both relations are strongly classified and strongly framed. To simplify things, this means that that the knower is inclined towards the specialist knowledge; i.e., there is a concern about showing the possession of this knowledge. Paraphrasing Maton (2007), an example of a study described under this code would be the research carried out in the enlightenment period when science rigidity was a mark as the episteme reigned supreme with its methods, techniques and procedures.

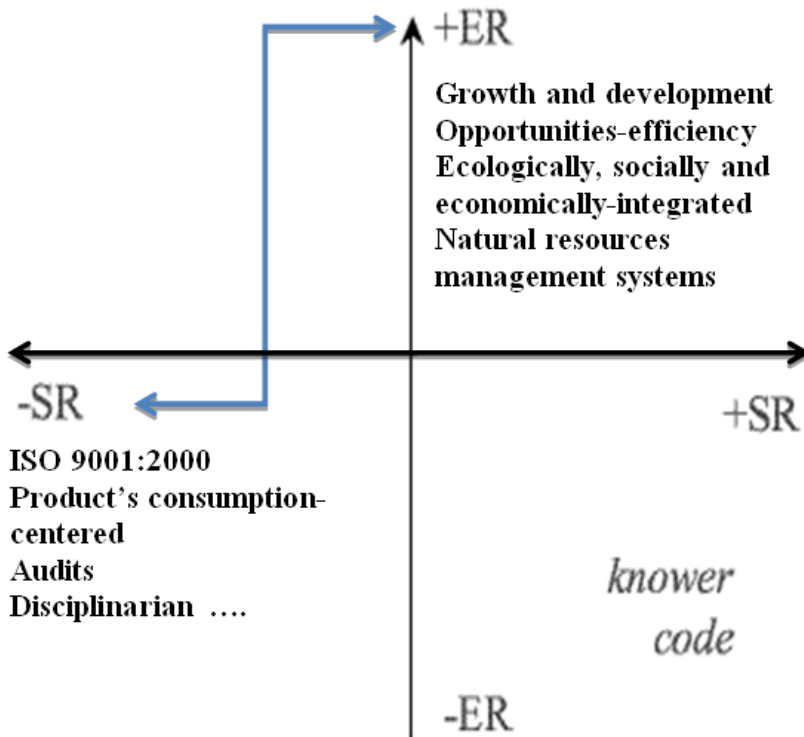
Nevertheless, this affirmation does not mean that there would not be knowledge structures individuated under the elite code nowadays. We have no doubt that it does exist, but Kraft is not an example of this

case study even though it is also inclined to the sustainability knowledge. The differing aspect in Kraft lies in the fact that there is some control over the knowledge individuated by the enterprise, which, inspired by Foucault's (2005) ideas, I will dare say that it is a finding explained by the entrance of man's knowledge in the "order of knowledge" as a result of the episteme that is fragmented in the nineteenth century making room for the social sciences and humanities, a phenomenon that might have contributed to popularize science and build closer ties between science and man.

So, Kraft's discourse can be seen as a product of that control which in Kraft's cosmological structure is manifested by social actors' beliefs that ISO 9001:2000, product's consumption-centered and disciplinarian/authoritarian comprise the reservoir of meaning of sustainability. Although these beliefs generate loose and decontextualized knowledge, since there is not a hierarchy where they could be justifiable, such beliefs cause some disturbance to the discourse, causing grammar to be at a certain extent downplayed, thus proving that Kraft's social relations; i.e., the knower's dispositions to sustainability knowledge are weak – in terms of social relations that invisibility that Bernstein argues is proven.

However, the same communication control that weakens Kraft's social relations is the same control that strengthens their epistemic relations. That is, precisely most of the stances encompassing Kraft's cosmological structure materialize the basis of the sustainability hierarchy or the episteme – natural resources management systems, which is what warrants its grammar strengthening. Then, unlike social relations, epistemic relations are visible within Kraft's cosmology.

Judging from these considerations, it is acknowledged that the company's practices and actions are described under the code ' + **ER** and –**SR**', i.e. strong epistemic relations and weak social relations, as Maton (*in press*) describes this code, proving that these relations in Kraft's knowledge structure are strongly classified, but weakly framed. That is, the specialist knowledge is more emphasized than the knower's dispositions or gaze, thus exhibiting the knowledge code rather than the knower code. In sum, in Bernstein's terms, it is visible at the side of epistemic relations and invisible at the side of social relations. This finding is illustrative below:



**Figure 6.6:** The knowledge-knower code in Kraft's cosmology. Readapted from [www.google.com.br/knowledge-knower\\_structures](http://www.google.com.br/knowledge-knower_structures).

Therefore, as can be seen in the figure above, Kraft's knower structure is not the one that Maton describes as being the knowledge structure of the right type of knower, inasmuch as this cosmology is not built under the elite code '+ ER ;+ SR' , strong social relations and strong epistemic relations. In view of the fact that some of the social actors' beliefs in Kraft are within the repertoire of meanings of traditional business [ISO 9001-2000; product's consumption-centered, audits, disciplinarian/authoritarian/conservative], some inaccuracy is brought into the sustainability discourse, which explains the motive for the investigated company being ascribed to the code (-SR). Nevertheless, in there the four stances individuated by the company condensing the epistemic basis of sustainability (growth and

development; opportunities-efficiency; ecologically, socially and economically-integrated; natural resources management systems) are a proof of the social actors' awareness towards the full extent of the hierarchy and the right place of the hierarching principles, a piece of evidence that characterizes them as ascribing the code **(ER +)** – epistemic relations. In a nutshell, the construal of Kraft's knowledge-knower structure is characterized under the code **+ER; –SR** (*strong epistemic relations and weak social relations*). This **-SR** status more than indicating that there is a change in discourse, it reveals that the company investigated is not the right type of knower.

These considerations answer the fourth research question posed here in the introductory section of this chapter: What does Kraft's cosmological structure reveal about the knowledge-knower structure? In which ways do Kraft's social practices reveal whether or not they are the right type of knower?

From these analyses, although grammar is downplayed at a given phase of Kraft's discourse, because of the individuation of the epistemic relations within the reservoir of meanings of sustainability, it is possible to infer that the knowledge built in Kraft's cosmology is what Maton (*in press*) terms "structure of meanings" rather than "structure of feelings", which is somewhat worthwhile to be evidenced, since in many occasions cosmologies generated in fields that have become cultural phenomenon, which is the case of sustainability, produce cosmological structures based on the structure of feelings rather than structure of meanings (Maton, *in press*). In a sense, this finding confirms Rose's (2008) thesis that in enterprise's discourse social actors generally privilege the teaching of the field claimed over the information of the economic basis upon which their business lies.

Still in reference to the analyses, inspired by Maton's thoughts and ideas, two important considerations should be taken. One of these is that the results presented here describe the ways in which Kraft's social actors think of sustainability which can be distinctively differentiated from the ways other social actors think of it in other sustainable business scenarios, since truth in horizontal knowledge structure, which sustainability is a case in point, depends on an acquired gaze, "for to know is to gaze" [...] (Bernstein, 1999, p.165). That is to say, truth is interpretatively-based and then in the context of this investigation the interpretation of truth by Kraft is not entirely in compliance with that of the reservoir of meanings of sustainability, thus endorsing Maton's (2006) thesis that "for every knowledge structure there is also a knower structure" (p.58).

Another aspect to consider about the analyses is that the investigated company's repertoire of meanings individuated might not necessarily reflect the activities undertaken by the enterprise *in locus*. However, by looking at the results of some analyses, in particular, done throughout this chapter and chapter V, it is possible to predict what happens in the company's real scenario.

Although the issue *in locus* is not within the confines of this investigation, some observations related to this aspect are worth debating. For example, in the analysis of 'sustainability sourced' graduation has shown that there is some subjective assessment conveyed by the speaker in this passage, which leaves several interpretations by the reader such as if there is the concern of managing the natural resources, or even if the eco-techniques for managing the natural resources are employed in the process of producing food. Nevertheless, this doubt appears to be clarified when the company individuates 'sustainable source', since according to the analysis done 'sustainable' is an inscribed instance of appreciation, leaving no space for other interpretations other than the one related to the use of the natural resources management systems by the company. Then, if the natural resources management systems are individuated in discourse, it is because the eco-techniques are being operationalized in the process of producing food.

So far so good, but then more confusion is brought into play in fragments ahead. The individuation of the four stances in a linear shape within the reservoir of meanings of traditional business [ISO 2001:9000, product's consumption-centered, audits and disciplinarian/conservative/leadership] raises several other questions; namely, if disciplinarian/conservative/leadership is individuated, there is no plausible explanation for the existence of the stances 'socially negotiable' and 'employees' empowerment' in Kraft's sustainability discourse as they convey opposite meanings. In this case, the presence of the stance 'natural resources management systems' becomes questionable in there as the cited qualities are determining aspects to make the natural resources management systems workable. In this line of reasoning, if the basis of the hierarchy is questionable, then the hierarching principles [natural resources management systems, ecologically, socially and economically-integrated principles, eco-efficiency- opportunities-efficiency, material growth and social development] alongside some stances that are direct and indirectly attached to these principles are also put at risk. In other words, all the stances within the reservoir of meanings end up being positioned in a



borderline. It is not by accident that the constellations are binary in Kraft's cosmology.

Thus, although decontextualized, the only stances that do not carry dubious interpretations are those within the traditional business as the meanings brought into play by their individuation are coherently tied and in a linear line of reasoning in the annual sustainability report investigated, which rules out any existing trace of subjective assessment in discourse just like that translated by the use of 'sustainably'. Because of these characteristics, it is very probable that the cited stances within the traditional business regulate Kraft's business transactions.

Yet, it is crucial to acknowledge that the company's concerns with environmental issues appears to be a reality, insofar as they have projects in this modality, having won even a prize for their positive impacts over the reduction of gas emissions, which presumes that the company possess values such as engagement with social problems, holistic view, environment awareness and contribution to climate change. Nevertheless, these pieces of evidence are not enough to assure that ecological prudence is in the order of the company's actions and attitudes as this pillar involves other specifications and imposes on social actors having other attributes. Besides, any traditional business may have programs linked to the environmental issues because of the social pressure that these companies have gone through as a result of the cultural phenomenon that sustainability has come into being.

All in all, the discussions that the results of the analysis of this investigation raise about the company's sustainable practices go further and further. But, as informed before, since this is not the business of this research, we exhaust this subject by reiterating the purposes of this research - the analyses done throughout chapters V and VI are a *sine qua non* condition for the understanding of the ways in which Kraft Foods Company thinks of the sustainability knowledge.



### **7 Concluding remarks: Summary of the findings, gains and future work**

#### Introduction

This last chapter presents an overall review of the findings, the gains obtained from this research and the future works that may be inspired from this scientific production. Because this research deals with a new perspective linked to SFL, the introductory subsection is an encapsulation of the major aspects that favor LCT and SFL interplay which makes works on cosmologies become possible. Next, two subsections accommodate the summary of the findings. One of these gives an overview of the generalizations found in a sustainability cosmology, especially in Kraft's sustainability cosmology, which is the response to the general question posed in this research, namely, How does Kraft Foods Company construe their sustainability cosmology in their annual sustainability report? The other subsection is a revisit to the specific objectives and the corresponding research questions generated from these objectives so that the answers given show that the objectives delineated have been fulfilled. Thereafter, the following subsection deals with the issues related to some generalizations perceived in the development of this study, gains and future works.

#### 7.1 An outline of LCT and SFL interface in works on cosmology

In this thesis, it is ascertained that LCT enters linguistics paving the road where SFL runs; i.e., strengthening the interdisciplinary perspective that inherently underlies the SFL paradigm. Understood by Maton as a sociological research device elaborated from the consideration of several approaches within which the concepts of Bernstein's code theory stand out, LCT model works for unveiling the dynamics involved in the structured structure form of knowledge production, an opportunity to acknowledge the knowledge-knower structure and the specialization

codes of legitimation under which the knowledge-knower structure is characterized

As could be seen in this thesis, the occurrence of that paving within LCT was possible via Specialization-Semantics, which deals with, *inter alia*, the concepts of constellations and cosmologies. Revisiting the concept of cosmology by Maton, cosmology is understood as the configuration of social actors' practices, thoughts, beliefs and values that reflects the way social actors think of a field of science of their affiliation. The clustering of these practices, beliefs and values form the constellations which Maton understands as groupings based on homogeneous or heterogeneous clusters sharing the same space. In case a cosmology accommodates heterogeneous clusters, constellations are said to be binary, thus splitting a given cosmology into two different sides: the positive-hand side and the negative-hand side of the field of affiliation being claimed.

In SFL, as previously explained, cosmologies and constellations are realized in individuation. As theorized by Martin, situated in between the hierarchy of instantiation and realization, individuation privileges the users of language rather than the language use. For this reason, it is said to be the place where ideologies proliferate. Drawing on Martin's (2007) ideas, individuation "allows us to bring the interests of individuals and interests of groups into the picture, opening up considerations of the ways in which affiliations are negotiated and communities aligned" (p.295).

Bernstein's way of thinking individuation is somewhat the same as that of Hassan. For Hassan, individuation involves a totality of semantic resources in distribution among users of a language. In Bernstein's terms, this totality and distribution interplay is understood as the relation between the reservoir of meanings of a field and the repertoire of meanings of a subject within this field. As posited, it is in this relation that the use of appraisal resources has enabled the identification of most of Kraft's constellations within the reservoir of meanings of sustainability. Likewise, through this relation it was possible to recognize that there are other stances unattached to the field of sustainability, which makes the cited cosmology, become binary. To remind us, as based on Maton's considerations, binary constellations are not an uncommon phenomenon in fields of science. On the contrary, they happen to be commonplace mainly when axiological cosmologies are at play. Social actors within this type of cosmology become susceptible to this constellationability because it may appear to them

that by individuating a certain stance within a field of science of their affiliation, any other stance is an integrative component of this field.

## 7.2 The general findings in Kraft's cosmology

In responding the question 'How does Kraft Foods Company construe their sustainability cosmology in their annual sustainability report?' posited as the general question in this research, some specifications regarding this construal are worth highlighting. One of these is predictable: Kraft Foods Company possesses an axiological cosmology. As theorized, axiological cosmology is the place "where stances are measured in terms of their comparative capacity to place knowers in a good light" (Maton, *in press*, p.6), and as such what makes its compositional structure feasible is these knowers' beliefs, values and ideas.

That prediction about the axiological structure can be understood from the perspective of fields that construe knowledge via the use of specialized languages, which sustainability is a case in point. As argued, sustainability, by nature, generates axiological aspects, since it transits across the three areas of science: natural sciences (ecological prudence), social sciences (economy efficiency) and humanities (social responsibility) and as such it deals with abstraction where abstract concepts and interpretations are involved, leaving no space for explicit technicality.

As demonstrated in the 'analysis chapters', it was in these specialized languages that the hierarchy was identifiable in Kraft's cosmology, which has signaled that social actors in the investigated company possess a hierarchal knower structure. In Maton's line of reasoning, this means that that the episteme is somewhere in this cosmology, laying out the hypothesis of the company being described under the *relativist code*, -ER; - SR, standing for weak epistemic relations and weak social relations, where both the specialist knowledge and the knowers' dispositions are non-existent, which is not the case in Kraft's cosmology.

In the cited chapters, it was also shown that social actors in Kraft's cosmology know not only the place of the hierarchy, but also of the hierarching principles. Based on Bernstein's considerations, this signals that the hierarchy complies with that of the reservoir of meanings of sustainability and that the theories individuated by Kraft go from a lower level to a more abstract level, which means that in Kraft's

discourse that issue of the gradual integration of the theories is taken for granted.

Also, it was perceived in the expression of the specialized languages the phenomenon of the serial code in the form of the accumulation of specialized languages in Kraft's cosmology through the presence of stances within the reservoir of meanings of traditional business. As argued, this finding has confirmed Maton's thesis that when social actors possess the hierarchy of a given field, they are able to control the grammar power of the object claimed and thereby its knowledge structure. As simplified by Maton, social actors are in a position to change the discourse in their favor.

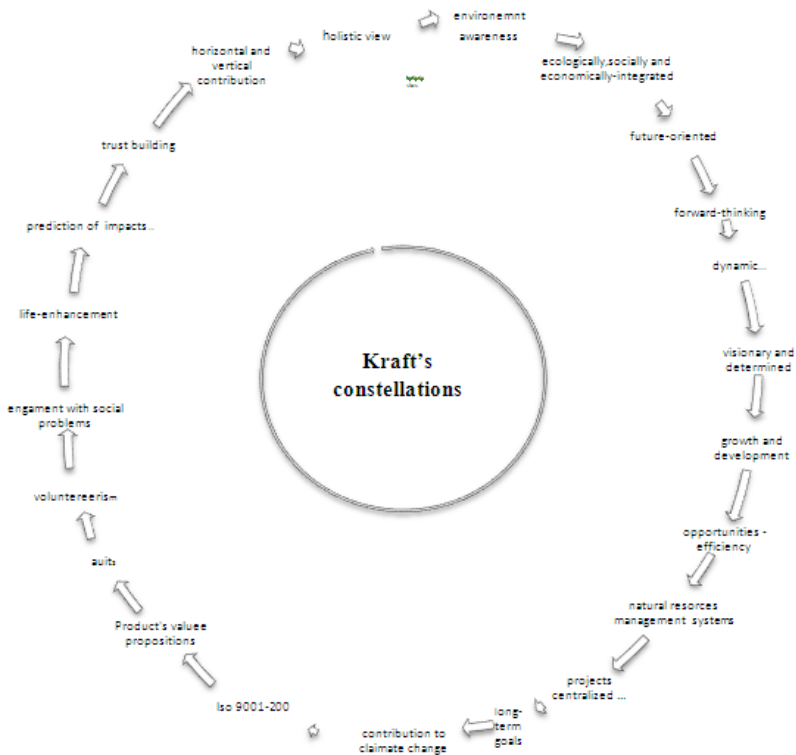
The accumulation of languages translated into the stances within the traditional business has confirmed the binary constellationability existing in the sustainability cosmology investigated, which indicates that the grammar power in this cosmology is at a certain extent downplayed. To reiterate, as discussed across the 'constellations-based analysis' chapter, grammar in the context of this investigation does not conflate with linguistics. In alignment with Bernstein, it refers to a syntactic structure expressing the empirical referents and descriptions which are minimally or relatively approachable to the language of the field in question.

### 7.2.1 Specific findings in Kraft's cosmology

In this subsection, I revisit and answer the four research questions arisen out of the following four specific objectives: 1) To delineate the values, roles and practices that the company views as legitimate within sustainability knowledge; 2) to examine the nature of Kraft's constellations and the meanings that this naturalness communicates in Kraft's knowledge structure; 3) to understand the relations of the company to sustainability practice through gauging the epistemological and axiological underpinnings contained in the company's discourse; 4) to identify the possible generation of new knowledges and the ways in which their practices reveal what type of knowers social actors in Kraft's are.

In answering the research question (I), considering the repertoire of meanings of Kraft's Food towards the reservoir of meanings of the science of sustainability, what does this specific company view as legitimate in their discourse of their annual sustainability report?, related to the first specific objective posited above, it has been observed

that the employment of the appraisal resources to the data proposed in this investigation have enabled the identification of twenty-four stances that characterize the practices, attitudes, values and beliefs viewed by social actors as legitimate. The clustering of these ideas in the form of stances constitutes Kraft's constellations. Below are the twenty-four stances identifiable:



**Figure 7.1:** An overview of Kraft's constellations

As previously analyzed, of these twenty four stances, the overwhelming majority is realized via the interface between appreciation and the grading resources in the modes of quantification and intensification. Of the stances realized via affect-gradation interface or the combination of the resources of the attitudinal and the

graduational subsystems, *environmental awareness, trust building* are examples of the former and *employees' empowerment, prediction of impacts, maximization and mitigation of environment, social and economic impacts and horizontal and vertical collaboration* exemplify the latter.

In response to the question 'How does the company construe their space of possibles?', departed from the specific objective 'to examine the nature of the constellations as well as the meanings this naturalness communicates in Kraft's knowledge structure', based on the results of the analysis conducted in the 'analysis chapter', it is possible to affirm that the nature of the constellations is binary and as such it is meant that the investigated company construes their space of possibles straddling the line between two distinctive modalities of business: Traditional business VS. Sustainable business. Illustratively:



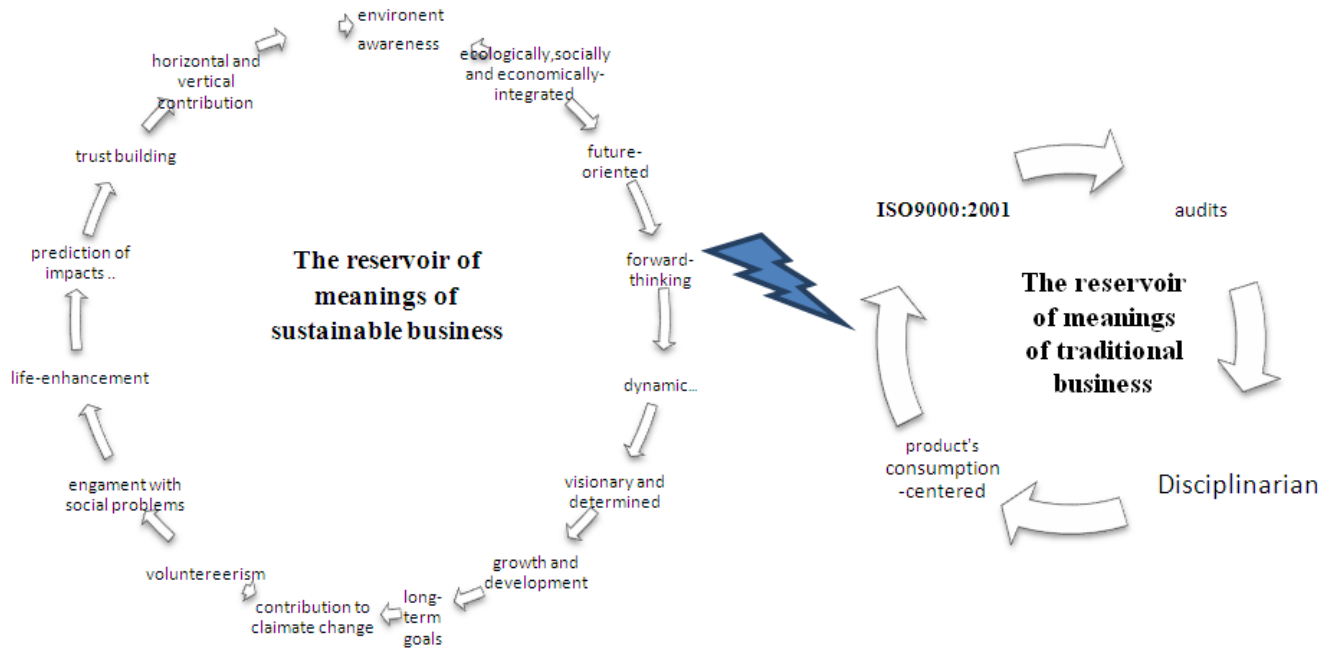


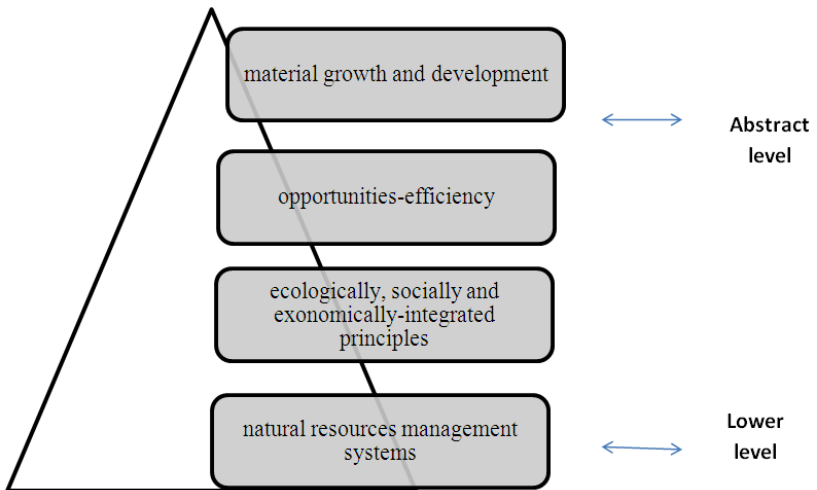
Figure 7.2: Kraft's binary constellations

As can be seen in the figure, the twenty four stances are distributed into two different clusters, one belonging to the good-hand side of Kraft's constellations, which are the stances within the reservoir of meanings of sustainability and another on its "bad" hand side which are the constellations within the reservoir of meanings of traditional business. Technically put, this means that the constellations are binary. To remind us, binary constellationability relates to the constellations split into two different poles because it may appear to social actors that by highlighting the presence of a stance within a specific reservoir of meanings, all the other stances within the same pole are automatically included.

Naturally the division brought about by binary constellations carries some important meanings. An obvious meaning is that there is a change in discourse which, metaphorically speaking, causes some friction in the investigated cosmology as clusters are contrasted with others. Representing this friction in the cited figure is the lightning bolt separating the clusters of the reservoir of meanings of sustainability from the cluster of the reservoir meanings of traditional business.

The answer to the research question (III), what are the relations of the company to sustainability knowledge practices?, formulated from the specific objective 'to understand the relations of the company to sustainability practices through gauging the epistemological and axiological underpinnings contained in the company's discourse' is that the sustainability knowledge practices individuated by Kraft are mainly based on the epistemological underpinning. This means that the epistemological aspects are more emphasized than the axiological aspects.

In detail, as previously put, the company individuates the hierarchy at its fullest extent according to what Bernstein proposes. That is, it goes from its lower level to its most abstract level, as shown in the representation below:



**Figure 7.3:** The sustainability hierarchy in Kraft's cosmology

As can be seen in this figure, the stance *natural resources management systems* is at the lowest position and from this an upward movement is completed through the presence of the stances *ecologically, socially and economically-integrated principles*, *opportunities-efficiency*, *material growth and development*. As previously argued, the way in which Kraft individuates that hierarchy is in line with what Bernstein refers to as the gradual integration of the theories.

As discussed, the majority of the stances in Kraft's cosmology are clustered around the hierarchy described. This means that the most empirical referents reflect the episteme corresponding the reservoir of meanings of sustainability. Notwithstanding this, that accumulation of language in Kraft's cosmology exists and is justifiable through the acknowledgement of the four stances within the reservoir of meanings of traditional business. They are:

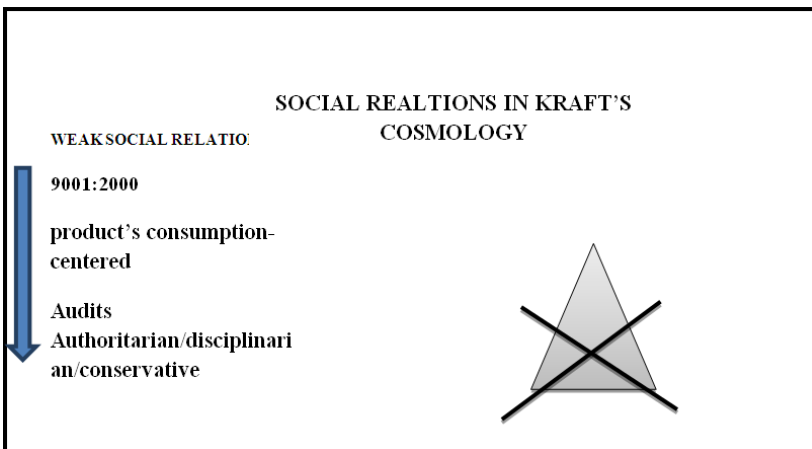
9001:2000

Product's consumption-centered

Audits

Authoritarian/disciplinarian/leadership

As debated, these stances offer no risk for the sustainability hierarchy and its most empirical referents individuated as the stances above become loose and decontextualized knowledge as they have no hierarchy where their presence could be justifiable, proving that in terms of epistemological underpinning Kraft's knowledge structure is strongly classified and strongly framed; i.e., their epistemic relations are strong. Nevertheless, it is undeniable that the stances within the traditional business which take the place of the stances 14001, product's value propositions, Eco Audits and socially negotiable within the reservoir of meanings of sustainability bring into play some incongruence to the discourse which in turn downplays its grammar power. But, such downplaying is not enough to cause grammar to be weakened; it remains in a sense strong, which is a characteristic of the reservoir of meanings of sustainability, because of the epistemological underpinning underlying Kraft's knowledge structure. In truth, the effect of that downplaying as a result of the presence of those stances is reflected in Kraft's social relations with the field of sustainability which are proven being weakly classified and weakly framed; i.e., the relations between Kraft's social actors and the reservoir of meanings of sustainability become weak (See Figure 7.4).



**Figure 7.4:** The weakening of social relations in Kraft's cosmology.

As can be endorsed in this representation, the stances within the traditional business positioned in the left-hand side of that figure do not have a hierarchy upon which they could be justifiable, offering no risk

for the weakening of the sustainability hierarchy, the hierarching principles and the epistemic referents individuated. But, since they are loose and decontextualized knowledges in discourse, they are a proof that some incongruence is brought into the discourse which in a sense causes some grammar downplaying and as such the weakening of Kraft's social relations towards sustainability knowledge as the knowledge shown by the company is not totally accurate within the reservoir of meanings of sustainability. Therefore, with respect to the relations of the company to sustainability knowledge practices, it is possible to say that, on the one hand, social actors emphasize the epistemological aspects; on the other hand, they downplay the axiological aspects. This finding has endorsed Maton's thesis that when social actors know the place of the hierarchy and the hierarching principles, they are able to use that principle of recontextualization that Bernstein refers to in that in recontextualizing the company rearranges the place of practices in discourse as to satisfy their needs and goals.

Lastly, the answer to the question 'What does Kraft's cosmological structure reveal about the knowledge-knower structure? What type of knower are they?', whose corresponding specific objective is 'to identify the possible generation of new knowledges and the ways in which their practices reveal what type of knowers social actors in Kraft's are.', is rather obvious, insofar as if grammar is downplayed as it has been observable in the analysis chapter and endorsed above, it is because there is the acknowledgement of new knowledges which are unattached to the object claimed; i.e., to sustainability.

This acknowledgement indicates that the social relations in Kraft's cosmology are impacted; i.e., the relations between social actors and knowledge are weak. In terms of specialization codes of legitimation, this means that the company is characterized by the – **SR status**, which stands for **weak social relations**. In this line of reasoning, with respect to the epistemic relations, since sustainability hierarchy is individuated and most empirical referents revolve around this hierarchy and as such epistemological aspects are emphasized, the company is characterized by the + **ER** status, strong epistemic relations.

All in all, as acknowledgeable, the company's social actors are strongly classified and weakly framed, thus being described under the codes '+ **ER**, - **SR**'. As based on Maton's ideas, this indicates that social actors in Kraft Company are the type of knowers who are more inclined to the specialist knowledge rather than the social actors' attributes- the knowledge code other than the knower code. To reinforce, below is the code of characterization of the company:

**+ER , - SR**

Based on this code, it is NOT possible to affirm that the social actors in Kraft Company are the right type of knowers. As put elsewhere in this thesis, Maton uses the term the right type of knower to refer to knowers whose knowledge structures possess both epistemic relations and social relations strongly classified and strongly framed. If this condition were the case here, the company would be characterized as ascribing the code ‘ **+ER, + SR**’, strong epistemic relations and strong social relations.

Although not being regarded the right type of knower, as based on Maton’s accounts of the specialization codes, because the company’s basis of legitimacy is on the epistemological aspects, the endorsement that Kraft’s knowledge structure is to the knowledge code rather than the knower code is possible, which reaffirms Rose’s thesis that the enterprise’s discourses tend to foreground the teaching of the field claimed and background the economic basis upon which it lies.

### 7.3 Concluding remarks, gains and future works

The knowledge code ‘**+ES, -SR**’ that characterizes the investigated enterprise is an indication that some affinity with the object claimed is assured. By the same token, the **-S** status of that code also demonstrates that the company possesses some incongruence towards sustainability knowledge.

Strategically, in this work, of the six texts encompassing Kraft’s annual sustainability report, two of these entitled “Sustainability”, which is the key word in the report ,accommodate the basis and the hierarching principles of the theory that account for that **+ER** (Epistemic relations) in the discourse investigated. In detail, considering the arrangement of these texts, the first of them opens up with an unpacked meaning rendered into ‘environment awareness’ which conveys simpler and concrete ideas whose understandings are reachable to horizontal and vertical contexts. As the text unfolds, the level of technicality is elevated with the communication of abstract concepts condensing meanings that underpin important aspects of the theoretical accounts of the reservoir of

meanings of sustainability [ecologically, socially and economically-integrated principles, opportunity-efficiency and material growth and social development]. Shortly afterwards, unpacked meanings condensing other simpler and concrete ideas translated in the form of attributes are brought into play as the concluding ideas of the first section.

Another abstract concept condensing meanings related to the lower level of the hierarching principles is explored throughout the second text. In a way, the condensation of these meanings weakened by varied examples in the form of percentages, which run a “packing,-unpacking-repacking-unpacking movement”, highlight the core term natural resources management systems within the reservoir of meanings of sustainability, which is from where the presence of most empirical referents finds feasibility.

In a nutshell, this interplay between packing and unpacking meanings in the company’s discourse remains across the other texts with the individuation of other terms that carry a certain level of technicality, abstract and concrete ideas. Interestingly, the preference for unpacking is noticeable in the introductory and the concluding texts of the report.

In sum, the results of the analyses of those patterns of unpacking and packing meanings used by the company build a work that depicts the interplay between the theories and practices of a field of knowledge that is complex and very often subject to misinterpretations and hasty conclusions. That is, with this work, both not only social actors affiliated with sustainability but also lay readers but interested in this issue can assimilate what is what in the theory; i.e., distinguishing between the epistemological and axiological aspects in the area. In other words, with the analyses of each entity of text bringing into play a dimension of sustainability, which, in the end, make up the three basic pillars of the field, it is possible to identify the basis of the theory, that lower level and the abstract level defended by Bernstein, and all the corresponding empirical referents that materialize such basis.

Thus, the dynamics involved in the process of transforming theory into practice appears to be the pedagogic claim of this job. Even the configuration of meanings within the traditional business that accounts for that –S status is a lesson by itself as it is arguable the motives underpinned by theoretical accounts for the company being unattached to the field of sustainability. More importantly, in this argument it is also shown the values that would make one comply with sustainability knowledge domain at its fullest extent as to be termed the right type of knower.

So, this work is somewhat similar to a conventional class or lecture in that there appears to be a teaching of the theoretical and methodological contents of the field claimed, in which the epistemological aspects are emphasized as a way to show that it is the theory that matters within a field of science. Didactically, the exploration of these aspects have laid the hypotheses of any conjectures within the field of sustainability, enabling the reader to view this research as an opportunity not only to learn about this field but also to interact with it in a more reasonable way.

As to the gains with the development of this study, they are unquestionably rewarding for putting into the focus of attention LCT as a new theoretical perspective which aligned with SFL stimulates and strengthens the development of interdisciplinary studies not only within the educational field but also within any field of science, like the investigation at stake. Specifically from a constellational perspective, an array of theoretical and methodological procedures is provided enabling one to verify the level of affinity a social actor shows to have with an object claimed. Therefore, this new paradigm is another contribution to knowledge research that furnishes researchers with a packaged format capable of delineating the boundaries of the episteme of any given field of science.

From a linguistics standpoint, the LCT model, particularly from a constellational perspective, necessitates patterns of analysis distinctively differentiated from the traditional format from the view that it is required from the researcher having not only knowledge of the linguistic tool applied, but also some theoretical affinity with the object being claimed. For example, taking into account the application of Appraisal Theory in an investigation, which is the case in this thesis, as long as the texts unfold and the appraisal resources are identifiable, researchers ought to have the sensibility to perceive that not always a single instance of analysis but very often a group of them can presume a certain phenomenon within the theory examined. Additionally, more responsibilities are imposed on researchers when coping with an area of science in a horizontal structure, since technicality is not explicit as its specialized languages are realized via abstraction, which is a case in point.

Generally put, the gains are countless. Some of these include sharpening researchers' perception in the sense of combining the linguistic resources with the theoretical aspects, broadening view towards another field of science other than linguistics, but, above all,



fostering learning related both to the knowledge generated and to the dynamics involved in works from a constellational point of view.

With respect to future works on cosmologies and constellations, they can be diversified, as Maton warrants. Maton's article 'Cosmologies: How to influence people and gain friends?' has given impetus to other works to develop. In this article, Maton focuses attention on cosmologies of educational fields, aligning the appraisal resources with the concept of semantic density and semantic gravity within Specialization- Semantics.

Maton's research was an inspiration for historical cosmologies by Martin and his colleagues. In this work, the authors deal with technicality and the concept of grammaticality, which is how Veel resignified the concept of Bernstein's grammar, this latter being explored in the present research.

This "cascade effect" includes the present thesis. The intention is that this scientific production leaves an open space for the emergence of new works aiming at building knowledge of any field of science and not only the ones of educational fields. In addition to strengthening the interdisciplinary perspective that is inherent to SFL, this thesis attempts to contribute to standardize a structurally designed model, still unexplored in Brazil, aligning sociology and language, providing an open window for researchers of any field to develop other jobs in any other knowledge domain. In sum, this research can be the initial stage for a "water cascade to flow"; i.e., the inspiration for the emergence of other pieces of research seen from this angle.

To close this section, of paramount importance is to say that, to the best my knowledge, works from a constellational perspective are so far the ones that have just been mentioned. However, when considering research based on other methodological tools within LCT, there are over thirty –five studies being undertaken by post-graduate students in few countries, as informed by LCT official webpage.



## References

Armitage, D.R.; Plummer, R.; Berkes, F. Arthur R. I; Charles, A.T.; Davidson-Hunt, L.J.; Diduck, A.; Doubleday, N.C.; Johnson, D.S.; Marschke, M. ; McConney, P.; Pinkerton, E.W.; Wollenberg, E.R.(2008). *Adaptive co-management for social- ecological complexity*. The ecological society of America.

Bell, D.J.V. ( 2002). *The role of government in advancing corporate sustainability*. Sustainable Enterprise Academy, York University under contact to Environment Canada for the G8. Environment future Forum (EFF) in Vancouver.

Bernstein, B. (1999). *Vertical and horizontal discourse: An essay*. *British Journal of Sociology of Education*, 20(2), 157-173.

Bernstein, B. (1996). *Pedagogy, symbolic control and identity: Theory, research, critique*. London: Taylor & Francis.

Bernstein, B. (2000). *Pedagogy, symbolic control and identity* (Revised Edition). New York and Oxford: Rowman & Littlefield Publishers.

Bernstein, B. (1984). *Classes e Pedagogia: Visível e invisível*. In: Caderno de Pesquisa., (49): 26-42, Maio [Tradução de Marlene Domingos Orth e Dagmar M. L. Zibas]

Berkes, F.; Folke, C.(1994). *Linking social and ecological systems: management practices and social mechanisms for building resilience*.Cambridge University Press.

Berkes, f. (2005) *Conexões institucionais transescalares*. In: P. F. Vieira; F. Berkes & C. S. Seixas, *Gestão integrada participativa de recursos naturais. Conceitos, métodos e experiências*. Florianópolis: APED e Secco, p. 203-332.

Bourdieu, P. (1991).*The Peculiar History of Scientific Reasoning*. *Sociological Forum*; V. 06, N.01 March; pp. 3-26

- Christie, F.; Martin , J. R. (2007). Edt.s *Language, Knowledge and Pedagogy: functiona linguistic and sociological perspectives* . London: Continuum, 270pp.
- Dansereau, P. (1999) *A terra dos homens e a paisagem interior*. Belem, NAEA/UFPA.
- Foucault, M. (2005). *The Human Sciences*. In: *The Order of the Things*. Taylor & Francis E-Library.
- Flick, U. (2002). *An introduction to qualitative research* (2<sup>nd</sup>. Ed.) London: Sage Publication.
- Fairclough, N.(1992). *Discourse and Social Change*. Cambridge: Polity Press.
- Friend, G.; Kordesch, N.; Privit, B. (2009). *The truth about green business*. Natural Logic Inc.
- Halliday , M. A.K.. (2009). *The Essential Halliday*. Continuum International Publishing Group. (ed. Jonathan J. Webster)
- Halliday, M. A. K. (2004). *The Language of Science*. London: Continuum.
- Halliday, M. A. K., Mathiessen,C.(2004) *An Introduction to Functional Grammar*. 3<sup>rd</sup> Ed. Hodder Education.
- Halliday, M. A. K. (1999) *The Grammatical Construction of Scientific Knowledge: The framing of the English Clause*. In Halliday, M. A. K. (2004). *The Language of Science*.(pp. 102 133) London: Continuum.
- Halliday, M. A.K. (1998a). *On the language of physical science*. In M.A.K. Halliday & J. R. Martin (Eds.), *Writing science: Literacy and discursive power* (pp. 221-267). London: Falmer.
- Halliday, M. A.K. (1998b). *Language and Knowledge: The unpacking of the text*. In *The Language of Science*. .(pp. 49-101). London: Continuum.

Halliday, M. A.K. (1998c). *Things and Relations: Regrammaticizing Experience as technical knowledge*. In *The Language of Science*. London: Continuum.

Halliday, M. A.K. (1997) *On the grammar of scientific English*. In *The Language of Science*. (pp 07- 198). London: Continuum.

Halliday, M. A.K. (1995). *The language and reshape of human experience*. In *The language of science* (pp.07-23). London: Continuum.

Halliday, M. A. K. & Martin, J. R. (1993). *Writing science: Literacy and Discursive power*. London: Falmer.

Hart, S.L.(1971). *Axiology: Theory of values*. Philosophy and Phenomenological Research.Vol. 32. N.1 (pp.29-41). Available at <http://www.jstor.org.stable>. Published by International Phenomenological Society. Accessed 11/05/2013.

Hood, S. Martin, J. (2007) *Invoking attitude: the play of graduation in appraising discourse*. In R Hasan, C M I M Matthiessen & J Webster [Eds.] *Continuing Discourse on Language*. London: Equinox. 2007. 739-764. [Spanish translation 'Invocación de actitudes: El juego de la gradación de la valoración en el discurso.' *Revista Signos* 2005 38.58. 195-220] [reprinted in *Discourse Semantics* 2010. 376-400]

Laville, E. (2009, October, 19). *Empresa verdes são possíveis? (Are green companies green?)*. Revista do Instituto de Humanas Unisinos-IHU ONLINE, 311, 1-3. Available at [www.ihuonline.unisinos.br/index.php?option](http://www.ihuonline.unisinos.br/index.php?option)

Lehrer, K. (1992). *Theory of Knowledge*. London: Routledge.

Martin, J., Maton, K. (2013). *Cumulative knowledge-building in secondary schooling: Guest editors' preface*. Linguistics and Education, 24(1), 1-3.

<http://dx.doi.org/10.1016/j.linged.2012.11.003>>[More Information]</a>

Martin, J. (2011). *Bridging troubled waters: interdisciplinarity and what makes it stick*. F Christie & K Maton [Eds.] *Disciplinarity: functional*

linguistic and sociological perspectives (pp. 35-61). London: Continuum. 2011.

Martin, J. (2009c), *Realisation, instantiation and individuation: Some thoughts on identity in youth justice conferencing*. *DELTA – Documentação de Estudos em Linguística Teórica e Aplicada* 25. 2009: 549–583

Martin, J.R. (2007b). *Tenderness: realisation, instantiation and individuation in a Botswanan town*, [PowerPoint slides] Invited talk at Pontifícia Universidade Católica, São Paulo, on 13 August, 2007).

Martin, J.R. (2008). *Tenderness: realisation, instantiation and individuation in a Botswanan town*. *SF Theory*. Vol. I in the Collected Works of J R Martin (Wang Zhenhua Ed.). Shanghai: Shanghai Jiao Tong University Press. ISBN 978-7-313-06330-4. 2010. [414pp]

Martin, J. (2000) *Beyond exchange: appraisal systems in English*. S Hunston & G Thompson (Eds.) *Evaluation in Text: authorial stance and the construction of discourse*. Oxford: Oxford University Press. 2000. 142-175. [reprinted in *Discourse Semantics* 2010. 203-245.

Martin, J. (1995). *Reading Positions/Positions Readers*. *Discourse Semantics*. Vol. 2 in the Collected Works of J R Martin (Wang Zhenhua Ed.). Shanghai: Shanghai Jiao Tong University Press. ISBN 978-7-313-06329-8. 2010. [414pp]

Martin, J. (1997) *Analysing Genre: Functional Parameters*. *SF Theory*. Vol. I in the Collected Works of J R Martin (Wang Zhenhua Ed.). Shanghai: Shanghai Jiao Tong University Press. ISBN 978-7-313-06330-4. 2010. [414pp]

Martin, J. (1989) *Technicality and abstraction: language for the creation of specialised texts*. In M A K Halliday & J R Martin *Writing Science: literacy and discursive power*. (pp.224 241) London: Falmer.

Martin, K Maton & E Matruglio (2010). *Historical cosmologies: epistemology and axiology in Australian secondary school history* (J R) *Revista Signos* 43.74. 2010. 433-463. [reprinted In *Language in Education* 2012. 386-387]

Martin, J. R. and Rose, D. (2007a), (2nd revised ed). *Working with Discourse: Meaning beyond the Clause*. London: Continuum.

Martin, J. R.; Rose, D. (2008). *Genre relations: mapping culture*. London: Equinox. 289pp. Martin, J. R. & White, P. R. R. (2005). *The language of evaluation: Appraisal in English*. London: Palgrave.

Matthiessen, C. M.I.M. (2009). "Meaning in the making: meaning potential emerging from acts of meaning." In *Anniversary Issue of Language Learning* 59 (Supplement 1): 211- 235.

Maton.K. (in press). Cosmologies: how to win friends and influence people. A Draft of chapter 8 of: Maton, K. (forthcoming) *Knowledge and Knowers: Towards a realist sociology of education*, London: Routledge.

Maton.K. (2013). *Making semantic waves: A key to cumulative knowledge building*. In *Linguistic Education*. Available at [www.elsevier.com](http://www.elsevier.com), pp. 8 - 22

Maton, K., Moore, R. (2010). *Social Realism, Knowledge and the Sociology of Education: Coalitions of the Mind*. London: Continuum.

Maton, K. (2010a). *Analysing Knowledge Claims and Practices: Languages of Legitimation*. In Karl Maton, Rob Moore (Eds.), *Social Realism, Knowledge and the Sociology of Education: Coalitions of the Mind*, (pp. 35-59). London: Continuum

Maton, K. (2010b). Progress and canons in the arts and humanities: Knowers and gazes. In K. Maton & R. Moore (Eds.), *Social Realism, Knowledge and the Sociology of Education: Coalitions of the mind* (pp. 154-178). London, Continuum.

Maton, K. (2008). *Knowledge-building: How can we create powerful and influence ideas?* Paper presented at *Disciplinary, Knowledge & Language: An international symposium*, December 2008, University of Sydney, Australia.

Maton, K. (2007). *Knowledge-knower structures in intellectual and educational fields*. In Frances Christie and J.R. Martin (Eds.), *Language, Knowledge and Pedagogy: Functional Linguistic and Sociological*

Perspectives, (pp. 87-108). London: Continuum.

Maton, K. (2006). *On knowledge structures and knower structures*. In Moore, R., Arnot, M., Beck, J. & Daniels, H (Eds.), *Knowledge, Power and Educational Reform: Applying the Sociology of Basil Bernstein*, (pp. 44-59). Oxon: Routledge imprint of Taylor & Francis.

Maton, K. (2004). *The wrong kind of knower*. In Johan Muller, Brian Davies and Ana Morais (Eds.), *Reading Bernstein Researching Bernstein*, (pp. 218 – 231). London and New York: RoutledgeFalmer Taylor and Francis Group.

Maton, K. (2000). *Languages of legitimation: Structuring significance for intellectual fields of strategic knowledge claims*. In: *Language of legitimation of sociology of education*. Vol. 21, N0.2. (pp. 148-167).

Maturama, H., Varela, F. (2001). *A Arvore do conhecimento*. Tradução (Humberto Mariotti e Lia Diskin) Sao Paulo: Ed: Palas Anthenas. pp.283.

Morin, E.(2008). *O metodo e o conhecimento do conhecimento*. (Tradução de Jurema da Silva). Ed: Sulima.

Musgrave, A. (1993). *Common sense, Science and Scepticism: A historical introduction to the theory of knowledge*. London: Cambridge University Press.

Popper. K. R. (1993). *Conhecimento objetivo: uma abordagem evolucionária*. Tradução (Milton Amado). Belo Horizonte: Ed. Itatiana.

Romano, J.O.; Antunes, M. (2002). *Empoderamento e direitos no combate à pobreza*. Rio De Janeiro: ActionAid Brasil

Rose, D. (1998). *Science Discourse and Hierarchy*. In Martin, J. R. & Veel, R. (Eds.). *Reading science: Critical and functional perspectives on discourses of science*.(237-266). London: Routledge

Sachs, I. (2007). *Rumo à ecossocioeconomia. Teoria e prática do desenvolvimento*. São Paulo: Cortez Editora.



Sachs, I. (2009) *A Terceira margem: Em busca do desenvolvimento*. São Paulo: Companhia das Letras.

Stapp, W. B.; Bennet, D. Bryan, W. Jr.; Fultin, J.; McGregor, J.; Nowak, P.S. James, R. (1969) *The concept of Environmental Education*. The Journal of Environmental Education; V. 01; N.1, pp. 30-31.

Souza, L. M. F. (2010). *Interlingual Re-Instantiation: A Model For A New And More Comprehensive Systemic Functional Perspective On Translation*. Unpublished Thesis. Universidade Federal de Santa Catarina, Centro de Comunicação e Expressão. 216p.

Tábara, J.D. & Phal-Wostl, C. (2007). *Sustainability learning in natural resource use and management resource*. Ecology and Society, 12 (2): 1 – 11

Veel, R. (1998). *The greening of school science: Ecogenesis in secondary classrooms*. In J. R Martin & R. Veel (Eds.), *Reading science: Critical and functional perspectives on discourses of science* (pp. 114-151). London: Routledge

Vieira, P.F.; Berkes, F. & Seixas, C.S (2005 a) *Introdução*. In n: P.F. Vieira, F. Berkes e C.S. Seixas, *Gestão integrada e participativa de recursos naturais. Conceitos, métodos e experiências*. Florianópolis: APED e Secco, p. 13-44.

Vieira, P.F. (2010). *Políticas ambientais no Brasil: do preservacionismo ao desenvolvimento territorial sustentável*. Política & Sociedade, 8(14):27-75.

Vieira, P. F. (2007). *A crise socioambiental contemporânea: problema social e objeto de pesquisa transdisciplinar*. Florianópolis: UFSC (mimeo.)

Vieira, P.F. (2011). *A crise ambiental contemporânea: problema social e objeto de pesquisa transdisciplinar*. Florianópolis:UFSC (mimeo).

Zaman G., Goschin Z., (2010). *Multidisciplinarity, Interdisciplinarity and Transdisciplinarity: Theoretical Approaches and Implications for*

the Strategy of Post-Crisis Sustainable Development, Theoretical and Applied Economics, Volume XVII (2010), No. 12(553), pp. 5-20.

Weber, J. (2000). *Gestão de recursos renováveis: fundamentos teóricos de um programa de pesquisas*: In: P.F.Vieira e J.Weber (Orgs.). *Gestão de recursos naturais e renováveis e desenvolvimento*. Novos desafios para pesquisa ambiental. São Paulo:Cortez, p.115-146.

Wignell, P. (1998). *Technicality and abstraction in social sciences*. In Martin, J. R. & Veal, R. (Eds.). *Reading science: Critical and functional perspectives on discourses of science*.(pp. 115-154). London: Routledge.

Wignel, P, Martin, J.R, Eggs, S. ( 1989). *The discourse of geography: ordering and explaining the experimental world*. IN: Halliday, M.A.K. & J. R. Martin (eds.) 1993 *Writing Science: Literacy and the Discourse of Power*. Falmer. 136-165.

Wodak, R. (2007).*Language and Ideology-Language in Ideology*. John Benjamins Publishing Company.

Zhao, Q. (2012) *Knowledge Building in Physics Textbooks in Primary and Secondary Schools*, Unpublished Thesis.Xiamen University, China.

### Online research

International Organization Standardization webpage.  
<http://www.iso.org/iso/home/html> Accessed in March, 2014.

ISO 9001:2000 webpage. Available at [www.iso.org/Iso](http://www.iso.org/Iso) 9001:2000. Accessed in March, 2014.

Maton, K. The Legitimation Code Theory website:  
<http://www.legitimationcodetheory.com>

Martin; J.; White, P. The Appraisal Theory webpage:

<http://www.grammatics.com/>

appraisal [Website developed by P.R.R White and Eldon, verbosity enterprise-last 15/06/2012]

The official web site of the selected report. [www.mondelezinternational.com/SiteCollectionDocuments/pdf./kraft's food\\_deliciousworld2011.pdf](http://www.mondelezinternational.com/SiteCollectionDocuments/pdf./kraft'sfood_deliciousworld2011.pdf). Accessed in June, 2012.

Green Company. Available at [www.wikipedia.org/wiki/Green\\_Company](http://www.wikipedia.org/wiki/Green_Company). Accessed in March, 2013.

### **Dictionaries**

Online dictionary. Available at [www.businessdictionary.com/definition/green.business.html](http://www.businessdictionary.com/definition/green.business.html). Accessed in May, 23, 2013.

Collins Cobuild Dictionary on CD Rom (2006).

Online Oxford University Press Dictionary of Environment and Conservation (2007).

Ecodevelopment. Glossary of technical terms Available at [www.ecodesenvolvimento.org/gloss\[ariodetermostecnicos](http://www.ecodesenvolvimento.org/gloss[ariodetermostecnicos) . Accessed in Feb.2013.

Sustainable Development Features.

<http://www.gdrc.org/sustdev/definitions.html>. Accessed in March, 2014.



## **APPENDIX I**

### **Texts proposed in this investigation**

#### **TEXT I**

##### **Sustainability I**

As a food company, we're dependent on the earth for the ingredients we use to make our products. Unfortunately, the world's natural resources are limited and increasingly in demand by an ever-growing population. So, it's critical that we run our business in ways that are environmentally, socially and economically sound and sustainable over the longer term

We've made great progress, but the dynamics are ever-changing. That's why we regularly step back and take a look at how we source, produce and transport our products to find opportunities for continued improvement. To maximize our efforts, we focus on the areas that are most important to our business and where we can make the biggest impact: agricultural commodities, packaging, energy, water, waste and transportation/distribution. We set goals for each area, track our progress and hold ourselves accountable.

As much as we can do on our own, we can do even more with others. Partnering allows us to share funding, training and know-how. This collaboration boosts scale and accelerates development and change in more areas, more commodities, more quickly than if we were to go it alone.

Success requires vision and determination, great partners and seizing opportunities—from farm to fork. It's a journey. It'll take years. But we're in business for the long-term, which means we can't afford not to be invested. And done right, we know building sustainability into our business is good for the planet, people and, ultimately, our profits.

#### **TEXT II**

##### **Sustainability II**

Since 2010, we have increased sustainable sourcing (36%). The percentage (100%) of coffee beans to be sustainably sourced by our European coffee brands by 2015. Cut packaging (20,500 metric tons (45

million pounds). Eliminated travel miles (20 million kilometres (12.5 million miles) And reduced energy, greenhouse gas emissions, water and waste by measured against total production. Our 2015 goal (15%). We completed a first-of-its kind project that mapped our company's total environmental footprint carbon (air), land and water. Received SmartWay Cahampion award for a strong and lasting contribution to SmartWay's mission to reduce the footprint of moving goods.

### **TEXT III**

#### **Food Safety and Quality Better practices deliver the best results**

In our Code of Conduct, the first rule is to *make food that is safe to eat*. People expect safe food,

and maintaining their trust means offering quality products they can rely on and feel good about. This is the cornerstone of our heritage and an essential part of our culture

From ingredient to final product, we have quality standards in place. Our system is based on the internationally recognized quality management standard ISO 9001:2000. We supplement ISO standards with safety and quality criteria that we've developed specifically for our business. We routinely conduct audits, which are key to measuring and reporting compliance with regulations and internal policies and to driving good practices. And we work with governments and industry partners around the world to share learnings, because we know that all food safety issues, even when they are not ours, can shake consumer trust.

If a food safety issue arises, we take immediate steps to protect consumers through our Special Situations Management Teams—senior-level managers from across the company who have experience in handling critical situations. Our early-alert system and processes help us make decisions quickly and in the best interest of consumer safety.

By adhering to strict standards, acting swiftly when threats to safety arise and communicating with consumers effectively, we maintain and strengthen our reputation for consistently producing delicious, safe foods.

### **TEXT IV**

#### **Workplace and Culture Performance-driven, values-led**

Every day, our success depends on more than 125,000 capable, dedicated and diverse employees around the world. They create new

products. Make and sell our delicious brands. Manage our company. Treating our people well and providing a workplace that is safe, rewarding and inclusive is a proven recipe for us.

We encourage and support our employees in living healthier lifestyles and in fostering their spirit of giving back to our communities. We provide various tools and resources about health and well-being as well as other life topics that are designed to help our employees balance their lives. Our robust volunteer program encourages employee contributions of time, money and skills where they are needed most in our communities around the globe. Fostering volunteerism is good for the community, our employees and our company.

We work hard to keep *all* our employees safe and aim for zero accidents in the workplace. Doing so requires addressing the causes of injuries and setting clear expectations that employees must follow all safety laws and guidelines, operate equipment properly and never use alcohol or illegal drugs in the workplace. So everyone can contribute to his or her fullest potential, we don't allow discrimination or harassment based on age, race, disability, national origin, religion, sex, sexual orientation or any other legally protected status.

A performance-driven, values-led culture builds a stronger company and provides a workplace that attracts and retains thinkers, problem-solvers and doers. And they in turn are defining the food industry for decades to come.

## **TEXT V**

### **Health and Well-Being Eat delicious, live well**

Today the world faces a dual challenge of simultaneously addressing hunger and obesity. As the world's second-largest food company, we have an important role to play in tackling both of these issues by helping people eat and live better. Our broad portfolio and global presence give us many ways to help, and we're making good progress through an approach we call the three Ps: products, policies and partnerships.

**Products.** We make products that offer appealing nutritional profiles, including less fat, sugar and sodium, as well as products that contain beneficial ingredients, such as whole grains. Foods that have few artificial ingredients are likewise an important part of our portfolio, as is choice in portion size. In short, we offer a wide range of options from which consumers can choose, including a variety of flavorful, better-for-you foods.

**Policies.** How we “talk” to consumers about our products is just as important as the products themselves. In 2005, we introduced an innovative policy that limits what we advertise to children under age 12. For children ages 6 through 11, we only advertise those products that meet specific nutrition criteria. We do not advertise to children under age 6 at all. And advertising in primary or secondary schools is also out. When it comes to product packaging, all of our packaging has clear nutrition labeling, even where the law doesn’t require it. Beyond our own policies, we work with other companies and organizations to advance public policy efforts to help consumers achieve healthier lifestyles.

**Partnerships.** The third element in our approach is collaboration. We can and are doing a lot, but we can do more with others. That’s where our many strategic partnerships come into play—from community investments with leading nongovernmental organizations to public-private partnerships with governments and multilateral organizations. We know that only by working together can we truly tackle these issues in ways that are both sustainable and scalable. Tackling hunger and obesity is not easy. But by addressing consumers’ health and well-being through our products, policies and partnerships, we’re seeing good progress. And we’ll keep working to achieve real results until everyone can eat delicious

## **Text VI**

### **Governance and Compliance**

#### **Inspiring trust**

We value trust . . . of consumers, customers, communities, regulators, suppliers and employees above all else. We strive to earn trust every day by doing what we say we will do and holding ourselves accountable. As a public company, we have the added responsibility to be open and responsive to our shareholders.

Living up to these expectations and obligations requires detailed planning and focused action. That’s why we have structures, policies and processes to help promote the ethical and efficient governance of our company. And we have internal and external auditors to monitor our compliance.

Our Board of Directors sets the right tone from the top by governing Kraft Foods in line with our Corporate Governance Guidelines. Our CEO and senior executives drive home the central



message of our Code of Conduct—that integrity and growth go hand in hand. To

## APPENDIX II

The analysis of the texts proposed

KEY: Affect: **Inscribed Invoked** Judgement **Inscribed Invoked** Appreciation **Inscribed Invoked**  
 Graduation - underlined

(+) Positive dimension/ (-) Negative dimension

(Attitude & Graduation): **KRAFTS FOOD: Sustainability**

		TEXT SUSTAINABILITY	I: Key/Attitude values	Mode (Inscribed or invoked)	Target	Graduation  Force: intensification/Quant Focus: Sharpen and Focus
Stage I	01	As a food company, we're dependent on the earth for the ingredients we use to make our products	<b>no evaluation</b>			
	02 a	<b>Unfortunately</b> , the world's natural resources are <b>limited</b> and <b>increasingly in demand</b> by an <b>ever-growing</b> population	<b>Unfortunately</b> -affect: unhappiness (this fact/situation makes me	Inscribed	the fact that resources are limited and increasingly in demand by an ever-growing population.	

			sad) unfortunately = lamentably, sadly, unhappily			
	b	the world's natural resources are <u>limited</u> and <u>increasingly in demand</u> by an <u>ever-growing</u> population	<u>limited</u>		natural resources	Force: extent: scope: space
	c	the world's natural resources are <u>limited</u> and <u>increasingly in demand</u> by an <u>ever-growing</u> population	<u>increasingly</u> (in demand)		natural resources	Force:           intensification: quality
	d	the world's natural resources are <u>limited</u> and <u>increasingly in demand</u> by an <u>ever-growing</u> population	<u>in demand</u> Affect Irrealis Desire <b>in demand = greatly desired</b>	inscribe	natural resources	Force:           intensification: quality
	03 a	So, it's <b>critical</b> that we run our business in ways that are environmentally,	Critical (+App:Val) =           very important	Inscribed	that we/run our business/ways the described behaviour	force:   intensif:   quality (upscale)

		socially and economically <b>sound</b> and <b>sustainable</b> over the <b>longer</b> term.				
	b	So, it's <b>critical</b> that we run our business in ways that are environmentally, socially and economically <b>sound</b> and <b>sustainable</b> over the <b>longer</b> term.	<b>sound</b> Environmentally, socially and economically sound (+App:Val)	Inscribed	ways	
		So, it's <b>critical</b> that we run our business in ways that are environmentally, socially and economically <b>sound</b> and <b>sustainable</b> over the <b>longer</b> term.	<b>sustainable</b> (+App:Val)	Inscribed	ways	
		So, it's <b>critical</b> that we run our business in ways that are environmentally, socially and	<b>longer (term)</b>		ways	force: quantification: extent: proximity: time

		economically <b>sound</b> and <b>sustainable</b> over the <b>longer</b> term.				
<b>Stage II</b>	04 a	We've made <b>great progress</b> , but the dynamics are <b>ever-changing</b> .	great		progress {nominalization of Process "progress" = move forward, advance towards a goal}	force: intensification: process
	b	We've made <b>great progress</b> , but the dynamics are <b>ever-changing</b>	<b>progress</b> appreciation: valuation positive  [we can say that it is invoking a judgement: SE: capacity positive of the people who run the company]	inscribed	we('ve made)	
	c	We've made <b>great</b>	<b>ever-changing</b>		dynamics	Force: quantification: extent:

		<b>progress</b> , but the dynamics are <b>ever-changing</b>				distribution: time
	05 a	That's why we <b>regularly</b> step back and take a look at how we source, produce and transport our products to find opportunities for <b>continued improvement</b> .	<b>regularly</b>		we step back and take a look at...	Force: extent: distrib: time
	b	That's why we <b>regularly</b> step back and take a look at how we source, produce and transport our products to find opportunities for <b>continued improvement</b> .	<b>continued</b>		improvement	Force: extent: distrib: time
	c	That's why we <b>regularly</b> step back and take a look at how we source, produce	<b>improvement</b> appreciation: valuation positive	inscribed	how we source, produce and transport our products	

		and transport our products to find opportunities for <b>continued improvement</b> .	[we can say that it is invoking a judgement: SE: capacity positive of the people who run the company]			
	06 a	To maximize our efforts, we focus on the areas that are <b>most important</b> to our business and where we can make the <b>biggest</b> impact: agricultural commodities, packaging, energy, water, waste and transportation/distribution.	<b>most</b>		(Important) areas	force: intensification: process
	b	To maximize our efforts, we focus on	<b>Important</b> (+App:Val)	Inscribed	areas	

		the areas that are <b>most important</b> to our business and where we can make the <b>biggest</b> impact: agricultural commodities, packaging, energy, water, waste and transportation/distribution.				
	c	To maximize our efforts, we focus on the areas that are <b>most important</b> to our business and where we can make the <b>biggest</b> impact: agricultural commodities, packaging, energy, water, waste and transportation/distribution.	<u>biggest</u>	inscribed	impact	force: quantification: mass/presence
	7 a	We set goals for each	<b>progress</b>	inscribed	we (our)	



		area, track our <b>progress</b> and hold ourselves <b>accountable</b> .	see above			
	b	We set goals for <b>each</b> area, track our progress and hold ourselves <b>accountable</b> .	<b>accountable</b> appreciation: valuation positive  [we can say that it is invoking a judgement: SS: propriety positive of the people who run the company]	Inscribed	We	
<b>Stage III</b>	8	As much as we can do on our own, we can do <b>even more</b> with others. as much as = the same quantity	<b>even more</b>		as much as we can do on our own	force: number      quantification:

	9	Partnering allows us to share funding, training and know-how	<b>no evaluation</b>			
	10 a	<p>This collaboration <b>boosts</b> scale and accelerates <b>development</b> and change in <b>more</b> areas, <b>more</b> commodities, <b>more quickly than</b> if we were to go it alone.</p> <p>scale = A standard of measurement or judgment; a criterion.; A relative level or degree; <u>critierion</u>, <u>standard</u>, <u>touchstone</u>, <u>measure</u> - a basis for comparison; a reference point against which other things can be evaluated; "the</p>	<b><u>boosts (scale)</u></b>	inscribed	collaboration	Force: quality intensification:

		schools comply with federal standards"; "they set the measure for all subsequent work"				
	b	This collaboration <b>boosts</b> scale and <b>accelerates development</b> and change in <b>more</b> areas, <b>more</b> commodities, <b>more quickly than</b> if we were to go it alone.	<u>accelerates</u>	inscribe	development (nominalization : something develops)	force: intens: <u>process</u>
	c	This collaboration <b>boosts</b> scale and <b>accelerates development</b> and change in <b>more</b> areas, <b>more</b> commodities, <b>more quickly than</b> if we were to go it alone.	<b>development</b> appreciation: valuation positive	inscribe	areas/ commodities	

	d	This collaboration <b>boosts</b> scale and <u>accelerates</u> <b>development</b> and change in <b>more</b> areas, <b>more</b> commodities, <b>more quickly than</b> if we were to go it alone.	<b>more (2x)</b>		areas/ commodities	More = force: quantification: number Force: intensification: process via repetition the repetition adds up to the idea of accelerating "developemen"t and change - that is why it is here coded as intensification of process
	e	This collaboration <b>boosts</b> scale and <u>accelerates</u> <b>development</b> and change in <b>more</b> areas, <b>more</b> commodities, <b>more quickly than</b> if we were to go it alone.	<b>more quickly than</b>		collaboration (boosts...)	force: intensification: quality (in a way that is quicker than if...)
<b>Stage IV</b>	11 a	<b>Success</b> requires <b>vision</b> and <b>determination</b> , <b>great</b> partners and <u>seizing</u> opportunities— <u>from</u> <b>farm to fork</b>	<b>Success</b> appreciation: valuation positive [we can say	inscribed appreciation invoked judgement	company's	

		<b>vision = great perception</b> <b>Farm-to-table</b> (or <b>farm-to-fork</b> ) refers to the stages of the production of food: harvesting, storage, processing, packaging, sales, and consumption.[1]	that it is invoking a judgement: SE: capacity positive of the people who run the company]			
	b	<b>Success</b> requires <b>vision</b> and <b>determination, great</b> partners and <u>seizing</u> opportunities— <u>from farm to fork</u>	<b>vision</b> (+ App: Val) invoked positive judgement of capacity		company's	
	c	<b>Success</b> requires <b>vision</b> and <b>determination, great</b> partners and <u>seizing</u> opportunities— <u>from farm to fork</u>	<b>determinatio</b> <b>n</b> (+ App: Val) invoked positive judgement of tenacity	inscribed apprec invoked judgement	company's	
	d	<b>Success</b> requires	<b>great</b>	inscribe	partners	force: intensification: quality

		vision and determination, great partners and seizing opportunities— <u>from farm to fork</u>	positive judgement of capacity			
	e	Success requires vision and determination, great partners and seizing opportunities— <u>from farm to fork</u>	<u>seizing</u>		the company	force: intensification: process
	f	Success requires vision and determination, great partners and seizing opportunities— <u>from farm to fork</u>	<u>from farm to fork</u> means along the whole process of producing food		vision/ determination/ partners/ seizing opportunities	force: quantification: distribution: time
	12	It's a journey. journey = a traveling from one place to another, usually taking a rather long time; trip: <i>a six-day</i>	<u>journey</u> invoked appreciation: composition: complexity	invoked	success	force: quantification: proximity: time

		<i>journey across the desert</i>				
	13	It'll take <u>years</u> .	<u>years</u>		success (takes)	force:            quantification: proximity: time
	14 a	But we're in business for the <b>long-term</b> , which means we can't afford not to be <b>invested</b> . be invested = To devote morally or psychologically, as to a purpose; commit: <i>"Men of our generation are invested in what they do, women in what we are"</i> (Shana Alexander).	<u>long-term</u>		business	force:            quantification: proximity: time
	b	But we're in business for the <b>long-term</b> , which means we can't afford not to be <b>invested</b> .	<b>invested</b> = devoted, committed  appreciation: valuation	inscribe	we	

			positive invoking judgement: propriety			
	15 a	And done <b>right</b> , we know building sustainability into our business is <b>good</b> for the planet, people and, <b>ultimately</b> , our profits .	<b>right</b> appreciation: valuation positive	inscribe	building sustainability...	
	b	And done <b>right</b> , we know building sustainability into our business is <b>good</b> for the planet, people and, <b>ultimately</b> , our profits .	<b>good</b> +App:Val	inscribe	building sustainability...	
	c	And done <b>right</b> , we know building sustainability into our business is <b>good</b> for the planet, people and, <b>ultimately</b> , our profits .	<b>ultimately</b>		good	force: quantification: proximity: time



**titudes** **KRAFTS FOOD: Sustainability**

**KEY: Affect: **Inscribed** **Invoked** Judgement **Inscribed** **Invoked** Appreciation **Inscribed** **Invoked****  
**Graduation - underlined**

**(+) Positive dimension/ (-) Negative**

		<b>TEXT SUSTAINABILITY</b>	<b>II: Key/Attitude values</b>	<b>Mode (Inscribed or invoked)</b>	<b>Target</b>	<b>Graduation  Force: intensification/Quant Focus: Sharpen and Focus</b>
<b>Stage I</b>	<b>1</b>	Since 2010, we have <u>increased</u> <b>sustainable</b> sourcing (36%).	<b>increased (36%)</b>			<b>force:quant:number</b>
	1a	Since 2010, we have <u>increased</u> <b>sustainable</b> sourcing (36%).	<b>increase (+jud)</b>	<b>Invoked (flagged)</b>	<b>we</b>	<b>force:quant:number</b>
	b.	Since 2010, we have increased <b>sustainable</b> sourcing (36%).	<b>sustainable (+App: valuation)</b>	<b>Inscribed</b>	<b>sourcing</b>	
	2	Cut packaging ( <u>20,500 metric tons (45 million pounds)</u> ).	no evaluation <b>(+jud)</b>	<b>Invoked (flagged)</b>		
	3	Eliminated travel miles	<b>no evaluation</b>	<b>Invoked</b>		

		(20 million kilometres (12.5 million miles))	<b>(+jud)</b>	<b>(flagged)</b>		
	4a	And <u>reduced</u> energy, greenhouse gas emissions, water and waste by measured against total production.	<b>reduce (+jud)</b>	<b>Invoked (flagged)</b>	<b>we</b>	<b>force:quant:number</b>
	b	And <u>reduced</u> energy, greenhouse gas emissions, water and waste by measured against total production.	<b>no evaluation</b>			
	5	Our 2015 goal (15%)				
	6	We completed a <b>first-of-its-kind</b> project that mapped our company's <u>total</u> environmental footprint carbon (air), land and water.	<b>first-of-its-kind (+App:valuation)</b>	<b>Inscribed</b>	<b>project</b>	
		We completed a <b>first-of-its-kind</b> project that mapped our company's <u>total</u> environmental footprint: carbon (air), land and water.	<b>total</b>		<b>mapped company's environment footprint carbon, land and water</b>	<b>force:quant:number</b>

		Received SmartWay Cahampion award for a <b>strong</b> and <u>lasting</u> contribution to SmartWay's mission to <u>reduce</u> the footprint of <u>moving</u> goods.	Received SmartWay champions award	<b>Inscribed Social esteem distinctness</b>	we	
	8a.	Received SmartWay Cahampions award for a <b>strong</b> and <u>lasting</u> contribution to SmartWay's mission to <u>reduce</u> the footprint of <u>moving</u> goods.	<b>strong</b> (+App:valuation)		<b>contribution</b>	
	b.	Received SmartWay Cahampions award for a <b>strong</b> and <u>lasting</u> contribution to SmartWay's mission to <u>reduce</u> the footprint of <u>moving</u> goods.	<b>lasting</b>		<b>contribution</b>	<b>Force: Extent: Distribution: time</b>
		Received SmartWay Cahampions award for a <b>strong</b> and <u>lasting</u> contribution to	<b>reduce</b>	<b>reduce</b> (+jud)	<b>Invoked (flagged)</b>	<b>force: quantification: number</b>

		SmartWay's mission to <u>reduce</u> the footprint of moving goods.				

(Attitude & Graduation: **KRAFTS FOOD**)

KEY: Affect: **Inscribed Invoked** Judgement **Inscribed Invoked** Appreciation **Inscribed Invoked**  
 Graduation - underlined

(+) Positive dimension/ (-) Negative dimension

		<b>Text III – Kraftsfood</b>  <b>Better practices deliver the best results</b>	<b>Key/Attitude values</b>	<b>Mode (Inscribed or invoked)</b>	<b>Target</b>	<b>Graduation</b>  <b>Force: intensification/Quantity</b> <b>Focus: Sharpen and Focus</b>
	1a	In our Code of Conduct, the <b>first</b> rule is to <i>make</i> food that is <b>safe</b> to eat.	<b>first</b> (= <b>most important</b> ) (+App:val)	<b>inscribed</b>	<b>rule</b>	
	b.	In our Code of Conduct, the <b>first</b> rule is to <i>make</i> food that is <b>safe</b> to eat.	<b>safe</b> (+App:val)	<b>Inscribed</b>	<b>food</b>	
	3a	People expect <b>safe</b> food, and	<b>safe</b>	<b>Inscribed</b>	<b>food</b>	

	.	maintaining their <b>trust</b> means offering <b>quality</b> products they can rely on and feel <b>good</b> about.	(+App:val)			
	b.	People expect <b>safe</b> food, and maintaining their <b>trust</b> means offering <b>quality</b> products they can rely on and feel <b>good</b> about.	<b>trust</b> Affect (+ Security)	inscribed	people's	
		People expect <b>safe</b> food, and maintaining their <b>trust</b> means offering <b>quality</b> products they can rely on and feel <b>good</b> about.	<b>quality</b> (+App:reac: quality)	inscribed	products	
		People expect <b>safe</b> food, and maintaining their <b>trust</b> means offering <b>quality</b> products they can rely on and feel <b>good</b> about.	they can rely on (= reliable) +App: reac: quality	inscribed	products	
	c.	People expect <b>safe</b> food, and maintaining their <b>trust</b> means offering <b>quality</b> products they can rely on and feel <b>good</b> about.	<b>good</b> (+Aff Satisfaction:)	inscribed	people)	
	4a	This is the <u>cornerstone</u> of our heritage and an <u>essential</u> part of our culture.	cornerstone	inscribed	heritage	Force: intensification
	b.	This is the <u>cornerstone</u> of our heritage and an <u>essential</u>	essential	Inscribed	part of our culture	Force: intensification

		part of our culture.				
	5	<b>From ingredient to final product</b> , we have quality standards in place.	<b>from ingredients to final product means along the whole process of producing food</b>	<b>inscribed</b>		<b>force:quantification: distribution: time</b>
	6a	Our system is based on the <b>internationally recognized</b> quality management standard ISO 9001:2000.	<b>internationally (meaning widely)</b>			<b>Force: quant:extent:scope: pace</b>
	b.	Our system is based on the <b>internationally recognized</b> quality management standard ISO 9001:2000.	<b>recognized (App:val)</b>	<b>inscribed</b>	quality management standard ISO 9001:2000	
	c.	We supplement ISO standards with safety and quality criteria that we've developed <b>specifically</b> for our business.	<b>specifically in distinction from others, i. e., they were made to</b>		<b>criteria</b>	<b>it could possibly be coded as Focus: valeur considering "specifically</b>

			fit our business only and not others; particularly / exclusively			developed" criteria as meaning "specific" criteria. Note that it could further be taken as invoking appreciation: valuation - "unique" criteria.
	8a	We <b>routinely</b> conduct audits, which are <b>key</b> to measuring and reporting compliance with regulations and internal policies and to driving <b>good</b> practices.	<b>routinely</b>		<b>we conduct audits</b>	<b>Force: extent:dist:time</b>
	b	We <b>routinely</b> conduct audits, which are <b>key</b> to measuring and reporting compliance with regulations and internal policies and to driving <b>good</b> practices.	<b>key (= very important, essential) appreciation: valuation</b>		<b>audits</b>	
	c	We <b>routinely</b> conduct audits, which are <b>key</b> to measuring and reporting compliance with regulations and internal policies and to driving <b>good</b> practices.	<b>good (+App: val)</b>		<b>practices</b>	
	9a	And we work with governments	<b>around the</b>			<b>Force:</b>

		and industry partners <b>around the world</b> to share learning, because we know that <b>all</b> food safety issues, even when they are <b>not</b> ours, can shake consumer <b>trust</b> .	<b>world</b>			<b>quant:extent:scope:s pace</b>
		And we work with governments and industry partners <b>around the world</b> to share learning, because we know that <b>all</b> food safety <b>issues</b> , even when they are not ours, can shake consumer <b>trust</b> .	<b>issues</b> (-App: val)			
	b	And we work with governments and industry partners <b>around the world</b> to share learning, because we know that <b>all</b> food safety <b>issues</b> , even when they are not ours, can shake consumer <b>trust</b> .	<b>all</b>		<b>food safety issues</b>	<b>Force: quant (number)</b>
	e	And we work with governments and industry partners <b>around the world</b> to share learning, because we know that <b>all</b> food safety <b>issues</b> , even when they are not ours, can shake consumer <b>trust</b> .	<b>Trust:Affect: Security</b>		<b>consumer's</b>	
	10 a	If a food safety <b>issue</b> arises, we take <b>immediate</b> steps to protect	<b>immediate</b>		<b>steps</b>	<b>Force: int:quality</b>



		consumers through our <u>Special Situations Management Teams</u> — senior-level managers <u>from across</u> the company who have experience in handling <b>critical</b> situations				
	b	If a food safety issue arises, we take <u>immediate</u> steps to protect consumers through our <u>Special Situations Management Teams</u> — senior-level managers <u>from across</u> the company who have experience in handling <b>critical</b> situations.	<b>special special here means only "specific", i.e. designed for a particular task. It does not involve any meanings concerning "fate" which is what Jim's "normality" category refers to.</b>	<b>inscribed</b>	<b>situations Management Teams</b>	<b>As with "specifically above, it could possibly be coded as Focus: valeur - "special" (or specific) teams</b>
	c	If a food safety issue arises, we take <u>immediate</u> steps to protect	<b>from across</b>		<b>(the company)</b>	<b>Force: quant:extent:scope:s</b>

		consumers through our <u>Special Situations Management Teams</u> — senior-level managers <b>from across</b> the company who have experience in handling <b>critical</b> situations.				<b>pace</b>
		If a food safety issue arises, we take <b>immediate</b> steps to protect consumers through our <u>Special Situations Management Teams</u> — senior-level managers <b>from across</b> the company who have experience in handling <b>critical</b> situations	<b>critical</b> (= <b>extremely risky or bad</b> )		<b>Situations</b>	<b>Force: intensification</b>
	d	If a food safety issue arises, we take <b>immediate</b> steps to protect consumers through our <u>Special Situations Management Teams</u> — senior-level managers <b>from across</b> the company who have experience in handling <b>critical</b> situations	<b>critical</b> (-App: Val) - <b>negative!!</b>	<b>inscribed</b>	<b>Situations</b>	
		Our <b>early-alert</b> system and processes help us make decisions <b>quickly</b> and in the <b>best</b> interest of	<b>early(-alert)</b>	<b>invoke</b>		<b>Force: int:quality</b>

		consumer safety.				
11	a	Our early-alert system and processes help us make decisions <b>quickly</b> and in the <b>best</b> interest of consumer safety.	<b>quickly</b>		(make decisions)	<b>force:intensification: quality</b>
	b.	Our early-alert system and processes help us make decisions <b>quickly</b> and in the <b>best</b> interest of consumer safety.	<b>best</b>		(interest of customer safety)	<b>Force: intensification: quality</b>
12	a	By adhering to <b>strict</b> standards, acting <b>swiftly</b> when threats to safety arise and <b>communicating with consumers effectively</b> , we maintain and <b>strengthen</b> our reputation for <b>consistently</b> producing <b>delicious safe</b> foods.	<b>strict</b> <b>+App: reaction</b>	Inscribed	standards	
	b	By adhering to <b>strict</b> standards, acting <b>swiftly</b> when threats to safety arise and <b>communicating with consumers effectively</b> , we maintain and <b>strengthen</b> our reputation for <b>consistently</b> producing <b>delicious safe</b> foods.	<b>swiftly</b> <b>(in a way that is swift)</b>		(acting)	<b>Force: int: quality</b>
		By adhering to <b>strict</b> standards, acting <b>swiftly</b> when threats to	<b>act swiftly when</b>	invoke (flag)	we	

		safety arise and communicating with consumers effectively, we maintain and <b>strengthen</b> our reputation for <b>consistently</b> producing <b>delicious safe</b> foods.	<b>threats...</b> (+Jud: ten)			
	c	By adhering to <b>strict</b> standards, acting <b>swiftly</b> when threats to safety arise and communicating with consumers effectively, we maintain and strengthen our reputation for <b>consistently</b> producing <b>delicious safe</b> foods.	<b>communicate effectively</b> (+jud:cap)	inscribe	we	
		By adhering to <b>strict</b> standards, acting <b>swiftly</b> when threats to safety arise and communicating with consumers effectively, we maintain and strengthen our reputation for <b>consistently</b> producing <b>delicious safe</b> foods.	<b>maintain and strengthen our reputation for...</b> (+Jud: ten)	inscribe	we	
		By adhering to <b>strict</b> standards, acting <b>swiftly</b> when threats to safety arise and communicating with consumers effectively, we maintain and <b>strengthen</b> our reputation for <b>consistently</b>	strengthen...		we	<b>Force: intensification: quality</b>

		producing <b>delicious safe</b> foods.				
d		By adhering to <b>strict</b> standards, acting <b>swiftly</b> when threats to safety arise and <b>communicating with consumers effectively</b> , we maintain and strengthen our reputation for <b>consistently producing delicious safe</b> foods.	<b>consistently (in a consistent way)</b>		<b>(producing)</b>	<b>Force: intensification: quality</b>
e		By adhering to <b>strict</b> standards, acting <b>swiftly</b> when threats to safety arise and <b>communicating with consumers effectively</b> , we maintain and strengthen our reputation for <b>consistently producing delicious safe</b> foods.	<b>delicious +App:reaction</b>		<b>foods</b>	
f.		By adhering to <b>strict</b> standards, acting <b>swiftly</b> when threats to safety arise and <b>communicating with consumers effectively</b> , we maintain and strengthen our reputation for <b>consistently producing delicious safe</b> foods	<b>safe (+App:val)</b>		<b>foods</b>	

**KEY: Affect: **Inscribed** Invoked Judgement **Inscribed** Invoked Appreciation **Inscribed** Invoked Graduation - underlined**

--

		<b>TEXT IV Workplace and Culture</b> Performance-driven, values-led	Key/Attitude values	Mode (Inscribed or invoked)	Target	Graduation  Force: intensification/Quant Focus: Sharpen and Focus
<b>Stage I</b>	01	<b>Every day</b> , our <b>success</b> depends on <b>more than</b> 125,000 <b>capable, dedicated</b> and <b>diverse</b> employees <b>around the world.</b>	every day	-	-	Force: extent: distribution: time
	a.		success (+App:Val)	Inscribed	Company's	-
	b.		more than	-	(number)	force: quant: number
	c.		Capable (+Jud: judgment)	Inscribed	employees	Intensification/repetition
	d.					

		employees <b>around the world.</b>				
e		<b>Every day</b> , our <b>success</b> depends on <b>more than</b> 125,000 <b>capable, dedicated</b> and <b>diverse</b> employees <b>around the world</b>	dedicated (+Jud: distinctness)	Inscribed	employees	=
f		<b>Every day</b> , our <b>success</b> depends on <b>more than</b> 125,000 <b>capable, dedicated</b> and <b>diverse</b> employees <b>around the world</b>	diverse (=different from each other) (+Jud: distinctness)	Inscribed	employees	=
g		<b>Every day</b> , our <b>success</b> depends on <b>more than</b> 125,000 <b>capable, dedicated</b> and <b>diverse</b> employees <b>around the world</b>	around the world	-	-	Force: extent:: Scope: Space
02		They create <b>new</b> products.	new (+App:val)	Inscribed	products	-
03		Make and sell our <b>delicious</b> brands	delicious (+App:react)	Inscribed	brands	-
04		Manage our company.	no evaluation	-	-	-
05		Treating our people well and providing a workplace that is <b>safe, rewarding</b> and <b>inclusive</b> is a proven recipe.	safe, rewarding and inclusive	Inscribed	workplace	Intensification/repetition

	a b	Treating our people well and providing a workplace that is <b>safe, rewarding and inclusive</b> is a proven recipe.	safe (App: Val: (+))	inscribed	workplace	Intensification/repetition
	c	Treating our people well and providing a workplace that is <b>safe, rewarding and inclusive</b> is a proven recipe for us.	rewarding (=satisfying) (App: react)	inscribed	workplace	-
	d	Treating our people well and providing a workplace that is <b>safe, rewarding and inclusive</b> is a proven recipe for us.	inclusive (+App: reac) (it allows all kind of people to take part in it)	inscribed	workplace	-
<b>Stage II</b>	06 a	We <b>encourage</b> and support our employees in living <b>healthier</b> lifestyles and in fostering their <b>spirit</b> of giving back to our communities.	encourage (Aff: Sec (+))	inscribed	we	-
	b	We <b>encourage</b> and support our employees in living <b>healthier</b>	healthier (+App:	Inscribed	employees' lifestyles	Force:intensification:quality



		lifestyles and in fostering their <b>spirit</b> of giving back to our communities.	Valuation)			
07 a		We provide <b>various</b> tools and resources about health and well-being as well as other life topics that are designed to help our employees balance their lives	various	-	tools and resources about health and well-being as well as other life topics	Force: quant: number
08 a		Our <b>robust</b> volunteer program <u>encourages</u> employee contributions of time, money and skills where they are needed <b>most</b> in our communities <b><u>around the globe</u></b>	robust	Inscribed (+ App: valuation )	program	Force:intensification:quality
	b	Our <b>robust</b> volunteer program <u>encourages</u> employee contributions of time, money and skills where they are needed <b>most</b> in our communities <b><u>around the globe</u></b>	encourage [if something encourages a particular activity or state, it causes it to happen or increase)	inscribed	employee contribution of time, money and skills	Force: int: process

	c	Our <b>robust</b> volunteer program <u>encourages</u> employee contributions of time, money and skills where they are needed <b>most</b> in our communities around <b>the globe</b> .	most	-	(contributions of time, money and skills are needed)	Force: intensification: process
	d	Our <b>robust</b> volunteer program <u>encourages</u> employee contributions of time, money and skills where they are needed <b>most</b> in our communities <b>around the globe</b> .	around the globe	-	-	Force: quant: extent:Scope: Space
	09 a	Fostering volunteerism is <b>good</b> for the community, our employees and our company.	good (+App:Val)	Inscribed	fostering volunteerism	
<b>Stage III</b>	10 a	We <b>work hard</b> to keep <b>all</b> our employees <b>safe</b> and aim for zero accidents in the workplace.	work hard (Jud: ten(+))	inscribed	we	
	b	We <b>work hard</b> to keep <b>all</b> our employees <b>safe</b> and aim for zero accidents in the workplace.	all		employees	force: quant: number
	c	We <b>work hard</b> to keep <b>all</b> our employees <b>safe</b> and aim for zero accidents in the workplace.	safe (+ Aff: Sec (+))  [ We can say	inscribed	employees' safety	

			that it is involving a judgement of the company's capacity to keep employees safe)			
	d	Doing so requires addressing the causes of injuries and setting <b>clear</b> expectations that employees must follow <b>all</b> safety laws and guidelines, <b>operate equipment properly</b> and never use alcohol or illegal drugs in the workplace.	clear (+App:Com)	Inscribed	expectations	-
	e	Doing so requires addressing the causes of injuries and setting <b>clear</b> expectations that employees must follow <b>all</b> safety laws and guidelines, <b>operate equipment properly</b> and never use alcohol or illegal drugs in the workplace.	all	-	(safety laws and guidelines)	Force: quantification: number

	e	Doing so requires addressing the causes of injuries and setting <b>clear</b> expectations that employees must follow <b>all</b> safety laws and guidelines, <b>operate equipment properly</b> and never use alcohol or illegal drugs in the workplace.	operate equipment properly (+Jud: capacity)	Inscribed	employees	-
	12 a	So everyone can contribute to his or her <b>fullest</b> potential, we don't allow discrimination or harassment based on age, race, disability, national origin, religion, sex, sexual orientation or any other <u>legally protected</u> status.	fullest	-	(his/her everyone's potential)	Force: quantification: mass/presence
	b	So everyone can contribute to his or her <b>fullest</b> potential, we don't allow discrimination or harassment based on age, race, disability, national origin, religion, sex, sexual orientation or any other <u>legally protected</u> status.	legally	-	(protected status)	Force: Intensification: quality

Stage IV	13 a.	A performance-driven, values-led culture builds a <b>stronger</b> company and provides a workplace that attracts and retains <u>thinkers, problem-solvers and doers.</u>	stronger (+ App: Valuation)	Inscribed	(company)	Force: intensification: quality
	b	A performance-driven, values-led culture builds a <b>stronger</b> company and provides a workplace that attracts and retains <u>thinkers, problem-solvers and doers.</u>	thinkers, problem-solvers and doers	Inscribed	(a workplace that attracts and retains)	Force: Int/rept
	c	A performance-driven, values-led culture builds a <b>stronger</b> company and provides a workplace that attracts and retains <u>thinkers, problem-solvers and doers.</u>	problem (- Appreciation: Valuation)	inscribed	solvers	-
	14	And they in turn are defining the food industry <u>for decades to come.</u>	for decades to come	-	-	force: quantification: proximity: time

		<b>TEXT V: Health and Well-Being</b> <b>Eat delicious, live well</b>	<b>Target</b>	Inscribed or invoked modes	Target	<b>Graduation</b>  <b>Force: intensification/Quant</b> <b>Focus: Sharpen and Focus</b>
<b>Stage I</b>	01a	Today, the world faces the dual <b>challenge</b> of simultaneously addressing hunger and obesity	today			Force: quant: ext:proximity /time
	b	Today, the world faces the dual <b>challenge</b> of simultaneously addressing hunger and obesity	challenge (App: Valuation (-) )	inscribed	dual (hunger and obesity)	
	02a	As the <b>world's second-largest</b> food company, we have an <b>important</b> role to play in tackling both of these <b>issues</b> by helping people eat and live <u>better</u>	second – largest (+ Invoking Appreciation) (in business – large : does a lot of and commercial	food company	(food company)	Force: intensification:mass / presence

			activity and employs a lot of people)			
	b	As the <b>world's second-largest</b> food company, we have an <b>important</b> role to play in tackling both of these <b>issues</b> by helping people eat and live <u>better</u>	important (+ App: Valuation)	inscribed	role	
	c	As the <b>world's second-largest</b> food company, we have an <b>important</b> role to play in tackling both of these <b>issues</b> by helping people eat and live <u>better</u>	issues (- App: Valuation)	inscribed	tackling these issues	
	d	As the <b>world's second-largest</b> food company, we have an <b>important</b> role to play in tackling both of these <b>issues</b> by helping people eat and live <u>better</u>	better		eat and live	Force: int: process
	03a	Our <b>broad</b> portfolio and <u>global</u> presence give us <u>many</u> ways to help, and we're making <b>good</b> progress through an approach	broad (+App: Val)	inscribed	portfolio = the combination of shares or	

		we call the three Ps: products, policies and partnerships.			other investments that a company or business has	
	b	Our <b>broad</b> portfolio and <u>global</u> presence give us <u>many</u> ways to help, and we're making <b>good</b> progress through an approach we call the three Ps: products, policies and partnerships.	global		presence	quantification: Extent: Distributio: Space
	c	Our <b>broad</b> portfolio and <u>global</u> presence give us <u>many</u> ways to help, and we're making <b>good</b> progress through an approach we call the three Ps: products, policies and partnerships.	many		ways to help	Force:      Quant: number
	d	Our <b>broad</b> portfolio and <u>global</u> presence give us <u>many</u> ways to help, and we're making <b>good</b> progress through an approach we call the three Ps: products, policies and partnerships.	good (+App: Valuation )	inscribed	progress	
<b>Stage II</b>	04 a	We make products that offer <b>appealing</b> nutritional profiles,	appealing (+App: reac )	inscribed	nutritional profiles	



		including <u>less</u> fat, sugar and sodium, as well as products that contain <b>beneficial</b> ingredients, such as whole grains.				
	b	We make products that offer <b>appealing</b> nutritional profiles, including <u>less</u> fat, sugar and sodium, as well as products that contain <b>beneficial</b> ingredients, such as whole grains.	beneficial (+ App: Val )	inscribed	ingredients	
	05a	Foods that have <u>few</u> <b>artificial</b> ingredients are likewise an <u>important</u> part of our portfolio, as is choice in portion size	few		artificial ingredients	Force: quantification: number
	b	Foods that have <u>few</u> <b>artificial</b> ingredients are likewise an <u>important</u> part of our portfolio, as is choice in portion size.	artificial (App: composition (-))	inscribed	ingredients	
	c	Foods that have <u>few</u> <b>artificial</b> ingredients are likewise an <u>important</u> part of our portfolio, as is choice in portion size.	important	inscribed	part of our portfolio	Force: Intensification: quality

	06a	In short, we offer a <u>wide range</u> of options from which consumers can choose, including a <u>variety</u> of <b>flavorful</b> , <u>better-for you</u> foods.	a wide range		of options from which consumers can chose	Force: number	Quant:
	b	In short, we offer a <u>wide range</u> of options from which consumers can choose, including a <u>variety</u> of <b>flavorful</b> , <u>better-for you</u> foods.	a variety		(of flavour, better)	Force: numer	Quant:
	c	In short, we offer a <u>wide range</u> of options from which consumers can choose, including a <u>variety</u> of <b>flavorful</b> , <u>better-for you</u> foods.	flavourful – better (App: reac (+))		for you foods		
<b>Stage III</b>	07a	<b>Policies.</b> How we “talk” to consumers about our products is just <u>as important as the</u> products themselves	as important as		the talking about our products ... products themselves	Force: Intensification: comparative	
	8a	In 2005, we introduced an <b>innovative</b> policy that <u>limits</u> what we advertise to children under age 12. For children ages 6 through 11, we only	innovative (App: Val (+))	inscribed	policy		

		advertise those products that meet <b>specific</b> nutrition				
	b	In 2005, we introduced an <b>innovative</b> policy that <b>limits</b> what we advertise to children under age 12. For children ages 6 through 11, we only advertise those products that meet <b>specific</b> nutrition	limit		(what we advertise to children under age 12 for children ages through 6)	Force: extent : scope: space
	c	In 2005, we introduced an <b>innovative</b> policy that <b>limits</b> what we advertise to children under age 12. For children ages 6 through 11, we only advertise those products that meet <b>specific</b> nutrition	specific = indistinct from from others. Particular		nutrition	Focus: valeur
<b>Stage IV</b>	10a	When it comes to product packaging, <u>all</u> of our packaging has <b>clear</b> nutrition labeling, even where the law doesn't require it.	all		of our packaging	Force: quant: number
	b	When it comes to product packaging, <u>all</u> of our packaging has <b>clear</b> nutrition labeling, even where the law	clear (App: reac)	inscribed	nutrition labelling	

		doesn't require it.				
	11a	Beyond our <u>own</u> policies, we work with other companies and organizations to advance public policy efforts to help consumers achieve <b>healthier</b> lifestyles	own	inscribed	policies	Focus: Sharpen
	b	Beyond our <u>own</u> policies, we work with other companies and organizations to advance public policy efforts to help consumers achieve <b>healthier</b> lifestyles	healthier (+App: Val)	inscribed	lifestyles	Force: Int:quality
<b>Stage V</b>	12	<b>Partnerships.</b> The third element in our approach is collaboration.	no evaluation			
	a	We can and are doing <u>a lot</u> , but we can do <u>more</u> with others.	more		we can and are doing a lot	Force: quantification: number
	14 a	That's where our <u>many strategic</u> partnerships come into play—from community investments with leading nongovernmental	many		strategic partnerships	Force: quantification: number

		organizations to public-private partnerships with governments and <u>multilateral</u> organizations.				
	b	That's where our <u>many strategic</u> partnerships come into play—from community investments with leading nongovernmental organizations to public-private partnerships with governments and <u>multilateral</u> organizations.	strategic (=presenting the most useful and most important effect [invokes appreciation: val)		partnerships	Focus: valeur
	c	That's where our <u>many strategic</u> partnerships come into play—from community investments with leading nongovernmental organizations to public-private partnerships with governments and <u>multilateral</u> organizations.	multilateral (Invoking appreciation)`		organization s	(Force: quant: quality)
	15a	We know that only by working together <b>can we truly tackle these issues</b> in ways that are both <b>sustainable</b> and	can we truly tackle ... (Jud: Cap)		we	-

		scalable				
	b	We know that only by working together can we truly tackle these issues in ways that are both sustainable and scalable	truly		tackle these issues	Focus: sharpen
	c	We know that only by working together can we truly tackle these issues in ways that are both sustainable and scalable	sustainable (+App: Valuation)		these issues in ways	
	d	We know that only by working together can we truly tackle these issues in ways that are both sustainable and scalable	scalable (+App: Valuation (+) )  [In business setting, a system that is scalable can successfully grow larger using the same		these issues in ways	

			methods.			
<b>Stage VI</b>	16a	Tackling hunger and obesity is <b>not easy</b> .	not easy (=difficult) (App: Valuation (-) )	inscribed	tackling hunger and obesity	
	b	But by addressing consumers' health and well-being through our products, policies and partnerships, we're seeing <b>good</b> progress	good (App: Valuation (+))		progress	
	b	And we'll keep working to achieve <u>real</u> results until everyone can eat <b>delicious</b> and live <u>well</u> .	real		results	focus: sharpen
	c	And we'll keep working to achieve <u>real</u> results until everyone can eat <b>delicious</b> and live <u>well</u>	delicious (App: react (+))		eat	
	d	And we'll keep working to achieve <u>real</u> results until everyone can eat <b>delicious</b> and live <u>well</u>			live	

		<b>TEXT VI:GOVERNANCE AND COMPLIANCE: INSPIRING TRUST</b>	<b>Grammatical features</b>	<b>Key/Attitude values</b>	<b>Target</b>	<b>Graduation  Force: intensificatio n/Quant Focus: Sharpen and Focus</b>	<b>Graduation  Force: intensificati on/Quant Focus: Sharpen and Focus</b>
	01a	We value <b>trust</b> . . . of <u>consumers, customers, communities, regulators, suppliers and employees</u> <u>above all else</u>		trust of consumers, customers, communities, regulators... (+ App: val)	inscribed	we	
	c.	We value <b>trust</b> . . . of <u>consumers, customers, communities, regulators, suppliers and employees</u> <u>above all else</u>		above all else		employees	Focus: Sharpen
	02a	We strive to earn <b>trust</b> <u>every day</u> by doing what we say we will do and holding ourselves <u>accountable.</u>		trust	Inscribed	The company's effort	



	b.	We strive to earn <b>trust</b> <b>every day</b> by doing what we say we will do and holding ourselves <b>accountable</b> .		every day			Force: Int: dist: time
	c.	We strive to earn <b>trust</b> <b>every day</b> by doing what we say we will do and holding ourselves <b>accountable</b> .		accountable (+App: Val)	inscribed	we	
	03a	As a public company, we have the <b>added</b> responsibility to be <b>open</b> and <b>responsive</b> to our shareholders.		added		(responsibility)	Force: quant: mass/presence
	b	As a public company, we have the <b>added</b> responsibility to be <b>open</b> and <b>responsive</b> to our shareholders.		open (+ App:Val) [we can say it is involving a judgment: propriety positive of the people	Inscribed	Company's responsibility	-

				who run the company.			
	c	As a public company, we have the <u>added</u> responsibility to be <b>open</b> and <b>responsive</b> to our shareholders.		responsive (person quick to act to people or events) (+App: Valuation) we can say it is involving a judgment: propriety positive of the people who run the company.	inscribed	Company	
	04a	Living up to these expectations and obligations requires <b>detailed</b> planning and <b>focused</b> action.		Detailed (+App: Comp)	Inscribed	Planning/ action	-
	b	Living up to these expectations and obligations requires		Focused (+App:Comp)	inscribed	action	

		<b>detailed</b> planning and <b>focused</b> action.					
	05a	That's why we have <b>structures, policies and processes</b> to help promote the <b>ethical</b> and <b>efficient</b> governance of our company.		structures, policies and systems			Force: Int: rep t
	b	That's why we have <b>structures, policies and processes</b> to help promote the <b>ethical</b> and <b>efficient</b> governance of our company.		ethical (+ App: Comp: Complex)	Inscribed	Governance	
	c	That's why we have <b>structures, policies and processes</b> to help promote the <b>ethical</b> and <b>efficient</b> governance of our company		Efficient (+App: Val)	Inscribed	Governance	
	06	And we have internal and external auditors to monitor our compliance.		No evaluation			-
	07a	Our Board of Directors sets the <b>right</b> tone <b>from</b>		right		(tone)	Focus: sharpen

		<b>the top</b> by governing Kraft Foods in line with our Corporate Governance Guidelines.					
	b.	Our Board of Directors sets the <b>right</b> tone <b>from the top</b> by governing Kraft Foods in line with our Corporate Governance Guidelines.		from the top		The company's Governance guide	Force:
	b	Our CEO and senior executives drive home <b>the central</b> message of our Code of Conduct—that integrity and growth go hand in hand.		Central		central message of our code of conduct	Focus:Sharpen
	c	Our CEO and senior executives drive home <b>the central</b> message of our Code of Conduct—that integrity and growth go hand in hand.		integrity (+App: Val)	Inscribed	Contained in the central message	
	d	Our CEO and senior executives drive home <b>the central</b> message of			Inscribed		

		our Code of Conduct—that <b>integrity</b> and <b>growth</b> go hand in hand.					
	09a	To support the <b>right</b> behaviors <b>throughout</b> the company, we have a <b>chief</b> compliance officer, five regional compliance officers and a team that educates employees <b>worldwide</b> about our ethics and compliance practices.		right (+ App: Valuation)		(behaviours)	
	b	To support the <b>right</b> behaviors <b>throughout</b> the company, we have a <b>chief</b> compliance officer, five regional compliance officers and a team that educates employees <b>worldwide</b> about our ethics and compliance practices.		throughout		(the company)	Force: Quantificatio n: Exten: distribution: Space
	c	To support the <b>right</b> behaviors <b>throughout</b> the		chief		compliance officer	

		company, we have a <b>chief</b> compliance officer, five regional compliance officers and a team that educates employees <b>worldwide</b> about our ethics and compliance practices.					
	d	To support the <b>right</b> behaviors <b>throughout</b> the company, we have a <b>chief</b> compliance officer, <u>five regional</u> compliance officers and a team that educates employees <b>worldwide</b> about our ethics and compliance practices.		five		(officers)	Force: Int:
	e	To support the <b>right</b> behaviors <b>throughout</b> the company, we have a <b>chief</b> compliance officer, <u>five regional</u> compliance officers and a team that educates employees		regional	inscribed	(compliance officers)	

		<b>worldwide</b> about our ethics and compliance practices.					
	f	To support the <b>right</b> behaviors <b>throughout</b> the company, we have a <b>chief</b> compliance officer, <b>five regional</b> compliance officers and a team that educates employees <b>worldwide</b> about our ethics and compliance practices.		worldwide		(educates employees)	Force: Quantification: Extension: distribution: Space
	10a	Under our <i>Speaking Up Policy</i> , we__empower employees to ask questions and raise <b>concerns</b> about business practices when they see <b>something</b> they think may be <b>wrong</b>		concerns (-Affect:	inscribed	employees' concern about business practices	
	b	Under our <i>Speaking Up Policy</i> , we__empower employees to ask questions and raise		something		(employees' perception of something wrong	Focus: Soften

		<b>concerns</b> about business practices when they see <b>something</b> they think may be <b>wrong</b>					
	c	Under our <i>Speaking Up Policy</i> , we__empower employees to ask questions and raise <b>concerns</b> about business practices when they see <b>something</b> they think may be <b>wrong</b>		wrong (- App:valuation)	inscribed	something they may think	
	11b	We select suppliers (including consultants and other service providers) <b>not only</b> on quality and price but also on whether their <b>ethical</b> standards align with ours.		Ethical (+App:Comp:bal)	Inscribed	We/standard	
	12a	To repeat: Of <b>all</b> of our assets, the public's <b>trust</b> is <b>the one</b> we value <b>most</b> .		All		of our assets	Focus: Sharpen
	b	To repeat: Of <b>all</b> of our assets, the public's <b>trust</b>		public's trust (+Aff: sec+)	inscribed	Of the company's	



		is <b><u>the one</u></b> we value <b>most</b> .				assets	
	c	To repeat: Of <b><u>all</u></b> of our assets, the public's <b>trust</b> is <b><u>the one</u></b> we value <b>most</b> .		the one		public's trust	Focus: Sharpen
	d	To repeat: Of <b><u>all</u></b> of our assets, the public's <b>trust</b> is <b><u>the one</u></b> we value <b>most</b> .		most		( trust)	Force: intensificatio n: process
	13a	<u>Our standards, policies and systems</u> make it plain to <b><u>anyone</u></b> who works for us, does business with us or buys our products: We're working to create a <u>more <b>delicious</b> world—<b>every day</b></u> .		standards, policies and systems		The company's	Force: Int/rept
	b.	<u>Our standards, policies and systems</u> make it plain to <b><u>anyone</u></b> who works for us, does business with us or buys our products: We're working to create a <u>more <b>delicious</b> world—<b>every day</b></u> .		anyone			Force:quant: number
	c.	<u>Our standards, policies</u>		more		(delicious)	Force

		<u>and systems</u> make it plain to <b>anyone</b> who works for us, does business with us or buys our products: We're working to create a <b>more delicious</b> world— <b>every day.</b>					intensificatio n: quality
	d.	<u>Our standards, policies and systems</u> make it plain to <b>anyone</b> who works for us, does business with us or buys our products: We're working to create a <b>more delicious</b> world— <b>every day.</b>		delicious (+ App: Val)	inscribed	world	
	e.	<u>Our standards, policies and systems</u> make it plain to <b>anyone</b> who works for us, does business with us or buys our products: We're working to create a <b>more delicious</b> world— <b>every day.</b>		every day			Force: Ext: Distribution: time

### APPENDIX III – A theoretical guideline of technical terms in sustainability

<b>Sustainability</b>	Regardless of the fact that sustainability displays multiple interpretations in different cultures (Tábara & Phal-Wostl, 2007), worldwide views claim that the concept of sustainability accommodates, in its essence, the existence of a strategic policy of economic and social development that both promotes the long-term maintenance of the ecosystems, preventing the cultural and environmental heritage from suffering irreversible damage, and favors the generation of profits, thus feeding the economic system (Sachs ,2007, 2009; Vieira 2009, 2010; Berkes & Folke, 1994).	
<b>Green business</b>	According to Friend (2009), a company to be regarded green should meet the following criteria: 1) working for reducing the environmental impacts; (2) complying with the environmental regulations; offering a slick green marketing campaign; (3) publishing a Corporate Social Responsibility Report (CRS); (4)having good environmental management systems; (5) being operated under ISO 14001 or other ‘green’ recognizably certified standard; (6) able to sustain its business operations into the future indefinitely.	
<b>Concepts</b>	Referring to	<b>Theoretical accounts</b>
1) Ecologically, socially and economically-integrated aspects	The pillars of sustainability (ecological prudence, economy efficiency and social responsibility)	1 ) <i>Ecological prudence</i> refers to how ecosystems use and maintain their natural resources systems in the long run. Here the conservation of fauna and flora is included. In this context, conservation means using the natural resources available in nature respecting the capacity of resilience of a given ecosystem. Holling and Gunderson (2002, p. 50, as cited in Yong 2009) define resilience as “ [...] capacity of a system to experience disturbance and still maintain its ongoing functions and controls”.

		<p>2) <i>Economy efficiency</i> is concerned with generating reasonable and stable profitability in the long run by using the natural resources without exhausting them.</p> <p>3) <i>Social responsibility</i> has to do with the ecological dimension satisfactorily coinciding with the economic dimension. Here cultural and ethical values are at play, in the sense of</p>
2) Eco-audits	The device that assesses sustainable business transactions and operations.	Friend (2009) conceptualizes eco-audits “a systemic assessment of your organization’s operations – an integrated analysis of resources use that identifies opportunities to improve performance, reduce impact and save money” (p.48).
3) eco-efficiency (Opportunities-efficiency)	The basis of sustainable business	Eco-efficiency has to do with reducing inputs and outputs in production aiming at improving the environmental quality, profitability and efficiency (Friend, 2009). Fuller in Friend (2009) summarizes this idea by saying that eco-efficiency’ the act of “doing more with less” (p. 43), and it is the individual’s responsibility to perceive the opportunities to do so (opportunities-efficiency).

4) Environmental impact	environmental and indirect impacts	Any type of alteration that could result in a change in the biological, physical, or chemical properties of the environment, brought about by any matter or energy direct or indirectly manipulated by man, in which people's health, safety and well-being, economic and social activities, and the quality of the natural resources could be affected <sup>40</sup> . This could happen either in a positive or negative way judging from the view that impacts are positive or negative over the environment and people's quality of life (direct and indirect impacts, respectively).
5) ISO 14001	The quality management standard in sustainable business	ISO stands for International Standardization Organization. Internationally recognizable, ISO 14001 is defined as a set of criteria and regulations designed to operate systems based on Environment Management. To inform, the series of 14001 are 14004 (Implementation guidelines); ISO 14010 (Environment auditing); ISO 14024 (Environment labelling); ISO 14031 (Environmental Performance Evaluation); ISO 14040-14044(Life Cycle Analysis); ISO 14050 (Terms and Definitions); ISO 14060 (Inclusion of Environment in Product Standards); and ISO 19011: Auditing 1400 and 9000 (Friend, 2009, pp. 182 -183).

<sup>40</sup> Available at [www.ecodesenvolvimento.org/gloss\[ariodetermostecnicos](http://www.ecodesenvolvimento.org/gloss[ariodetermostecnicos). Accessed in Feb.2013.

6) Governance	Socially-negotiable settings	Bell (2002) defined governance as “collective decisions made in the public sector, the private sector, and civil society. It suggests the need for collaboration among these sectors to address the kinds of broad, horizontal changes associated with sustainability” (p.13).
7) Material growth and social development	the implementation of sustainable development	In the field of sustainability, the interpretation of <i>development</i> , also known as <i>eco-development</i> , is different. Bruseke (1993) counts this new concept as a policy based on the following principles: (1) satisfaction of basic human needs; (2) compassion for future generations; (3) participation of population; (4) preservation of the environment and its resources; (5) development of a policy that guarantees employment, social insurance and respect to other cultures; (6) education programs. Growth, in contrast, is based on the principles of capitalism where the generation of profits is the central focus. In sustainability, growth and development conflate when the principles of eco-efficiency (See item 04) are implemented.

8) Vertical and horizontal collaboration	Partnerships in sustainability	Vertical collaboration is concerned with the institutional, social and ecological connections among individuals across different geographic spaces; whereas horizontal collaboration refers to those connections across different levels of organizations.
--	--------------------------------	--