

UNIVERSITÉ DU QUÉBEC À MONTRÉAL

TROIS ESSAIS SUR LA DIVERGENCE ET LA CONVERGENCE
DES REPRÉSENTATIONS DE LA RESPONSABILITÉ SOCIALE
ET ENVIRONNEMENTALE: UNE ANALYSE
INTERNATIONALE

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LISTE DES ABRÉVIATIONS

C	Consumers
COO	Country Of Origin
CSR	Corporate Social Responsibility
DC	Dividend of Cooperation
DD	Developing vs. Developed countries
DDIS	Final Draft International Standard
EA	Environmental agreement
G	Government
I	Industry
ISO	International Standard Organization
ISO/COPOLCO	ISO's Consumer Policy Committee
ISO/WG SR	ISO Working Group on Social Responsibility
L	Labor
NSBs	National Standards Bodies – NSBs
NBS	Nash Bargaining Solution
NGO	Non-Governmental Organization
NWIP	New Work Item Proposal
OECD	Organization for Economic Cooperation and Development
PCA	Principal Component Analysis
RSE	Responsabilité sociale de l'entreprise
SSRO	Service, Support, Research and Others
TMB	ISO Technical Management Board
UN	United Nations

UNGCO	United Nations Global Compact Office
WD	Work Draft
WTO	World Trade Organization

RÉSUMÉ

Cette thèse consiste en trois essais quantitatifs qui examinent les aspects de convergence et de divergence dans les négociations des normes et des accords internationaux dans le domaine de l'environnement et de la responsabilité sociétale des organisations.

Dans le premier essai, nous comparons les artéfacts de convergence et de divergence dans les représentations de RSE de plusieurs groupes nationaux. Pour ce faire, nous avons étudié les commentaires de 163 groupes provenant de 48 pays dans le cadre de la négociation de la norme internationale de responsabilité sociale ISO 26000. Quatre dimensions internationales de la RSE ont été développées par la technique d'analyse de composantes principales (ACP). Ces dimensions ont ensuite été analysées graphiquement afin de déceler leurs signes potentiels de convergence et de divergence. Nos résultats montrent que, malgré la prééminence de convergence, des manifestations de convergence et de divergence coexistent sur les différentes dimensions de la norme ISO 26000. En se basant sur des analyses de la variance, cette recherche prouve que ni le niveau de développement économique (Nord-Sud), ni la catégorie de parties prenantes sont associés à la divergence dans les représentations de RSE entre les participants. Par contre, nous observons des divergences sur la dimension « principes de la RSE » et la dimension « implantation de la RSE », laquelle est significativement liée à l'origine nationale. Cet article démontre aussi que la divergence internationale sur les dimensions relatives aux questions centrales, aux principes de la RSE, ainsi qu'à l'implantation de la RSE est associée au niveau du consensus national observé entre les groupes de chacun des pays participants.

Dans le deuxième essai, nous examinons plus spécifiquement la relation potentielle entre, d'une part, la culture, et d'autre part, les représentations en responsabilité sociale. L'étude porte spécifiquement sur l'Amérique du Nord, l'Europe de l'Ouest et l'Europe de l'Est. Cette recherche se base sur les quatre dimensions de RSE précédemment développées dans le premier essai. Pour ce faire, nous avons analysé les commentaires des 76 groupes issus de 23 pays américains et européens qui ont participé à la négociation de la norme internationale de RSE (ISO 26000). Les résultats de l'analyse de la régression linéaire multiple démontrent que la divergence sur la dimension relative aux principes de RSE, ainsi que la divergence relative à son implantation, est sensiblement associée au niveau d'acceptation du pouvoir. Nos résultats démontrent aussi une relation statistiquement significative entre le niveau de masculinité et la dimension relative aux principes de RSE.

Dans le dernier essai, nous avons eu recours aux jeux dynamiques, afin d'évaluer mathématiquement deux situations de négociations internationales entre les pays développés et en voie de développement (Nord-Sud) dans un cas particulier de RSE, à savoir la pollution transfrontalière. La première situation est relative à la divergence (jeu non coopératif) tandis que la deuxième est relative à la convergence (jeu coopératif). Cet essai propose un jeu différentiel de contrôle de la pollution transfrontalière entre deux joueurs asymétriques. Nous considérons qu'un des deux joueurs est non vulnérable¹ à la pollution (pays en voie de développement) ou ne veut pas internaliser le coût du dommage lors du choix de sa politique de production dans un jeu non coopératif. Dans un premier temps, nous déterminons un équilibre de Nash avec rétroaction ainsi qu'une solution coopérative. Ensuite, nous établissons des conditions sous lesquelles le joueur vulnérable (pays développés) pourrait acheter la coopération du joueur non vulnérable afin de contrôler ses émissions et d'investir dans des activités d'atténuation. Finalement, afin d'allouer d'une façon optimale et de décomposer le dividende de la coopération pour les deux joueurs dans le temps, une solution de négociation de Nash est caractérisée. Nous démontrons que cette décomposition est temporellement cohérente.

Mots clés: Responsabilité sociale et environnementale; ISO 26000; parties prenantes; pays d'origine; culture; Nord-Sud; Amérique du Nord; Europe; convergence; divergence; crossvergence, environnement; jeux différentiels; solution coopérative; équilibre de Nash avec rétroaction; cohérence temporelle; solution de négociation de Nash.

¹ Qui n'internalise pas le coût du dommage lors du choix de sa politique de production dans un jeu non coopératif.

² Qui n'internalise pas le coût du dommage lors du choix de sa politique de production dans un jeu non coopératif.

³ The guidance embodies nine chapters: Introduction; Scope; Normative references; Terms and

ABSTRACT

This thesis consists of three essays addressing aspects of convergence and divergence in international negotiation of agreements and norms in the fields of environment and corporate social responsibility.

In the first empirical essay, we develop four global CSR dimensions and investigate their patterns of convergence and divergence among the ISO26000's participating groups. In a cross-sectional and correlational content design, we studied the negotiation of the norm ISO 26000 on social responsibility. More precisely, we analyzed the statements of 163 national groups drawn from 48 countries, during the Work Draft 3 meeting of ISO26000 negotiation. Empirical evidences show that neither divergence nor convergence on CSR's dimensions occur in a unilateral and pure form. Indeed, both trends tend to coexist within and between each dimension, putting together country specific conflict and international agreement with the new international CSR standard. The multivariate analyses of the variance also demonstrate that neither the level of development nor the stakeholders' memberships are related to divergence on CSR representation. However, national origin exhibited significant relation to the divergence on the principles and the implementation of CSR dimensions worldwide. Further examination of the association between the levels of national groups consensus in each participant country is found related to the CSR divergence.

In the second essay "Does cultural distance matter?: Empirical evidences of divergence versus convergence in CSR representations between North America and Europe", we examine more specifically the potential relationship between culture and the divergence versus convergence among North America, Europe and West Eastern Europe. Based on the four CSR's dimensions already developed in the first essay of this thesis, we examine the attitude of 76 groups drawn from 23 participating countries in the WD3 negotiation of ISO 26000. Principal Component Analyses show that CSR representations tend to crossverge between the three studied regions. Multiple Regression Analyses reveal that the divergence on the dimension "principles of CSR", and the dimension "CSR implementation", is significantly associated to the level of power acceptance. Moreover, the findings demonstrate that the level of masculinity is also significantly related to the divergence on the dimension "principles of CSR".

Finally, in the last essay "Buying Environmental Cooperation in Asymmetric Differential game", we use dynamic games to mathematically evaluate the convergence and divergence of developed and developing countries (North-South) in a CSR particular case. This essay provides a differential game of

transboundary pollution control between two asymmetric players (North-South). We consider a two-player asymmetric differential game of pollution control. One player is non-vulnerable to pollution, or unwilling to consider damages when choosing her production policy in a non-cooperative game. We characterize the feedback-Nash equilibrium and the cooperative solution and we establish conditions under which the “vulnerable player” can buy the cooperation of the “non-vulnerable player” to control its emissions and invest in abatement activities. Further, this essay allocates the total cooperative dividend between the two players under Nash bargaining solution. Ultimately, a time-consistent decomposition overtime of the total payoff is proposed.

Key words: Corporate Social Responsibility; ISO 26000; Stakeholders; Country of Origin; Cross-culture; North-South divide; North America; Europe; Convergence; Divergence; Crossvergence; Environment; Differential Games; Cooperative Solution; Feedback-Nash Equilibrium; Time Consistency; Nash Bargaining Solution.

INTRODUCTION GÉNÉRALE

Le domaine de recherche du management comparatif implique la comparaison internationale des comportements organisationnels complexes dans le cadre de la mondialisation croissante. Plus précisément, les études dans ce domaine tentent de déterminer le niveau auquel des facteurs, tels que les caractéristiques macro-environnementales (mortalité infantile, espérance de vie masculine, niveau de vie, etc.) (Craig et al., 1992) ou le contexte national et institutionnel (DiMaggio et Powell, 1991; Drezner, 2001 et Beckert, 2010), tendent à influencer systématiquement les attitudes et les comportements des nations à l'égard des logiques politiques, économiques, sociales et managériales. Plus particulièrement, l'importance de ces facteurs dans les perceptions de ces logiques a longtemps été reconnue dans les études en politique (Drezner, 2001), en gestion internationale (Craig et al., 1992), en théorie des organisations (DiMaggio et Powell, 1991), en économie politique et en études sociales (Hofstede, 1980, 1990; Ronen et Kraut, 1977; Ronen et Shenkar, 1985; Craig et al., 1992; Smiley, 1999).

Une première approche en faveur de la mondialisation plaide pour une convergence continue des logiques organisationnelles à travers les nations. Par exemple, « la technologie en temps réel » (Castells, 1996), « les flux de capitaux volatils » (Strange, 1986) et « l'homogénéisation de la demande des consommateurs à l'échelle planétaire » (Levitt, 1983) ont été considérés comme des facteurs clés qui sous-tendent l'argument en faveur de la théorie de convergence, ce qui implique des logiques et idéologies universelles adoptables dans différentes nations. Pascale et Maguire (1980) affirment que le comportement stratégique des nations deviendrait semblable au fur et à mesure que ces dernières libéralisent leurs marchés, développent leurs institutions, adoptent de nouvelles technologies et s'industrialisent. Selon England et Lee (1974), la convergence entre les nations se

produit sous l'influence de l'adhésion des individus aux valeurs économiques communes. De même, Craig et al. (1992) associent la convergence aux similitudes entre les nations. Incontestablement, l'approche de la convergence a permis de comprendre diverses logiques de gestion et de nombreux débats planétaires.

Une deuxième approche décrit plutôt une divergence continue de logiques organisationnelles à travers le monde (Whitley, 1999; Proffitt et Spicer, 2006). Craig et al. (1992) associent cette divergence aux différences entre les nations. Dans leur étude sur les modes de convergence entre les pays développés sur la période allant de 1960 à 1988, ces auteurs confirment que ces pays en question tendent à diverger davantage en termes de caractéristiques macro-environnementales, par exemple, la mortalité infantile, l'espérance de vie des hommes, le coût des vies. Granovetter (1985) pense que les transactions économiques sont profondément ancrées dans les relations à long terme qui enchevêtrent un système complexe d'obligations, de confiance et de réciprocité. Ces relations sont généralement formées par les institutions nationales spécifiques (Hall et Soskice, 2001).

Maintes études empiriques entre pays industrialisés ont soutenu l'argument de leur divergence pour ce qui est du comportement organisationnel (Wade 1990; Whitley, 1992; Fligstein et Freeland, 1995; Orrù et al., 1997; Kristensen, 1997; Storper et Salais, 1997; Fligstein 2001; Gulliën 2001; Hall et Soskice, 2001; Amable, 2006; Chen et Bouvain, 2009). La théorie de la divergence a permis, entre autres, de comprendre de multiples logiques managériales, économiques et politiques, ainsi que les débats qui les entourent entre les différentes nations.

En particulier, l'approche de divergence a été souvent associée aux différences culturelles (Hofstede, 1980; Hofstede, 1984; Laurent, 1983; Hoecklin, 1995; Freeman et Hasnaoui, 2011) plutôt qu'à l'idéologie économique ou au niveau technologique. En effet, les organisations de tailles et de types différents se trouvent le plus souvent en contact à court ou à long terme avec des personnes, des entreprises et autres organisations de différentes nations. Cela se produit

généralement dans un contexte d'incertitude culturelle, ce qui rend la distance culturelle – construit qui permet de mesurer le niveau de ressemblance et de différence entre les cultures des différentes nations – un sujet de recherche prometteur en sciences de la gestion en général. En effet, différentes nations et groupes nationaux provenant des différentes cultures incarnent des valeurs et des attitudes dissemblables à l'égard des différentes logiques sociales, économiques et politiques. Ce qui est valorisé pour un groupe culturel à un moment donné peut ne pas l'être pour les autres groupes. Ces valeurs culturelles sont susceptibles d'affecter non seulement le rôle joué par les institutions dans une société particulière, mais aussi leurs attentes à l'égard de ces institutions (voir Kwok et Tadesse, 2006; Ringov et Zollo, 2007; Freeman et Hasnaoui, 2011).

Une troisième approche en faveur de la mondialisation s'intéresse à comment « les logiques organisationnelles » sont modifiées et traduites entre les nations (Abo, 1994; Raz, 1999; Ralston et al., 1999; Zeitlin et Herrigel, 2000; Donaldson, 2001; Robertson et al., 2001; Anakwe, 2002; Tan, 2002; Giacobbe-Miller et al., 2003; Egri et Ralston, 2004; Fu et al., 2004; Andrews et Chompusri, 2005; Kelley et al., 2006; Porter, 2006; Ralston et al., 2006; Witt, 2008). Selon la théorie de crossvergence, la mondialisation n'implique pas la stricte convergence ou divergence des logiques organisationnelles et idéologiques; elle préconise plutôt que lorsque ces dernières voyagent dans le temps et l'espace, elles subissent un processus de transformation, d'hybridation (Abo, 1994) et de traduction (Czarniawska et Sevón, 1996). Selon Witt (2008, p. 48), la crossvergence survient au niveau individuel, via la formation d'un système de valeur qui se développe sous l'effet de la combinaison des influences culturelles nationales d'une part et des idéologies économiques d'autre part.

Récemment, une abondante littérature, tant conceptuelle qu'empirique, a tenté d'étudier le niveau de perception et d'adoption de telles logiques étrangères suite à leur introduction dans un nouveau contexte national (Guler, et al., 2002; Brammer et al., 2007; Czarniawska et Sevón, 2005; Steurer et Konrad, 2009; Beckert, 2010). La responsabilité sociale des entreprises (RSE), concept qui

désigne les actions et engagements volontaires des entreprises qui génèrent un certain bien-être sociétal, au-delà des exigences juridiques auxquelles est assujettie une entreprise (McWilliams et Siegel, 2001), constitue un exemple. Dans cette optique, catalysée entre autres par la prolifération de parties prenantes et de groupes de pression actifs, ainsi que par l'apparition grandissante de nouvelles tendances de consommation prônant un haut standard d'éthique et de qualité environnementale, accompagnées en l'occurrence par le développement de normes, d'accords, de conventions et de cadres de référence tant à l'échelle nationale qu'internationale, bon nombre de grandes entreprises et organisations modernes cherchent désormais à se composer une image de « citoyen responsable ». Sur le plan international, Jamali (2008) stipule que l'importance croissante de la RSE a abouti à un intense débat international. Ceci se matérialise par la négociation sur le contenu de la norme internationale ISO 26000 portant sur la RSE (Tamm Hallström, 2008).

Le débat entre la thèse de la convergence et celle de la divergence prend place aussi sur le terrain de la RSE. Certains considèrent que les représentations de RSE convergent sous l'effet des besoins universels grandissants en matière de protection de l'environnement et de diffusion des meilleures pratiques sociétales et des mouvements de pression (Turner et Auer, 1996; Katz, 1997; Rowley et Benson, 2000; Van Luijk, 2001; Gendron, 2001; Micheletti, 2003; Gendron et al., 2004; de Bakker et al., 2007; Turcotte et al., 2007). Gendron et al. (2004, p. 86) argüent :

Même si le concept de responsabilité sociale est résolument nord-américain, à la rigueur anglo-saxon, l'Europe semble avoir pris les devants dans ce dossier depuis l'appel de Lisbonne en 2000, et avec la publication en 2001 du livre vert sur la responsabilité sociale, l'ouverture d'un forum, et la publication d'une communication en juillet 2002.

Micheletti (2003) considère que la mondialisation de la mobilisation sociale est tributaire du développement du consumérisme politique. Turcotte et al. (2007) stipulent que les promoteurs d'innovations en matière de normalisation en responsabilité sociale et environnementale (p. ex. ISO 26000, ISO 14000 et le

Forest Stewardship Council standard) tendent à propager ces nouvelles idées au-delà de leurs origines nationales, ce qui contribue ainsi à la convergence de la RSE.

D'autre part, d'autres chercheurs pensent que les représentations de la RSE divergent (Wade, 1990; Whitley, 1992; Fligstein et Freeland, 1995; Orrù et al., 1997; Kristensen, 1997; Storper et Salais, 1997; Fligstein, 2001; Gulliën, 2001; Hall et Soskice, 2001; Maignan, 2001; Amable, Crane et Matten, 2005; Matten et Moon (2008); Chen et Bouvain, 2009). À titre d'exemple, Maignan (2001) a montré que les consommateurs français et allemands ont été davantage susceptibles d'encourager les entreprises responsables que les consommateurs américains. Également, l'Organisation Mondiale du Tourisme (2002) affirme que le commerce équitable et le tourisme responsable sont beaucoup plus développés en Europe qu'aux États-Unis. Dans une étude comparative, Crane et Matten (2006) révèlent une différence des pratiques en matière d'éthique entre les États-Unis, l'Europe et l'Asie.

Toutefois, au-delà de l'approche de convergence et de divergence, certains chercheurs observent que ces deux tendances en matière de représentations de RSE tendent aussi à coexister, ce qui mène à une forme complexe de représentations hybrides de ce qui est attendu des entreprises (Langlois et Schlegelmich, 1990; Locke et Kochan, 1995; de Bellefeuille et Turcotte, 2005; Crane et Matten, 2006; Chen et Bouvain, 2009; Steurer et al., 2011).

1 Liens entre les trois essais de la thèse

Cette thèse se base sur trois essais quantitatifs complémentaires qui examinent la problématique relative à la convergence et à la divergence dans une perspective de négociation internationale des normes et accords internationaux en responsabilité sociale et environnementale (voir figure 1).

Les deux premiers essais explorent la relation entre deux différents ensembles

de facteurs avec la convergence et la divergence internationale par rapport à la norme ISO 26000 en matière de représentation de RSE (essai 1 : facteurs géoéconomiques et stratégiques et essai 2 : facteurs culturels). Ces deux essais sont intimement liés du fait qu'ils utilisent la même base de données, soit le document de travail 3 (WD3) relatif à la négociation de la norme ISO 26000 lors de la rencontre à Vienne en 2007. En fait, le deuxième essai est une extension du premier, étant donné qu'il se base également sur quatre dimensions principales caractérisant la norme ISO 26000, déjà développées par le premier.

Plus précisément, le premier essai exploratoire a pour objectif de comparer les artefacts de convergence (agrément) et de divergence (désagrément) dans les représentations de RSE des groupes nationaux provenant de 48 pays du monde et d'évaluer leurs facteurs associatifs, à savoir le niveau de développement économique (Nord-Sud), la catégorie de parties prenantes et le pays d'origine.

Le deuxième essai exploratoire se focalise plus spécifiquement sur l'examen, dans un cadre interculturel, de la relation potentielle entre, d'une part, la distance culturelle et, d'autre part, la convergence versus la divergence entre l'Amérique du Nord, l'Europe de l'Ouest et l'Europe de l'Est. Cette recherche se base sur les quatre dimensions de RSE précédemment développées dans le premier essai. Plus précisément, elle a pour objectif de comparer les artefacts de convergence et de divergence dans les représentations de RSE des groupes nationaux provenant de pays américains et européens et d'évaluer leurs niveaux d'association avec des facteurs culturels liés au niveau d'acceptation du pouvoir, d'individualisme, de masculinité et d'acceptation de l'incertitude (Hofstede, 1980, 1984, 1991, 2001 et Hofstede et Hofstede, 2005).

Les deux essais utilisent la même démarche méthodologique. D'une part, les analyses de composantes principales (ACP) ont permis de développer les quatre dimensions internationales de la RSE telles que proposées par ISO 26000 afin de déceler leurs signes potentiels de convergence et de divergence. D'autre part, les liens associatifs entre la divergence versus convergence et les facteurs sous-jacents

ont été évalués en ayant recours aux techniques relationnelles multivariées. Plus précisément, le premier essai utilise la technique de l'analyse de variances (One-Way MANOVA). Le deuxième essai déploie quant à lui la technique de régression linéaire multiple (RLM). Bordens et Abbott (2001) considèrent que la MANOVA et la RLM sont deux techniques relationnelles multivariées. Selon les mêmes auteurs, la MANOVA est un cas particulier de la RLM.

De même, comme le montre la figure 1, le troisième essai de la présente thèse est lié aux deux premiers par le thème de la convergence versus divergence. Drezner (2001:782) stipule que la convergence tend à se réaliser via un mécanisme d'harmonisation internationale, si les pays en question se conforment à des obligations juridiques uniformes, déterminées par des lois internationales ou supranationales. Selon ce dernier, l'harmonisation est une concrétisation de la coopération internationale, à savoir des constellations dans lesquelles les pays convergent vers des politiques et des programmes similaires dans le cadre de leurs obligations en tant que membres des institutions internationales. Ces convergences d'intérêts et d'obligations économiques cherchent avant tout à endiguer les antagonismes politiques sociétaux et environnementaux pour un développement durable. La convergence entre différents gouvernements est un des moyens de prévenir ou de réguler des conflits d'ordre social et environnemental en faveur d'une meilleure et plus profonde coopération régionale ou internationale. Cependant, la réalité géopolitique et économique internationale montre qu'une telle coopération n'est pas toujours facile à concrétiser, vu l'inexistence d'institutions internationales dotées d'un pouvoir coercitif en la matière. La norme ISO 26000 (dans un contexte non gouvernemental), le protocole de Kyoto (dans un contexte intergouvernemental supranational) et autres sont des exemples d'institutions internationales qui visent la convergence des bonnes pratiques sociales et environnementales à l'échelle planétaire, mais qui sont dépourvues d'un pouvoir de coercition.

Cette coexistence de divergence et de convergence se trouve profondément

ancrée dans la philosophie qui sous-tend la théorie des jeux. En effet, cette dernière est divisée en deux branches : i) la théorie non coopérative et ii) la théorie coopérative. Ces deux branches diffèrent dans leur façon de formaliser l'interdépendance entre les joueurs (parties prenantes). Dans la théorie non coopérative, un jeu est un modèle détaillé de tous les mouvements disponibles pour les joueurs. C'est un modèle selon lequel les joueurs divergent dans leurs choix ou décisions. En revanche, la théorie coopérative décrit seulement les résultats qui en résultent lorsque les joueurs convergent dans différentes combinaisons de mouvements, autrement dit quand leurs choix ou décisions se ressemblent.

C'est ainsi que ce dernier essai est lié aux deux premiers. Il développe un modèle général susceptible de comparer les résultats de convergence (agrément) et de divergence (désagrément) dans le cadre de la négociation de normes et d'accords internationaux. Plus particulièrement, il propose une solution de négociation susceptible de maintenir la convergence tout au long de la période d'application de la norme ou de l'accord international dans un cas particulier de la responsabilité sociale, qui est l'environnement. La figure 1 indique également qu'afin d'évaluer mathématiquement la convergence et la divergence des pays développés et en voie de développement (Nord-Sud) sur une norme ou un accord international visant à lutter contre le problème de pollution transfrontalière, ce dernier essai propose une méthodologie basée sur un jeu différentiel de contrôle de pollution transfrontalière entre deux pays ou blocs de pays (joueurs) asymétriques dans leurs attitudes environnementales. Il considère qu'un des deux joueurs est non vulnérable² à la pollution (pays en voie de développement), ou ne veut pas internaliser le coût du dommage lors du choix de sa politique de production dans un jeu non coopératif. Dans un premier temps, cet essai propose un équilibre de Nash avec rétroaction (reflétant la divergence entre les deux joueurs) ainsi qu'une solution coopérative (reflétant la convergence entre les deux joueurs). Ensuite, des conditions sous lesquelles le joueur vulnérable (pays développés) pourrait acheter la coopération du joueur non vulnérable afin de contrôler ses émissions et d'investir dans des activités

² Qui n'internalise pas le coût du dommage lors du choix de sa politique de production dans un jeu non coopératif.

d'atténuation, sont établies. Finalement, afin d'allouer d'une façon optimale et de décomposer le dividende de la coopération pour les deux joueurs dans le temps, ce dernier essai propose et caractérise une solution de négociation de Nash (SNN) susceptible de garantir une coopération internationale durable sur la période de l'accord signé.

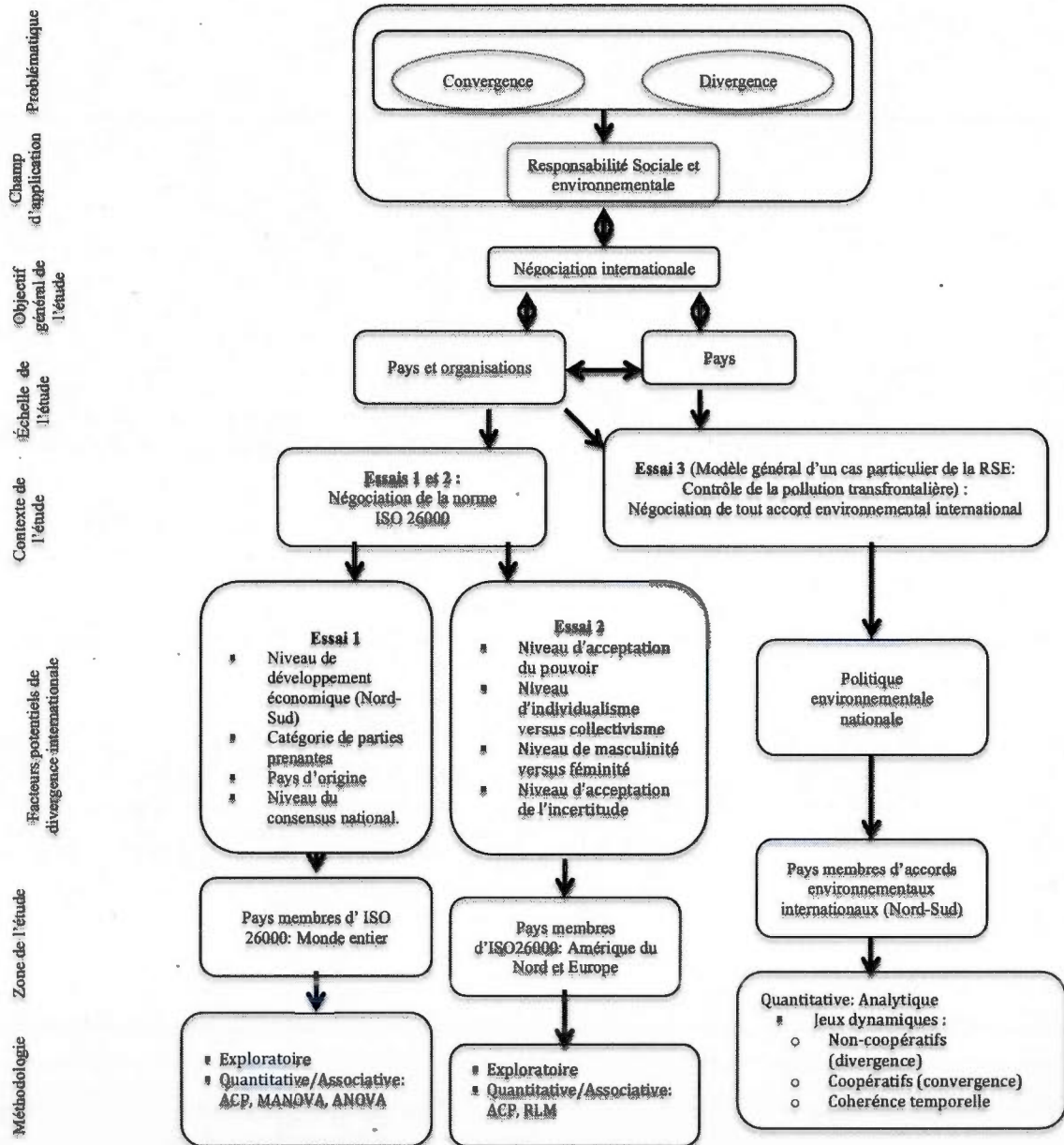


Figure 1 Liens entre les trois essais de la thèse

2 Revue de littérature

Convergence en matière de RSE

La convergence est souhaitée par certains afin de prévenir et de réguler les divergences internationales d'ordre social et environnemental, tout en garantissant une coopération plus durable. Drezner (2001, p. 782) stipule qu'une telle convergence tend à se réaliser via un mécanisme d'harmonisation internationale, si les pays en question se conforment à des obligations juridiques uniformes, déterminées par des lois internationales ou supranationales. Drezner stipule que l'harmonisation est une concrétisation de la coopération internationale dans lesquelles les pays convergent vers des politiques et des programmes similaires dans le cadre de leurs obligations en tant que membres des institutions internationales.

Plusieurs grands accords internationaux ont été entérinés par les États. Mentionnons les droits de l'homme, les règles de l'OIT. Toutefois, plusieurs accords qui avaient été souhaités n'ont jamais abouti. Prenons pour exemple le projet de convention sur les forêts qui, après plusieurs essais, n'a pas encore débouché sur un consensus entre les États.

Le développement d'ententes à portée juridique n'est cependant pas le seul vecteur d'harmonisation internationale. Brunsson et Jacobsson (2000) argüent que les normes privées sont aussi une source d'harmonisation des attentes quant aux activités de l'organisation. Raustiala (2012) stipule que la convergence de systèmes de normalisation contribue à une meilleure, profonde et durable coopération internationale. En RSE, ces convergences d'intérêts et d'obligations économiques cherchent avant tout à endiguer les antagonismes politiques sociétaux et environnementaux pour un développement durable.

À l'appui de la thèse de la convergence, on doit constater que, bien que le concept de RSE ait une origine américaine, il s'est clairement étendu au cours des

dernières décennies sur d'autres continents, particulièrement en Europe (den Hond et al., 2007). La RSE devient mondiale avec de nombreux acteurs sociaux et politiques qui contribuent à ce phénomène par de nouveaux moyens (Gendron et al., 2004), notamment par des normes internationales qui prônent davantage la responsabilité sociale et le développement durable afin de promouvoir et de définir l'accès au marché et de déterminer de nouveaux enjeux globaux tant pour les entreprises en particulier que pour les nations en général. Cashore (2002) voit dans la croissance du nombre d'organismes offrant des directives sociales et environnementales, les normes et les certifications, l'émergence d'une force d'opposition qui plaide en faveur d'un nouveau système de gouvernance. Ces organisations proviennent soit de la société civile, du secteur privé ou d'une combinaison du secteur privé, du gouvernement et d'autres acteurs.

Ce changement de position politique au sein de l'économie est souvent réalisé par le biais des innovations sociotechniques, telles que des grilles d'évaluation et de suivi des performances des systèmes sociaux (Caron et Turcotte, 2009). Turcotte et al. (2007) constatent que ces innovations deviennent l'objet d'une large diffusion transfrontalière, ce qui contribue à la convergence internationale de la RSE.

Divergence en matière de RSE

Selon la thèse de la divergence, le fonctionnement des entreprises et de leurs parties prenantes diffère d'une nation à une autre. Leurs façons de faire, ainsi que leurs attitudes sociétales et environnementales sont le résultat de leur adaptation à leur environnement institutionnel national. Les caractéristiques socioculturelles ont longtemps été considérées comme des éléments centraux qui sous-tendent la divergence dans les attitudes et les comportements entre les nations et dans leur tendance au changement (Craig et al., 1992). Ces forces sont également considérées comme les principaux éléments à prendre en considération quand il s'agit d'études interculturelles des groupements en matière de RSE (Burton et al.,

2000). Pinkston et Carroll (1994) affirment que la RSE est une dérivée culturelle qui change d'un groupe culturel à un autre, en raison de la relativité de la culture elle-même (Hoecklin, 1995). Du coup, les diverses cultures ont des exigences différentes à l'égard de leurs entreprises, y compris concernant la RSE. Une des études pionnières les plus vastes dans le domaine de l'interculturel est celle menée par Hofstede (1980, 1984, 1991, 2001) et Hofstede et Hofstede (2005).

Hofstede (1984, p. 12) définit la culture comme : « *the collective programming of the mind that distinguishes the members of one human group from another* ». Roberts et al. (2002, p. 36) se réfèrent à la culture d'un pays comme étant un « *set of common ideas, beliefs and values that are shared by the members of a group of individuals* ». La distance culturelle a été largement appliquée au cours des trois dernières décennies à la plupart des domaines de gestion tels que le marketing, la finance, les ressources humaines et plus récemment la RSE (voir Freeman et Hasnaoui, 2011). Ici, on peut dire que la distance culturelle, au sens de Hofstede, influe sur la façon avec laquelle la RSE devrait être perçue entre les différentes nations et leurs divers groupes de parties prenantes. Par exemple, la perception et la représentation des concepts de RSE peuvent varier selon les pays et les groupes nationaux dépendamment du niveau de leurs dimensions culturelles.

Le concept moderne de la RSE trouve son origine aux États-Unis (Pasquero, 2005). Donald K. David (1949) stipule que ses racines sont associées au début de la guerre froide à la fin de 1940. Selon Spector (2008), Donald K. David, doyen de la Harvard Business School, a été le premier universitaire à avoir mis en exergue la divergence idéologique en matière de RSE entre le régime européen de l'Est dans le cadre du communisme soviétique et celui de l'occident capitaliste.

Selon Bowen (1953), la RSE est une obligation sociale qui joint les objectifs et les valeurs d'une société en particulier. Plusieurs études démontrent que les entreprises ne se limitent pas uniquement à des obligations économiques et juridiques, mais qu'elles ont de plus une responsabilité envers leur milieu et la société dans laquelle elles œuvrent (Davis, 1960; Carroll, 1979; Leitão et Silva,

2007). Aguilera et Cuervo-Cazurra (2004) affirment que la divergence en matière de RSE est liée au système de gouvernance de chaque nation. Campbell (2006) argüe qu'une autorégulation industrielle collective, les pressions des parties prenantes influentes, ainsi que l'environnement institutionnel normatif façonnent les attitudes en matière de RSE.

Critiques de l'approche de convergence et de divergence: vers une crossvergence de la RSE

Selon la thèse de la crossvergence, l'hypothèse de la divergence est maintenue, nonobstant la montée croissante de croyance à l'approche de la convergence comme conséquence directe de la mondialisation. Les partisans d'une telle thèse stipulent que la mondialisation n'entraîne pas la convergence ou la divergence des logiques organisationnelles et des idéologies. Par contre, quand les logiques et idéologies voyagent à travers les nations et le temps, elles subissent un processus de transformation et d'hybridation (Abo, 1994) ainsi que de traduction (Czarniawska et Sevón, 1996), ce qui conduit à un « hybridisme idéologique ». Selon Ralston et al. (1997) et Witt (2008), ni la divergence ni la convergence, à l'état extrême, ne sont capables d'expliquer adéquatement la dynamique entre, d'une part, la logique organisationnelle et l'idéologie économique et, d'autre part, les spécificités nationales d'un pays. Ces mêmes auteurs argüent qu'une telle dynamique pourrait être élucidée par une approche intégrative qui se produit suite à la coexistence relative de deux extrémités, à savoir la convergence et la divergence. En d'autres termes, la crossvergence reflète un système de valeurs intégrateur, unique et différent quand les individus adoptent à la fois des valeurs caractérisant, d'une part, leurs spécificités nationales et, d'autre part, des éléments de l'idéologie croissante importée. Selon Witt (2008), la crossvergence se produit sous une combinaison des influences de la culture nationale et économique, ce qui conduit à un système de valeurs qui est parfaitement conforme ni à la culture ni à l'idéologie.

Par exemple, la conceptualisation de la RSE, basée de prime abord sur le concept original américain, donne lieu à des adaptations basées sur les pratiques locales (Colonomos et Santiso, 2005). En effet, la diffusion du concept de RSE fournit un exemple intéressant pour étudier ses adaptations nationales.

Selon den Hond et al. (2007), alors qu'une certaine homogénéité de RSE apparaît au niveau conceptuel, les pratiques restent très hétérogènes à cause de la disparité des attentes des parties prenantes à travers les nations et le temps. Ces différences institutionnelles, historiques et culturelles conduisent à une divergence considérable dans la façon dont les entreprises imaginent et cristallisent la RSE. Chen et Bouvain (2009) affirment que, malgré la tendance à la convergence, via le développement de la normalisation, plusieurs différences nationales caractérisent encore les pratiques des nations en matière de RSE.

Logsdon et Wood (2005) préconisent une approche hybride de la mondialisation basée sur le concept de citoyenneté corporative mondiale (global business citizenship). Cette approche suppose que les principes universels doivent être appliqués pour respecter les diversités locales. Le but de l'hybridité dans le processus de citoyenneté corporative mondiale est d'éviter les écueils respectifs des approches universelles (convergences) et relativistes (divergences), qui ont été depuis longtemps identifiés en gestion internationale de l'éthique (DeGeorge, 1993). Au-delà de la conceptualisation de la tension entre ces deux pôles qui sont la convergence et la divergence (Wines et Napier, 1992), les problèmes persistent pour les gestionnaires qui doivent composer avec des conflits concrets de valeurs culturelles. Par exemple, des conflits entre les valeurs venant d'ailleurs et les valeurs locales, ou entre les valeurs des marchés de consommation et celles des lieux de production. Bien qu'il existe peu de modèles disponibles, certains ont été mis au point pour guider les processus de prise de décision des gestionnaires à cet égard (DeGeorge, 1993; Raisner, 1997; Desai et Rittenburg, 1997).

À l'appui de la thèse de la crossvergence, Witt (2008) affirme qu'il semble peu probable de ne pas empiriquement tomber sur des éléments éloquentes en faveur de

la thèse de crossvergence. Witt (2008) argüe que cela est particulièrement vrai lorsque les valeurs sont évaluées à l'aide d'instruments multidimensionnels. Il déduit que plus l'étude empirique déploie de sous-dimensions, plus il est vraisemblable qu'au moins une d'entre elles diverge ou converge par rapport aux autres – ce qui corrobore la théorie de la crossvergence. In extenso, nous pensons également que plus l'étude empirique utilise de sous-dimensions, plus forte serait la probabilité d'une coexistence relative de la divergence et de la convergence, pas seulement entre les différentes dimensions, mais aussi pour chacune d'elles.

3 Méthodologie

Afin d'examiner les aspects relatifs à la divergence et à la convergence dans le domaine de la responsabilité sociétale et environnementale, différentes méthodologies quantitatives ont été déployées dans les trois essais de notre thèse.

Essais 1 et 2

La base de données :

La norme ISO 26000 est une norme internationale, dont le but est de guider tous les types d'organisations pour fonctionner d'une manière socialement responsable. Elle a été initiée en 2004 et achevée en 2010, et constitue l'un des plus importants processus multipartites dans l'histoire d'ISO. Des ateliers régionaux ont favorisé une plus large participation des parties prenantes des différents pays dans son élaboration. Il est à noter que la norme ISO 26000 est une orientation volontaire, qui ne contient donc pas d'exigences relatives ni à un système de gestion, ni au niveau de certification, comme c'est le cas pour les normes ISO 9001 (2008) et ISO 14001 (2004).

La version finale de la norme ISO 26000 résultant du *Final Draft International Standard (FDIS)* est un document de 106 pages, dont sept articles,

deux annexes et une bibliographie. Au total, plus de 500 experts de 99 pays membres de l'ISO et 42 organisations de liaison ont commenté la norme. Sa rédaction a été réalisée à travers une série de réunions et de commentaires.

L'introduction fait un court cas de la responsabilité sociale et met en évidence l'applicabilité de la norme à toute organisation des secteurs public et privé et ceci dans tous les pays, peu importe leur niveau de développement (pays développés, pays en développement et pays émergents).

Le champ d'application de la norme – y compris les définitions des termes clés tels que la responsabilité sociale, le développement durable, l'organisation, les normes internationales de comportement et la sphère d'influence – est traité au niveau du chapitre 2 de la norme. Le chapitre 3 intitulé « Comprendre la responsabilité sociale » présente une introduction générale à la responsabilité sociale, tout en mettant l'accent sur ses caractéristiques et ses nouvelles tendances. Le chapitre 4 propose sept principes de responsabilité sociale, à savoir : la responsabilité, la transparence, le comportement éthique, le respect des intérêts des parties prenantes, le respect de la primauté du droit, le respect des normes internationales de comportement et le respect des droits de l'homme. Le chapitre 5 propose des conseils aux organisations de tout type en termes de reconnaissance de leur responsabilité sociale et de leur identification, ainsi que de leurs engagements à l'égard de leurs parties prenantes. Le chapitre 6 compte pour la plus grande partie de la norme et traite les principaux enjeux de la responsabilité sociale, à savoir : la gouvernance organisationnelle, les droits de l'homme, les pratiques de travail, l'environnement, les pratiques d'exploitation équitables, les questions de consommation, la participation communautaire et le développement social. Enfin, le chapitre 7 développe un guide pratique d'orientation pour la mise en œuvre de la RSE.

Le processus de négociation qui a conduit à la norme ISO 26000 a commencé en 2001 lorsque le *ISO's Consumer Policy Committee* (ISO/COPOLCO) a

exprimé le besoin de réflexion sur une norme de RSE. En 2002, COPOLCO a publié un rapport sur la valeur des normes de la « responsabilité sociale des entreprises » (ISO COPOLCO, 2002). Conséquemment, lors de l'Assemblée générale de l'ISO en 2002, ISO a décidé qu'il était judicieux d'examiner l'opportunité de développer des « normes de gestion » sur la RSE. En 2003, le Groupe multipartite ad hoc sur la responsabilité sociale, qui avait été créé par le Conseil de gestion technique d'ISO « *Technical Management Board (TMB)* » a réalisé une analyse approfondie sur les initiatives et les enjeux de la RSE dans le monde. Juste après et suite à l'avis favorable de la conférence multipartite en 2004 sur la nécessité de lancer des travaux sur la RSE, le Groupe de travail ISO sur la responsabilité sociétale « *ISO Working Group on Social Responsibility (ISO/WG SR)* » a été établi afin d'élaborer la norme ISO 26000.

Le NWIP (*New Project Work Item*) stipule que les « experts » en provenance des pays participants devraient être organisés dans six catégories principales de parties prenantes, à savoir : « industrie » (I), « gouvernement » (G), « consommateurs » (C), « travail » (L), « organisation non gouvernementale » (ONG) et « service, soutien, recherche et autres » (SSRO). Une septième catégorie « tous » désigne les commentaires élaborés sous un large consensus national qui inclut toutes les parties prenantes participantes. Cette dernière catégorie diffère en fonction de la participation des parties prenantes dans chaque pays. Différentes combinaisons de ces six catégories ont été formées lors de la négociation de la norme ISO 26000. Afin d'éviter tout amalgame, le terme *groupes nationaux* sera utilisé dans les deux premiers essais de la présente thèse pour désigner les différentes combinaisons nationales des parties prenantes sujets de notre recherche.

Les experts du ISO/WG SR représentant chaque partie prenante ou groupe national ont été nommés par ISO parmi ses membres (organismes nationaux de normalisation « *national standards bodies – NSBs* ») à travers des comités « miroir » nationaux, ou par des « organismes de liaison D » (une variété

d'organisations d'envergure internationale approuvées par ISO). Dans l'intention de garantir une approche multipartite, l'idée de formaliser les groupes d'intervenants était sans précédent pour l'ISO, traditionnellement basé sur la participation volontaire des experts nationaux. Par conséquent, plusieurs projets visant des lignes directrices finales ont été développés dans le cadre du ISO/WG SR. Le tableau 1 ci-dessous montre que la norme a été rédigée dans le cadre d'une série de réunions de négociations actives sur la norme ISO 26000 et présente le nom de chaque projet, la date à laquelle il a été délivré, le lieu où s'est déroulée la réunion de la négociation et le nombre de commentaires. Le tableau 1 décrit chronologiquement l'évolution du processus de négociation ISO 26000, allant de la première ébauche de travail WD1 qui a été négociée entre le 15 et le 19 mars 2006 à Lisbonne, au Portugal, jusqu'au projet final de norme internationale (*Final Draft of International Standard FDIS*) qui a été adopté après une période de traitement et approuvé par le *Multi-stakeholder ISO Working Group on Social Responsibility* (ISO/WG SR) lors de sa 8^e séance plénière tenue du 17 au 21 mai 2010 à Copenhague, au Danemark. Le Groupe de travail est composé d'experts de 99 pays membres de l'ISO, dont les États-Unis, ainsi que de 42 organisations en liaison, y compris les associations intergouvernementales et non gouvernementales représentant les entreprises, l'industrie, la société et les consommateurs. Ces organisations n'avaient pas le droit de vote, mais ont activement et directement participé à l'élaboration et au commentaire de la norme ISO 26000. Avant la réunion plénière, le Groupe de travail a reçu 2 650 commentaires de membres de l'ISO et des organismes de liaison au cours du processus de vote. Les principaux sujets identifiés dans ces commentaires ont été abordés lors de la réunion plénière afin d'augmenter le niveau de consensus et de qualité du document.

Le tableau 1 montre que la négociation qui a suscité le plus grand nombre de commentaires sur le contenu de la norme est celle d'ISO 26000-WD3, qui s'est déroulée à Vienne, du 5 au 9 novembre 2007. Quelque 392 experts représentant 78 pays et 37 organisations en liaison (ISO/TMB/WG SR, 2007a) y ont participé.

Par conséquent, nous nous basons empiriquement dans les deux premiers essais de la présente thèse sur la troisième ébauche de travail *Work Draft 3* (ISO 26000/WD3), étant donné sa richesse en information réelle. Plus particulièrement, nous considérons que le document ISO 26000-WD3 est un indicateur important du paroxysme de participation internationale dans la négociation de cette norme. Au total, 7 225 commentaires ont été élaborés en trois jours.

Tableau 1 Évolution de la négociation de la norme ISO 26000

Document	Date	Number of commentaries	Place of WG SR
Work Draft 1 (WD1)	28 March 2006	2040	Lisbon, Portugal, 15-19 March 2006
Work Draft 2 (WD2)	6 October 2006	5176	Sydney, Australia, 29 January-02 February 2007
Work Draft 3 (WD3)	23 July 2007	7225	Vienne, Austria, 5-9 November 2008
Work Draft 4.2 (WD4.2)	2 June 2008	5231	Santiago, Chili, 1-5 September 2008
Comity Draft (CD)	12 December 2008	3411	Quebec City, Canada, 18-22 May 2009
Draft International Standard (DIS)	14 February 2010	2320	Copenhagen, Denmark, 17-21 May 2010
Final Draft International Standard (FDIS)	12 July 2010	2650	-

Source : Adapté de ISO/TMB/WG SR. 2010a. *Report of the Secretariat to the 8th Meeting, Copenhagen, Denmark, May 17-21, 2010*. ISO/TMB/WG SR N183. Genève : Organisation internationale de normalisation, p. 9.

Les données obtenues de l'ISO 26000-WD3 ont été purifiées en éliminant les informations manquantes et les commentaires issus d'organismes de liaison. Après la phase de purification, 3 224 commentaires tirés de 48 pays ont été retenus pour les analyses relatives au premier essai (tableau 1). Finalement, la base de données a été construite de telle sorte que chaque groupe national d'un pays donné (voir section suivante) ait un score moyen mesurant son degré d'agrément/désagrément à l'égard du contenu de la norme ISO 26000. Chaque score prend en considération les différents commentaires fournis par chaque groupe pour chacune des variables individuelles. Un total de 163 groupes a été retenu (voir fig. 3). Conséquemment, la taille de notre échantillon est liée à la disponibilité et à l'exploitabilité des données elles-mêmes. Plus particulièrement, dans le deuxième essai, nous utilisons la base intégrale qui a déjà servi dans le premier essai afin de maximiser la stabilité de l'extraction des dimensions dans les analyses de composantes principales (voir fig. 2 et fig. 3).

Tableau 2 Pays inclus dans l'essai 1

Arab Emirates (AE)	Kenya (KE)
Argentina (AR)	Korea Republic (KR)
Australia (AU)	Malaysia (MY)
Austria (AT)	Mexico (MX)
Bahrain (BH)	Netherlands (NL)
Belgium (BE)	Nigeria (NG)
Brazil (BR)	Norway (NO)
Canada (CA)	Peru (PE)
Chile (CL)	Poland (PL)
China (CN)	Romania (RO)
Colombia (CO)	Russia (RU)
Costa Rica (CR)	Singapore (SG)
Czech republic (CZ)	South Africa (ZA)
Denmark (DK)	Spain (ES)
Egypt (EG)	Sweden (SE)
Equator (EC)	Switzerland (CH)
Finland (FI)	Turkey (TR)
France (FR)	United Kingdom (UK)
Germany (DE)	United States (US)
Greece (GR)	Uruguay (UY)
Guatemala (GU)	Venezuela (VE)
India (IN)	Vietnam (VN)
Israel (IL)	
Italy (IT)	
Japan (JP)	

Source : ISO/TMB/WG SR. 2007e. *Comments received on ISO/WD 26000.3, Guidance on Social Responsibility, document WG SR N 113.*

Dans le deuxième essai, les observations sont obtenues de 23 pays, comme le montre le tableau 3. Les pays par région sont : Amérique du Nord (03) : Canada, États-Unis et Mexique; Europe de l'Est (04) : République tchèque, Russie, Pologne et Roumanie ; Europe de l'Ouest (14) : France, Italie, Espagne, Suisse, Danemark, Allemagne, Royaume-Uni, Finlande, Pays-Bas, Grèce, Turquie, Suède, Norvège et Belgique.

Tableau 3 Pays inclus dans l'essai 2

Austria (AT)	Denmark (DK)
Belgium (BE)	Spain (ES)
Canada (CA)	Finland (FI)
Switzerland (CH)	France (FR)
Czech republic (CZ)	Poland (PL)
Greece (GR)	Romania (RO)
Italy (IT)	Russia (RU)
Mexico (MX)	Sweden (SE)
Netherland (NL)	Turkey (TR)
Norway (NO)	United Kingdom
Germany (DE)	(UK)
	United States (US)

Source : Adapté de ISO/TMB/WG SR. 2007e. *Comments received on ISO/WD 26000.3, Guidance on Social Responsibility, document WG SR N 113.*

Étant donné que dans le deuxième essai de notre thèse, seuls les groupes nord-américains et européens sont inclus dans la présente étude exploratoire, les données obtenues de l'ISO 26000-WD3 ont été nettoyées en éliminant les informations manquantes et les commentaires issus des pays autres qu'américains et européens, ainsi que les données issues d'organismes de liaison. Seulement 76 observations ont été retenues pour les analyses multi-variées, y compris les graphiques.

Notre choix des zones d'étude dans le troisième essai de cette thèse se justifie notamment, d'une part, par leur grande diversité culturelle et, d'autre part, par les importants événements historiques qui les ont marquées, à la fois en termes du développement de l'approche de la convergence et de la divergence, ainsi que de l'émergence de la notion de la responsabilité sociale (David, 1949). Parmi les événements les plus frappants, nous citons à titre d'exemple la naissance aux États-Unis du concept de la RSE dans le cadre du conflit idéologique États-Unis versus Ex-Union soviétique, la fin de la guerre froide et l'émergence de l'Union européenne, ainsi que la création de l'Alliance de libre échange nord-américaine (ALENA) (Gupta et Wang, 2004). Ceci implique que ces pays sont considérés

comme un riche bassin en termes de développement et de débats en matière de RSE.

Cet essai vise principalement à revoir certaines connaissances dans le domaine de la mondialisation de la RSE. En effet, des études antérieures arguent que la discipline de la RSE reste beaucoup plus développée académiquement en Amérique du Nord qu'en Europe (Crane et Matten, 2006). Selon Pasquero (2005), les intellectuels et industriels d'Europe continentale considèrent la RSE comme un phénomène purement américain jusqu'en 1990. Pour le même auteur, la RSE s'est récemment mondialisée. Par conséquent, nous considérons que l'étude des représentations en matière de RSE entre l'Amérique du Nord, l'Europe occidentale et l'Europe orientale offre un terrain fructueux de recherche empirique afin de réexaminer la dynamique d'une telle mondialisation et d'évaluer ainsi ses tendances d'un point de vue interculturel.

Sujets de l'étude :

L'information sur l'identité des groupes nationaux commentateurs est essentielle pour les analyses dans les deux premiers essais de notre thèse. Chaque groupe national est identifié par son nom de pays suivi par la catégorie de parties prenantes (ex. CA-C; UK-L, etc.). Principalement, six principaux groupes d'intervenants sont identifiés, à savoir G : gouvernement ; I : industrie ; C : consommateur ; L : travail ; NGO : organisation non gouvernementale ; SSRO : services, soutien, recherche et autres (SSRO). Les experts – au nom de leurs groupes – ont la possibilité de faire des commentaires d'une façon individuelle ou coopérative. En considérant le cas coopératif des groupes nationaux du même pays, le secrétariat de l'ISO a créé une catégorie appelée « All ». Au total, 38 types de groupes nationaux (combinaisons des six principales parties prenantes) sont considérés dans la présente recherche. Comme le montre le tableau 4, ces groupes sont codés comme suit :

Tableau 4 Groupes nationaux inclus dans les essais 1 et 2

I (1)	NGO, I (21)
G (2)	C, G, L (22)
C (3)	NGO, L (23)
L (4)	G, NGO (24)
NGO (5)	I, L, C, SSRO (25)
SSRO (6)	L, C (26)
All: I, G, C, L, NGO, SSRO (7)	C, I, G (27)
NGO, I, C (8)	G, SSRO, NGO (28)
C, G, L, NGO, SSRO (9)	C, SSRO (29)
C, G, I, NGO, SSRO (10)	L, I, SSRO (30)
C, NGO (11)	G, L, NGO, SSRO (31)
C, L, NGO (12)	G, I, L, SSRO (32)
I, G, SSRO (13)	L, G (33)
NGO, I, G (14)	I, G, NGO, SSRO (34)
C, G, NGO, SSRO (15)	I, G (35)
I, SSRO (16)	G, SSRO (36)
NGO, C, G (17)	I, NGO, SSRO (37)
I, NGO, L, SSRO (18)	C, G (38)
NGO, I, C, G (19)	C, I, L, NGO (39)
I, C (20)	C, L, G, NGO (40)

I: Industry; G: Government; C: Consumer; L: Labor; NGO: Non-governmental Organization; SSRO: Service, Support and Other researches.

Codification des données :

Afin de quantifier l'attitude des groupes nationaux sur la base des déclarations qui reflètent le mieux leur agrément versus désagrément à l'égard des clauses ou des sous-clauses proposées (desquelles nous avons tiré les variables de notre étude) par ISO 26000, une échelle de notation de type Likert de cinq points (Borden et Abbot, 2002) est utilisée pour le développement de la base de données relative aux représentations de la RSE. Cette échelle est choisie pour sa nature additive et a été appliquée dans les deux essais exploratoires de la présente thèse. Elle s'étend de « fortement en accord » (1) à « fortement en désaccord » (5). Suivant les règles de la négociation, nous supposons que le silence (lorsqu'un groupe ne commente pas un point donné) implique un fort consentement. À

l'exception des commentaires des membres de liaison, y compris ceux des ONG internationales, tout le contenu des fichiers N118 jusqu'au N121 du WD3 (du chapitre 4 au chapitre 7 de la norme ISO 26000) a été choisi comme unité d'analyse.

Dans une première phase, trois évaluateurs ont procédé au regroupement et à la codification des informations relatives au niveau d'accord versus désaccord des déclarations des groupes nationaux sur les différentes variables sélectionnées de l'étude (fig. 2). Ensuite, la fiabilité inter-évaluateurs a été évaluée chez les codeurs afin de déceler toute anomalie de mesure (Holsti, 1969).

Variables de l'étude :

Dans les deux premiers essais, l'ensemble de données d'origine se composait de 36 variables choisies parmi les principaux points négociés de la norme ISO 26000. La méthode de l'analyse de composantes principales (ACP) a permis de réduire l'ensemble de variables de 38 à 18 en éliminant (fig. 2.) : 1) les variables redondantes, ce qui donne lieu à des problèmes potentiels de multi-colinéarité et 2) les variables qui ont une variance non significative. Pour des raisons de robustesse statistique, seules les variables avec un poids supérieur à 0,4 ont été considérées. Enfin, seules les variables ayant un poids supérieur à 0,5 sont discutées. Les variables de la présente étude sont résumées dans le tableau 5 :

Tableau 5 Les variables de l'étude des essais 1 et 2

Concept of CSR realism	Fundamental human rights
CSR practicality	Labor practice
CSR and stakeholder	Environment
Legal compliance	Consumer
Stakeholders' concerns	Social development
Accountability	CSR knowledge
Sustainable development	Operational CSR
Ethics	CSR communication
Diversity	CSR evaluation

Dans le premier essai, les variables catégorielles à savoir la catégorie de groupes nationaux, le niveau de développement, l'origine nationale et le niveau de consensus) ont été déterminées directement à partir de la base de données.

Par contre, la sélection finale de l'ensemble de variables culturelles du deuxième essai ont été basée sur des données secondaires relatives aux dimensions culturelles du modèle du Hofstede (Hofstede, 1980, Hofstede, 1984, Hofstede, 1991, Hofstede et Hofstede, 2005)). Pour chaque dimension culturelle, le modèle de Hofstede fournit des échelles de 0 à 100 pour 76 nations. Dans cette étude, seules des données relatives aux quatre dimensions, à savoir: le niveau de masculinité versus féminité, le niveau d'acceptation de pouvoir, le niveau d'acceptation de l'incertitude et le niveau de l'individualisme versus collectivisme.

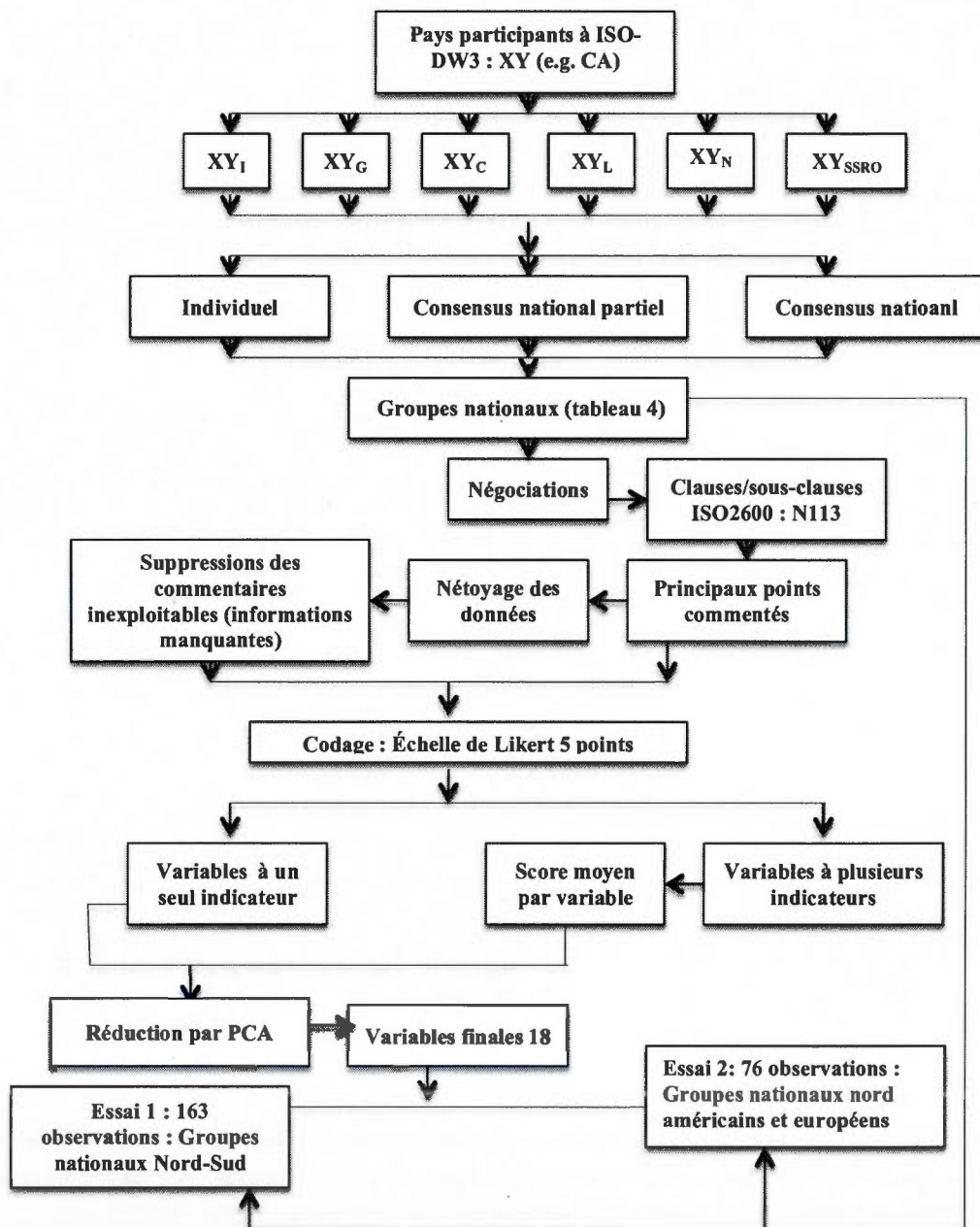


Figure 2 Méthode de construction des données RSE dans les essais 1 et 2

Analyse des données :

Nous nous sommes basés sur Clarley et Palmquist (1992), Bordens et Abbot (2001), Moliner et al. (2002), Busha et Harter (1980) et Pezdeck et al. (2004) pour procéder à une analyse quantitative relationnelle de contenu du document ISO 26000-WD3. Notre choix de la méthodologie d'analyse du contenu de ISO 26000-WD3 est justifié par les quatre raisons principales suivantes : i) cette technique est parfaitement compatible avec les représentations (Moliner et al, 2002); ii) compte tenu de la richesse et de la nature analytique du contenu du document en question, il est adéquat de mesurer quantitativement les attitudes des groupes nationaux en appliquant une échelle appropriée qui reflète leur niveau d'agrément ou de désagrément à l'égard du sujet de la RSE ; iii) étant donné que l'objectif de la présente recherche s'intéresse à l'étude de la convergence et de la divergence des attitudes des groupes nationaux à l'égard des représentations de la RSE, l'analyse du contenu du document ISO 26000-WD3 présente une source de données non biaisée. En effet, nous considérons qu'à ce stade, le processus de négociation de la norme n'est pas encore affecté par le phénomène d'isomorphisme institutionnel (essentiellement dû à la communication entre les membres des différents groupes pendant les périodes de négociation); iv) enfin, le contenu du document ISO 26000-WD3 offre une grande facilité dans le choix des variables de l'analyse, en prenant en considération les principaux points négociés, plus précisément ceux des chapitres 4, 5, 6 et 7 de la norme ISO 26000.

Notre base de données a été transformée en log naturel. Outre l'amélioration des répartitions des nuages de points dans les plans factoriels bidimensionnels utilisés dans les deux premiers essais, cette transformation sert à garantir la normalité de distribution des données, condition nécessaire aux analyses multivariées subséquentes.

L'analyse de composantes principales (ACP) nous a permis : 1) de réduire le nombre de variables d'origine utilisées dans notre étude et 2) d'identifier les

dimensions latentes de la norme ISO 26000 en matière de représentations de la RSE. La matrice résultante a servi de base à une analyse multidimensionnelle afin de cartographier les positions des groupes étudiés par rapport aux variables individuelles retenues. Nous argüons, dépendamment de l'amplitude des représentations, que si l'ACP révèle la même structure sur chaque dimension, mais en présence de scores moyens différents, nous pouvons en déduire que les groupes en question dans les différentes catégories en question considèrent les dimensions à peu près de la même manière, mais ont des idées différentes quant à l'importance relative de leurs variables. Cela corroborait évidemment la thèse de crossvergence au niveau de la même dimension. Au contraire, si les scores moyens sont similaires entre les différents groupes nationaux, cela signifierait l'existence d'une convergence (en cas d'agrément avec les propositions de la norme ISO 26000) ou d'une divergence (en cas de désagrément avec les propositions de la norme ISO 26000) à l'égard des représentations en matière de RSE.

Witt (2008) affirme que plus les dimensions utilisées dans une étude sont nombreuses, plus la chance qu'au moins une d'entre elles diverge alors que les autres convergent ou vice versa est élevée. Par ailleurs, nous ajoutons que plus les dimensions dans une étude sont nombreuses, plus il y a de chance qu'une convergence et une divergence pourraient se réaliser simultanément au moins pour une dimension. Ceci augmenterait les chances de corroboration de la thèse de crossvergence.

Les techniques d'analyses corrélationnelles multivariées (voir Bordens et Abbott, 2001) ont été utilisées pour identifier les facteurs sous-jacents le plus significativement associés à la divergence (quand elle existe) des représentations en matière de RSE entre les groupes nationaux en question. Dans le premier essai, la technique du One-Way MANOVA a été utilisée. Des tests du type MANOVA, ainsi que des tests d'effet inter-sujets, basés sur des ANOVA subséquentes nous ont permis d'effectuer une analyse relationnelle de contenu (Busha et Harter, 1980) afin d'explorer en profondeur l'association potentielle entre la divergence

entre, d'une part, les représentations de RSE (variables dépendantes continues mesurées par les quatre dimensions extraites) et, d'autre part, les facteurs géostratégiques et institutionnels (variables indépendantes catégorielles mesurées par : la catégorie de groupes nationaux, le niveau de développement et l'origine nationale). La variable niveau de consensus a également été utilisée pour enrichir l'interprétation et la discussion des analyses issues de l'ACP. Selon Tabachnick et Fidell (1996), le choix de la technique MANOVA a été motivé par : 1) la corrélation modérée entre les quatre dimensions extraites dans le premier essai de la présente thèse; 2) sa pertinence pour mesurer toutes les dimensions conjointement et détecter des différences qui ne peuvent être captées par une simple ANOVA; 3) son utilité pour maximiser la chance de capter les facteurs de divergence et de convergence les plus significatifs; 4) son pouvoir pour protéger contre les erreurs de type I qui pourraient survenir avec des ANOVA simples.

Dans le deuxième essai de la présente thèse, l'évaluation de l'association entre les représentations de la RSE (variables dépendantes continues mesurées par les quatre dimensions extraites), d'une part, et les dimensions culturelles (variables indépendantes continues) de Hofstede, d'autre part, a été élaborée sur la base des analyses de régression linéaire multiple (RLM). Similairement aux MANOVA, la RLM est une technique multivariée appropriée pour évaluer l'association linéaire entre des variables métriques (Bordens et Abbott, 2001).

Rappelons que, comme nous l'avons signalé plus haut, les quatre dimensions de la RSE, à savoir les questions centrales de RSE (dimension 1), les principes de RSE (dimension 2); le contexte de la RSE (dimension 3) et l'implantation de la RSE (dimension 4) sont prises comme variables dépendantes de l'étude. Le logiciel IBM-SPSS 20 a été utilisé dans les deux premiers essais.

La démarche méthodologique utilisée dans les deux premiers essais de la présente thèse est résumée dans la figure 3.

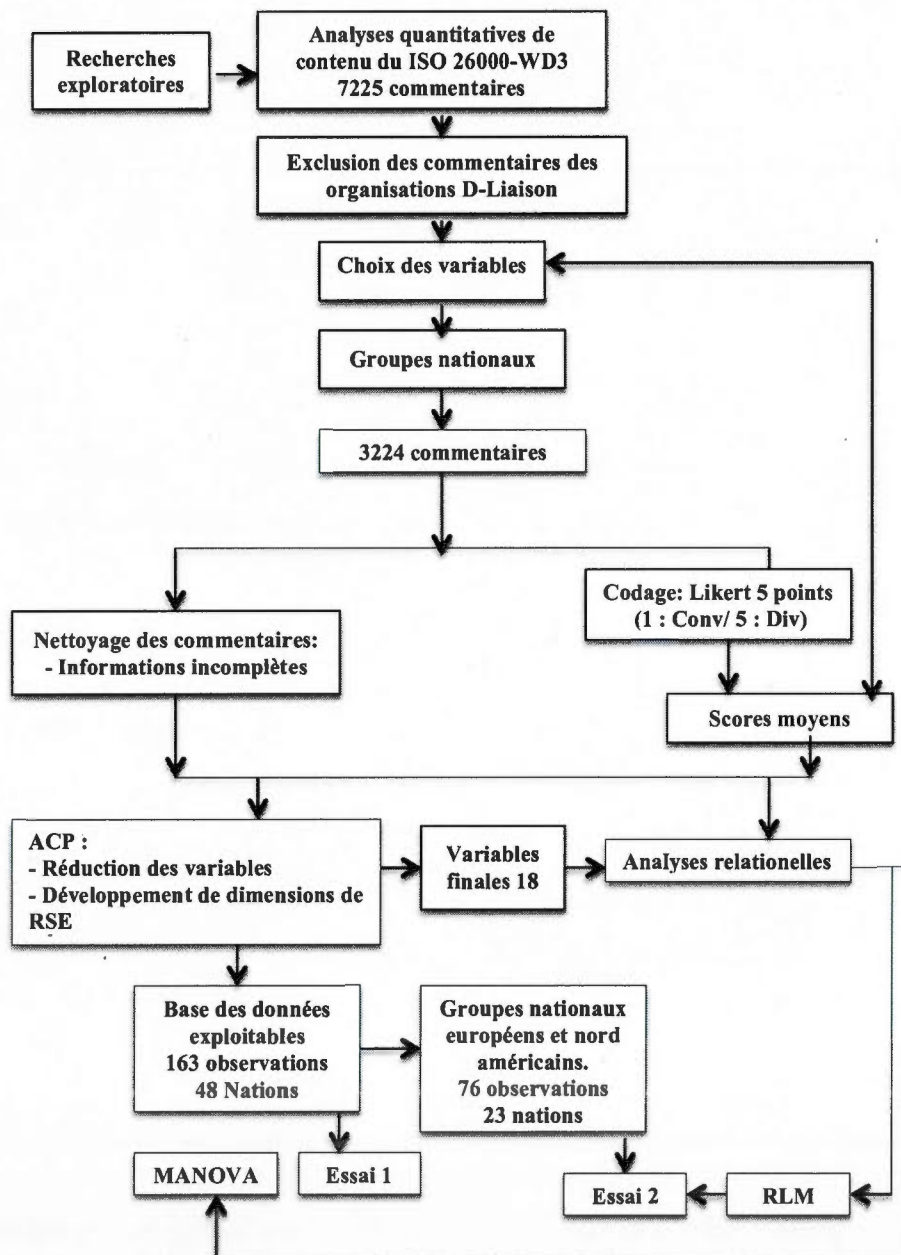


Figure 3 Démarche méthodologique des essais 1 et 2

Essai 3

La méthodologie quantitative analytique du dernier essai de la présente thèse se base sur les deux approches des jeux dynamiques (jeu non coopératif vs jeu coopératif), ainsi que sur le concept de la cohérence temporelle. Ce dernier est associé aux jeux coopératifs et également désigné sous les termes durabilité de la coopération, dynamique de rationalité individuelle, stabilité dynamique, durabilité d'un accord, solution agréable, etc.

Selon Zaccour (2007), il est courant que des joueurs (entreprises, parties prenantes, pays, etc.) conviennent de coopérer sur une certaine période de temps du contrat. Le même auteur argüe que la coopération signifie que les parties en négociation conviennent de coordonner leurs stratégies en vue d'optimiser un indice de performance collective généralement lié à des résultats espérés, par exemple : le profit, le coût, le bien-être, le bonheur. Bien qu'une telle convergence des stratégies puisse réduire la marge de liberté des parties en jeu (en termes de choix de leurs actions), sa justification découle des gains collectifs et individuels qu'elle génère par rapport à la non coopération, un phénomène que nous associons dans le cadre de la présente thèse à la divergence par opposition à la convergence (voir Drezner, 2001 et Raustiala, 2002).

Dans son tutoriel, Zaccour (2007) justifie la convergence entre les agents (joueurs) sociaux et économiques, qui se concrétise par la signature des contrats à long terme par le fait que :

1. La négociation dans le but d'aboutir à un arrangement acceptable est financièrement et émotionnellement dispendieuse. Une telle convergence évitera par conséquent la renégociation fréquente des sujets en question.
2. Certains problèmes, notamment d'ordre environnemental et sociétal, sont fondamentalement dynamiques. Par exemple, la réduction des émissions polluantes d'origine industrielle exige des changements dans les attitudes et

les comportements qui se concrétisent généralement au bout d'une longue période de temps, tels que des investissements dans les technologies responsables, les changements dans les habitudes de gestion, de production et de consommation, etc. Ceci explique pourquoi les joueurs (pays, provinces, régions, parties prenantes, etc.) impliqués dans des négociations dans le domaine de la responsabilité sociétale et environnementale cherchent souvent des accords et des normes qui durent dans le temps.

Cet essai considère deux pays voisins dont les activités industrielles génèrent de la pollution qui nuit à l'environnement. Méthodologiquement, les deux joueurs sont asymétriques en fonction de leur comportement écologique et/ou de la vulnérabilité aux émissions et à leur accumulation. Alors que le joueur 1 optimise les revenus de sa production sans tenir compte de l'impact de ses émissions sur l'environnement, le joueur 2 internalise totalement les dommages causés à l'environnement commun. Nous appellerons le joueur 1 « joueur non vulnérable » et le joueur 2 « joueur vulnérable ».

Il convient toutefois de préciser que cette différence de vulnérabilité peut provenir de fait que :

1. Le joueur 1 n'a aucun intérêt à ralentir ses activités économiques en faveur de l'environnement, tandis que le joueur 2 est prêt à poursuivre des politiques respectueuses de l'environnement (ou subit des pressions à cet effet). Cette situation est censée être une représentation caricaturale d'un jeu environnemental joué par les pays développés et les pays en développement. Nous argüons que les pays en développement font face à d'énormes défis liés à la croissance économique et considèrent par conséquent l'environnement comme une préoccupation secondaire dans leur agenda politique. En revanche, les pays développés peuvent se permettre une telle préoccupation, appuyée principalement par des pressions citoyennes considérables.

2. Contrairement au joueur 2, le joueur 1 ne souffre pas des émissions. Cette deuxième situation a été évoquée dans la littérature comme étant un jeu de pollution en aval. Le jeu de pluies acides a été étudié à l'origine dans un contexte statique dans Mäler (1990), Newberry (1990), Tahvonen et al. (1993). Dans un contexte dynamique, Kaitala et al. (1991, 1992 a, b, 1995), Kaitala et Pohjola (1995), Mäler et de Zeeuw (1998) offrent des exemples d'un problème de pollution en aval. À un niveau plus macro, Kaitala et Pohjola (1995) considèrent le problème de réchauffement de la planète comme un jeu environnemental dynamique impliquant deux coalitions, dont l'une est non vulnérable aux réchauffements climatiques.

Idéalement, chaque pollueur paierait les coûts des dommages causés à l'environnement commun. Toutefois, cela devient impossible en l'absence d'une autorité supranationale qui puisse légitimement contraindre le pollueur à maîtriser ses émissions ou à payer pour les dommages causés à l'environnement commun. Ainsi, dans un tel contexte, il peut se révéler optimal pour le pays pollué (ou un joueur vulnérable) de payer le joueur non vulnérable (pollueur) pour l'encourager à réduire ses émissions. Autrement dit, acheter sa coopération. Cela est particulièrement vrai lorsque les coûts de réduction des émissions assumés par le joueur non vulnérable sont plus faibles que les coûts relatifs aux dommages encourus par le joueur vulnérable. En outre, les dommages causés à l'environnement ne sont pas uniquement causés par les flux des émissions, mais aussi par leur accumulation. Cela implique le besoin d'un modèle dynamique pour représenter correctement le coût des dommages et, par conséquent, de concevoir un accord international durable pour contrôler les émissions.

Ce troisième essai s'intéresse donc plus particulièrement à la conception d'un accord environnemental durable entre le « joueur vulnérable » et le joueur « non vulnérable », dans un contexte particulier où la fonction de paiement du joueur non vulnérable change avec le mode de jeu, qu'il soit coopératif (en cas de

convergence) ou non coopératif (en cas de divergence). En effet, contrairement à la situation dans un régime divergent où les coûts des dommages environnementaux ne sont pas internalisés par le joueur non vulnérable, nous supposons que dans un régime coopératif, la coalition représente le total des dommages.

Pour dériver les conditions dans lesquelles le joueur non vulnérable converge vers une politique environnementale responsable en acceptant de réduire ses émissions, nous adoptons une approche des jeux coopératifs. Dans notre cas basé sur un jeu à deux joueurs, ceci nécessite de calculer i) le gain issu de l'optimisation conjointe que les joueurs peuvent réaliser s'ils décident de signer un accord environnemental, et ii) les gains individuels en cas d'échec des négociations (divergence des politiques). En vertu de l'optimisation conjointe, on s'attend à ce que la récompense totale de la convergence domine celle de la divergence. Toutefois, cette propriété n'est pas toujours vérifiée dans notre configuration. Plus particulièrement, ce gain conjoint n'est valable que sous certaines conditions portant sur les paramètres des fonctions de coût des dommages, la dynamique de la pollution et le taux d'actualisation.

Si le gain supplémentaire généré par la coopération est suffisant pour induire le joueur non vulnérable à converger vers une politique environnementale responsable en signant un accord de contrôle des émissions, l'évaluation des gains individuels issus d'un régime non coopératif devient pertinente pour répondre à la question relative à la durabilité d'une telle convergence. Cette question a été couverte par la littérature des jeux différentiels selon deux lignes de pensée. Dans la première, l'approche consiste à concevoir un accord de coopération qui est un équilibre. Cela peut être fait en adoptant, par exemple, les stratégies de déclenchement (*trigger strategies*, voir, par exemple, Tolwinski et al., 1986; Haurie et Pohjola, 1987; Cesar, 1994; Dockner et al., 2000, chapitre 6). Ces stratégies matérialisent des sanctions crédibles qui privent tout joueur des avantages d'une défection. La seconde approche consiste à concevoir un accord cohérent dans le temps, c'est-à-dire une décomposition dans le temps des gains

totaux individuels de l'accord, de sorte que, à tout instant du temps intermédiaire, les gains coopératifs « à emporter » sont supérieurs aux gains non coopératifs « à emporter ». Cette approche a été suivie, par exemple, par Kaitala et Pohjola (1990), Petrosjan (1993, 1997), Jørgensen et al. (2003, 2005), Petrosjan et Zaccour (2003), Yeung (2007) et Yeung et Petrosjan (2006, 2008).

Dans cet essai, nous concevons un régime du transfert temporellement cohérent de paiement basé sur une décomposition de la solution de négociation de Nash (NBS) dans le temps. Cette solution est reconnue pour sa justesse dans le partage des gains. La notion de cohérence dans le temps déployée par cet essai est celle développée dans Petrosjan (1993, 1997). Le modèle que nous proposons est celui de la variété linéaire-quadratique, où la fonction de paiement du joueur non vulnérable varie selon le mode de jeu.

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CHAPITRE I

REVISITING DIVERGENCE AND CONVERGENCE IN CSR REPRESENTATIONS: EMPIRICAL EVIDENCES FROM ISO26000

REVISITING DIVERGENCE AND CONVERGENCE IN CSR
REPRESENTATIONS: EMPIRICAL EVIDENCES FROM
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ABSTRACT

This paper develops four Corporate Social Responsibility dimensions and investigates their patterns of convergence and divergence among the participants to the ISO 26000 negotiation process. In a relational content design, we analyzed data from 163 groups drawn from 48 countries. Principal Components Analysis does not show any “pure” divergence or convergence on the extracted dimensions. The study also demonstrates that international divergence on Corporate Social Responsibility representations is related to the level of consensus within the stakeholders of each country. Contrary to our initial research propositions, analysis of the variance reveals that neither the level of development nor the type of stakeholders are related to divergence on CSR representation. However, national membership exhibited significant relation to the divergence on the principles and the implementation of CSR worldwide. Managerial implications and further research extensions are discussed.

Keywords. Corporate Social Responsibility; Country of Origin, North-South divide; ISO 26000; stakeholders; Convergence, Divergence, Crossvergence.

1.1 INTRODUCTION

As a field of enquiry, comparative management involves the cross-national comparison of institutional behavior. Precisely, it makes an attempt to establish the level to which main factors, such as macro-environmental characteristics and local culture (Craig et al., 1992), and national and institutional context (DiMaggio and Powell, 1991 and Beckert, 2010) tend to systematically impact countries' attitudes and behavior towards economical, political, social and managerial logics and ideologies. The importance of these factors in the perceptions and practices of the latter has long been acknowledged in international business and management studies, organizational theory, political economy and social studies (Hofstede, 1980, 1990; Ronen and Kraut, 1977; Ronen and Shenkar, 1985; Craig et al., 1992; Smiley, 1999, Drezner, 2001). Diverse studies have proven how exported logics are perceived and adapted when integrated in a host national context (DiMaggio and Powell, 1991; Guler, Guillén, and MacPherson, 2002; Brammer, Williams and Zinkin, 2007; Czarniawska and Sevón, 2005; Steurer and Konrad, 2009; Beckert, 2010). Accordingly, comparative management studies development has generated increasing interest in countries clustering for market entries, decision, and competitiveness analysis. This, in turn has generated a flow of researches, which are particularly based on economical macro-environmental variables (e.g. GNP per capita, imports and exports, energy consumption, etc.) due to their direct relation to important operational and managerial conditions, demand and infrastructure (Craig et al., 1992).

It is only recently that social sciences scholars have extended their cross-national and comparative management analysis to CSR. Jamali (2008) argues that the growing importance of the topic of CSR has led to an intense international debate. Interestingly, a larger, evolutionary and grounded definition of CSR embedding all types of organizations has been lately proposed by Meehan et al.

(2006) and crystalized by ISO 26000 (2010). CSR expectations have been changing over time and groups' memberships (e.g. country's level of development, national origin, stakeholders groups and networks). Intuitively, one could think a globalization movement regarding CSR expectations can accompany the market globalization. In this regard, on the one hand, one could claim that CSR representations worldwide converge and are standardizing under globalization and the universal needs of environmental and social best practices and policies (DiMaggio and Powell, 1991, Turner and Auer, 1996; Katz, 1997; Rowley and Benson, 2000; de Bakker et al., 2007; Van Luijk, 2001; Gendron, 2001; Micheletti, 2003; Gendron et al., 2004). On the other hand, one could also notice that, while several common patterns were emerging across advanced industrial states, hence pushing towards convergence, cross-national variations do coexist as well (Langlois and Schlegelmich, 1990; Locke and Kochan, 1995; Turcotte et al., 2007, 2005; Crane and Matten, 2006; Chen and Bouvain, 2009; Stuerer et al., 2011).

The current study proposes re-examining CSR convergence and divergence among a wider sample of countries, including developing nations. Despite a growing number of comparative CSR studies (Albareda et al., 2006; Brammer and Pavelin, 2005), any empirical association has been carried between CSR representations and factors such as: countries' level of development (North-South divide), national origin (Country of Origin) and stakeholders' memberships. Large worldwide countries clustering bases on CSR representations and practices remain rare due to the limited number of studied countries. Furthermore, most studies tend to limit their focus on consumers and managers rather than on larger varieties of key stakeholders that include government, advocacy groups, labor representatives, and others.

Herein, we argue that convergence of CSR across national boundaries is overlapped by country specific attitudes, leading therefore to a complex hybrid form of global-local CSR representation trends around the world. Furthermore, the debate concerning the extent CSR agenda was mainly motivated by the

developed countries' interests and urgencies; it also sets the tone for questioning the impact of the economic North-South divide on the divergence of CSR representations. Thus, performing a clustering research with regard to the increasing importance of national stakeholders groups from both developing and developed nations in the global CSR negotiations (Tamm Hallström, 2008) would have a salient contribution to both fields of international business and CSR.

The purpose of this exploratory study is to examine patterns of divergence (disagreement) and/or convergence (agreement) on CSR representations across countries. We follow the methodologies used by Clarley and Palmquist (1992), Moliner et al. (2002) Busha and Harter (1980) and Pezdek et al. (2004) to conduct a quantitative relational content analysis. Our sample was based on the ISO 26000 public Work Draft 3 (ISO 26000-WD3), which has been negotiated in Vienne, from November 5 to 9, 2007 by 392 potential experts from 78 countries and 37 organizations. Observations from 163 participants, which are drawn from 48 participating countries, were retained. Principal Components Analysis (PCA) was used to extract main CSR dimensions.

These dimensions were then combined on bi-dimensional factor maps in order to analyse the national and stakeholder positions based on their statements at a specific time in the negotiation process. If participants from different countries made comments that are dissimilar regarding a particular aspect of the ISO 26000 norm, divergence would therefore be observed. If the comments are similar, this would be a sign of convergence. We argue that if a PCA shows the same underlying structure, but the mean scores on the scales are different, then we can infer that the participants from different countries view the structure of the main ISO's CSR's dimensions in much the same way but have different ideas about the relative importance of the main concepts or issues. Conversely, if the comments are similar across different participants from different countries worldwide, then we will gain insight into the convergence of CSR representations. According to Witt (2008), the more sub-dimensions the study uses, the higher the chance that at least one of them diverges or converges compared to the others, which would

strongly increase the chance of falling in crossvergence situation. Furthermore, we argue that the more sub-dimensions the study uses, the higher the chance that crossvergence could be seen within at least dimension, which would strongly increase the chance of confirming the crossvergence situation. That is, if signs of convergence and divergence cohabit across the different CSR dimensions, then CSR representations will be considered as showing crossvergence rather than pure convergence or divergence.

Hence, our aim is to provide insights on how participants from different countries and different stakeholders groups that contributed in the ISO 26000 negotiation may differ in terms of their CSR representations. Furthermore, insights gained from analyses of variance were used to identify potential factors that are most strongly associated to the divergence (when it exists) of CSR representations between the studied national groups. The level of economic development, the country of origin (COO), the category of stakeholder and the level of national consensus between one country's different stakeholders are sought as the independent variables. The four extracted CSR dimensions, namely: CSR's central issues (Dimension 1); CSR's principles (Dimension 2); CSR context (Dimension 3), and CSR implementation (Dimension 4) are identified as the dependent variables of the current exploratory study. The current study is motivated by the following two main research questions:

1. To which extent do CSR representations converge (and/or diverge) between the participants from different nations?
2. If there is any divergence (either in crossvergence or in pure divergence) on the CSR representations, what would be their associative factors?

In order to answer these questions, this paper is structured as follows. First, previous comparative CSR researches, with regard to convergence and divergence approach, are examined and research propositions are developed. Research methodologies are then exposed and findings are examined in terms of observed convergence and divergence of CSR representations' patterns. Patterns of

divergence, when they exist, are subsequently assessed with regard to a set of underlying associated factors. Finally, main conclusions and further research avenues are presented.

1.2 Literature review

1.2.1 CSR convergence

A first approach to globalization encompasses a continual convergence of organizational logics across nations. The Convergence defenders assert that nations' strategic business behavior would become similar, as long as countries liberalize their market, develop their institutions, adopt new technologies, and achieve industrialization (Pascale and Maguire, 1980). According to England and Lee (1974), convergence occurs because people will embrace common values regarding economic activities. Likewise, Craig et al. (1992) associate convergence with the similarities between nations. Harbison and Myers (1959) and Kerr et al. (1960), claimed that the process of industrialization and technology would standardize the global political and economic systems, originally shaped in the United States. Along the same lines, "real-time technology" (Castells, 1996), "volatile capital flows" (Strange, 1986) and homogenization of consumer demand worldwide (Levitt, 1983) were considered as key factors underpinning such an argument, which implied universal and standard logics and ideologies that could be applied across nations. Convergence theory has gained insight into many management logics and debates, such as the spread of CSR concept worldwide. Several arguments have supported the converging organizational trends across nations. Although the CSR concept originated in the USA, over the past few decades, it has clearly spread to other continents, especially Europe (den Hond et al., 2007). As well, social mobilization is becoming globalized through the development of political consumerism (Micheletti, 2003) or the rise in the number of increasingly

structured pressure groups (Gendron, 2001). CSR is becoming global with many social and political players contributing to this phenomenon via new means (Gendron et al., 2004; Djelic and Sahlin-Anderson, 2006), in particular by proposing standards for respecting CSR and sustainable development, standards that can define market access and become critical issues for companies and nations. Through these standards and regulatory bodies, social actors are working together, as well as with governments and industry to form international networks, thus contributing to CSR convergence worldwide.

For Brunsson and Jacobsson (2000), international standards are also seen as factors of convergence and may substitute for organization. Cashore (2002) saw in the growth of the number of organizations offering social and environmental guidelines, standards and certifications, the emergence of an opposing force in the form of non-state market-driven governance systems. These organizations promote CSR as evaluation grids and social performance monitoring systems, which can be considered as socio-technical innovations. These organizations stem either from civil society, the private sector, or a hybrid area between the private sector, government and other actors, as in the case of several standardization bodies. These organizations promote CSR as evaluation grids and social performance monitoring systems, which can be considered as socio-technical innovations (Caron and Turcotte, 2009).

The proponents of these innovations want to disseminate them as broadly as possible, therefore taking them out of their national origins (Turcotte et al., 2007), which contributes to international CSR convergence. Following Brunsson and Jacobsson (2000), standards are seen as harmonizing global scale rules for organizational activities regulation. Djelic and Sahlin-Andersson (2006) assert that the growing published codes by quasi-voluntary regulation regimes go beyond the state/nonstate divide. Aiming precisely to provide guidance on the concept of CSR, technically called Social Responsibility, with respect to all types

of organizations subject to CSR measures and applications, ISO 26000³ is a new standard of global CSR, which was induced by the International Organization for Standardization (ISO) in 2004. Since it has been published in 2010, this standard might become a force of convergence. However, throughout its process of negotiation, involving representations from 99 countries, it has been a forum where forces of divergence – if they exist – had the opportunity to express themselves.

Notwithstanding, even though such convergence through standards – which happens here more generally through industrialization (DiMaggio and Powell, 1991; Kerr, 1983; Womack et al., 1990; MacDuffie, 1995) – was generally well-received, it also gained direct substantial criticism, especially with regard to the divergence and crossvergence approaches. These theses are described in the sections that follow.

1.2.2 Country specific argument and CSR divergence

Globalization involves continued divergence of organizational logics worldwide. Craig et al. (1992) associate divergence to dissimilarities between nations. In their study of patterns of convergence between developed countries between 1960 and 1988, these later argue that rather than converging, as initially hypothesized, industrialized nations are becoming more divergent in terms of macro-environmental characteristics (infant mortality, male life expectancy, cost of living, etc.). Granovetter (1985) argues that economic transactions are deep-rooted in long-term relationships that entangle obligation, trust and reciprocity, which are generally shaped by national institutions (Hall and Soskice, 2001). Hofstede (1980) and Laurent (1983) claim that contrary to the convergence approach, divergence is explained by national culture, rather than economic

³ The guidance embodies nine chapters: Introduction; Scope; Normative references; Terms and definition, The SR context in which all organizations operate; SR principle relevant to organizations; Guidance on core subjects/issues; Guidance for organizations on implementing SR and Guidance annex.

ideology or technological level. Whitley (1999) and Proffitt and Spicer (2006) assert that organizational logics are significantly affected by a complex institutional dynamic across countries. Several empirical studies have supported the divergence argument between industrialized nations (Wade 1990; Craig et al., 1992; Whitley 1992; Fligstein and Freeland 1995; Kristensen 1997; Orrú et al., 1997; Storper and Salais, 1997; Fligstein 2001; Gulli n 2001; Hall and Soskice, 2001; Amable, 2006; Chen and Bouvain, 2009).

The theory of divergence has gained insight into numerous managerial and political logics and debates between nations around the world. One of the most striking examples is related to the national-specific reaction to the concept of CSR. From a historic point of view, this latter reaction provides the first argument in favor of the divergence argument and outlines that this divergence is first and foremost a country-specific basis.

The modern concept of CSR originated in the United States (Pasquero, 2005). Donald K. David (1949) traced the roots of this concept to the beginning of the Cold War in the late 1940s. According to Spector (2008), David, Dean of the Harvard Business School, was the first scholar in the Harvard Business Review to push forth the expression of "Business Social Responsibility", in order to bring in line business interests with the argument of free-market capitalism against what he considered as the "danger of Eastern European regimes" under Soviet Communism. Thus, this further highlights the very historical and ideological roots of CSR.

At the national level, corporations and their stakeholders do not operate in a standard way; they constantly change and acclimatize their societal and environmental attitudes in interaction with their national institutional environments. According to Bowen (1953), CSR is a social obligation; it follows the objectives and values of society. Several studies argue that the business world is not only restricted to economic and legal obligations but that it has to have a responsible attitude to society as a whole (Davis, 1960; Carroll, 1979; Leit o and

Silva, 2007). Through their activities and demands, stakeholders define CSR issues and expectations (stakeholder approach: Freeman, 1984; Bird et al., 2007). This actually occurs through a process where various actors with conflicting interests get involved in the governance of business firms' activities (see Cespa and Cestone, 2007; Riordan and Fairbrass, 2008). For Clarkson (1995), CSR is seen as a stakeholders' preoccupation regarding the attitudes of corporations. Aguilera and Cuervo-Cazurra (2004) state that the divergence in CSR is related to systems of governance. Along the same lines, Campbell (2006) claims that collective industrial self-regulation and strong stakeholders as well as a salient normative institutional environment shape CSR attitudes. Expectations about CSR are molded in different contexts involving different stakeholders, and therefore, it is not surprising that a divergence among different nations would be observed, as it is the result of a particular set of interactions among local stakeholders within a specific institutional context.

In an international survey on ethical attitude, Enderle (1997) reported net divergence signs across countries worldwide. Accordingly, the academic discipline of CSR remains much more developed in North American countries than in other nations worldwide. For instance, Crane and Matten (2006) claim that CSR is more developed in North America than in Europe. Pasquero (2005) and Carroll (2008) argue that CSR has only become a worldwide phenomenon since the 2000s, with special development in Europe. According to Pasquero (2005: 95), "until the 1990s, Continental European intellectuals and industrialists generally saw CSR as a purely American phenomenon," and it was through the publication of several white papers by the European Commission in 2001 that "Europe finally took the concept of CSR seriously, putting an end to long-time skepticism about it" (*Ibid.*: 94-95). Moon (2005), in an article on the state of CSR in the United Kingdom, showed the importance that this concept has garnered in Europe (see also Habisch et al., 2005). Steurer and Konrad (2009) argue in a comparative study between Central-Eastern Europe and Western Europe, that CSR has become an unavoidable popular concept for the latter's major

companies. Accordingly, Maignan (2001) shows that European consumers were more likely to encourage responsible companies than their American counterparts were. It is also claimed that fair trade markets and responsible tourism are far more developed in Europe than in America (World Tourism Organization, 2002). By the same token, significant divergence has been found between Chinese and U.S. managers in scenario-based ethical decision-making (Whitcomb et al., 1998). Priem et al. (1998) demonstrate a North-South divide in moral judgment.

Stevenson and Bodkin (1998) found significant differences in a cross-national comparison of U.S. and Australian university students' perceptions of right and wrong in sales practices. Respectively, Maignan (2001) showed that European consumers were more likely to encourage CSR than their American counterpart.

1.2.3 CSR crossvergence

A third approach to globalization shows how “organizational logics” change and translate across nations (Abo, 1994; Raz, 1999; Ralston et al., 1999; Zeitlin and Herrigel, 2000; Donaldson, 2001; Robertson et al., 2001; Anakwe, 2002; Tan, 2002; Giacobbe-Miller et al., 2003; Egri and Ralston, 2004; Fu et al., 2004; Andrews and Chompusri, 2005; Kelley et al., 2006; Porter, 2006; Ralston et al., 2006; Witt, 2008). According to the theory of crossvergence, globalization does not result in the convergence or the divergence of organizational logics and ideologies. Instead, when organizational logics migrate over space and time, they experience a process of transformation and hybridization (Abo, 1994), and translation (Czarniawska and Sevón, 1996), which leads to crossvergence. According to Witt (2008, p 48) crossvergence occurs under a combination of the influences of national culture and economics, which leads to “*a value system that is fully aligned with neither culture nor ideology*”.

The increasing evidence of the existence of salient stresses leveling the institutional change toward CSR convergence does not come as a surprise due

most likely to the globalization phenomenon of environmental and international issues. Nonetheless, it is also equally true that institutional divergence assumption is constantly maintained. The conceptual homogeneity of CSR, based on the original American concept, may give rise to adaptations based on local practices (Colonomos and Santiso, 2005). In fact, according to den Hond (2007), while there is a kind of homogeneity about CSR at the conceptual level, actual practices are extremely heterogeneous, since the expectations of the stakeholders vary in space and time. Most likely, these differences in institutional, historical and cultural concepts lead to considerable heterogeneity in the manner in which companies picture and implement CSR. This heterogeneity has been very clearly brought forth in the literature, and should not be linked to differing conceptions of CSR. Thus, in a comparative study of CSR reports produced in the USA, the UK, Germany and Australia, Chen and Bouvain (2009) conclude that despite an increasing standardization, several national differences remain in the reporting practices of these countries. Likewise, Schlegelmilch and Robertson (1995) argue that both the country and the industry are underlying factors of ethical perceptions of American and European senior executives.

Logsdon and Wood (2005) advocate an approach based on the concept of "global business citizenship", an approach that these authors describe as "hybrid" (*ibid.*: 48), because it implies that universal principles should be applied to respect local diversity. The purpose of hybridism in the global corporate citizenship process is to avoid the respective pitfalls of the universal and relativist approaches, which have long been identified by researchers in international management ethics (DeGeorge, 1993). Beyond the conceptualization of tension between these two poles (Wines and Napier, 1992), one can imagine that the problems remain unresolved for those who must deal with concrete conflicts of cultural values, on top of the many sustainable development objectives that come along with the recognition of CSR. Although there are few models available, some have been developed to guide the decision-making processes of managers in this regard (see, for example, DeGeorge, 1993; Raisner, 1997; Desai and

Rittenburg, 1997). Several of these models are based on the Habermasian “ideal speech” of an open dialogue free of power relationship, in this case, an international dialogue. According to Habermas (2001), liberal democracies are built on a national constellation made up of civil society, governments and businesses, which contribute to democratic stability through solidarity, power and money respectively, all of which are interrelated and regulated by local moral and legal requirements. Globalization disrupts the legitimacy of the three bodies and their dynamics. Habermas calls this an emerging post-national constellation.

Furthermore, another point is related to collaboration among the stakeholders groups in international and local organization networks. For Streck (2005), the ideal network involves cooperation between government, civil society and the private sector. It integrates the South and the North, as well as international, regional, national and local players. Nevertheless, far from homogenizing worldwide practices, the conceptions of CSR conveyed by the organization networks are reinterpreted and then integrated into the culture of each network link (Turcotte et al., 2007). Therefore, from these networks stems a variety of specific answers regarding CSR issues, even though they are conveyed within international networks, and are global in scope (environmental, social, etc.).

CSR is the manifestation of the political and economic logic of the new transnational governance. This governance acts through the grouping of stakeholders into international networks, which express their specific and global expectations within new channels such as codes of conduct, standards and social audits. Herein, we follow Witt (2008) to argue that the very encompassing formal definition of crossvergence and its incorporated inclusive definitions of both convergence and divergence, gives crossvergence a significant likelihood of empirical relevance. According to Witt (2008), the more sub-dimensions the study uses, the higher the chance that at least one of them diverges or converges compared to the others, which would strongly corroborate the theory of crossvergence. This adds up to the likelihood of crossvergence within each dimension, when the latter relatively exhibits both patterns of divergence and

convergence.

1.2.4 Research propositions

The current study rests on theoretical underpinnings derived from comparative CSR, convergence, divergence and crossvergence approaches to generate our exploratory research propositions. As it is assumed in previous studies, we argue that national representations of stakeholders are exhibiting features of a hybrid form of resemblances and discrepancies, rather than a “clean” form of convergence or divergence. Hence, one could relax the first research propositions P1.

P1: CSR representations worldwide are exhibiting both signs of convergence and divergence.

If the previous research proposition is confirmed, hence supporting the hybridism thesis of CSR representations worldwide, we want to know within which factors does such a divergence appear.

Whitcomb et al. (1998) found a significant divergence between Chinese and U.S. managers in scenario-based ethical decision-making. Priem et al. (1998) showed a North-South divide in moral judgment. More recently, Tamm Hallström (2008) argued that ISO 26000 participating stakeholders from developing countries, intergovernmental organizations and NGOs have raised a special concern regarding the extent to which the standard could be turned into a technical barrier to international trade for developing countries in general and for small organizations in particular. This perceived risk was considered as a key factor of North-South divide in social responsibility (*Ibid*). Thus, the second proposition:

P2: Divergence on CSR representations is significantly associated to North-South divide (level of development).

In line with Schlegelmilch and Robertson (1995), Brammer and Pavelin (2005) and den Hond (2007), we argue that divergence in CSR representations is likely to be related to the stakeholders' expectations variability. Thus one could express the third research proposition:

P3: CSR representations divergence is significantly associated to the type of stakeholders.

According to Schlegelmilch and Robertson (1995) "country" was found as an underlying factor of ethical perceptions of American and European senior executives. Similarly, other authors argue in favor of ethic divergence across countries (Enderle, 1997 and Whitcomb et al., 1998). Thus, one could state the fourth proposition:

P4: CSR representations divergence is significantly associated to national origin.

1.3 Methodology

1.3.1 Context of data: ISO 26000's process

ISO 26000 is an ISO International Standard, aimed at guiding all types of organizations on how to operate in a socially responsible manner. ISO 26000 is a voluntary guidance, and thus does not contain any requirements for a management system and certification standard like ISO 9001(2008) and ISO 14001 (2004). The resulting ISO 26000's Final Draft International Standard (FDIS) version is a document containing 106 pages, including seven clauses, two Annexes and a bibliography. The introduction makes a short case for social responsibility and highlights the applicability of the standard to all types of organizations in both public and private sectors, in developed, developing, and emerging countries. The standard's scope is outlined in Clause 2; it includes

definitions of key terms such as social responsibility, sustainable development, organization, international norms of behavior and sphere of influence. Clause 3, entitled "Understanding social responsibility", is a general introduction to social responsibility, its features, and its recent trends. Clause 4 proposes seven principles of social responsibility, namely: accountability; transparency; ethical behavior; respect for stakeholder interests; respect for the rule of law; respect for international norms of behavior; and respect for human rights. Clause 5 contains guidance for organizations in terms of recognition of their social responsibility and their identification of and engagement with their stakeholders. Clause 6, which accounts for the largest part of the standard, deals with core CSR subjects: organizational governance; human rights; labor practices; environment; fair operating practices; consumer issues, and community involvement and development (Social development). Clause 7 provides guidance for the implementation of CSR.

The negotiation process that would lead to the ISO 26000 norm started in 2001 when ISO's Consumer Policy Committee (ISO/COPOLCO) expressed the need for ISO to work on an SR standard. In 2002, it published a report on the value of 'corporate social responsibility' standards (ISO COPOLCO, 2002). At the 2002 ISO General Assembly, ISO considered whether to develop "management standards" on CSR. In 2003, the multi-stakeholder ISO Ad Hoc Group on Social Responsibility, which had been created by ISO's Technical Management Board (TMB) completed an extensive overview of SR initiatives and issues worldwide. After positive recommendation of multi-stakeholder conference in 2004 about the need to launch CSR work, the ISO Working Group on Social Responsibility (ISO/WG SR) was established to develop the ISO 26000 standard.

The New Work Item Project (NWIP) stipulated that 'experts' from participating countries should be systematically organized within six stakeholder categories, namely: "Industry" (I), "Government" (G), "Consumers" (C), "Labor" (L), non-governmental organization (NGO) and "service, support, research and

others” (SSRO). A seventh category “All” includes comments given under all national stakeholders categories consensus. This last category varies depending on stakeholders’ participation in each country. ISO/WG SR’s participants were nominated from either ISO members (national standards bodies – NSBs) via national ‘mirror’ committees or “D liaison organizations” (a list of organizations with international reach approved as such by ISO and with up to two experts each). Intended to secure a multi-stakeholder approach, the idea of formalizing stakeholder groups was unprecedented for ISO, traditionally based upon the voluntary participation of national experts. Consequently, several drafts aiming for final guidance have been developed under the WGSR. Table 1.1 shows the evolution of the ISO 26000 negotiations process, ranging from the first WD to the Final Draft International Standard (FDIS). ISO 26000-WD3 has been negotiated in Vienna, from November 5 to November 9, 2007 by 392 potential experts from 78 countries and 37 liaison organizations (ISO/TMB/WG SR, 2007a). The writing of the norm was done through a set of meetings and comments on drafts. Table 1.1 provides the name of each draft, the date it was issued, the place where the meeting to negotiate it was held, and the number of writers’ comments.

Table 1.1 Evolution of ISO/WG SR negotiations

Document	Date	Number of commentaries	Place of WG SR
Work Draft 1 (WD1)	28 March 2006	2040	Lisbon, Portugal, 15-19 March 2006
Work Draft 2 (WD2)	6 October 2006	5176	Sydney, Australia, 29 January- 02 February 2007
Work Draft 3 (WD3)	23 July 2007	7225	Vienna, Austria, 5-9 November 2008
Work Draft 4.2 (WD4.2)	2 June 2008	5231	Santiago, Chili, 1-5 September 2008
Comity Draft (CD)	12 December 2008	3411	Quebec City, Canada, 18-22 May 2009
Draft International Standard (DIS)	14 February 2010	2320	Copenhagen, Denmark, 17-21 May 2010
Final Draft International Standard (FDIS)	12 July 2010	2650	-

Source: Adapted from ISO/TMB/WG SR. 2010a. *Report of the Secretariat to the 8th Meeting, Copenhagen, Denmark, May 17-21, 2010*. ISO/TMB/WG SR NI83. Genève: Organisation Internationale de Normalisation, 9 p.

1.3.2 Database

Our data is based on the third public Work Draft (WD3) presented in the previous section. It has been chosen for the following reasons. Firstly, with an unprecedented level of members' participation (7,225 comments), the WD3 document provides the most information among all the ISO 26000 WDs, which is considered an extended source of information when it comes to the study of

international consensus of the standard. Secondly, since we are interested in the study of national convergence and divergence, WD3 presents a minimum of bias by taking in consideration the negotiation process of the standard at a stage, which, in our opinion, has not yet been too affected by institutional isomorphism stresses. Thirdly, it has been claimed that ISO 26000 was the largest multi-stakeholder negotiation process, and the comments, which constitute our database, represent this characteristic. Jamali (2008) recognizes the methodological advantages of stakeholders-based samples with regards to CSR data. In this research, we follow the same approach for our empirical study (See also Jamali, 2008; Laan et al., 2008; Ferrary, 2009 and Wang, 2011). Finally, the documents facilitate the identification of variables for the analysis by taking in consideration the main subjects (clauses and sub-clauses) of the designed chapters (4, 5, 6 and 7) of the ISO 26000 norm.

In order to be able to focus on national origins (table 1.8), comments by D-liaison groups and international NGOs were discarded from our database (see fig. 1.9). Furthermore, incomplete information and data relative to the WD3's files N15, N16 and N17 were also excluded from the database due to a multicollinearity problem. Thus each of the comments from the files N118 through N121-II was chosen as the units for the analysis, and was meticulously coded. A total of 48 countries were taken into consideration. Thus a total of 3,224 on a total of 7,225 comments were studied. Overall, remaining comments have been analyzed and edited by: i) eliminating any incomplete and ambiguous statement and information (e.g. national group categories), and ii) grouping each commentator's statement from each country about a given variable. These processes have lead to 163 observations, including commentators from both developed (55.2%) and developing countries (44.2%) (See fig. 1.1).

For the very specific purpose of the current exploratory study, a standard five-point Likert scale (Bordens and Abbot, 2001), by which the national groups' attitude is evaluated under the statement that best reflects how it or they agree

about the proposed clauses and/or sub-clauses (from which we derived our study's variables), was used. The scale ranges from "strongly agree"⁴ to "strongly disagree". In the first stage, three raters have coded the information and then the inter-rater reliability was evaluated among the same coders to depict any measurement anomaly (Holsti, 1969).

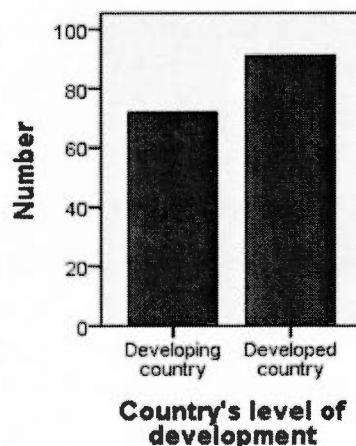


Figure 1.1 Distribution of the national groups per country's level of development

Participants to the elaboration of an ISO norm are called experts. Information on the identity of the expert or experts who commented on the WD3 is essential to our analysis since they represent the countries and their groups of stakeholders. Each commentator is identified by his or her country's name and category of stakeholder representation. In the ISO spreadsheet for commenting on the WD3, the first two letters identify the commentator's name, another letter identifies which stakeholder category is represented (I, G, etc.). Six main stakeholders groups are identified (Table 1.9). There is also a category called "all" which participants may use when a comment is presented as a consensus for all

⁴ As it is supported by the rules of negotiation, silence is interpreted as a sign of strong agreement (He who says nothing agrees).

stakeholders within a country. ISO also offered to the different six stakeholder categories the opportunity to present their comment jointly. Different combinations of national groups have thus decided to do so. Fig.1.2 sums up the percentage of comments made by single stakeholders and those made by group of different stakeholders:

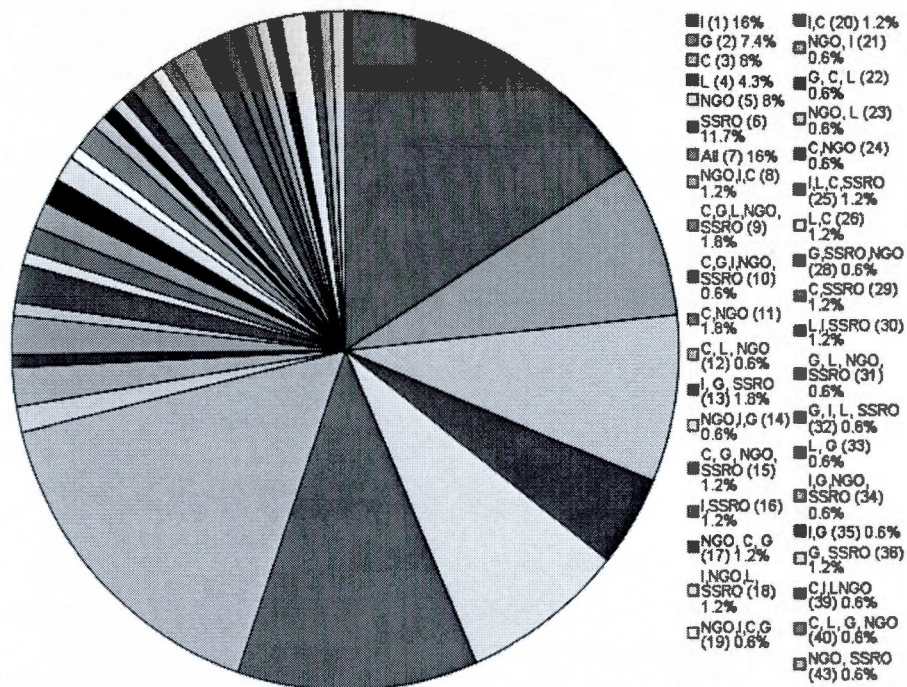


Figure 1.2 Composition of the national groups sample (%)

1.3.3 Data Analysis

We follow the recommendation of Carley and Palmquist (1992), Busha and Harter (1980), and Pezdeck et al. (2004)) to apply a multivariate quantitative relational content analysis to our data. Content analysis of WD3 has been chosen for two main reasons: i) the technique is perfectly compatible with social representation (Moliner et al., 2002); ii) given that the document reflects the members' (experts representing each group or network of stakeholder) agreement

toward CSR representations, it becomes easy to measure these attitudes quantitatively by applying a suitable scale. The analysis used is IBM-SPSS 20.

Although not essential for PCA, the database was natural log-transformed for the sake of: (1) better distribution of the data points on the bi-dimensional plots for clusters analysis and (2) distribution normality of the data required in subsequent multivariate variance analysis. The data was then analyzed in three phases. First, patterns of convergence and/or divergence were examined. To better understand the patterns of divergence and convergence between the comments, we used PCA and variance analysis (MANOVA). With PCA, we were able (1) to reduce the number of original variables within the study and (2) to identify latent variables (dimensions), mirroring correlations among the same set of variables. The use of a Factor Principal Component Analysis (PCA) then reduced this set of variables by eliminating: (1) redundant variables, giving rise to potential problems of multicollinearity and (2) variables with non-significant variance. Finally, only variables with a loading coefficient higher than 0.4, were considered. Selection of the final set of eighteen variables was guided mostly by the variance analysis. Only variables with loadings higher than 0.5, were discussed (Table 1.11). The resulting matrix served as input to a multidimensional scaling in order to plot the positions of national groups with respect to the CSR's individual variables that were used. This resulted in the development of three bi-dimensional mappings combining respectively the most important dimension with the second, the third and the fourth (Figures 1.3 to 1.5). The original data set consisted of 36 variables chosen from the main content of the ISO 26000 norm.

Herein, MANOVA were performed for relational content analysis (Busha and Harter, 1980) to explore patterns of dissimilarities, if they exist, between commentators' countries of origin and their level of national economic development, when all CSR dimensions are taken simultaneously. Using MANOVA to assess the significance of Proposition 2 through Proposition 4, was motivated by: (1) the moderate correlation between the four extracted CSR dimensions; (2) its usefulness for measuring all the dimensions jointly and

detecting differences which cannot be seen with single ANOVAs; (3) its utility for maximizing the chance of discovering which factor is really important; (4) its power of protecting against Type I errors that might occur with single ANOVAs (Tabachnick and Fidell, 1996).

1.4 Findings and discussion

Giving the natural relationship between the expected CSR dimensions, PCA was conducted under *Oblimin* rotation. This yields to the first research proposition (P1) examination. As mentioned in Table 1.13, four dimensions were clearly apparent in the sample and confirm both the structure and the content of the ISO 26000 norm. Except for weak loading, crossloading and multicollinearity, addressed at the very early stage of the PCA, all other indicators, such as communality and eigenvalue fit well within the rules (Hair et al., 1995).

The extracted principal components reflect important elements associated to CSR representations as it is mirrored by the WD3's comments (see fig.1.6, fig.1.7, fig.1.8): CSR's central issues (that is, fundamental human rights; labor practices, environment, consumer and social development), CSR's principles (represented by legal compliance, stakeholders and their concerns, accountability, evaluation, ethic and diversity principles), CSR's context (given by the concept of CSR, the pragmatism of CSR, and the relation between CSR and stakeholders) and finally CSR implementation (composed of CSR knowledge, operational aspects, communication and assessment of CSR).

Inter-item correlations and Cronbach alpha were applied to assess the internal consistency of the four different extracted dimensions. Both methods indicate good reliability of the extracted dimensions. Following Hair et al. (2006), the inter-item correlations (Table. 1.2) indicates that the four dimensions' average inter-item correlations are higher than the suggested threshold value of 0.30. Except for the first dimension (CSR context), which indicates a relatively

moderate coefficient (.670), but still acceptable for the purpose of this exploratory study (Shmitt, 1996), the three other dimensions fit well within the rule of thumb (respectively, .814; .786 and .817).

Table 1.2 Average inter-items for the four extracted CSR dimensions

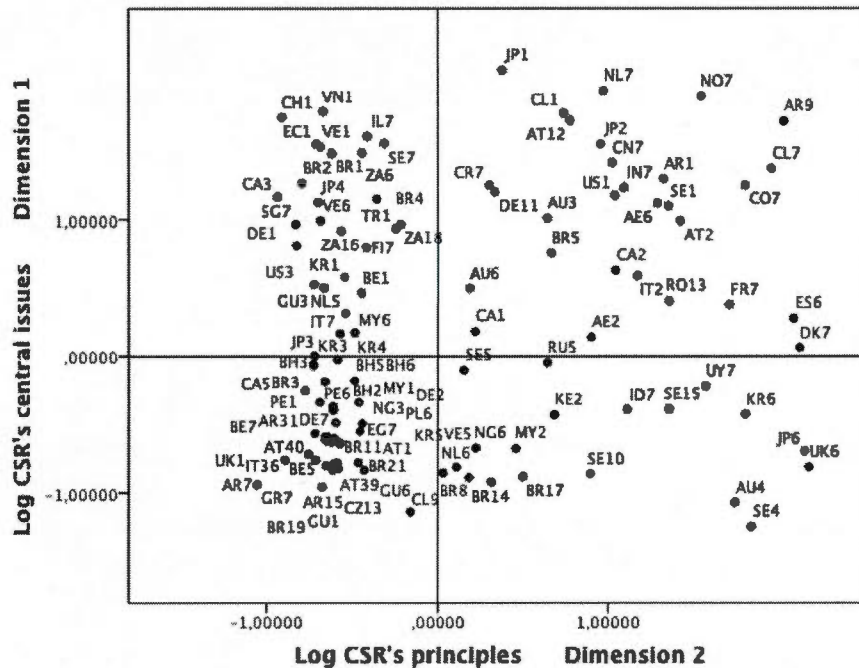
Dimensions	Dim1	Dim2	Dim3	Dim4
Average inter-item correlation	.315	.425	.422	.526

1.4.1 Convergence and divergence on CSR representations worldwide

Earlier assessment of the global CSR patterns of national group divergence provides further understandings. The cloud of points shown in the three bi-dimensional mappings (fig. 1.3, fig.1.4 and fig.1.5) seems to be mostly homogeneous between the studied national groups, with lesser heterogeneity. Since these bi-dimensional mappings follow a non-conventional dynamic in their distribution, one could argue that commentators are exhibiting both signs of agreement and disagreement in their CSR expectations (Table 1.3). In this research, only the combinations of the first dimension with the second, third and fourth dimensions were considered. Table 1.12, table 1.13, fig. 1.6, fig. 1.7 and fig. 1.8 show the correlations between the indicators used to develop the dissimilarities matrix and the position of national groups on each dimension. For the sake of statistical rigor, indicators with loadings lower than 0.5 were discarded in the interpretation of CSR dimensions (see Table 1.11).

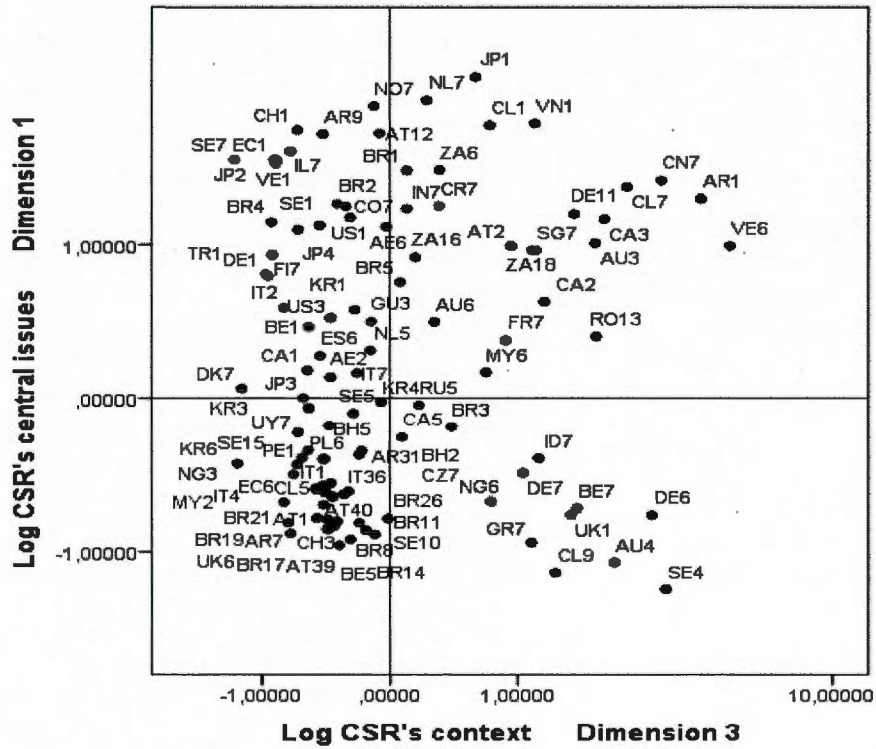
Here, special note should be made to the amplitude of loadings on the principal components. For example, when zooming out the CSR's central issue, one may notice a relative density of the ascendant scatter points on this dimension, but with a different degree (e.g. Vietnam industry (VE1), Greece all stakeholders (GR7), Canada NGO (CA5), etc.). This means that the clusters of national groups loading on the CSR's issues dimension view the structure of the central issues of CSR as presented in the ISO 26000 norm in much the same way,

but have different expectations about the relative importance of such a dimension, which is based on its underlying variables. In other words, the cluster located in the upper side of the vertical axis and the right side of the horizontal axis reflects conflicts about CSR's concepts with regards to the CSR negotiated guidance. However, the clusters spotted in the bottom of the vertical axis and the left side of the horizontal axis mirror convergence towards the negotiated variables, represented by their relative dimension (e.g. CSR central issues). Thus divergence and convergence patterns in fig.1.3, fig. 1.4 and fig. 1.5 should be interpreted in this same manner.



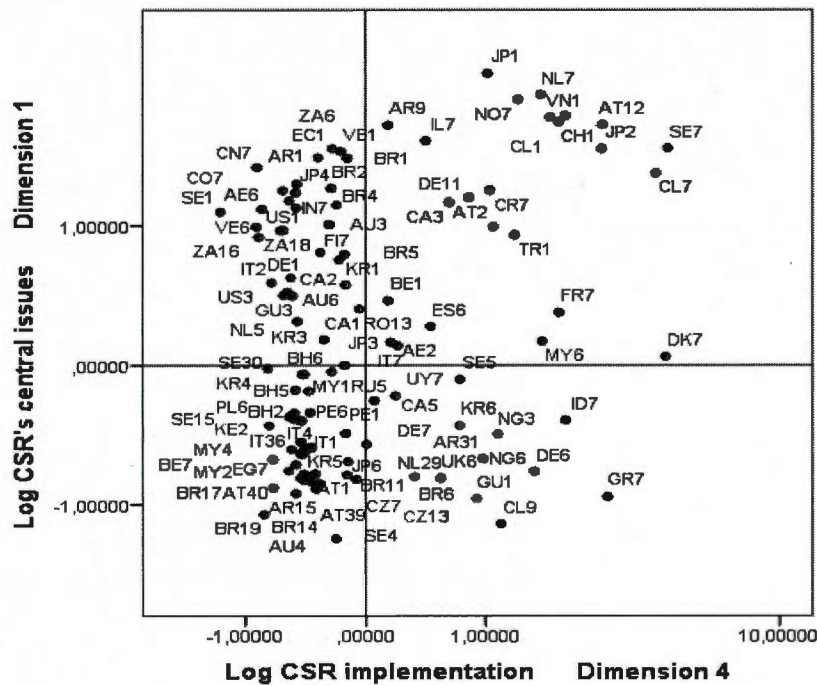
Note: The legend of the countries' symbols is in Table 1.8

Figure 1.3 Principal components scores plot showing 42.959% of the variance in the national data



Note: The legend of the countries' symbols is in Table 1.8

Figure 1.4 Principal components scores plot showing 40.472% of the variance in the national data



Note: The legend of the countries' symbols is in Table 1.8

Figure 1.5 Principal components scores plot showing 38.547% of the variance in the national data

While the bi-dimensional mapping represents the dispersion of the national stakeholders' observations, the PCA algorithm itself does, however, extract these dimensions in order of explained variance. Hence, dimension 1 (fig. 1.6) accounts for the largest portion of CSR national group variance (31,907% of the information). The four dimensions' composition details are given in table 1.13, and respectively in fig. 1.6, fig. 1.7 and fig. 1.8.

Because only variables with higher loadings are taken into consideration, Dimension 1 (CSR's core issues) seems to capture the central questions or issues of CSR: fundamental human rights (civilian and political right, social economic, and cultural rights, vulnerable groups and fundamental rights at work); environment (environmental aspects of activities, products and services, promotion of sustainable consumption and production, use of sustainable

resources, climate change and ecosystem); consumer (fair operating, marketing and information practices, consumer health and security, product recall, provision and development of responsible goods and services, consumer service and support, consumer data protection and privacy, sustainable consumption, education and awareness) and to a lesser extent labor practices (employment and its relationships, working conditions and social protection, social dialogue, health and safety at work and human development) and social development (community participation *versus* social and economic development).

Labeling Dimensions 2, 3 and 4 are also straightforward with regard to ISO 26000 norm. Dimension 2 is made up of the principle of sustainable development, the principle of accountability, the principle of legal compliance, the principle of ethic and, to a lesser extent, the principle of stakeholders and their concerns. Thus the second dimension reflects the main principles of CSR as proposed by ISO. Dimension 3, dealing with CSR context, embeds the definition of stakeholders and their involvement in the CSR process, the concept of CSR and, to a lesser degree, CSR practicality, which reflects the degree of the translation of CSR from its theoretical framework to the ground. Finally, the fourth dimension, which accounts for the minor portion of the total explained variance of our sample (6.640), in spite of its importance in our analysis in particular and in CSR in general, mostly contains variables related to the evaluation of CSR activities and practices with regard to monitoring and alternative of amendment; the operational aspect of CSR regarding the daily application of strategies in social-responsibility (awareness and empowerment, operation *versus* strategy, setting objectives, action plans and instruments); the knowledge of CSR (understanding the organization's profile in which CSR would be applicable, investigating the boundaries and the concept of CSR, working with stakeholders and understanding their concerns); and to a lesser extent CSR communication (type of communication on CSR, planning and selective forms of communication and media and stakeholder dialogue on communication about CSR).

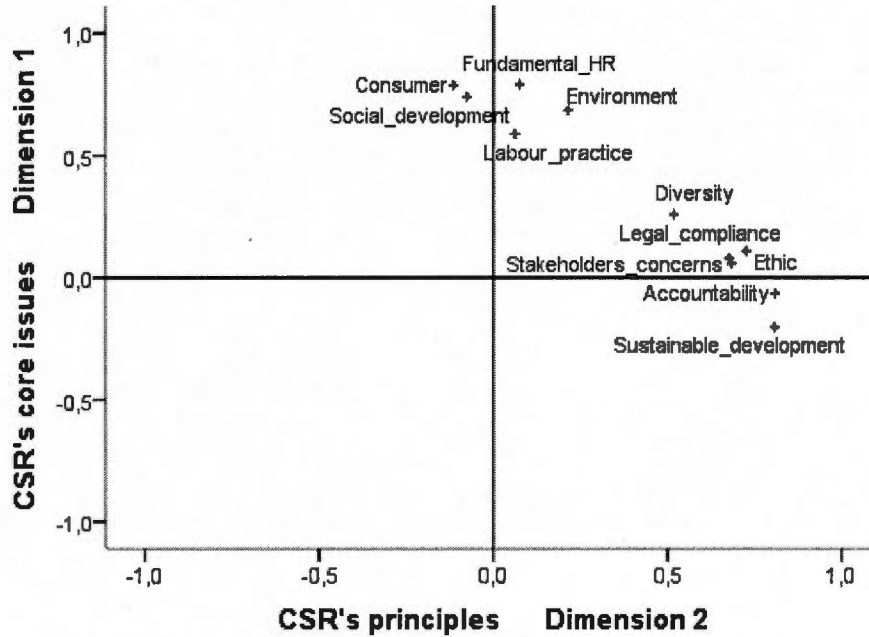


Figure 1.6 Combination of CSR's Dimension 1 and Dimension 2 after rotation

Investigation of the bi-dimensional mapping (representing 42.959% of the information) in fig. 1.3 and fig. 1.6, which combine the first and the second larger CSR dimensions, is straightforward. It explicitly suggests the coexistence of both signs of convergence and divergence on both dimensions as it is shown in the different four quadrants' clusters. A brighter cloud (upper/lower-left quadrants) reflects a higher convergence of the majority of national groups towards ISO 26000's CSR principle compared to the two lighter clusters localized at the upper/lower-right quadrants. This simply reflects the findings of Table 1.3, in which we notice a major agreement (convergence) and minor disagreement (divergence) towards ISO's CSR in the four dimensions. At the top of the cues of crossvergence within each dimension, crossvergence cues are also explicitly shown in the upper-left (agreement on Dimension 2 and disagreement on Dimension 1) and the lower-right quadrants (agreement on Dimension 1 and

disagreement on Dimension 2).

Furthermore, clear divergence between some national participants is spotted in the upper-right and the lower-left quadrants. Contrary to the bottom-left cluster, the upper-right quadrant indicates relative disagreement on both CSR's core issues: fundamental human rights (civilian and political right, social economic, and cultural rights, vulnerable groups and fundamental rights at work); environment (environmental aspects of activities, products and services, promotion of sustainable consumption and production, sustainable resources use, climate change and ecosystem); consumer (fair operating, marketing and information practices, consumer health and security, product recall, provision and development of responsible goods and services, consumer service and support, consumer data protection and privacy, sustainable consumption, education and awareness) and to a lesser extent labor practices (employment and its relationships, working conditions and social protection, social dialogue, health and safety at work and human development) and social development (community participation and social and economic development) and CSR principles (sustainable development, accountability, legal compliance and ethic).

These levels of agreement and disagreement are numerically shown in Table 1.3. For instance, the Australian government (AU2), the Austrian government (AT2), the Canadian government (CA2), the Swedish industry (SE1), the Swedish labor (SE4), the Turkish industry (TR1), the US industry (USA1) and the Venezuelan industry (VE1) all show a similar attitude toward the principle of sustainable development, which accounts for the higher loading in Dimension 2 (0.856). In fact, according to these commentators, "*sustainable development is not a CSR principle*" (ISO/TMB/WG SR, N119, 2007e).

According to the Austrian government (AT7):

"[Sustainable development is as such not a principle and has been concluded in the definition of social responsibility and is part of the outcome of the principle of a precautionary

approach]. [Delete “sustainable development” as a principle]”. Similarly, the Canadian government argues: “[Sustainable development is not a principle and is already included in the definition of social responsibility]. [Delete sustainable development as a principle]” (ISO/TMB/WG SR, N119, 2007e, p75).

Surprisingly, on average, full national consensus (all stakeholders), such as: Netherlands (NL7) Finland (FI7), Norway (NO7), Chile (CL7), Colombia (CO7), represent cases of extreme disagreement with regards to the two principal components, compared to the other participants. For example, the Netherlands’ full national consensus (NL7) disagrees about the principle of sustainable development and argues:

“Sustainable development” is already included in the definition of social responsibility, and so could be deleted as a principle. Its content is taken care of anyway in clause 6. Also the text of the lines 634-636 has a negative tone”.

Similarly, Finland 7 (all stakeholders) asserts that: “[Sustainable development is not a principle and is already included in the definition...]. [Delete sustainable development as a principle.]” (ISO/TMB/WG SR, N119, 2007e, p76).

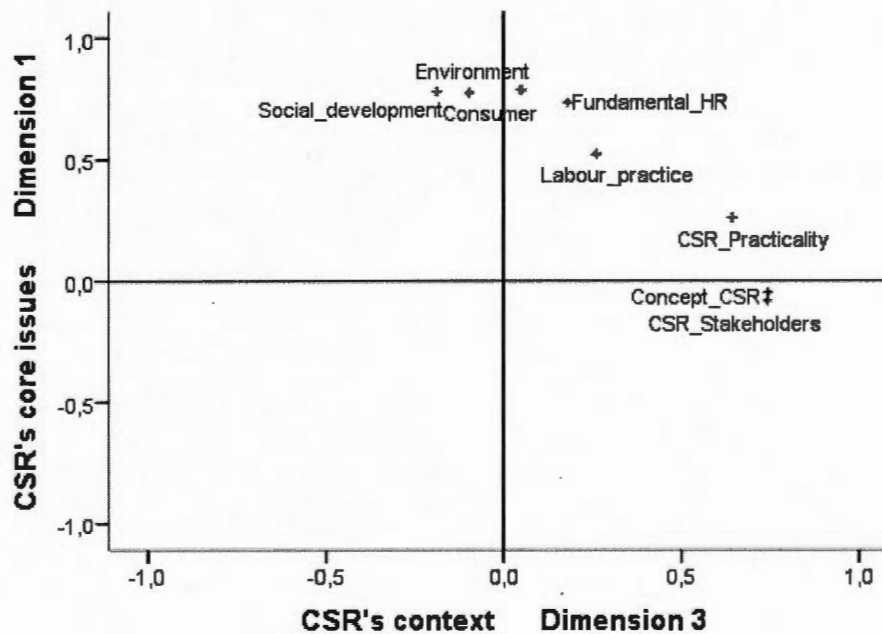


Figure 1.7 Combination of CSR's Dimension 1 and Dimension 3 after rotation

Closer emphasis on the third principal axis, reflecting the organizational context of CSR with respect to the first axis related to CSR's core issues (fig. 1.4 and fig. 1.7), reveals an agreement of the majority of national participants. On average, this dimension is clearly characterized by a moderate disagreement about ISO's definitions (see Table 1.3). Fig. 1.4's lower and upper-left quadrants display two different clusters in terms of shape and content of both Dimension 1 and 3, counting for 40.472% of the total variance of the national stakeholders data. The bottom-left quadrant reflects a strong agreement about CSR's core issues and CSR's organizational context, compared to the upper-left quadrant's cluster, which on the other hand, exhibits the relatively clear disagreement of its cluster's members about the first dimension (CSR's core issues) (see Table 1.3). Like the bottom-right quadrant, the upper-left quadrant contains stakeholders groups showing cues of crossvergence, but with disagreements about the first dimension and agreement about the third dimension, compared to the other

participants. As an example, where the upper-left quadrant indicates a noticeable crossvergence (agreement about Dimension 3 *versus* disagreement about Dimension 1), the upper-right quadrant clearly indicates a somewhat relative convergence between national participants, such as some North American, Western, and Eastern European countries as indicated by the positions of Austria (industry group), Canada (government and consumer groups), France (all stakeholders groups), Romania (industry, government, SSRO) and the US (SSRO), since all of them disagree on both CSR's core issues and CSR's organizational context. These participants are also showing convergence with the symmetric lighter cluster spotted in the bottom-right side, mainly formed by Western European groups and networks of stakeholders (disagreement on Dimension 3 *versus* agreement on Dimension 1).

Fig. 1.4 also shows particular cases of extreme attitudes by many commentators in their CSR representations. For example, the Venezuelan SSRO (VE6), the Argentinian industry (AR1), China (full national consensus (CN7)), the Canadian consumer group (CA3), exhibit a strong divergence from ISO 26000 in their representations of the main CSR organizational context and CSR core issues (see Table 1.13), compared to the Swedish national full consensus (SE7), Danish national full consensus (DK7) and Turkish industry (TR1), for example. However, this last group, represented by the upper-left quadrant (SE7, DK7, TR1, etc.), reveals a net crossvergence in their CSR representation. That said, it shows an agreement (convergence) about Dimension 3, but a disagreement (divergence) about Dimension 1 in relation to the norm ISO 26000.

The divergence in the case of Dimension 1 is mostly related to nationality and pertains to human rights, consumers and environment. The divergence on Dimension 3 is mainly generated by the disparity between these national participants about the definition of the concept of CSR, the relation between CSR and the organization's stakeholders, and finally the pragmatic aspect of CSR, which allows a salient translation of its theoretical aspects into practice (see table 1.13 and fig. 1.7).

For instance, concerning CSR's core issues, the Venezuelan SSRO (VE6) disagrees about the rational of human rights in ISO 26000's norm and argues:

“[the text of each one is very extensive and not focused in what should be restricted to the content of a Guide, expert as orientations and practical recommendations]. [We recommend to synthesize and address each matter directly without reiterating for example, the principles, which were developed in the Chapter 5]”. (ISO/TMB/WG SR, N120, Part 1, 2007e, p57).

Conversely, the Argentinian industry (AR1) does generally concur with the preceding group on the topic of human rights, but it disagrees on the fundamental rights at work (fourth issue) and states: *[This issue is included in the next chapter]. [Eliminate entirely due to its inclusion in the next chapter]* (ISO/TMB/WG SR, N120, Part 1, 2007e, p57).

Notably, even though it is still premature to conclude about the effect of stakeholders on their own countries' position on the scatter plots of fig. 1.3, fig. 1.4 and fig. 1.5, one could easily visualize the potential effect of stakeholder networks being materialized by more or less larger consensus between national stakeholders in each country on both the structure and amplitude of the combined four main dimensions of ISO 26000, but lesser with the third dimension related to the concept of CSR (a dimension more related to management than to CSR itself). Like national groups representing SSRO, networks with full consensus between the groups of industry, government, consumer, labor, NGO and SSRO, or partial cooperation, such as consumer, government, NGO and SSRO (15); consumer, government, NGO and SSRO (10); industry, government and SSRO (13); consumer, labor, government and NGO (40), are also mainly loading higher on both axes in negative and positive directions. This reflects a clearer and firmer representation attitude in terms of the main concepts of CSR aggregated by the first two dimensions, compared with the other stakeholders being pictured within.

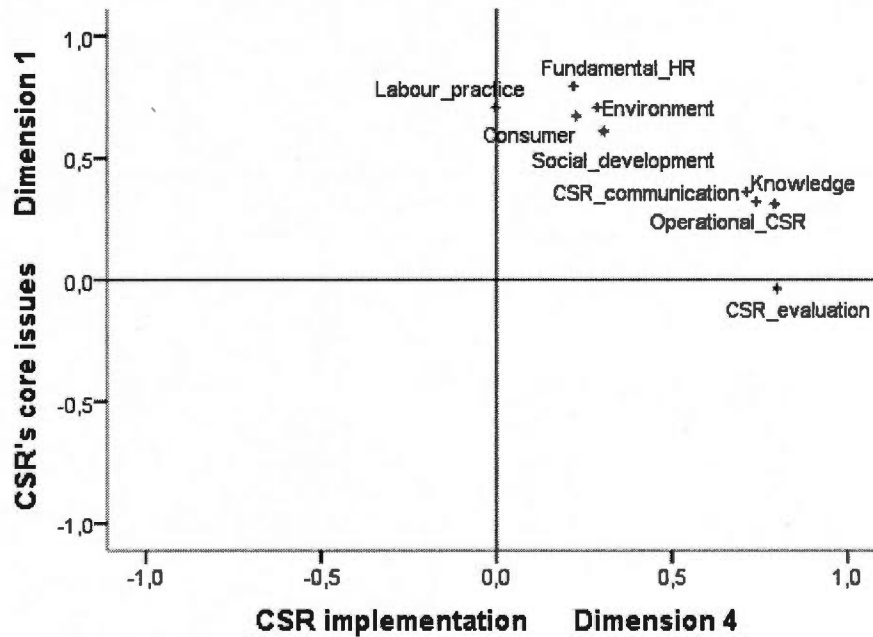


Figure 1.8 Combination of CSR's Dimension 1 and Dimension 4 after rotation

The relatively high positive correlation given by fig. 1.5 and Table 1.14, between the dimensions of CSR issues and CSR implementation (0.395) must be studied more in depth. Normally, the higher the relation between two extracted dimensions, the harder it is to interpret. Nevertheless, the correlation between these two dimensions is straightforward: The stakeholders groups in the study tend to evaluate CSR core issues in much the same way as CSR implementation. It means that the stakeholders groups, which agree about the proposed CSR issues, also agree about the main elements of CSR implementation and vice versa. As a reminder, this latter dimension is assessed by indicators related to: CSR evaluation, operational aspect of CSR (awareness and empowerment, operation versus strategy, setting objectives, action plans and instruments); knowledge of CSR (CSR's organizational environment, boundaries and concept of CSR, collaborating with stakeholders and understanding their concerns) and CSR

communication (types of communication, media and stakeholders dialogue on communication about CSR) (See Table 1.13). For instance, a comparison between Europe and North America is worthwhile.

Interestingly, national stakeholders' consensus from Norway (NO7), the Netherlands (NL7), Switzerland (CH7), and Austria (AT7) load higher on both dimensions, showing a high disagreement about the proposed ISO 26000's CSR concepts, in contrast to the stakeholders cluster in the bottom-left quadrant of the figure. This upper-right cloud also indicates the relative strong disagreement for both dimensions of the majority of Eastern European stakeholders groups, except for the unique Turkish industry group (TR1) and the Romanian network represented by industry, government and SSRO (RO13). For instance, commenting on the point related to the evaluation of activities and practices of social responsibility (which accounts for 84.5% of the total variance of Dimension 4), the Turkish industry group argues:

[This section (7.7) confuses the issues of examination and disclosure]. [Should be revised to focus on examination. The issue of disclosure should be addressed in clause 7.6 on communication] (ISO/TMB/WG SR, N121, Part 2, 2007e, p.72).

As evidenced, the majority of North American and both Western and Eastern European countries and their stakeholders groups and networks disagree not only with some developing countries' participants like the Vietnamese industry (VN1), the Malaysian labor (MY4), the Brazilian industry (BR1), the Colombian and Chinese full national consensus (CO7 and CN7), but also with some developed countries' participants such as: the American consumer group (US3) and the Netherland's NGO (NL5), for example. The most important variables explaining these disparities are related to CSR evaluation and to the operational aspect of CSR (its daily practices) (see Table 1.13 and fig1.8).

Table 1.3 Percentage of convergence and divergence on the individual CSR variables of the study

Variable	CSR's Dimension	Level of agreement (%)			
		+	+	-	-
		1	2	4	5
		Strong agreement	Moderate agreement	Moderate disagreement	Strong disagreement
CSR concept	Dim3	87,7	7,4	4,3	,6
CSR practicality	Dim3	83,4	8,0	3,1	5,6
CSR and stakeholders	Dim3	89,0	3,1	6,1	1,8
Legal compliance	Dim2	79,8	4,3	15,3	,6
Stakeholders and their concerns	Dim2	84,0	6,7	9,2	0
Accountability	Dim2	82,8	4,9	11,7	,6
Sustainable development	Dim2	83,4	6,1	9,8	,6
Ethics	Dim2	80,4	4,9	12,3	1,2
Diversity	Dim2	83,4	4,9	9,8	1,8
Fundamental human rights	Dim1	70,6	11,0	17,8	,6
Labor practice	Dim1	70,6	16,6	12,9	0
Environment	Dim1	63,8	16,0	19,0	1,2
Consumer	Dim1	63,8	15,3	20,2	,6
Social development	Dim1	66,3	22,1	11,7	0
CSR Knowledge	Dim4	76,1	17,8	6,1	0
Operational CSR (Daily practice)	Dim4	81,0	11,0	8,0	0
CSR communication	Dim4	79,1	12,3	8,6	0
CSR evaluation	Dim4	89,6	6,1	4,3	0

Dim1: CSR's core issues; **Dim2:** CSR's principles; **Dim3:** CSR's context; **Dim4:** CSR implementation.

At first glance, even though it is still premature to conclude on the effect of factors such as the country of origin, stakeholders' memberships, as well as the level of development on the discussed divergence/convergence of CSR

representations as shown by the scatter plots of fig. 1.3, fig. 1.4 and fig. 1.5, one could visualize the potential effect of country of origin on the divergence of CSR representations. Remarkably, convergence likely occurs between the same country's groups. Although no particular sign could be seen regarding the type of stakeholders' effect on the divergence about CSR representations, stakeholder networks, created by more or less larger cooperation between the national groups from each country, express generally higher amplitude of agreement or disagreement depending on the dimensions of ISO 26000.

Furthermore, although this very early stage of our exploratory study does not allow us to significantly conclude on the association between the North-South divide (hypothetically related to the level of development) and the noticed divergence and convergence of the extracted ISO's CRS dimensions, the different clusters derived from the three bi-dimensional mappings shown in fig. 1.3, fig. 1.4 and fig. 1.5, clearly indicate a somehow strong homogeneity between national groups and networks from both North and South countries.

Such hybrid clusters reveal cues of promising patterns of crossvergence. The exploration of the three-bi-dimensional mapping in fig. 1.3, fig. 1.4 and fig. 1.5 clearly confirm the first proposition P1. Hence, both signs of convergence and divergence do coexist among national groups in terms of their CSR representations. The diagonal (upper-left/bottom-right) in fig. 1.3, fig. 1.4 and fig. 1.5 shows an explicit hybrid tendency of both convergence and divergence between and within the extracted four dimensions of CSR as drawn from ISO 26000. Recall that at this very early stage of the exploratory study, potential hypothesized factors underpinning such a composite trend of CSR representation are kept for an in-depth multivariate analysis.

Further examples of convergence and divergence on ISO 26000's norm are respectively presented in the following Table 1.4 and Table 1.5. Here, given their high importance in the variance analysis, only examples from the two first principal extracted dimensions (Dim1: CSR issues and Dim2: CSR principles),

representing together 42.959% of the total of the variance in the national groups data, are taken into consideration.

Table 1.4 Examples of convergence versus divergence on CSR's issues (1st dimension)

Main variables and their items	Examples of agreement	Examples of disagreement	Clause
Fundamental human rights: Civilian and political right, social economic, and cultural rights, vulnerable groups and fundamental rights at work.	-“Support the text” (Singapore All). -“ Overall well written and good level of detail. Tone of language is appropriate. Taking the starting point from the rights contained in international treaties is a good approach. Be careful not to reinterpret any rights contained in the human rights treaties” (Sweden, NGO)	-“The text is far too long, confusing and discourage any SMO seeking for SR guidance to continue reading” (Chile Industry) -“The majority of the guidance on human rights is clearly targeted at industry and is not relevant or appropriate for all types or organizations” (Vietnam, Industry)	6. Guidance on core SR subjects/issues
Environment: Environmental aspects of activities, products and services, promotion of sustainable consumption and production, sustainable resources use, climate change and Ecosystem.	- “Including six stakeholders’ experience about each issue is consistent with the basic direction of ISO 26000”. (Korea SSRO)	“ [Chapter should be rewritten. Its length should be substantially reduced, and its contents simplified to stay at a more general level that and applicable to all types of organisations.]” (Belgium Industry)	6. Guidance on core SR subjects/issues
Consumer: Fair operating, marketing and information practices, consumer health and security, product recall, provision and development of responsible goods and services, consumer service and support, consumer data	-“Congratulation to drafters and editors! The text of Clause 6.7 Consumer issues is much more clear and structured; It is improved in many details. It is not shorter by the number of lines yet (before the move of Clause 6.7.11), but more easy to read and understand, even without any boxes with examples!” (Germany C, NGO)	“Contents of 6.7 Consumer issues” are too restrictive and oppressing with unnecessarily detailed instructions against organizations. The tone is too negative. The long list of dos and don’ts simply discourage even large organizations” (Japan Industry) -“ 6.7 is too long and detailed. Much of the guidance in 6.7 is overly complex and would be very difficult for the “average” organization to	6. Guidance on core SR subjects/issues

protection and privacy, sustainable consumption, education and awareness.		achieve” (Canada, Industry).	
Labor practices: Employment and its relationships, conditions of work and social protection, social dialogue, health and safety at work and human development.	- “6.4 is comprehensive and concise treatment of the subject. ...”. (Australia, Labour). - “We support the text. Note that it is closely aligned to ILO conventions agreed upon by the tripartite partners. Retain”. Singapore (All) - “The text is well handled; relevant, not too long”. (Sweden, All)	- “The text of each one is very extensive and not focused in what should be restricted to the content of a Guide, expert as orientations and practical”. (Venezuela, SSRO) - “Much or the guidance on labor practices is targeted at industry and is not relevant or appropriate for all types or organizations”. (Germany, Industry)	6. Guidance on core SR subjects/ issues
Social development: Community participation and social and economic development.	- “We support the proposal from the Editing Committee on changing the title”. (Denmark, All). - “... we strongly support the proposal made by the Editing Committee. (Austria, Government)	- Revise “6.8 Social development” to be rich in contents with practical actions”. (Japan, Industry). - “The objectives of the issues in this sub-clause are unclear as the issue is not defined. It is too general to provide useful guidance. Further many recommendations are beyond the ability of an organisation to implement, eg improving the quality of education “ (Australia, Consumer).	6. Guidance on core SR subjects/issues

Source: WG SR, Working Draft 26000.3 (2008)

Table 1.5 Examples of convergence versus divergence on CSR's principles (2nd Dimension)

Main variables and their items	Examples of agreement	Examples of disagreement	Clause
Principle of sustainable development.	<ul style="list-style-type: none"> - "Principle of sustainable development crosscutting and relevant" (Israel, All). - These lines give some extra guidance, which we underline. So, we suggest deleting the brackets and including the lines in the text. (Costa Rica, All) 	<ul style="list-style-type: none"> - "Sustainable development" is not seen to constitute a discrete principle. Implementation of all the principles is seen as a means of contributing to sustainable development". (South Africa, I, NGO, L, SSRO). - "Sustainable development is not a principle and is already included in the definition of social responsibility". (Finland, All) 	5. SR principles relevant to organizations
Principle of accountability	<ul style="list-style-type: none"> - "Suggest to use the principle of 'accountability' and 'transparency' as it is". (Korea Republic Government). - "Principle of accountability crosscutting and relevant" (Israel, All). - "Suggest to use the principle of 'accountability' and 'transparency' as it is" (Korea Republic, Government). 	<ul style="list-style-type: none"> - "The content of the principle of accountability is not acceptable". (Sweden, Industry). - "This is a concept that does not translate well into other languages and is usually perceived differently...". (Chile, Industry). - "This is (Bracketed text) guidance and not part of any principle – Moreover, it is guidance that is not appropriate for all organisations". (Australia, Labour) 	5. SR principles relevant to organizations
Principle of legal compliance.	<ul style="list-style-type: none"> - "Principle of legal compliance - crosscutting and relevant". (Israel, All). - The definition is clearly worded well written and we support the entire formulation, ..." (C, G, NGO, SSRO). 	<ul style="list-style-type: none"> - "[ISO 26000 is designed to be used solely as a guidance document. Any statements claiming or implying conformity to this International Standard are inconsistent with the purpose of this document International Standard and shall therefore be avoided]. [Delete principle 5.1]" (USA, Industry). - "Bracketed text adds a caveat to the principle which dilutes the statement of the principle" (UK, SSRO). 	5. SR principles relevant to organizations

- Principle of ethical conduct (ethic)	<p>-“Principle of ethical conduct - Crosscutting and relevant” (Israel, All). - “[This principle is important, but needs more clarification...”(Brasil, NGO)</p>	<p>-“[The principle of ethical conduct does not provide any added value and should be deleted. Moral is very subjective and could not be used in an International standard]. [Delete the principle of ethical conduct]. (France, All). -“It is very hard to find a universally accepted definition of ethical conduct. Ethical conduct is more likely the application of all the principle that are listed...” (Italy, Government)</p>	5. SR principles relevant to organizations
Principle of recognition of stakeholders and their concerns	<p>- “Principle of recognition of stakeholders and their concerns - Crosscutting and relevant ” (Israel, All). - “[This (Bracketed text: 607-610) adds value. [Keep]” (Canada, Industry) -“Keep these lines (bracketed text: 607-610), because of their attention for stakeholders who need to be represented by third parties”. (Netherlands, All)</p>	<p>- “[This is not a principle but constitutes an explanation and guidance with respect to “stakeholder engagement”. Although it is not very good, the more important point in this case is that this material is provided elsewhere...”. Delete – this is not a principle] (Australia, Labour). - “[This is not a principle but constitutes an explanation and guidance with respect to “stakeholder engagement”. Although it is not very good, the more important point in this case is that this material is provided elsewhere...”. Delete – this is not a principle]”. (Sweden, Labour).</p>	5. SR principles relevant to organizations

Source: WG SR, Working Draft 26000.3 (2008)

1.4.2 Potential associative factors of divergence in CSR representations

Relying on Carley and Palmquist (1992), Busha and Harter (1980), and Pezdeck et al. (2004), closer examination of the factors of CSR divergence and convergence using MANOVA and single ANOVAs techniques was sought.

Giving the correlation between the different dimensions and their underpinning factors, these discriminant tools are displayed to separate our groups' memberships (Bray and Maxwell, 1985) with regard to Proposition 2 through Proposition 4. In the current study, the four extracted CSR dimensions are taken as dependent variables, to simultaneously assess the significance relationships of the underpinning associative factors (level of development, national origin and stakeholders memberships) with the minor divergence noticed in CSR representation (between and within the four extracted dimensions) (see table 1.3).

Contrary to the initial research propositions, the level of development (Wilks' $\lambda = .987$, $F = .509$, $\eta^2 = .013$, $p\text{-value} = .729 > .05$) and stakeholders memberships (Wilks' $\lambda = .515$, $F = .598$, $\eta^2 = .153$, $p\text{-value} = 1 > .05$), show no significant multivariate effect on CSR divergence, which subsequently explains the hypothesized origin of the encountered convergence on the different dimensions. Hence, one could strongly reject the research propositions P2 and P3.

However, as initially proposed, taking the four extracted dimensions together, the results (Table 1.6) bear a strong significant multivariate main effect only for "Country of Origin" (Wilks' $\lambda = .118$, $F = 1.691$, $\eta^2 = .413$, $p\text{-value} = 0 < .05$) on CSR representations dissimilarities. This means that even though no "pure" divergence or convergence is captured in the earlier discussion (fig 1.3, fig. 1.4 and fig. 1.5), the divergence examined beforehand and detected on CSR representation is in part associated with the inequality of means between the participating countries. Thus, research proposition P4 is strongly accepted.

Table 1. 6 MANOVA: Summary of Multivariate Tests using Wilks' Lambda

Effect		Value	F	Hypoth - esis df	Error df	Sig.*	Partial Eta Squared	Observed Power ^b
Level of development	Wilks' λ	,987	,509 ^a	4	158,000	,729	,013	,170
Country of origin	Wilks' λ	,118	1,691 ^a	188	449,620	,000	,413	1,000
Stakeholders membership	Wilks' λ	,515	,598 ^a	148	488,696	1,000	,153	,975
National consensus level	Wilks' λ	,818	4,147 ^a	8	312	0,000	-	-

^a Exact statistic; ^b Computed using alpha = .05; * $p < 0.05$

Contrary to Proposition 2, North-South economic divide was strongly rejected as an associative factor underlying the discussed CSR divergence. Supported by fig. 1.3, fig. 1.4 and fig. 1.5, comments from both developed and developing countries show a high degree of resemblance in their CSR representations in all the discussed clusters, hence contributing to a relative CSR crossvergence. Despite the fact that some stakeholders were concerned about the difference between the developing and the developed countries, especially with regard to financial, power and trade considerations (Tamm Hallström, 2008), no significant mean difference was found between these two blocs (see table 1.6).

Similarly, the results of the study strongly reject the third research proposition, which states that CSR divergence between the national participants worldwide is significantly associated to stakeholder's memberships. That confirms that the type of stakeholders' memberships is not associated to CSR divergence, but rather to convergence worldwide. Hence, each stakeholders group values CSR in the same way, regardless its national origin.

Back to fig. 1.3, fig. 1.4 and fig. 1.5, the scatter plots indicate how some national groups tend to be more homogenous and strong in their representations than others, as was discussed earlier. Other commentators tend to cooperate through alliances instead of negotiating individually (See table 1.15). This fact is corroborated by a One-Way MANOVA, including single ANOVAs (table 1.6 and table 1.7) indicating a strong significant divergence with association to the level of consensus on Dimension 1 (CSR's core issues) and Dimension 4 (CSR implementation) (Wilks' $\lambda = .818$, $F = 4,147$, $p\text{-value} = .000 < .05$). This actually could be explained by the high correlation between these two dimensions (table 14). However, this relationship is relatively weak on Dimension 2 (Principles of CSR) and non-significant on the Dimension 3 (CSR's context), which is mainly explained by their weak correlation to the main dimension (CSR's issues).

Closer look at the single ANOVAs tests (table 1.7), of the associative role of the national origin to the divergence on CSR representation, leads to deeper insights. While, being strongly accepted at the multivariate analysis level when all dimensions are taken together, the associative nature of the national origin (COO) to pattern of CSR divergence is significantly detected at only two single CSR dimensions level (Dimension 2 and Dimension 4), namely CSR principles ($F = 2.013$, $\eta^2 = .451$, $p\text{-value} = .001 < .05$) and CSR implementation ($F = 2.106$, $\eta^2 = .463$, $p\text{-value} = .001 < .05$). Subsequently, convergence characterizes the studied countries on the two remaining dimensions (CSR's issues and CSR's context), leading to an evident crossvergence pattern on CSR representations as it is discussed early in Section 3.1. This observed trend is actually understandable. Whereas, similarities of CSR expectations regarding its issues and organizational context, was seen on Dimension 1 and Dimension 3, the highly strategic and political importance of the principles of CSR (Dimension 2) and its execution (Dimension 4) at the national level, tend to likely explain the higher opposition among the various participating nations. For example, the pointed divergence in Dimension 2 is better explained by the sharper disagreement between the studied countries, mainly about the principle of ethics, the principle of accountability, the principle of sustainable development and the principle of legal compliance (see examples in Section 3.1). The national consensus seems to be strongly related to the divergence on the dimension of CSR's central issues ($F = 8.949$, $p\text{-value} = .000 < .05$) and the dimension of CSR implementation ($F = 10.455$, $p\text{-value} = .000 < .05$) and to a lesser extent to the dimension CSR principles ($F = 3.583$, $p\text{-value} = .03 < .05$).

Likewise, the lesser divergence on Dimension 4 is due to the low disagreement between the national participants about points related principally to the daily practices and evaluation of CSR as well as the understanding of CSR and the way it should be communicated nationally (see Table 1.3).

Table 1.7 MANOVA: Tests of Between-Subjects Effects

Source	Dependent Variables	Type III Sum of Squares	df	Mean Square	F	Sig.*	Partial Eta Squared	Observed Power ^a
Level of economic development	CSR's central issues	,003	1	,003	,003	,959	,000	,003
	CSR's principles	,629	1	,629	,623	,431	,004	,623
	CSR's context	,735	1	,735	,741	,391	,005	,741
	CSR implementation	,566	1	,566	,561	,455	,003	,561
Country Of origin	CSR's central issues	57,512	47	1,224	1,336	,108	,353	,981
	CSR's principles	73,551	47	1,565	2,013	,001	,451	1,000
	CSR's context	56,656	47	1,205	1,338	,107	,353	,981
Stakeholder category	CSR implementation	75,385	47	1,604	2,106	,001	,463	1,000
	CSR's central issues	18,864	27	,699	,748	,789	,296	,514
	CSR's principles	21,625	27	,801	,622	,906	,259	,422
	CSR's context	12,148	27	,450	,426	,990	,193	,278
National consensus level	CSR implementation	29,395	27	1,089	,799	,730	,310	,550
	CSR's central issues	16,382	2	8,191	8,949	,000	-	-
	CSR's principles	6,987	2	3,493	3,583	,030	-	-
	CSR's context	2,765	2	1,383	1,404	,249	-	-
	CSR implementation	18,822	2	9,411	10,445	,000	-	-

a. Computed using alpha = .05 ; * $p < 0.05$

1.5 CONCLUSION

This multi-stakeholders-based exploratory study developed four standard CSR's dimensions based on ISO 26 000's Work Draft 3. Concisely, the results provide insights in hybrid form of CSR representations convergence and divergence worldwide. First, even though there is a major trend towards CSR convergence, in accordance with our first research proposition, CSR representations were found crossverging, rather than exhibiting cues of "pure" divergence or convergence. Given the predominance of convergence patterns in all the studied CSR dimensions, the hybridism's pattern was mainly supported by

the significant divergence between countries (COO) on i) the principles of CSR, particularly the principle of ethic; accountability, sustainable development and legal compliance, and on ii) the implementation of CSR, particularly assessed by this latter's operational aspect, evaluation, knowledge and communication among stakeholders. The level of national stakeholders' consensus was also found strongly significant, particularly with relation to divergence on CSR's core issues and CSR's implementation. Furthermore, contrary to the initial research propositions, neither the level of development (North-South divide), nor the stakeholder's categories, were significantly associated to the encountered divergence. Rather, national stakeholders representing both developing and developed countries tend to relatively converge on their CSR's expectations.

From a theoretical angle, this research brings four principal contributions: 1) it maps a very complex and extensive negotiation document through the development of an approach that translates qualitative data - resulting from content analysis - to quantitative data; 2) it develops four CSR dimensions based on ISO 26000 negotiation. These dimensions are found exceptionally relevant for national groups clustering regarding their CSR representations, due to the high number of commented variables in WD3; 3) it corroborates the crossvergence hypothesis, thus highlighting the growing overlap between divergence and convergence when it comes to CSR representations worldwide (while abundant previous literature has backed CSR divergence and convergence separately, with limited empirical attempts for considering CSR crossvergence, the current article empirically considered them jointly on a multi-stakeholders-based large sample); and 4) this study empirically tested a set of hypothetical propositions to test the associative divergence factors, which could be applicable for further extensions in the comparative CSR studies, especially regarding developed and developing countries.

This study's managerial implications are twofold: 1) It warns decision-makers of the coexistence of patterns of divergence and convergence on CSR

representation -- thus, a particular sensibility should be given to such complexity at both business and political levels; and 2) it highlights the country-specific effect on CSR hybridism. Interestingly it provides cues based on associative factors to delimit the spaces within which divergence in CSR expectations occurs. Such factors should be carefully taken in consideration by decision-makers in order to understand the nature of CSR across countries, and to look forward to long-lasting agreements in further CSR standards or treaties, which would expand sustainable development across nations.

Subsequently, two research extensions would be worthwhile to consider. First, it would be promising to run a longitudinal study with more recent comparable data for a better understanding of the dynamic of the change in CSR representations over time and their underpinning patterns, particularly with special regard to the convergence-divergence trend in a North-South context. Secondly, it is also of interest to perform a causative study of the phenomenon by targeting the different national stakeholders with a survey rather than relying only on content analysis data, therefore compensating for this study's limits, which are mainly related to its exploratory and cross-sectional design. This research also entails interesting managerial and political implications since it could potentially make managers and policy-makers aware of the increasing complexity due to the overlap between the country specific and global CSR agendas and the inherent need for displaying careful efforts on both poles for a better global sustainable development.

APPENDIXES

Table 1. 8 Countries Included in the Study

Arab Emirates (AE)	Japan (JP)
Argentina (AR)	Kenya (KE)
Australia (AU)	Korean Republic (KR)
Austria (AT)	Malaysia (MY)
Bahrain (BH)	Mexico (MX)
Belgium (BE)	Netherlands (NL)
Brazil (BR)	Nigeria (NG)
Canada (CA)	Norway (NO)
Chile (CL)	Peru (PE)
China (CN)	Poland (PL)
Colombia (CO)	Romania (RO)
Costa Rica (CR)	Russia (RU)
Czech republic (CZ)	Singapore (SG)
Denmark (DK)	South Africa (ZA)
Egypt (EG)	Spain (ES)
Equator (EC)	Sweden (SE)
Finland (FI)	Switzerland (CH)
France (FR)	Turkey (TR)
Germany (DE)	United Kingdom (UK)
Greece (GR)	United States (US)
Guatemala (GU)	Uruguay (UY)
India (IN)	Venezuela (VE)
Israel (IL)	Vietnam (VN)
Italy (IT)	

Source: ISO/TMB/WG SR. 2007e. *Comments received on ISO/WD 26000.3, Guidance on Social Responsibility, document WG SR N 113.*

Table 1.9 Codes of the Different National Groups' Categories Included in the Study

I (1)	NGO, I (21)
G (2)	C, G, L (22)
C (3)	NGO, L (23)
L (4)	G, NGO (24)
NGO (5)	I, L, C, SSRO (25)
SSRO (6)	L, C (26)
All: I, G, C, L, NGO, SSRO (7)	C, I, G (27)
NGO, I, C (8)	G, SSRO, NGO (28)
C, G, L, NGO, SSRO (9)	C, SSRO (29)
C, G, I, NGO, SSRO (10)	L, I, SSRO (30)
C, NGO (11)	G, L, NGO, SSRO (31)
C, L, NGO (12)	G, I, L, SSRO (32)
I, G, SSRO (13)	L, G (33)
NGO, I, G (14)	I, G, NGO, SSRO (34)
C, G, NGO, SSRO (15)	I, G (35)
I, SSRO (16)	G, SSRO (36)
NGO, C, G (17)	I, NGO, SSRO (37)
I, NGO, L, SSRO (18)	C, G (38)
NGO, I, C, G (19)	C, I, L, NGO (39)
I, C (20)	C, L, G, NGO (40)

I: Industry; G: Government; C: Consumer; L: Labor; NGO: Non-governmental Organization; SSRO: Service, Support and Other researches.

Source: ISO/TMB/WG SR. 2007e. *Comments received on ISO/WD 26000.3, Guidance on Social Responsibility, document WG SR N 113.*

Table 1.10 Variables Used in the Study

Concept of CSR realism	Fundamental human rights
CSR practicality	Labor practice
CSR and stakeholders	Environment
Legal compliance	Consumer
Stakeholders' concerns	Social development
Accountability	CSR knowledge
Sustainable development	Operational CSR
Ethics	CSR communication
Diversity	CSR evaluation

Table 1. 11 Communalities

	Initial	Extraction
Concept of CSR	1,000	,540
From theory to practice	1,000	,536
CSR and stakeholders	1,000	,575
Legal compliance	1,000	,595
Stakeholders and their concerns	1,000	,485
Accountability	1,000	,635
Sustainable development	1,000	,645
Ethics	1,000	,506
Diversity	1,000	,474
Fundamental human rights	1,000	,660
Labor practice	1,000	,474
Environment	1,000	,618
Consumer	1,000	,560
Social development	1,000	,532
Knowledge	1,000	,648
Operational CSR	1,000	,729
Communication	1,000	,624
Evaluation	1,000	,633

Extraction Method: Principal Component Analysis

Table 1.12 Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings
	Total	% of variance	Cumulative %	Total	% of variance	Cumulative %	Total
1	5,743	31,907	31,907	5,743	31,907	31,907	3,899
2	1,989	11,052	42,959	1,989	11,052	42,959	3,923
3	1,542	8,565	51,525	1,542	8,565	51,525	2,039
4	1,195	6,640	58,165	1,195	6,640	58,165	3,726
5	,936	5,201	63,366				
6	,883	4,908	68,274				
7	,820	4,554	72,828				
8	,698	3,879	76,706				
9	,663	3,685	80,392				
10	,600	3,334	83,726				
11	,570	3,167	86,893				
12	,509	2,825	89,718				
13	,430	2,386	92,104				
14	,369	2,052	94,157				
15	,337	1,871	96,028				
16	,269	1,495	97,523				
17	,232	1,288	98,811				
18	,214	1,189	100,000				

Extraction Method: Principal Component Analysis

Table 1.13 Loadings of Individual Variables on Dimension Coordinates

	Dimensions			
	1	2	3	4
Concept of CSR	-,162	,140	,700	,112
CSR practicality	,209	,141	,601	,045
CSR and stakeholders	,104	-,162	,752	-,030
Legal compliance	,081	,694	,136	,035
Stakeholders' concerns	,015	,604	,156	,108
Accountability	-,043	,790	,091	-,011
Sustainable development	-,039	,856	-,159	-,169
Ethics	,036	,637	,003	,150
Diversity	,195	,484	-,175	,246
Fundamental human rights	,718	,048	,183	,057
Labor practice	,642	,082	,204	-,157
Environment	,675	,214	,028	,039
Consumer	,740	-,082	-,082	,085
Social development	,662	-,058	-,168	,188
CSR knowledge	,130	,138	-,003	,688
Operational CSR	,178	-,089	,110	,774
CSR communication	,208	,082	-,028	,655
CSR evaluation	-,183	,007	,035	,845

Rotation Method: Oblimin Kaiser normalization; Cutoff: 0.4

Table 1.14 Correlation Matrix Between the Four Dimensions' Coordinates

Dimension	1	2	3	4
1	1,000			
2	,270	1,000		
3	,183	,180	1,000	
4	,395	,308	,098	1,000

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin Kaiser normalization.

Table 1.15 Levels of National Groups Consensus in WD3

Categories	Consensus		
	Individual	Partial	Full
Stakeholders' memberships	I (1) ⁵	NGO, I, C (8)	All: I, G, C, L, NGO, SSRO (7)
	G (2)	C, G, L, NGO, SSRO (9)	
	C (3)	C, G, I, NGO, SSRO (10)	
	L (4)	C, NGO (11)	
	NGO (5)	C, L, NGO (12)	
	SSRO (6)	I, G, SSRO (13)	
		NGO, I, G (14)	
		C, G, NGO (15)	
		I, SSRO (16)	
		NGO, C, G (17)	
		I, NGO, L, SSRO (18)	
		NGO, I, C, G (19)	
		I, C (20)	
		NGO, I (21)	
		G, C, L (22)	
		NGO, L (23)	
		C, NGO (24)	
		I, L, C, SSRO (25)	
		L, C (26)	
		G, SSRO, NGO (28)	
		C, SSRO (29)	
		L, I, SSRO (30)	
		G, L, NGO, SSRO (31)	
		G, I, L, SSRO (32)	
		L, G (33)	
		I, G, NGO, SSRO (34)	
		I, G (35)	
		G, SSRO (36)	
		C, I, L, NGO (39)	
		C, L, G, NGO (40)	
		NGO, SSRO (43)	

⁵ The number between the brackets identifies the group's code.

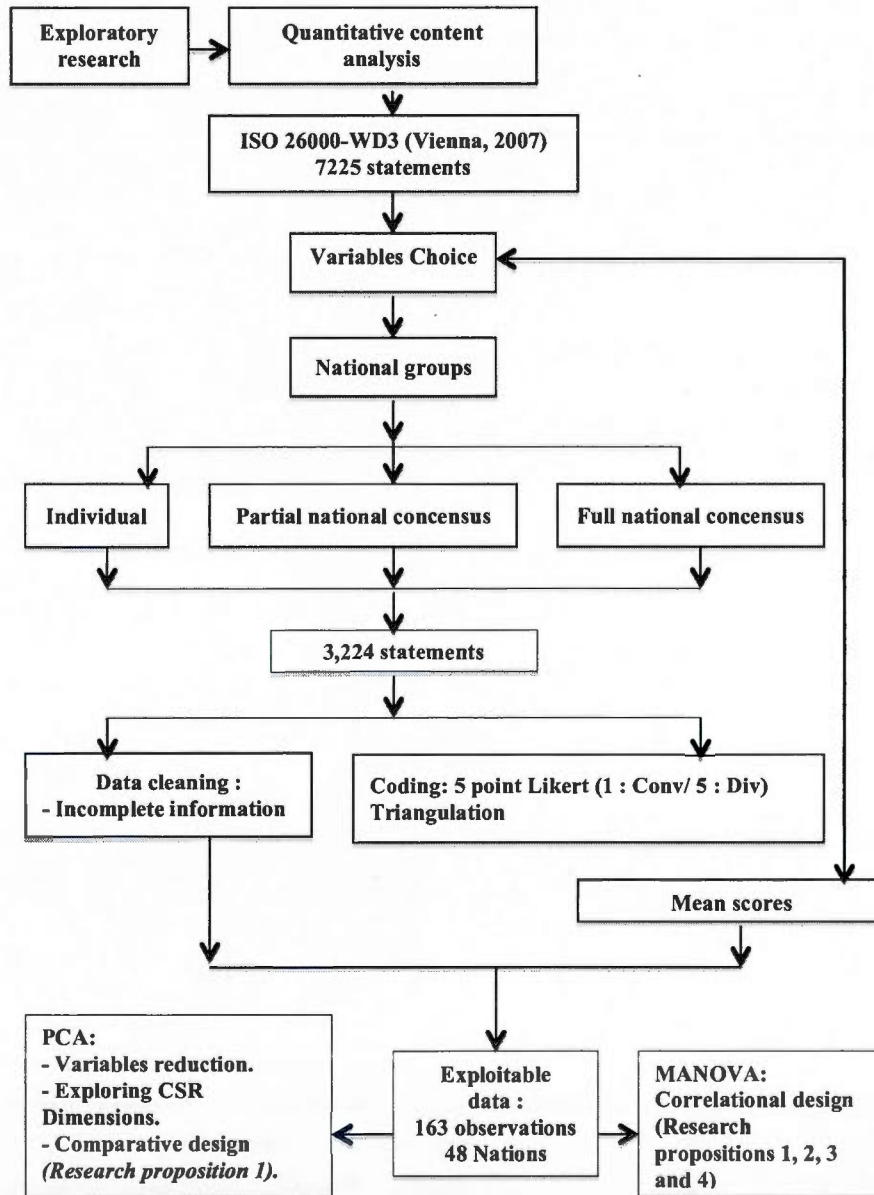


Figure 1.9 Data coding and analysis process of CSR representations

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CHAPITRE II

DOES CULTURE MATTER? - EMPIRICAL EVIDENCES OF DIVERGENCE AND CONVERGENCE IN CSR REPRESENTATIONS BETWEEN NORTH AMERICA AND EUROPE

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ABSTRACT

Using a cross-sectional design, this paper is an empirical exploration of the relation between cross-cultural distance and potential divergence and convergence between North America and Europe in their CSR representations. Based on data gathered from the ISO 26000 negotiating process, research propositions were investigated for 76 groups drawn from 23 participating countries. Principal Component Analysis techniques reveal signs of both convergence and divergence on CSR representations. Among four developed CSR dimensions, Multiple Linear Regression analyses indicate that only the level of power acceptance and masculinity/femininity are significantly associated to the divergence on specific CSR dimensions. Further research paths are discussed.

Keywords: Corporate Social Responsibility; Divergence, ISO 26000; Cultural distance; Stakeholders; North America, Europe.

2.1 INTRODUCTION

The impacts of institutional factors, such as local culture (Hofstede, 1980, 1984, 1991; Hofstede and Hofstede, 2005; Craig et al., 1992), national and institutional context (DiMaggio and Powell, 1991 and Beckert, 2010) on countries' attitudes and behavior towards economical, political, social and managerial logics and ideologies, have long been acknowledged in various fields of social sciences such as international business, management, organizational theory and political economy (Ronen and Kraut, 1977; Hofstede, 1980, 1984, 1991; Ronen and Shenkar, 1985; Craig et al., 1992; Smiley, 1999, Drezner, 2001; Hofstede and Hofstede, 2005). Corporate Social Responsibility (CSR) as a concept can be studied as an example for evaluating how such logics and ideologies travels cross-countries. The spread of CSR from North America to the European continent is actually an interesting example.

Recently, CSR has received considerable attention in comparative management literature (Chuang and Ng, 1991; Freeman and Hasnaoui, 2011; Ringov and Zollo, 2007) and was more focused mainly on ethical beliefs (Andrews, 1971, 1972; Becker and Fritzsche, 1987; Orpen, 1987; Preble and Reichel, 1988; Lysonski and Gaidis, 1991) and managerial values (Rowley and Berman, 2000; House et al., 1999; Waldman et al., 2006).

Intuitively, one could think that a globalization movement regarding CSR expectations can accompany the market globalization. A first thesis in favor of globalization is related to the convergence approach, which has gained insight into many international political and management logics and debates as well, including CSR. Hence, the concept of CSR could be seen as being disseminated over all continents given the globalization of multinational companies and the action of stakeholders who have organized into international networks. The convergence theory can therefore be supported by strong arguments. Thus, building on Rowley and Benson (2000), de Bakker et al. (2007), Van Luijk

(2001), Gendron (2001) Micheletti (2003) and Gendron et al. (2004), CSR representations worldwide could converge and standardize under globalization.

However, one could also notice that while several common patterns were emerging across advanced industrial states, thus pushing towards convergence, CSR differed across nations (Langlois and Schlegelmich, 1990; Locke and Kochan, 1995; Crane and Matten; 2006; Chen and Bouvain, 2009; Stuerer et al., 2011). Diverse perspectives, conflicting values, critical dialogue or anecdotes on differing interpretations -- there is no shortage of examples and arguments in favor of the theory of national specificities in CSR practices and representations. Hence, this paper supports an opposite thesis of globalization, which is the divergence approach. For instance, several empirical studies have indeed supported the divergence argument between industrialized nations (Wade 1990; Whitley 1992; Fligstein and Freeland 1995; Kristensen 1997; Orrú et al., 1997; Storper and Salais 1997; Fligstein 2001; Gulli n 2001; Hall and Soskice, 2001; Amable, 2006; Chen and Bouvain, 2009).

Ringov and Zollo (2007, 476) looked at cultural specificities with regards to CSR across nations. They argue:

“Companies based in countries characterized by higher levels of power distance, individualism, masculinity, and uncertainty avoidance exhibit lower levels of social and environmental performance”.

The argument, which promotes this point, is that the concept of CSR is intrinsically context-specific, in which the level of cultural dimensions plays an important role in influencing the way society (represented by their different stakeholders involved in business activities) perceives the concept of CSR and expects corporations (local or multinational) to behave.

In an effort to shed light on the impact of culture distance on CSR representations, this article aims to provide an understanding of how North America as well as Eastern and Western Europe may diverge or converge. We

argue that some historic events justify our choice of these three zones of the study: the fact that the concept of CSR was first developed in the USA; the role of the USA and the ex-Soviet bloc in the origin of the concept of divergence *versus* convergence; the end of the Cold War; the emergence of the European Union and the creation of the NAFTA (Gupta and Wang, 2004). Furthermore, previous studies argue that the academic discipline of CSR remains much more developed in North America than in Europe (Crane and Matten, 2006). According to Pasquero (2005) since continental European intellectuals and industrialists saw CSR as a purely American phenomenon until the 1990s. Thus CSR became only recently global (Pasquero, 2005). Accordingly, we think that studying CSR representations between North America, as well as Eastern and Western Europe is an important terrain to reexamine the dynamic of such a CSR globalization and assess their underpinning cultural factors.

The current exploratory research is principally driven by the two following questions:

1. To which extent do CSR representations diverge versus converge between North American, Western and Eastern European nations?
2. Is there any significant relation between CSR divergence versus convergence and cultural distance amid the three regions?

Our research adds to studies in the field of both international business and CSR in many ways. Firstly, a review of the relevant literature would indicate that most of the researches have been dedicated to comparing countries, particularly on ethical beliefs instead of taking in the concept of CSR as a whole. For instance, to assess the convergence and divergence of ethical beliefs, Becker et al. (1987), compared France, Germany and the United States. Similarly, Preble and Reichel (1988) compared the U.S. and Israel, whereas Lysonski and Gaidis (1991) looked at the United States, Denmark, and New Zealand. Our study will contrast the knowledge on cross-national comparison by examining the trend of divergence and convergence on the CSR concept as a whole.

Secondly, the results of this paper are based on an original database using the statements drawn from the ISO 26000 negotiation process, which constitutes a rare natural source of rich information regarding CSR representations. Up to now, with regards to cross-cultural distance, no empirical study has examined the extent to which CSR representation varies across national groups in a multi-stakeholder context. Unlike the stakeholders categorizations developed by Waters and al (1986), and Nyaw and Ng (1994) for example, this study looks at a broader categorization of stakeholders groups, based on ISO 26000.

Finally, this large empirical cross-national study suggests an exploration of CSR representations across North America and Europe, by running a relational content analysis of a sample of the ISO 26000 negotiation. This precisely aims to provide an empirical investigation into the link between the level of cultural distance, based on Hofstede's dimensions (Hofstede, 1980, 1984, 1991; Hofstede and Hofstede, 2005), and the divergence versus convergence on CSR representation. The Hofstede's model differentiates cultural groups on the basis of power distance, individualism/collectivism, masculinity/femininity, uncertainty avoidance, and long-/short-term orientation.

This article is structured as follows. First, previous literature on cross-culture and CSR convergence and divergence is examined, and research propositions are developed. Then, the research approaches are exposed and the findings are examined, both in terms of the dynamics of CSR representations and their underlying cultural factors. Main conclusions and implications are presented and discussed in the conclusion.

2.2 Literature review

2.2.1 Cross-cultural studies: A review of Hofstede's model

Cultural distance - a construct that measures the extent to which various cultural groups are similar or different – is an important investigation topic in the field of management and social sciences. Many scholars have attempted to define the concept of culture in various ways. Roberts et al. (2002, p. 36) refer to the culture of a country as a “set of common ideas, beliefs and values that are shared by the members of a group of individuals”. Hofstede (1984, p. 12) defines culture as “the collective programming of the mind that distinguishes the members of one human group from another”.

Various nations and national groups among diverse cultures will exhibit dissimilar values and attitudes towards managerial concepts in general and CSR in particular. What one cultural group values at one time may not be significant to the other groups. These values may affect both the role institutions assume within society and what society expects from those institutions. This fact was underlined by several studies (see Kwok and Tadesse, 2006; Ringov and Zollo, 2007; Freeman and Hasnaoui, 2011).

One leading research on the impact of cultural distance in social sciences was conducted by Hofstede (1984) who surveyed some 116,000 IBM employees worldwide in over 40 countries around the world in an attempt to describe the way societies and their institutions behave, and quantify their cultural level based on several dimensions, including power distance, uncertainty avoidance, individualism versus collectivism and masculinity versus femininity (Hofstede, 1984):

i) Individualism versus collectivism. The third dimension is related to the degree to which a given society values self *versus* group concerns. While in highly individualistic societies individuals are expected to care only for

themselves and their families, in highly collectivist societies, however, people expect the attention of their family and group members in exchange for loyalty.

ii) High versus low uncertainty avoidance. The second dimension refers to the uncertainty acceptance. In other words, it refers to the degree to which people in a given society consider embarrassing and ambiguous situations. Contrary to societies with low uncertainty avoidance, nations in which high uncertainty avoidance is the norm adhere to strict values, procedures and codes of behavior. According to de Luque and Javidan (2004, p 602) uncertainty avoidance is defined as *"The extent to which ambiguous situations are threatening to individuals, to which rules are preferred, and to which uncertainty is tolerated"*. A hostile atmosphere, which doesn't tolerate unconventional behavior, also characterizes high uncertainty avoidance societies that place a higher value on principles rather than actions.

iii) High versus low power distance. The first dimension refers to the extent to which the members of a given society accept hierarchy (unequal distribution of power) in their institutions. Carl et al. (2004, p. 513) define power distance as *"The extent to which a community accepts and endorses authority, power differences, and status privileges"*. While people in high power distance societies tend to accept rigid hierarchical organization, low power distance societies strive for power inequalities.

iv) Masculinity versus femininity. The fourth cultural dimension refers to the extent to which a given society values work goals and assertiveness versus personal goals and nurturance. This dimension deals particularly with the issue of the gender roles. Where masculinity reflects achievement, heroism, assertiveness and material success, femininity on the other hand values relationships, modesty, carefulness and interpersonal harmony.

Although the country scores were originally produced in the early 1970s, several studies have proved that the Hofstede's country ranking is still valid

(Mooij and Hofstede, 2010). Hofstede (1984) originally found significant cultural distance among the studied countries and regions. These cultural divergences have been adopted to justify and explain differences in the organizational and institutional environment (Hofstede, 1984). Since its publication, the Hofstede's model has been largely and effectively applied to different topics in several studies, and they continue to be essential in cross-cultural research, including CSR (e.g. Craig et al., 1992; Vittel et al., 1993; Barkema and Vermeulen, 1997; Schuler and Rogovsky, 1998; Kwok and Tadesse, 2006; Waldman et al., 2006; Ringov and Zollo, 2007; Freeman and Hasnaoui, 2011; Hoegl et al., 2012;).

2.2.2 CSR convergence

Globalization embodies a continual convergence of organizational logics across nations, with regard to industrialization (DiMaggio and Powell, 1991; Kerr, 1983; Womack et al., 1990; MacDuffie, 1995, Drezner, 2001). According to Harbison and Myers (1959) and Kerr et al. (1960), the process of industrialization and technology would standardize global political and economic systems initially originated in the United States. Along the same lines, "real-time technology" (Castells, 1996), "volatile capital flows" (Strange, 1986) and the homogenization of consumer demand worldwide (Levitt, 1983) were considered as key factors underpinning the convergence approach. According to Pascale and Maguire (1980), countries that seek liberalization, market and institutions development, technology adoption and industrialization achievement tend to develop similar strategic business attitudes and behaviors.

During the last two decades, convergence approach has gained insight into many international political and management logics and debates as well. The spread of CSR from North America to the European continent is actually a striking example. A fortiori, positive arguments can be found supporting the theory of the international convergence of CSR. Although the CSR concept is of American origin, it has spread to other continents over the last few decades,

especially to Europe (Pasquero, 2005). As well, social mobilization is becoming globalized through the development of political consumerism (Micheletti, 2003) or the rise in the number of increasingly structured pressure groups (Gendron, 2001).

CSR is becoming global with many social and political players contributing to this phenomenon via new means (Gendron et al., 2004), in particular by proposing standards for adhering to CSR and sustainable development. For Brunsson and Jacobsson (2000), international standards contribute to convergence and may substitute for organizations. Cashore (2002) sees a form of non-state market-driven governance systems in the increasing number of organizations offering social and environmental guidelines, standards and certifications. Standards bodies stem either from the civil society, the private sector, or a hybrid area between the private sectors. This redefining of the political foothold in economics often comes through socio-technical innovations, such as evaluation grids and social performance monitoring systems, for example, social and environmental certification systems, such as ISO 26000, ISO 14000, the Forest Stewardship Council standard and dozens of others (Turcotte and Gendron, 2006). The proponents of these innovations want to disseminate them as broadly as possible, therefore taking them out of their national origins (Turcotte et al., 2007), which contributes to international CSR convergence.

2.2.3 CSR divergence

Despite the globalization of commerce, divergence remains worldwide in the way things are done and perceived. Granovetter (1985) argues that economic transactions are deep-rooted in long-term relationships that entangle obligation, trust and reciprocity. These relations are generally shaped by national-specific institutions (Hall and Soskice, 2001). Subsequently, Whitley (1999) and Proffitt and Spicer (2006), argue that organizational logic is significantly colored by such a complex institutional dynamic across countries. For instance, several empirical

studies comparing industrialized nations have supported the divergence argument (Wade 1990; Whitley 1992; Fligstein and Freeland 1995; Kristensen 1997; Orrú et al., 1997; Storper and Salais 1997; Fligstein 2001; Gullién 2001; Hall and Soskice, 2001; Amable, 2006; Chen and Bouvain, 2009).

Interestingly, the divergence approach has gained insight into numerous international managerial and political logics and debates. One example is related to the national-specific reaction to CSR. According to Pasquero (1997, 2004, 2005), the CSR concept emerged in the United States as an ideal setting because of four sociocultural factors: individualism, democratic pluralism, moralism and utilitarianism.

Earlier, David (1949) traced the roots of the CSR movement to the beginning of the Cold War in the late of 1940's. According to Spector (2008), Donald K. David, Dean of the Harvard Business School, was the first scholar advocating "expanded Business Social Responsibility" in the Harvard Business Review to bring in line business interests and the argument of free-market capitalism against what he considered to be the danger of Eastern European regimes under Soviet Communism, hence highlighting anew the true historical and ideological divergence of the two poles in terms of CSR.

Until recently, the academic discipline of CSR has remained much more developed in North America than in Europe (Crane and Matten, 2006). CSR has only really become a worldwide phenomenon since the 2000s (Pasquero, 2005), with specific development in the European community. According to Pasquero (2005: 95), "until the 1990s, Continental European intellectuals and industrialists generally saw CSR as a purely American phenomenon," and it was through the publication of several white papers by the European Commission in 2001 that "Europe finally took the concept of CSR seriously, putting an end to long-time skepticism about it" (*Ibid.*: 94-95).

According to den Hond et al. (2007), while there is a kind of homogeneity about CSR at the conceptual level, actual practices are extremely heterogeneous, since the expectations of stakeholders vary depending on place and time. Most likely, these differences in institutional, historical and cultural concepts lead to considerable disparities in the manner in which companies implement CSR.

Steurer and Konrad (2009) argue in a comparative study between Central-Eastern Europe and Western Europe, that CSR has become an unavoidable popular concept for the latter's major companies. According to Moon (2005), CSR would henceforth be integrated into societal governance in the United Kingdom, as shown by some managerial practices such as behavior codes, social reporting and the multiple partnerships between businesses, NGOs and administrations. These differences are essentially due to the different economic, cultural and religious histories of these three regions. Moreover, the attitude of certain stakeholders also reflects these cultural traits. Accordingly, Maignan (2001) showed that European consumers were more likely to encourage responsible companies than their American counterparts. It is also claimed that fair trade markets and responsible tourism are far more developed in Europe than in America (World Tourism Organization, 2002). The different expectations of national stakeholders in the three regions clearly show the different ideas of what the role of organizations in society should be.

2.2.4 Research propositions development: Socio-cultural characteristics and divergence on CSR representations

The current study bears on theoretical underpinnings derived from comparative CSR, convergence and divergence streams of research to generate empirically quantifiable research propositions. Following Logsdon and Wood (2005), we argue that North American and European countries are exhibiting both features of resemblances and discrepancies, thus a form of crossvergence, rather than a polarized form of either convergence or divergence. Hence, one could

formulate the first research proposition:

Proposition 1 (P1): *North American as well as Western and Eastern European nations are exhibiting both similarities and differences in terms of their CSR representations.*

Sociocultural characteristics are seen as decisive forces underlying divergence patterns between nations and their inclination for change (Craig et al., 1992). These forces are also viewed as the principal elements to be taken into consideration when it comes to CSR's cross-cultural clustering studies (Burton et al., 2000). Pinkston and Carroll (1994) assert that CSR is a cultural derivative changing from one culture to another, due to the relativity of culture itself (Hoecklin, 1995). This is especially true given that different cultures have differing requirements in terms of business in particular, and in terms of CSR in general. Perhaps the most wide-ranging socio-cultural studies were the ones conducted by Hofstede (1980, 1984, 1991, 2001), Hofstede and Hofstede (2005). Remarkably, sociocultural features have long been considered central features underlying divergence in attitudes and behavior patterns between nations and in their tendency for change (Craig et al., 1992).

Individualism versus collectivism and CSR: The cultural dimension of collectivism, which is defined with relation to selfishness/selflessness, has been extensively investigated in social sciences (Earley and Gibson, 1998) and has been found significantly linked to economic growth (Hofstede, 1980, 2001; House et al., 2004). Nations characterized by strong individualistic values, such as North American and Western European countries (Fiske et al., 1998; Hofstede, 1991; Smith and Bond, 1998) are likely to be more progressive and dynamic and have higher rates of development (McClelland, 1961; Craig et al., 1992) and sense of social responsibility. It is also argued that individualism is associated with subjective well-being when high income, human rights and equality are controlled (Diener et al., 1995). On the other hand, Ringov and Zollo (2007)

argue that cultural distance based on the levels of individualism exhibits no significant effect on CSR.

Triandis and Gelfand (1998) and Gelfand et al. (2004) assert that collectivism embodies two distinct dimensions, namely “institutional” and “in-group” collectivism. “Institutional collectivism” values correspond to the way a collectivist society believes in supporting and acknowledging the distribution of resources and actions and emphasizes group performance and rewards (House et al., 2004; Javidan et al., 2006). This dimension links the importance of interdependency with others to duties and obligations to the collectivity at large, a notion, which prevails within individualistic concerns. In contrast, “in-group collectivism” values involve the extent to which individuals express “pride, loyalty, and cohesiveness” to their group within their society and families (House et al., 2004; Javidan et al., 2006). Nonetheless, and for the sake of clarity within this study, we have endeavored to Hofstede (1984) and consider collectivism as a uni-dimensional variable. Thus the distinction between “institutional” and “in-group” collectivism will be purposely omitted, and one could develop the second research proposition:

Proposition 2 (P2): *CSR representations divergence is significantly associated to the level of individualism.*

Uncertainty avoidance and CSR: Similarly, countries with high uncertainty avoidance, which we define as society's tendency to avoid risk (e.g. Eastern European countries and to a lesser extent Western European ones), likely tend to cope with risk by adopting strict codes of behavior. In such a cultural environment, business tends to obey authorities (e.g. the government), while in low uncertainty avoidance culture, corporations tend to be more concerned with the legitimacy of their actions and the expectations of the public (Katz et al., 2001). Kwok and Tadesse (2006) report that countries diverge in the way their financial activities are organized. Their results show that Anglo-Saxon countries,

such as the US and the UK financial systems are dominated by stock markets, whereas continental European and Japanese systems are characterized by a predominant role of banks. According to the same authors, this divergence is culture-related and interestingly, countries characterized by higher uncertainty avoidance are more likely to have a bank-based system. Paradoxically, Ringov and Zollo (2007) assert that the difference in the levels of individualism exhibits no significant effect on CSR. Thus, the third research proposition needs to be examined:

Proposition 3 (P3): *CSR representations divergence is significantly associated to the level of uncertainty avoidance.*

Power acceptance, Masculinity versus femininity and CSR: Countries characterized by high power acceptance and masculinity dimension rate aggressiveness and achievement of goals such as money, power, and social rank in their organizations and societies. We define power distance values as the extent to which power inequality should be tolerated in a given society. Javidan et al. (2006, p. 70) argue that high power distant societies tend to exhibit more economic, social, and political inequalities. Consequently, such stratifications would lead to the mishandling of power, a lack of equal opportunities for minorities and women, as well as a lack of personal or professional development within a given organization (Carl et al., 2004).

Masculinity/femininity dimension is defined here as the extent to which a society embraces masculine versus feminine values. The cultural dimension relative to masculinity versus femininity is related to equity (Hofstede and Hofstede, 2005). These authors also argue that high masculine societies base rewards on perceived merit, whereas in low masculine societies rewards tend to be based on equality. Consequently, masculinity is more likely to be associated to material advancement and competitiveness in achieving and maintaining success (Hofstede and Hofstede, 2005 and William and Zinkin, 2008). However, feminine societies are more oriented towards ecological, responsible and humanizing goals

(Hofstede, 1997).

Thus, with regard to social and environmental equity (Hofstede and Hofstede, 2005), we argue that power acceptance and masculinity are particularly associated with the propensity of divergence on a standardized global CSR.

In the same lines of thoughts, Ringov and Zollo (2007) investigated the effect of differences in national cultures on the social and environmental performance of 463 companies from 23 North American, European and Asian countries. They argue that the levels of power distance and masculinity have a significant negative effect on CSR performance. In summary, countries characterized by high acceptance of power and gender inequality (both are associated with social hierarchy and inequality), are likely to be more resistant to social responsibility changes and would value CSR differently from countries with low power distance and higher feminine values. Accordingly, power distance and masculine cultural values should be significantly associated to divergence on the CSR representations. Hence, research proposition 4 and 5:

***Proposition 4 (P4):** CSR representations divergence is significantly associated with the level of power distance acceptance.*

***Proposition 5 (P5):** CSR representations divergence is significantly associated with level of masculinity.*

2.3 Methodology

2.3.1 Database

The ISO 26000, introduced in 2004, is one of the largest multi-stakeholder processes in the history of ISO. Its elaboration was finished in 2010. It was accompanied by regional workshops to enable a wider body of stakeholders to follow the development of the standard and negotiate its content (2005–2008).

ISO has formed multi-stakeholder mirror committees by collaborating with different national standard organizations. The development process of ISO 26000 was initiated in 2005 and facilitated by ISO/TMB/WG SR (SR Working Group). The purpose of these mirror committees was to reach a large global participation and better process outcomes. In total, more than 500 experts from 99 countries and 42 liaison organizations have commented on the norm. Each Work Draft has been the subject of electronic commentaries by the national mirror committees of the various different participating countries.

At the Vienna meeting, 392 experts from 78 ISO member countries and 37 liaison organizations (ISO/TMB/WG SR, 2007a) provided their comments. This round of discussions showed an important indicator of the maximum participation level for the negotiation of an international CSR standard. This explains our choice of the Work Draft 3 as a database of our empirical exploratory research. Negotiators from each country were formally classified in six main stakeholders (ISO-26000-WD3, 2007), namely: Industry, Government, Consumer, Labor, Non-Governmental Organizations (NGO) and Service, Support, Research and Others (SSRO). Intending to secure a multi-stakeholder approach, the idea of formalizing stakeholder groups was an unprecedented for ISO, traditionally based upon the voluntary participation of national experts.

Table 2.1 presents the major events of the negotiation process. It provides the name of each draft, the date it was issued, the place where the meeting to negotiate it was held, and the number of negotiators' comments.

Table 2. 1 Evolution of ISO/WG SR negotiations

Document	Number of commentaries	Place of WG SR
Work Draft 1 (WD1)	2040	Lisbon, Portugal, 15-19 March 2006
Work Draft 2 (WD2)	5176	Sydney, Australia, 29 January-02 February 2007
Work Draft 3 (WD3)	7225	Vienna, Austria, 5-9 November 2008
Work Draft 4.2 (WD4.2)	5231	Santiago, Chili, 1-5 September 2008
Comity Draft (CD)	3411	Quebec City, Canada, 18-22 May 2009
Draft International Standard (DIS)	2320	Copenhagen, Denmark, 17-21 May 2010
Final Draft International Standard (FDIS)	2650	-

Source: Adapted from ISO/TMB/WG SR. 2010a. *Report of the Secretariat to the 8th Meeting, Copenhagen, Denmark, May 17-21, 2010*. ISO/TMB/WG SR N183. Genève: Organisation Internationale de Normalisation, 9 p.

Out of 7,225 comments, a total of 3,224 comments have been analyzed for the purpose of stable Principal Component Analysis. The 3,224 comments resulted from the data cleaning. Incomplete information mainly related on one hand to the lack of key indexes such as the groups' membership and, on the other hand to Liaison organizations' comments was discarded from the analysis. Then, the data has been organized so that each national group has a set of comment on each individual variable of the study. This organization allowed us to average the amplitude of convergence and divergence towards ISO 26000. A mean score based on an additive scale has been determined consistently for each variable of the study. For the purpose of this study, which aims to investigate the patterns of

CSR divergence and convergence, as well as their potential underpinning cultural factors among North America and Europe, only American, Eastern and Western European negotiators' statements have been selected and codified. For the extraction of CSR's dimensions with Principal Component Analysis (PCA), the integral database including all the 164 obtained observations from the ISO 26000-WD3 was used (See Telahigue and Turcotte, 2012). Given that only American, Eastern and Western European groups are included in the present study, only American and European groups were considered. Finally, 76 observations were retained and analyzed.

A standard additive five-point Likert scale (Borden and Abbot, 2001), by which the national groups' attitude is evaluated under the statement that best reflects how it or they agree with the proposed clauses and/or sub-clauses (from which we derived our study's variables) is used to evaluate the mean of agreement versus disagreement of the groups towards each variable. The statements concern editorial, technical and general aspects. The scale ranges from "strongly agree" (1) to "strongly disagree" (5). Following the rules of negotiation, we take it that silence (when the groups don't comment a given point) implies a strong agreement. Except for the liaison members and international NGOs, the content of the WD3's files N118 through N121-II (from clause 4 to clause 7 of the ISO 26000 norm) were chosen as the units of the analysis and meticulously coded.

The commentaries have been based on the "Guidance on Social Responsibility" (file N113), which includes seven clauses, annexes and bibliography. The introduction makes a short case for social responsibility and highlights the applicability of the standard to all types of organizations in both public and private sectors, in developed, developing, and emerging countries. Clause 2 includes key terms' definitions, such as social responsibility, sustainable development, organization, international norms of behavior and sphere of influence. Clause 3 "Understanding Social Responsibility" provides a general introduction to social responsibility, its descriptions, and its recent developments.

Clause 4 suggests seven principles of social responsibility, namely: accountability; transparency; ethical behavior; respect for stakeholder interests; respect for the rule of law; respect for international norms of behavior; and respect for human rights. Clause 5 offers CSR guidance for organizations and their identification and the engagement of their stakeholders. Clause 6 accounts for the largest part of the norm. It deals with the core CSR issues such as organizational governance; human rights; labor practices; environment; fair operating practices; consumer issues as well as community involvement and development (Social Development). Clause 7 provides practical guidance for the execution of CSR. The main information from clauses 2 and 3 has been coded, but discarded from our database because of the higher multicollinearity it induces with the other clauses' single indicators.

In the first stage, three raters have coded the information, regarding the level of agreement versus disagreement of the national groups' statements on the various retained variables within the current study. The inter-rater reliability was evaluated among the same coders to detect any measurement anomaly (Holsti, 1969).

Information on the identity of the experts is essential to our analysis since they represent the countries and their national groups. Each organization represented is identified by its name and category of national group representation. The first two letters of the country's name and the code of the national group (I, G, etc.) denote the national delegations' experts (e.g. CA-C; UK-L, etc.). Principally, six main stakeholders groups are identified (Table 2.15). Experts have the opportunity to offer comments individually or jointly on behalf of their groups. Taking in consideration the case of national groups' full cooperation, the ISO's secretariat has built a category called "All", for countries with a so-called feedback "consensus" among all national groups within each participating country. In total 38 types of national groups (combinations of the six main stakeholders) are identified in WD3 (Table 2.15).

The observations are drawn from 23 nations (Table 2.14) : North America (03): Canada, USA and Mexico; Eastern Europe (04): Czech Republic, Russia, Poland and Romania; Western Europe (14): France, Italy, Spain, Switzerland, Denmark, Germany, United Kingdom, Finland, Netherland, Greece, Turkey, Sweden, Norway and Belgium.

The original data set consisted of 36 variables chosen from the main negotiated points of ISO 26000 guidance, including cultural variables. Using Principal Component Analysis (CPA) reduced this set by eliminating: (1) redundant variables, giving rise to potential problems of multicollinearity, (2) variables with non-significant variance. For statistical robustness, only variables with loadings higher than 0.4, were considered (Table 2.16). Finally, only variables with a higher loading coefficient than 0.5 are discussed.

Selection of the final set of variables was guided mostly by the variance analysis, and in part by judging their usefulness (in the case of cultural dimensions (Hofstede, 1980, Hofstede, 1984, Hofstede, 1991, Hoefstede and Hoefsted, 2005)). For each cultural dimension, the Hofstede's model provides scales from 0 to 100 for 76 nations.

Cultural data was collected relative to the level of masculinity versus femininity (MAS level); power distance (PD level); uncertainty acceptance (UA level) and individualism versus collectivism (IND level). These dimensions were particularly hypothesized in the current research to be associated to the divergence on CSR representations.

2.3.2 Data Analysis

We followed and combined Carley and Palmquist (1992), Bordens and Abbott (2001), Moliner et al. (2002) Busha and Harter (1980), Pezdeck et al. (2004) to run a quantitative relational content analysis of the ISO 26 000-WD3 public draft. Herein, content analysis of ISO 26 000-WD3 has been chosen for four main

reasons. Firstly, the technique is perfectly compatible with the representations (Moliner et al., 2002). According to these authors, the representation « *nous éclaire sur ce qui en permanence nous relie au monde extérieur.* » (Moliner et al, 2002, p.11). Secondly, Moscovici (1986, p.76) argues that:

« L'analyse des représentations sociales doit être comparative par définition: elle implique la comparaison entre groupes, la comparaison entre cultures, et la comparaison entre mentalités et idéologies».

Given that the document reflects the members' (experts representing each national group) agreement toward CSR representations, it becomes easy to measure these attitudes quantitatively by applying a suitable scale. Thirdly, as we are interested in the study of convergence and divergence of the national groups' attitudes towards the representations of CSR as well as for the sake of data reliability, ISO 26000-WD3 presents a minimum of bias by taking into consideration the negotiation process of the standard at a point which we consider not yet affected by institutional isomorphism stresses (essentially due to long term communications between and within the groups' members during the periods of negotiation). Finally, ISO 26000-WD3 offers the possibility of choosing the variables of the analysis by taking into consideration the main argued CSR questions regarding the Chapters 4, 5, 6 and 7 of the ISO 26000 norm.

Although not essential for Principal Component Analysis (PCA), the database was natural log-transformed for the sake of: (1) better distribution of the data points on the bi-dimensional plots and (2) distribution normality of the data required in subsequent Multiple Linear Regression Analysis (MLR).

Patterns of convergence and/or divergence of the ISO 26000's CSR pillars of the 76 groups of the 21 countries from the three regions in questions were examined. That is, if a PCA reveals the same underlying structure, but the mean scores on the scales are different on each dimension, we can infer that the national negotiators in the cultural groups in question view the structure of our developed

CSR's dimensions in much the same way but have different ideas about the relative importance of the various main discussed concepts or issues. Conversely, if the comments are similar across different national groups from different cultures and are in favor of the norm's propositions, we will gain insight into the convergence of CSR representations between the North American and European national groups, and *vice versa*.

Witt (2008) argues that the more sub-dimensions the study uses, the higher the chance that at least one of them diverges or converges. Furthermore, we argue that the more sub-dimensions the study uses, the higher the chance that both convergence and divergence could be seen at least within one dimension, which would strongly increase the chance of confirming the crossvergence situation. That is, if signs of convergence and divergence coexist across the different CSR dimensions, then CSR representations will be seen as hybridized rather than purely converging or diverging.

In addition, insights gained from Multiple Linear Regression (MLR) analyses were used to identify the cultural factors (1984, Hofstede, 1991; Hofstede and Hofstede, 2005) that are most strongly associated to the divergence (when it exists) of CSR representations among the studied groups. The level of masculinity, the level of power acceptance, the level of individualism and the level of uncertainty acceptance are taken as the independent metric variables. The four extracted CSR dimensions, namely: CSR's central issues (Dimension 1); CSR's principles (Dimension 2); CSR context (Dimension 3), and CSR implementation (Dimension 4) are identified as the dependent metric variables of the current study. These four CSR dimensions will be fully described and discussed in Section 4.1.

To better understand the underlying structure of the ISO 26000 norm negotiation between North American and European countries, when several indicators related to CSR representations were to be analyzed we used multivariate analysis. With PCA, we were able (1) to reduce the number of

original variables in the study and (2) to identify latent CSR dimensions, mirroring correlations among the same set of variables. The resulting matrix served as input to a multidimensional scaling in order to map the positions of national groups relative to the CSR's individual variables. This resulted in the development of 3 bi-dimensional mappings combining respectively the first dimension with the second, the third and the fourth ones (figures 1 to 3). MLR is used, however, to assess the exploratory linear association between the extracted ISO's CSR dimensions and Hofstede's cultural dimensions. In our correlational design, MRA is considered a suitable technique for assessing linear association between metric variables (Bordens and Abbott, 2001). These authors argue that a multivariate analysis, including MRA, is useful for testing how a set of independent variables (predictors) relates to a dependent variable. IBM-SPSS 20 was used to perform PCA and MLR.

2.4 Findings and discussion

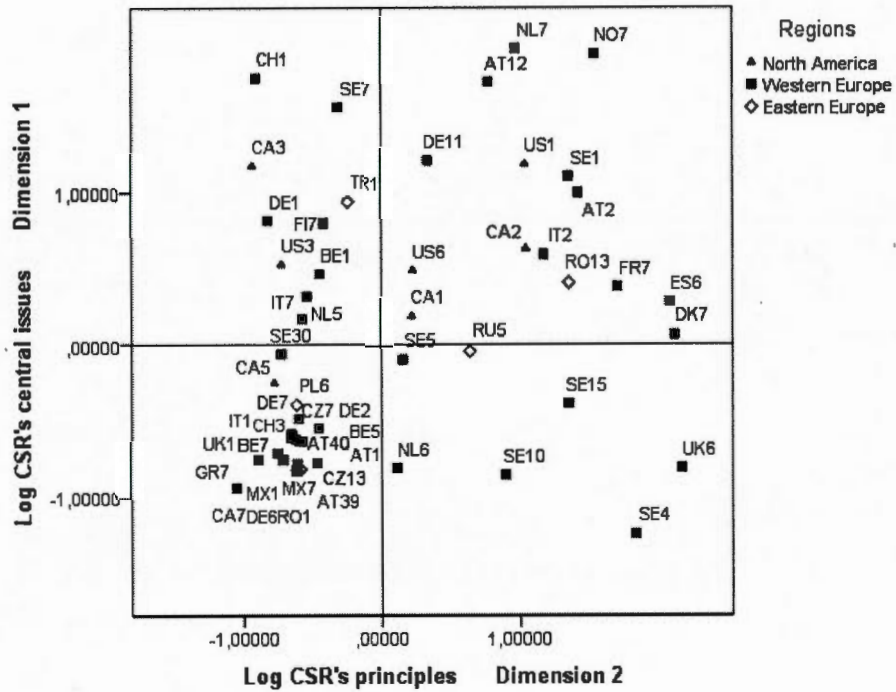
2.4.1 Convergence and divergence on CSR across North America, Western and Eastern Europe

Using *Oblimin* rotation for a natural relationship between the expected latent variables, a Principal Component Analysis (PCA) was conducted for the whole sample to reduce the number of individual indicators and extract dimensions reflecting CSR representation. This first approach allows us to examine the first research proposition (P1).

As mentioned in Table 2.17, four dimensions, one for each ISO 26000's main pillars, were clearly apparent in the sample and confirm both the structure and the content of ISO 26000 guidance. Except for weak loading, crossloading and multicollinearity, which were addressed at the very early stage of the PCA, all other indicators, such as communality and eigenvalue, fit well the rules (Hair et al., 1995).

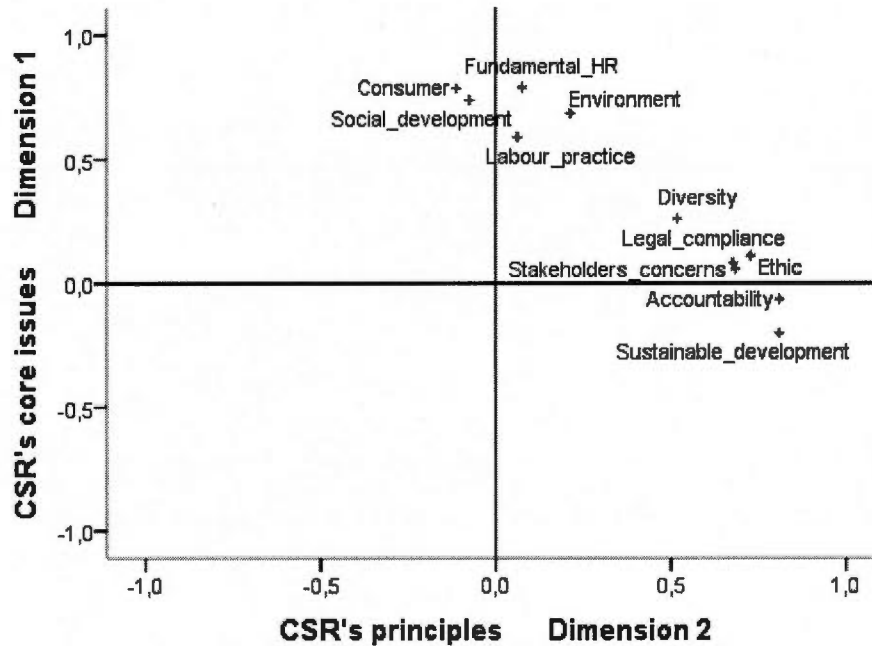
Herein, two special notes related the extraction of CSR dimensions and their special mapping should be underscored:

1. While the dimensions mapping represents an approximation of the (structure) proximity of objects in multidimensional space, the CPA algorithm itself does, however, extract these dimensions of explained variance in an orderly fashion.
2. If a bi-dimensional plot shows proximity of the scatter points on a given CSR dimension, but with different scaling amplitude, it means that the subpopulations loading on a given dimension view its structure as presented in ISO 26000 guidance in much the same way, but have different ideas about its relative importance based on its underlying individual indicators. This scaling amplitude denotes either divergence or convergence on each developed CSR scale. For instance, one could notice a notable proximity of the scatter points on CSR's central issues dimension, but with different amplitude in terms of scaling (e.g. Belgium NGO and Sweden All, etc.). That means that the subpopulations loading on the dimension 1 view the structure of the central issues of CSR as presented in ISO 26000 guidance in much the same way, but have different ideas about the relative importance of such a dimension based on its underlying individual indicators. This, in fact, reflects a representation conflict about a highly considered CSR concept. Accordingly, divergence and convergence patterns in fig. 2.1, fig. 2.3 and fig. 2.5 should be read in this same logic.



Note: The legend of the countries' symbols is in table 2.14

Figure 2. 1 Principal component scores plot showing 42.259% of the variance in the national data



Note: The legend of the countries' symbols is in table 2.14

Figure 2. 2 Combination of CSR's Dimension 1 and Dimension 2 after rotation

Fig. 2.1, fig. 2.2, fig. 2.3, fig. 2.4., fig. 2.5 and fig. 2.6 show that dimension 1 accounts for the largest portion of national stakeholders dissimilarity (31,907% of the information). Consequently, most of the original variables used to establish the three dimensions, correlate with this principal component.

Fig. 2.2, fig. 2.4 and fig. 2.6 reveal the structure of the four main extracted CSR dimensions. Labeling these Dimensions are straightforward giving the consistence with ISO 26000 guidance's main content.

The examination of the four extracted CSR dimensions reveals the following: The first dimension, which accounts of 31,907% of the total explained variance of our sample, suggests that they clearly picture the CSR' core issues. Since only

variables with strong loadings are seen, this dimension seems to capture the central questions or issues of CSR, as reflected by fundamental human rights (civilian and political right, social economic, and cultural rights, vulnerable groups and fundamental rights at work); environment (environmental aspects of activities, products and services, promotion of sustainable consumption and production, sustainable resources use, climate change and Ecosystem); consumer (fair operating, marketing and information practices, consumer health and security, product recall, provision and development of responsible goods and services, consumer service and support, consumer data protection and privacy, sustainable consumption, education and awareness) and to a lesser extent labor practices (employment and its relationships, conditions of work and social protection, social dialogue, health and safety at work and human development) and Social development (community participation and social and economic development).

The second dimension accounts for 11.052 % of the total explained variance of our sample and is composed by the principle of sustainable development, principle of accountability, principle of legal compliance, principle of ethic and to a lesser extent the principle of stakeholders and their concerns. Thus Dimension 2 reflects the main CSR's principles proposed by ISO (fig. 2.2).

The third dimension, which accounts for 8.565% of the total explained variance of our sample, embeds the definition of stakeholders and their involvement in CSR process, the concept of CSR and with a minor importance CSR practicality. This dimension reflects the degree of the translation of CSR from its theoretical framework to the ground, mirroring hence fore the context of CSR with regard to all organizations.

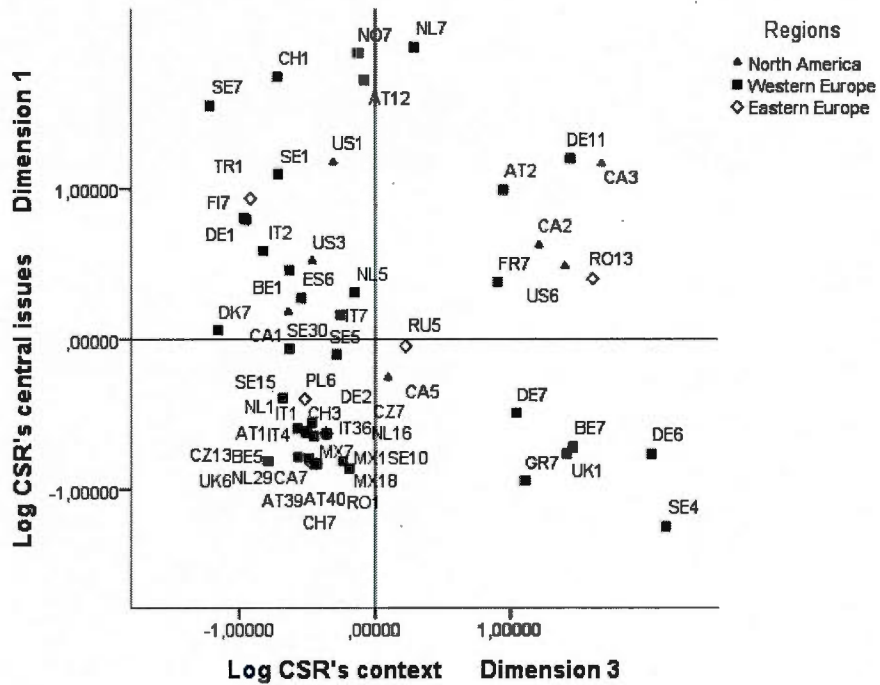
The fourth dimension accounts for the lesser portion of the total explained variance of our sample (6.640%), and is mostly loaded by individual indicators related to the Evaluation of CSR's activities and practices with regard to monitoring; the operational aspect of CSR regarding the daily application of

social responsibility's strategies (awareness and empowerment, operation versus strategy, setting objectives, action plans and instruments); the knowledge of CSR (understanding the organization's profile in which CSR would be applicable, investigating the boundaries and the concept of CSR, working with stakeholders and understanding their concerns); and to a lesser extent CSR communication (type of communication on CSR, planning and selective forms of communication and media and stakeholder dialogue on communication about CSR).

Intuitively, one could notice a homogenous points scattering among the three studied regions, since the national groups show a non-conventional dynamic in their distribution in the three bi-dimensional mappings in fig. 2.1, fig. 2.3 and fig. 2.5. Consideration of bi-dimensional mappings for the seventy-six observations, drawing from the twenty-one participating countries, suggests that as initially proposed, North American and European countries are exhibiting a hybridized structure of divergence and convergence with regard to the main extracted dimensions of ISO 26000. The following in-depth analyses focus on these convergence-divergence-crossvergence patterns of CSR representations. Notice that fig. 2.2, fig. 2.4, fig. 2.6 and table 2.17 display the correlation between the indicators used to develop the dissimilarities matrix and the position of national stakeholders groups on each dimension. Only individual variables with loadings higher or equal to 0.5 are considered in the interpretation of each dimension (see table 2.17).

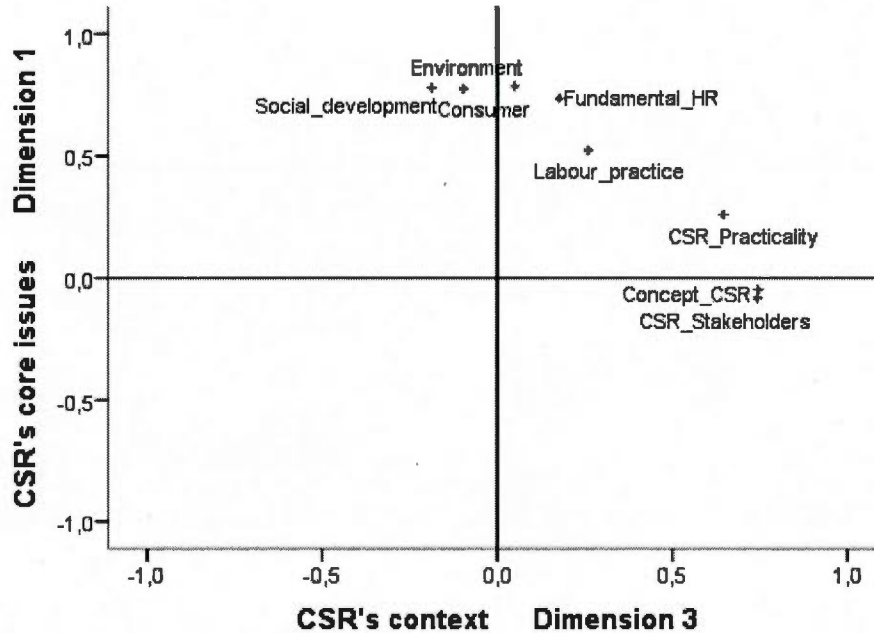
At first sight, a visual examination of fig. 2.1 combining the first and the second larger CSR dimensions (counting together for 42.959% of the information) is straightforward. It essentially suggests that even though convergence towards ISO 26000's CSR issues and principal in both dimensions is sought with preminent evidence, divergence does also exists but with a lesser extent on within and between the same dimensions. That corroborates the coexistence of both signs of convergence (agreement) and divergence (disagreement) towards our two main extracted CSR dimensions counting together for 40.472% of the total variance (information).

The dense clouds of the bottom-left quadrant indicates a higher convergence (agreement) on both dimensions, which means that the majority of the participants have more or less the same representations of CSR as it was proposed by the WD3. The left upper quadrant, however, shows an ascendant sporadic cloud, reflecting more or less an agreement on CSR issues, but a notable disagreement on the principles of CSR.



Note: The legend of the countries' symbols is in table 2.14

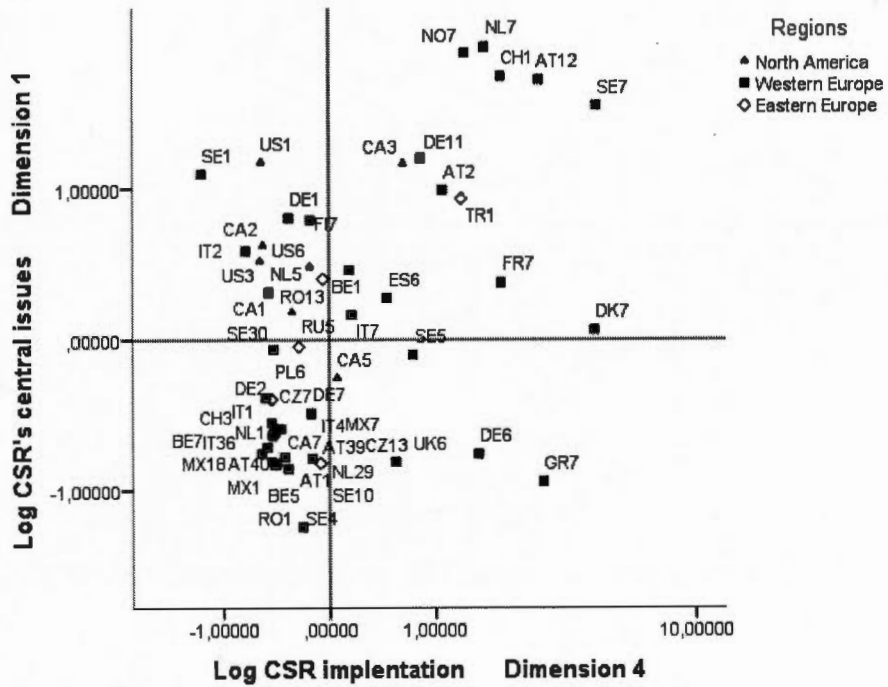
Figure 2. 3 Principal component scores plot showing 40.472% of the variance in the national data



Note: The legend of the countries' symbols is in table 2.14

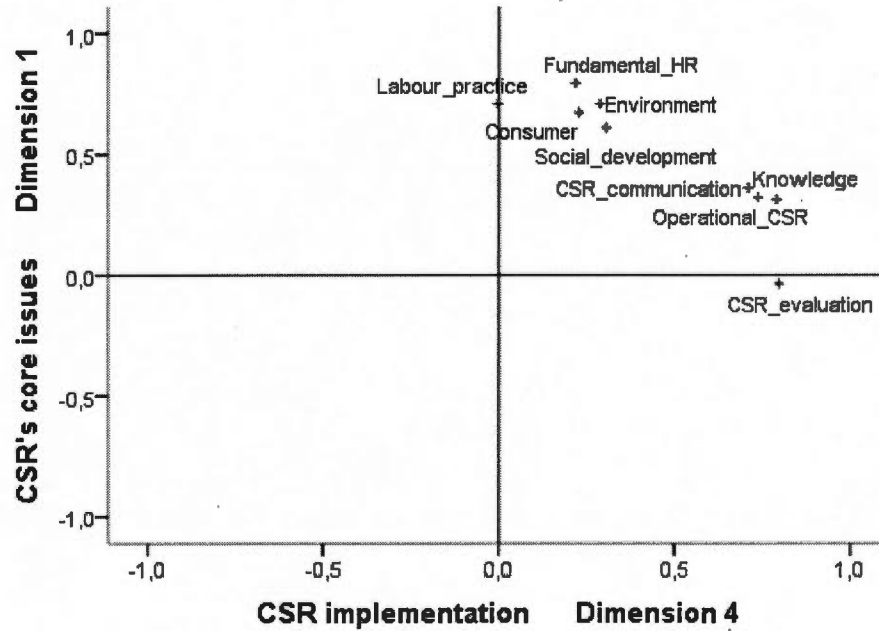
Figure 2. 4 Combination of CSR's Dimension 1 and Dimension 3 after rotation

Going deeper over fig. 2.3 reveals evidence of crossvergence on CSR representation. Similarly to fig. 2.1, the bottom left quadrant reflects a convergence (agreement) towards both dimensions. However, the upper right quadrant clearly indicates a relative divergence between some North American, Western and Eastern European countries as indicated by the positions of Austria (industry group), Canada (government and consumer groups), France (all stakeholders groups), Romania (industry, government, SSRO) and US (SSRO). The light clusters spotted in upper left side and bottom right side, support the coexistence of both trends of convergence and divergence on CSR representations with regards to ISO 26000.



Note: The legend of the countries' symbols is in table 2.14

Figure 2. 5 Principal component scores plot showing 38.547% of the variance in the national data



Note: The legend of the countries' symbols is in table 2.14

Figure 2. 6 Combination of CSR's Dimension 1 and Dimension 4 after rotation

Fig. 2.5 and fig. 2.6 are worthwhile for deeper analysis due to the higher correlation (0.395) they show between Dimension 1 (related to CSR issues) and Dimension 4 (CSR implementation), as is also indicated in Table 2.18. Intuitively, one could foresee that the higher the relation between two hypothesized dimensions, the harder its interpretation would be because of the difficulty in dissociating between the two concepts they represent. However, in our case, the correlation between these two dimensions is straightforwardly interpretable due to the natural relationship between the implementation of CSR in a given organization and the perception of the issues it would address in such a physical and cultural space. This is also simplified by the clarity of the main structure of the studied norm.

Interestingly, fig. 2.5 indicates that groups from Norway (NO7), the Netherlands (NL7), Austria (AT12), Denmark (DK7), France (FR7) and Sweden (SE 7) load negatively higher⁶ on both dimensions, hence showing a strong divergence concerning both ISO 26000' CSR core issues and CSR implementation, in contrast with the groups cluster located in the bottom left quadrant. This indicates a convergence towards the majority of Eastern European stakeholders except for the unique Turkish player representing the industry group and the Romanian group represented by industry, government and SSRO.

The investigation of the three bi-dimensional mappings in fig. 2.1, fig. 2.3 and fig. 2.5 clearly shows a hybridized tendency of both convergence and divergence with regard to the four extracted dimensions of CSR as drawn from ISO 26000: (1) crossvergence within each dimension (schematically given by analyzing them separately) and (2) crossvergence between the first dimension and Dimension 1, Dimension 2 and Dimension 3 respectively (schematically given by the left upper and right bottom quadrants of each figures). Hence, our first research proposition (P1) is confirmed.

It is important to note that up to this very early stage of the exploratory study, potential cultural dimensions, which were already hypothesized earlier of being related to divergence of CSR representations, were purposely omitted for the in-depth Multiple Regression Analyses presented in the following section.

2.4.2 Assessing the relationship between cultural distance and CSR representation

In order to test research propositions P2 through P5, the current section provides the results of the findings on the relationship between cultural distance

⁶ Let us not forget that the right part of the horizontal axis and the upper part of the vertical axis represent patterns of divergence toward the relative ISO 26000's dimensions. However, the left part of the horizontal axis and the bottom of the vertical axis represent patterns of convergence toward the relative ISO 26000's dimensions

(table 2.19), given by the four dimensions, i.e. Masculinity versus Femininity, Power Distance Acceptance, Uncertainty Avoidance and Individualism versus Collectivism (Hofstede, 1980, 1984, 1991) and Hofstede and Hofstede (2005), and CSR representations, identified by its four developed dimensions, i.e. CSR issues, CSR principles, CSR context and CSR implantation (see Telahigue and Turcotte, 2012). Following Bordens and Abbott (2001) and Pezdeck et al. (2004), closer inspection of the patterns of divergence and convergence provides some further insights. As indicated above, MLR is used. More precisely, in our situation, MLR specifies the percentage of variance given by the value of the coefficient of determination R^2 , in the four cultural dimensions, which can significantly explain the CSR representations by testing separately each earlier extracted CSR dimension, where $R^2 \in [0, 1]$. A perfect association between each CSR dimension and the four cultural dimensions will be reflected by a determination equal to 1, whereas the absence of association will be reflected by a coefficient of determination of approximately zero.

The values of the multiple correlation coefficients R , range from -1 to $+1$. Three situations are possible:

1. A perfect positive association between the dependent variable (each single dimension of CSR representations) and its set of independent cultural variables - when taken simultaneously - is reflected by the correlation of $+1$.
2. A perfect negative association between the dependent variable (each single dimension of CSR representations) and its set of independent cultural variables - when taken simultaneously - are reflected by a correlation of -1 .
3. The absence of association between the dependent variable (each single dimension of CSR representations) and its set of independent cultural

variables - when taken simultaneously – is identified by a correlation of approximately zero.

However, the strength and the slope of the linear relationship between the isolated CSR dimensions and individual underpinning cultural predictors is identified by the value of β_i , where $i = 1, 2, 3, 4$.

The interpretation of the MLR will complete our precedent PCA analyses, which enabled us to trace the studied national groups' dynamic of divergence and convergence with regard to ISO 26000. To do so, four MLR models were developed vis-à-vis the four extracted CSR dimensions, namely: CSR issues, CSR principles, CSR context and CSR implantation.

In Model 1 we aim to assess the linear relationship between the Hofstede measures for our four main explanatory variables, i.e. power distance, individualism versus collectivism, masculinity versus femininity, and uncertainty avoidance, to the main extracted CSR component, given by Dim 1 (CSR issues). In Model 2, we aim to evaluate the linear relationship between the Hofstede's measures for our four main explanatory variables, i.e. power distance, individualism versus collectivism, masculinity versus femininity, and uncertainty avoidance, to the second largest CSR component, given by Dim 2 (CSR principles). In Model 3, the linear relationship between the four dimensions, i.e. power distance, individualism versus collectivism, masculinity versus femininity, and uncertainty avoidance, to the third CSR component, given by Dim 3 (CSR context) is assessed. Finally, Model 4 considers the linear relationship between the four Hofstede's factors, i.e. power distance, individualism versus collectivism, masculinity versus femininity, and uncertainty avoidance, to the fourth CSR dimension, given by Dim 4 (CSR implantation).

Model 1: Assessing the relationship between the representations of CSR issues and cultural distance:

Theoretically, the unstandardized beta coefficients given in Table 2.4 are used for the values of ponderation in the MLR equation. The higher the beta value, the greater the association between each predictor (cultural dimensions) and the dependent variable CSR issues representations, represented in order of importance by the individual variables: fundamental human rights, environment, consumer and to a lesser extent labor practices and social development (fig. 2.3). This allows us to determine which cultural dimension has the most significant impact on the expectations of CSR issues. The MLR in Model 1 writes as follow:

$$CSR\ issues = \beta_{01} + \beta_{11} * Power\ Distance\ level + \beta_{21} * Individualism\ level + \beta_{31} * Masculinity\ level + \beta_{41} * Uncertainty\ Avoidance\ level + \varepsilon_1$$

where, β_{01} represents the intercept showing that the representations of CSR issues are given by the value of β_{01} , when all the cultural dimensions' indexes are equal to 0. β_{i1} , $i = 1, 2, 3, 4$ are the regression coefficients, representing the sensibility of dependent variable (CSR issues) when the level of each cultural predictor (power distance level, individualism level, masculinity level, uncertainty avoidance level) changes by 1 unit. ε_1 denotes a random term, which includes errors of measurement and other factors that could explain the dynamics of the dependent variable (CSR issues). Thus, the empirical MLR equation of model 1 is given by:

$$CSR\ issues = 0.338 - 0.341 * Power\ Distance\ level + 0.316 * Individualism\ level - 0.259 * Masculinity\ level + 0.013 * Uncertainty\ Avoidance\ level + \varepsilon_1 \quad (1)$$

According to Model 1 summary of multiple regressions in Table 2.2, the multiple R is 0.194. The positivity of multiple correlations R indicates a positive linear relationship between power distances, individualism versus collectivism, masculinity versus femininity, and uncertainty avoidance – when they are assessed jointly - and the dimension reflecting CSR issues representations (Dim

1).

Table 2. 2 Multiple Linear Regression Summary: Coefficient of Determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,194 ^a	,038	-,017	,92919522

a. Predictors: (constant), UA⁷ level, PD⁸ level, IDV⁹ level, MAS¹⁰ level

The coefficient of determination, R square (R^2) is a portion of the total variation in the dependent variable that is explained by the variation in the independent variables. According to the model summary in table 2.2, R^2 is equal to 0.038, which is too close to 0, which means that approximately 3.8% of the total variance (information) in all the cultural dimensions can significantly explain the national groups' representations of CSR issues. This indicates a weak linear relationship between the expectations of CSR issues and cultural distance, given by the four cultural dimensions. The finding suggests that aside from the four cultural dimensions, there are other factors that might also influence the expectations towards CSR issues (see Telahigue and Turcotte, 2012).

The analysis of the variance (ANOVA) in Table 2.3 tests the significance of the coefficient of determination. It assesses the linear relationship between the combination of the four cultural dimensions and CSR issues representations. According to Table 2.3, the p-value (sig) is .598 > 0.05, indicating that the four cultural dimensions don't bear any significant association to CSR issues representations. Thus, the subsequent analyses of the multiple regression coefficients test, given in Table 2. 4 are omitted.

⁷Uncertainty avoidance level.

⁸ Power distance acceptance level.

⁹ Individualism level.

¹⁰ Masculinity level.

Table 2. 3 ANOVA^a of model 1: Multiple Linear Regression Coefficient of Determination

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	2,401	4	,600	,695	,598 ^b
Residual	61,302	71	,863		
Total	63,703	75			

a. Dependent Variable: CSR's central issues

b. Predictors: (constant), UA level, PD level, IDV level, MAS level

Table 2. 4 Model 1 Multiple Linear Regression coefficients

Model	Unstandardized Coefficients		Standardized Coefficient	t	Sig.
	B	Std. Error	Beta		
(Constant)	,338	1,319		,256	,799
1 PD level	-,341	,403	-,101	-,848	,399
IDV level	,316	,383	,100	,825	,412
MAS level	-,259	,238	-,136	-1,089	,280
UA level	,013	,244	,007	,051	,959

a. Dependent Variable: CSR's central issues

Model 2: Assessing the relationship between the representations of CSR principles and cultural distance:

In the same way as in Model 1, the general MLR of Model 2 aiming to test the multivariate association between the second most important CSR representations dimension (CSR principles) and the same four hypothesized cultural dimension, writes as follow:

CSR principles

$$\begin{aligned}
 &= \beta_{02} + \beta_{12} * \text{Power Distance level} + \beta_{22} * \text{Individualism level} \\
 &+ \beta_{32} * \text{Masculinity level} + \beta_{42} * \text{Uncertainty Avoidance level} \\
 &+ \varepsilon_2
 \end{aligned}$$

where, β_{02} represents the intercept showing that the representations of CSR principles are given by the value of β_{02} , when all the cultural dimensions' indexes are equal to 0. β_{i2} , $i = 1, 2, 3, 4$ are the regression coefficients, representing the sensitivity of dependent variable (CSR principles), when the level of each cultural predictor (power distance level, individualism level, masculinity level and uncertainty avoidance level) changes by 1 unit. ε_2 stands for a random term including errors of measurement and other factors that could explain the dynamic of the dependent variable (CSR principles). Hence, the empirical MLR equation of model 2:

$$\begin{aligned} \text{CSR principles} = & \\ & 2.902 - 0.937 * \text{Power Distance level} + 0.204 * \text{Individualism level} - 0.616 * \\ & \text{Masculinity level} - 0.291 * \text{Uncertainty Avoidance level} + \varepsilon_2 \end{aligned} \quad (2)$$

According to Model 2's MLR summary, given by table 2.5, the multiple correlations R is equal to 0.411. The positivity of R indicates a positive linear relationship between the four cultural dimensions – when they are taken together – and the CSR principles representations.

Table 2.5 Model 2 Multiple Linear Regression Summary: Coefficient of Determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
2	,411 ^a	,169	,122	,98826533

a. Predictors: (constant), UA level, PD level, IDV level, MAS level

According to Table 2.5, the value of coefficient of determination R^2 is 0.169. This indicates that about 17% of the total variance (information) in all the cultural dimensions can significantly explain the national groups' representations of CSR principles. This coefficient reflects somewhat a weak linear relationship between the expectations of CSR principles and the set of four cultural predictors. Once

again, the finding suggests that regardless the four cultural dimensions, other factors might also influence the studied groups' expectations towards CSR issues (see Telahigue and Turcotte, 2012). However, the test of the determination coefficient given by the analysis of the variance (ANOVA) in Table 2.6 shows a p-value (sig) of $0.01 < 0.05$, which indicates that the four cultural dimensions are significantly associated to CSR issues representations. Thus further analyses of the regression coefficients are sought.

Table 2. 6 ANOVA^a of model 2: Multiple Linear Regression Coefficient of Determination

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	14,060	4	3,515	3,599	,010 ^b
2 Residual	69,343	71	,977		
Total	83,403	75			

a. Dependent Variable: CSR's principles

b. Predictors: (constant), UA level, PD level, IDV level, MAS level

The test of the MLR coefficients in Table 2.7 indicates that only the two cultural dimensions relative to the power distance (PD level) and the masculinity versus femininity distance (MAS level) do have a significant association to the dimension reflecting the representations of CSR principles (Dim2), in the linear regression equation expressed by Model 2 (p-value of PD level = $0.032 < 0.05$, and p-value of MAS level = $0.017 < 0.05$).

Given the nature of the CSR representations scale adopted in the current study, the bigger the dependent variable, which ranges between 1 (strong agreement) and 5 (strong disagreement), the stronger the divergence with respect to ISO 26000's CSR norm. Thus, the negativity of the significant coefficients of Model 2 indicates that, national groups characterized by low masculinity and power distance acceptance tend to diverge in their representations of CSR principles with regard to ISO 26000 norm. Conversely, the strong convergence discussed earlier is explained by the agreement of high masculinity groups on the

main CSR principles given by fig. 2.3, i.e. principle of sustainable development, principle of accountability, principle of legal compliance, principle of stakeholders and stakeholders concerns and principle of ethic (fig. 2.5). The specific equation (2) of Model 2 indicates the higher effect of the level of power distance (beta= -.937) compared to the level of masculinity (beta= -.616) (see Table 2.7).

Table 2. 7 Model 2 Multiple Linear Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficient	t	Sig.
	B	Std. Error	Beta		
(Constant)	2,902	1,403		2,068	,042
2 PD level	-,937	,428	-,241	-2,187	,032
IDV level	,204	,408	,056	,500	,619
MAS level	-,616	,253	-,282	-2,433	,017
UA level	-,291	,260	-,134	-1,118	,267

a. Dependent Variable: CSR's principles

Model 3: Assessing the relationship between the representations of CSR context and cultural distance:

The general MLR in Model 3 aims to test the multivariate association between the third most important CSR representations' dimension (CSR context). The general equation writes as follow:

$$CSR\ context = \beta_{03} + \beta_{13} * Power\ Distance\ level + \beta_{23} * Individualism\ level + \beta_{33} * Masculinity\ level + \beta_{43} * Uncertainty\ Avoidance\ level + \epsilon_3$$

where, β_{03} represents the intercept showing that the representations of CSR principles are given by the value of β_{03} , when all the cultural dimensions' indexes are equal to 0. β_{i3} , $i = 1, 2, 3, 4$ are the regression coefficients, representing the sensibility of dependent variable (CSR context), when the level of each cultural predictor (power distance level, individualism level, masculinity level and uncertainty avoidance level) changes by 1 unit. ϵ_3 represents a random

term including errors of measurement and other factors that could explain the dynamic of the dependent variable (CSR context). Therefore, the empirical MLR equation of model 3 writes a follow:

$$\begin{aligned} \text{CSR context} = & \\ & -1.185 + 0.294 * \text{Power Distance level} + 0.105 * \text{Individualism level} + \\ & 0.382 * \text{Masculinity level} - 0.152 * \text{Uncertainty Avoidance level} + \varepsilon_3 \end{aligned} \quad (3)$$

Table 2.8 indicates a multiple correlations R of 0.206. The positivity of R shows a positive linear relationship between the four cultural dimensions – when they are taken jointly - and the CSR context representations.

Table 2.8 gives the value of coefficient of determination R^2 (0.042), which indicates that only 4.2% of the total variance (information) in all cultural dimensions can significantly explain the national groups' representations of CSR context, given by the individual indicators related to the definition of stakeholders and their involvement in the CSR process, the concept of CSR and, to a lesser extent, CSR practicality. The coefficient R^2 signals a very weak linear relationship between the representations of CSR context and the set of the four cultural predictors. Similarly to the two first models, the results imply that, regardless of the four cultural dimensions, other independent factors might also influence the studied groups' expectations towards CSR context (see Telahigue and Turcotte, 2012).

The determination coefficient test given by the analysis of the variance (ANOVA) in table 2.9 gives a R^2 p-value (sig) of 0.539, which is a lot higher than 0.05. This result shows that there is no significant relationship between the four cultural dimensions and CSR context representations. Hence, the subsequent test of MLR coefficient analysis is neglected.

Table 2. 8 Model 3 Multiple Linear Regression Summary: Coefficient of Determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
3	,206 ^a	,042	-,012	,92022994

a. Predictors: (constant), UA level, PD level, IDV level, MAS level

Table 2. 9 ANOVA^a of model 3: Multiple Linear Regression Coefficient of Determination

Model	Sum of Squares	df	Mean Square	F	Sig.
3 Regression	2,660	4	,665	,785	,539 ^b
Residual	60,124	71	,847		
Total	62,784	75			

a. Dependent Variable: CSR's context

b. Predictors: (constant), UA level, PD level, IDV level, MAS level

Table 2. 10 Model 3 Multiple Linear Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficient	t	Sig.
	B	Std. Error	Beta		
(Constant)	-1,185	1,307		-,907	,368
3 PD level	,294	,399	,087	,738	,463
IDV level	,105	,380	,033	,277	,782
MAS level	,382	,236	,201	1,620	,110
UA level	-,152	,242	-,081	-,630	,531

a. Dependent Variable: CSR's context

Model 4: Assessing the relationship between the representations of CSR implementation and cultural distance:

As in the previous three models, the general MLR of model 4 looks at the test of the multivariate association between the fourth most important extracted

CSR representations dimension (CSR implementation) and the same set of our hypothesized cultural dimension. The general structure of this linear model is given by:

$$\begin{aligned}
 & \text{SR implementation} = \\
 & \beta_{04} + \beta_{14} * \text{Power Distance level} + \beta_{24} * \text{Individualism level} + \beta_{34} * \\
 & \text{Masculinity level} + \beta_{44} * \text{Uncertainty Avoidance level} + \varepsilon_4
 \end{aligned}$$

where, β_{04} represents the intercept showing that the representations of CSR principles are given by the value of β_{04} , when all the cultural dimensions' indexes are equal to 0. β_{i4} , $i = 1, 2, 3, 4$ are the regression coefficients, representing the sensitivity of dependent variables (CSR implementation), when the level of each cultural predictor (power distance level, individualism level, masculinity level and uncertainty avoidance level) changes by 1 unit. ε_2 stands for a random term including errors of measurement and other factors that could explain the value change of the dependent variable (CSR implementation). Based on Table 2.13, the specific empirical MLR equation of model 4 is written as follow:

$$\begin{aligned}
 \text{CSR implementation} = & 4.548 - 1.417 * \text{Power Distance level} - 0.468 * \\
 & \text{Individualism level} - 0.480 * \text{Masculinity level} - 0.032 * \\
 & \text{Uncertainty Avoidance level} + \varepsilon_4
 \end{aligned} \tag{4}$$

According to model 4's MLR summary, given in Table 2.13, the multiple correlations R is equal to 0.385. Similarly to the previous models, the positive sign of R indicates a positive linear relationship between the four cultural dimensions – when they are taken together – and the CSR principles representations.

According to Table 2.11, the value of the coefficient of determination R^2 is 0.148. This indicates that about 15% of the total variance (information) in all the cultural dimensions can significantly explain the national groups' representations of CSR principles. This coefficient also exhibits a slightly weak linear relationship between the dependent variable relative to the representation of CSR

implementation and the same set of four cultural predictors. As was the case in the previous three models, this weakness could be related to the existence of other factors which might also influence the studied groups' expectations towards CSR implementation (see Telahigue and Turcotte, 2012), and which were not included in the model.

Table 2. 11 Model 4 Multiple Linear Regression Summary: Coefficient of Determination

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
4	,385 ^a	,148	,100	1,06645654

a. Predictors: (constant), UA level, PD level, IDV level, MAS level

The test of the determination coefficient (Table 2.12) shows an R^2 p-value (sig) of 0.021 < 0.05, which indicates the existence of a significant linear association between cultural distance (assessed jointly by the same set of four Hofstede's dimensions) and the representations of CSR implementation.

Table 2. 12 ANOVA^a of model 4: Multiple Linear Regression Coefficient of Determination

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	14,013	4	3,503	3,080	,021 ^b
4 Residual	80,750	71	1,137		
Total	94,763	75			

a. Dependent Variable: CSR implementation

b. Predictors: (constant), UA level, PD level, IDV level, MAS level

Table 2.13 provides a test of the regression coefficient of equation (4) of model 4. The findings indicate that only the dimension relative to the power distance (PD level) exhibits a significant association with the representations of CSR implementation (p-value of PD level = 0.003 < 0.05). The interpretation of

model 4's results is similar to the one for Model 2. In fact, given the nature of the CSR representations scale we used in the current study to evaluate CSR representations throughout the four extracted CSR dimensions (Telahigue and Turcotte, 2012), a higher value of the dependent variable indicates a strong disagreement (and *vice-versa*). Let us not forget that our attitudinal scale ranges from 1 to five, where 1 reflects a strong agreement and 5 reflects a strong disagreement, with regard to ISO 26000's norm. Thus, the negative value of the regression coefficient relative to power distance (-1,417) indicates that national groups characterized by low power distance acceptance tend to diverge in their representations of CSR principles with regard to ISO 26000 norm. Conversely, our findings suggest that groups characterized by high power distance acceptance tend to converge towards the fourth dimension relative to CSR implantation and principally loaded by individual variables related to the evaluation of CSR's activities and practices, the operational aspect of CSR, the knowledge of CSR and to a lesser extent CSR communication (fig. 2.7).

Table 2. 13 Model 4 Multiple Linear Regression Coefficients

Model	Unstandardized Coefficients		Standardized Coefficient	t	Sig.
	B	Std. Error	Beta		
(Constant)	4,548	1,514		3,003	,004
4 PD level	-1,417	,462	-,342	-3,065	,003
IDV level	-,468	,440	-,121	-1,063	,291
MAS level	-,480	,273	-,206	-1,755	,084
UA level	-,032	,280	-,014	-,114	,910

a. Dependent Variable: CSR implementation

Hence, based on the test on the four models above, the estimation results provide only partial support to proposition 2 and 4. However, the level of power distance acceptance was negatively associated to divergence on CSR principles and CSR implementations representations. Likewise, the level of masculinity was also found negatively associated to divergence on the representations of CSR

implementations. Neither the level of individualism, nor the uncertainty avoidance, was found significantly associated with the divergence of CSR representations in the American and the European sample. The findings give further insights into the effect of the levels of power acceptance and masculinity, both related to social justice and equity (Hofstede, 1980, 1997; Javidan et al., 2006; Williams and Zanklin, 2008). This reveals that the CSR expectations of national groups with high acceptance of hierarchy and low social equity - represented by the extent to which they culturally value higher power distance and high masculinity - tend to diverge strongly from those of others who value social justice and equity, i.e. low levels of power distance and masculinity.

Clusters showed in fig. 2.2 and 2.6 indicate that the nations which exhibited the greatest agreement on the CSR principles (principle of sustainable development; principle of accountability; principle of legal compliance; principle of ethic and to a lesser extent the principle of stakeholders and their concerns) and implementation (including the valuation of CSR activities and practices with regard to monitoring and alternative of amendment; the operational aspect of CSR regarding the daily application of social responsibility strategies (awareness and empowerment, operation versus strategy, setting objectives, action plans and instruments); the knowledge of CSR (understanding the organization's profile in which CSR would be applicable, investigating the boundaries and the concept of CSR, working with stakeholders and understanding their concerns)); and CSR communication (type of communication on CSR, planning and selective forms of communication and media and stakeholder dialogue on communication about CSR), and value higher social justice, with contrast to power and masculinity, are mostly European Nordic (e.g. Sweden, Denmark, Austria, Norway, the Netherlands), Germany and United Kingdom. The sole American representation of the Dimension 2's cluster is shown by the US industry's position, and to a lesser extent, the Canadian government group.

Unusually, Romania (Industry, government and SSRO) is the only Eastern European country belonging to the same cluster. When combining stakeholders

groups with low social injustice acceptance, we notice that SSRO groups place a high value on the two examined CSR dimensions. Thus, national cultural factors relative to social injustice seem to be salient determinants of the crossvergence among the studied subjects. Both Dimension 1 (CSR's issues) and Dimension 4 (CSR's implementation) show no patterns of divergence in the current study with respect to cultural distance.

2.5 CONCLUSION

Convergences and divergences of CSR practices, especially between Europe and North America, are largely backed up in the literature. Yet, the existence of contradictory claims from stakeholders organized into international networks and the permanent nature of global CSR issues, with both phenomena being carried by the globalization of exchanges, put into perspective the theory of divergences and support the idea of a homogenous vision of CSR conveyed through the new global regulatory bodies (the development of certification standards and systems, the professionalization of CSR audits, etc.). The results of the current empirical exploratory study, based on ISO 26000's third Work Draft (WD3), provide insights, however, in favor of CSR representations crossvergence. First, CSR representations showed a complex hybridized classification, rather than pure divergence or convergence. We suggest that given the upsurge in multi-stakeholders involvement in global CSR and the persisting intrinsic national cultural roots, groups are showing both patterns of composite form of convergence and divergence of their representations of new CSR.

Secondly, cultural distances associated to divergence patterns were examined. We found that divergence on CSR representation is mainly associated with social inequality. Our results show that only representations related to the principle of CSR and its implementation are significantly associated to the power distance and masculinity level. The latter is also found related to the noticed divergence on the

dimension related to the representations of CSR implementation.

In contrast, divergence on CSR expectations was not significant with regard to level of collectivism versus individualism. The collectivist societies' groups do not seem to agree or disagree more on the proposed international norm of social responsibility, than individualistic ones. Finally, no significant evidence about the relation between the divergence on CSR representations and the extent to which the national groups tend to tolerate uncertainty were found. Groups from more societies where uncertainty is better tolerated do not seem to agree or disagree more on the proposed international norm of Social Responsibility than in societies, which are less tolerant of uncertainty. The emerging picture thus underscores the role of particular cultural specificity in determining the expectations of national groups towards CSR concerns. At the same time, the lack of statistical significance in part of our research propositions warrants further deep analysis in future research. Furthermore, the limitations of this exploratory study should be taken into consideration. The main drawback relates to the sample size. With only 76 exploitable groups, these sample limitations might restrict the external validity of our results.

From a managerial and political standpoint, our empirical findings could potentially alert managers and policy-makers to the complex overlapping between country-specific and global CSR agendas. We argue that the data seems to indicate that the optimal way for organizations to proceed is to develop both a global CSR position, and a keen thoughtfulness towards local idiosyncrasies. Accordingly, this study gives hints about why CSR representations diverge and converge over the four developed dimensions and which cultural factor should be taken into consideration for an extended North American and European CSR harmonization.

Despite the undeniable need for a dynamic longitudinal study, the findings highlight the usefulness of the compiled existing institutional framework with the empirical relational design for understanding the extensive range of answers and

thus, the thorough insights it offers in analyzing CSR in a highly complex institutional framework across three central poles of the global economy. Consequently, this study is a promising first step towards a larger dynamic research design. Further research into the phenomenon over time would be worthwhile. Hence, addressing such an issue relies on the analysis of more recent comparable data in a longitudinal design for a better understanding of the dynamics of CSR representations change over time and their underlying cultural patterns.

APPENDIXES

Table 2. 14 Countries Included in the Study

Austria (AT)	Denmark (DK)
Belgium (BE)	Spain (ES)
Canada (CA)	Finland (FI)
Switzerland (CH)	France (FR)
Czech republic (CZ)	Poland (PL)
Greece (GR)	Romania (RO)
Italy (IT)	Russia (RU)
Mexico (MX)	Sweden (SE)
Netherland (NL)	Turkey (TR)
Norway (NO)	United Kingdom (UK)
Germany (DE)	United States (US)

Table 2. 15 National groups (code) Included in the Study

I (1)	I, SSRO (16)
G (2)	NGO, C, G (17)
C (3)	I, NGO, L, SSRO (18)
L (4)	I, C (20)
NGO (5)	I, L, C, SSRO (25)
SSRO (6)	G, SSRO, NGO (28)
All: I, G, C, L, NGO, SSRO (7)	C, SSRO (29)
NGO, I, C (8)	L, I, SSRO (30)
C, G, L, NGO, SSRO (9)	G, I, L, SSRO (32)
C, G, I, NGO, SSRO (10)	I, G, NGO, SSRO (34)
C, NGO (11)	I, G (35)
C, L, NGO (12)	G, SSRO (36)
I, G, SSRO (13)	C, I, L, NGO (39)
C, G, NGO, SSRO (15)	C, L, G, NGO (40)

I: Industry; **G:** Government; **C:** Consumer; **L:** Labor; **NGO:** Non-governmental Organization; **SSRO:** Service, Support and Other researches.

Table 2. 16 Variables Used in the Study

Concept of CSR realism	Fundamental human rights
CSR practicality	Labor practice
CSR and stakeholder	Environment
Legal compliance	Consumer
Stakeholders' concerns	Social development
Accountability	CSR knowledge
Sustainable development	Operational CSR
Ethics	CSR communication
Diversity	CSR evaluation

Table 2. 17 Loadings of Individual Variables on Dimension Coordinates

	Dimensions			
	1	2	3	4
Concept of CSR	-,162	,140	,700	,112
CSR practicality	,209	,141	,601	,045
CSR and stakeholders	,104	-,162	,752	-,030
Legal compliance	,081	,694	,136	,035
Stakeholders' concerns	,015	,604	,156	,108
Accountability	-,043	,790	,091	-,011
Sustainable development	-,039	,856	-,159	-,169
Ethics	,036	,637	,003	,150
Diversity	,195	,484	-,175	,246
Fundamental human rights	,718	,048	,183	,057
Labor practice	,642	,082	,204	-,157
Environment	,675	,214	,028	,039
Consumer	,740	-,082	-,082	,085
Social development	,662	-,058	-,168	,188
CSR knowledge	,130	,138	-,003	,688
Operational CSR	,178	-,089	,110	,774
CSR communication	,208	,082	-,028	,655
CSR evaluation	-,183	,007	,035	,845

Rotation Method: Oblimin Kaiser normalization; Cutoff: 0.4.

Table 2. 18 Correlation matrix between the four Dimensions' Coordinates

Dimension	1	2	3	4
1	1,000			
2	,270	1,000		
3	,183	,180	1,000	
4	,395	,308	,098	1,000

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin Kaiser normalization.

Table 2. 19 Hofstede's cultural dimensions

Country	PDI	IDV	MAS	UAI	LTO
Arab World (Egypt, Iraq, Lebanon, Libya, Saudi Arabia, United Arab Emirates)	80	38	52	68	
Argentina	49	46	56	86	
Australia	36	90	61	51	31
Austria	11	55	79	70	
Belgium	65	75	54	94	
Brazil	69	38	49	76	65
Canada	39	80	52	48	23
Chile	63	23	28	86	
China	80	20	66	30	118
Colombia	67	13	64	80	
Czech Republic	57	58	57	74	13
Denmark	18	74	16	23	
Estonia	40	60	30	60	
Finland	33	63	26	59	
France	68	71	43	86	
Germany	35	67	66	65	31
Greece	60	35	57	112	
Hong Kong	68	25	57	29	96
Hungary	46	80	88	82	50
India	77	48	56	40	61
Indonesia	78	14	46	48	
Ireland	28	70	68	35	
Israel	13	54	47	81	
Italy	50	76	70	75	
Jamaica	45	39	68	13	
Japan	54	46	95	92	80
Malaysia	104	26	50	36	

<u>Malta</u>	56	59	47	96	
<u>Mexico</u>	81	30	69	82	
<u>Netherlands</u>	38	80	14	53	44
<u>New Zealand</u>	22	79	58	49	30
<u>Norway</u>	31	69	8	50	20
<u>Pakistan</u>	55	14	50	70	0
<u>Peru</u>	64	16	42	87	
<u>Philippines</u>	94	32	64	44	19
<u>Poland</u>	68	60	64	93	32
<u>Portugal</u>	63	27	31	104	
<u>Russia</u>	93	39	36	95	
<u>Singapore</u>	74	20	48	8	48
<u>South Africa</u>	49	65	63	49	
<u>South Korea</u>	60	18	39	85	75
<u>Spain</u>	57	51	42	86	
<u>Sweden</u>	31	71	5	29	33
<u>Switzerland</u>	34	68	70	58	
<u>Taiwan</u>	58	17	45	69	87
<u>Thailand</u>	64	20	34	64	56
<u>Turkey</u>	66	37	45	85	
<u>United Kingdom</u>	35	89	66	35	25
<u>United States</u>	40	91	62	46	29
<u>Venezuela</u>	81	12	73	76	

Source: www.geert-hofstede.com

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CHAPITRE III

BUYING COOPERATION IN AN ASYMMETRIC ENVIRONMENTAL DIFFERENTIAL GAME

BUYING COOPERATION IN AN ASYMMETRIC
ENVIRONMENTAL DIFFERENTIAL GAME

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BUYING COOPERATION IN AN ASYMMETRIC ENVIRONMENTAL DIFFERENTIAL GAME

ABSTRACT

We consider a two-player asymmetric differential game of pollution control. One player is non-vulnerable to pollution, or unwilling to consider damages when choosing her production policy in a non-cooperative game. We characterize the feedback-Nash equilibrium and the cooperative solution. We establish conditions under which the vulnerable player can buy the cooperation of the non-vulnerable player to control her emissions. We further use the Nash bargaining solution to allocate the total cooperative dividend between the two players and propose a time-consistent decomposition overtime of the total payoff.

Keywords : Environment Differential games Cooperative solution Feedback-Nash equilibrium Time consistency Nash bargaining solution

3.1 INTRODUCTION

We consider two neighboring countries whose industrial activities generate pollution that damages the environment. The two players are asymmetric in terms of their environmental behavior and/or vulnerability to emissions and to their accumulation. Whereas player 1 optimizes her revenues from production and disregards the impact of her emissions on the environment, player 2 fully internalizes the damage. We shall refer to player 1 as the non-vulnerable player and to player 2 as the vulnerable one. The difference in vulnerability may stem from: (i) the fact that player 1 has no interest in slowing down her economic activities for the sake of a better environment, whereas player 2 is willing (or under pressure) to pursue environmentally friendly policies; or (ii) the fact that player 1 does not actually suffer as a result of the emissions, but player 2 does. The first situation is meant to be (a cartoon) representation of an environmental game played by developing and developed countries. The group of developing countries faces huge, challenging economic-development problems and sees the environment as a luxury concern that must wait a while before making it to the political agenda. The developed countries can afford such a concern and their citizens (voters) are pushing their governments hard to follow responsible environmental policies. We shall refer to this scenario by DD (for developing versus developed countries).

The second situation has been referred to in the literature as a downstream-pollution game. The famous acid-rain game, studied originally in a static context in Mäler (1990), Newberry (1990), Tahvonen et al. (1993), and in a dynamic setting in Kaitala et al. (1991, 1992a, b, 1995), Kaitala and Pohjola (1995), Mäler and de Zeeuw (1998), is an example of a downstream-pollution problem. In this game, some players are emitting air pollutants (sulphur and nitrogen), which lead to soil acidification and forest-growth deterioration in neighboring countries. (See, de Zeeuw, 2002 for a survey of the literature on the acid-rain game.) Other

examples of downstream pollution include: (i) the dumping by an upstream country of chemical products into a river, which damages the environment of another country located downstream; (ii) deforestation and overgrazing activities in one country in arid and semi-arid regions, leading to land degradation (or desertification) in an adjacent one. At a more macro level, Kaitala and Pohjola (1995), consider the global-warming problem as a dynamic environmental game involving two coalitions of players, with only one coalition being vulnerable to temperature increases.

In an ideal world, each polluter would pay the costs of the damage done to the shared environment. However, in the absence of a supranational authority that can credibly force the polluter to control its emissions or pay for them, this is rather wishful thinking. Thus, in such context, it may turn out to be an optimal option for the polluted country (or vulnerable player) to pay the non-vulnerable (polluter) player to reduce her emissions, i.e., buy her cooperation. This is especially true when the cost of having the non-vulnerable player reduce emissions is lower than the damage cost incurred by the vulnerable player. Further, a common point in the examples above, as well as in many other environmental problems, is the fact that the damage to the environment is not only caused by the flow of emissions, but also by their accumulation. This implies that one needs a dynamic model to correctly account for the damage cost, and consequently, to design a suitable long-term agreement to control emissions.

We are interested in designing a sustainable environmental agreement between the two players, in the special context where the payoff function of the non-vulnerable player changes with the mode of play (cooperative or non-cooperative). Indeed, we assume that under cooperation, the coalition accounts for the total damage, i.e., including the damage to the non-vulnerable player (if any), whereas in a non-cooperative regime, this player would not internalize such cost. (We shall motivate our setting in the next section after introducing some notations.) To the best of our knowledge, this is the first attempt to deal with such a situation in the context of transboundary environmental problems. Here lies our

main contribution. Within this setting, our aim is twofold:

- (1) To fully characterize the region in the parameter space where the cooperation of the non-vulnerable player can be bought.
- (2) To design, in the parameter region where cooperation is feasible, a time-consistent allocation over time of the total dividend of cooperation. By time consistency, we mean that the players will prefer to stick to the agreement as time passes. Sustainability of international environmental agreements is crucial to achieve tangible environmental results.

To derive the conditions under which the non-vulnerable player acts on emissions, we adopt a cooperative game approach. In our two-player setting, this requires to compute (i) the joint optimization payoff that the players can achieve if they decide to sign an environmental agreement (EA); and (ii) the individual non-cooperative payoffs in case of negotiations fail (stand-alone, status-quo or business-as-usual payoffs). By virtue of joint optimization, one expects the total cooperative payoff to dominate the total non-cooperative individual payoffs. However, interestingly, this property does not always hold in our setting. As we shall see, this payoff-dominance holds only under some conditions involving the parameters of the damage-cost functions, the pollution dynamics (accumulation and decay rates and initial stock of pollution) and the discount rate.

If the incremental payoff generated by cooperation is sufficient to drive the non-vulnerable player to participate in an emissions control agreement, then the step in (ii) above becomes relevant. The issue here is the sustainability of the agreement over time. The differential-game literature has dealt with this issue along two lines of thoughts. In the first, the approach is to seek a cooperative agreement that is an equilibrium. This can be done by adopting, for instance, trigger strategies (see, e.g, Tolwinski et al., 1986; Haurie and Pohjola, 1987; Cesar, 1994; Dockner et al., 2000, Chapter 6). Such strategies embody effective punishments that deprive any player the benefits of a defection, and the threats of

punishments are credible which ensures that it is in the best interest of the player(s) who did not defect to implement a punishment. The second approach is to design a time-consistent agreement, that is, a decomposition over time of the total individual agreement payoffs, such that, at any intermediate instant of time, the cooperative payoff-to-go is higher than the non-cooperative payoff-to-go. This approach has been followed by, e.g., Kaitala and Pohjola (1990), Petrosjan (1993, 1997), Jørgensen et al. (2003, 2005), Petrosjan and Zaccour (2003), Yeung (2007), Yeung and Petrosjan (2006, 2008).¹² Further, Germain et al. (2003) consider a discrete-dynamic game model for international environmental cooperation and design a transfer mechanism that guarantees the sustainability of the core solution throughout the planning horizon.

In this paper, we design a time-consistent transfer-payment scheme based on a decomposition over time of the Nash bargaining solution (NBS), which has the attractive property of being fair. The notion of time consistency we apply here is the one developed in Petrosjan (1993, 1997). The most related paper to ours is Jørgensen and Zaccour (2001), where a pure downstream-pollution problem is analyzed. To share the total dividend of cooperation, the authors propose a dynamic side payment and show that it is time consistent for the non-vulnerable player; however, they were not able to obtain a similar property for the vulnerable player. In Jørgensen et al. (2003, 2005), the authors focus on the conditions under which time consistency is realized in linear-state and linear-quadratic differential games. The model proposed here is of the linear-quadratic variety, and, therefore, the mathematical treatment is the same. The two main differences between this paper and Jørgensen et al. (2003, 2005) are: (i) the payoff function of the non-vulnerable player varies with the mode of play; and (ii) the decentralization overtime of the cooperative payoff is done using the NBS. The same differences can be pointed out with respect to Petrosjan and Zaccour (2003), where the authors decompose overtime the Shapley value.

¹² The interested reader may refer to Zaccour (2008) for a tutorial on time consistency in cooperative differential games.

The remaining of the paper is organized as follows. In Section 2, we introduce the model, and in Section 3, we characterize the cooperative and non-cooperative solutions and compare them. In Section 4, we deal with the issue of decomposition over time of the dividend of cooperation. Section 5 concludes.

3.2 The model

We adopt a simple economics/environment model that is in the tradition of those in Long (1992) and Van der Ploeg and de Zeeuw (1992). Let $q_i(t)$ be the level of industrial production of country i , $i=1,2$, at time t , $t \in [0, \infty)$. As a result of production, country i emits a quantity $e_i(t) = h_i(q_i(t))$ of pollutants.¹³ Denote by $r_i(q_i(t))$ the net revenue that country i derives from this production, i.e., gross revenue minus production cost. Assuming that $h_i(q_i(t))$ is a strictly increasing function, we can then express the revenues from the industrial activities as a function of the emissions, i.e., $r_i(q_i(t)) = r_i(h_i^{-1}(e_i(t)))$. To simplify the notation, we let $R_i(e_i) \equiv r_i(h_i^{-1}(e_i(t)))$. We assume $R_i(\cdot)$ to be an increasing concave function, satisfying $R_i(0) = 0$.

Let $S(t)$ be the pollution stock whose evolution depends on the level of emissions and on the absorption of pollution by nature. We assume that the following linear-differential equation closely approximates the dynamic process of pollution accumulation:

$$\dot{S}(t) = \mu(e_1(t) + e_2(t)) - \varepsilon S(t), \quad S(0) = S_0, \quad (1)$$

where μ is a positive parameter capturing the marginal impact on pollution accumulation of both players' emissions, and ε is nature's absorption rate. Note that we have assumed, for simplicity and without loss of qualitative insight, that the marginal impact of emissions on the evolution of the stock of pollution is the same for both countries. The stock of pollution causes damage to the environment

¹³ A simple formulation is to assume proportionality between production and emissions, i.e., $e_i(t) = \eta_i q_i(t)$, with $\eta_i > 0$ (see, e.g., Van der Ploeg and de Zeeuw, 1992).

whose cost is given by a convex-increasing function that we denote $D_i(S(t))$. In the pure downstream-pollution scenario, we have $D_1(S(t)) \equiv 0$.

Assuming a payoff-maximization behavior, player i 's objective functional reads as follows:

$$W_i = \int_0^{\infty} e^{-\rho t} (R_i(e_i(t)) - D_i(S(t))) dt, \quad (2)$$

where $\rho > 0$ is the common constant discount rate. We shall characterize the solutions under the following two scenarios: Non-cooperative game. In the absence of an environmental agreement, the players behave selfishly and maximize their individual payoffs. The vulnerable player maximizes the payoff function in (2) subject to the state dynamics. The non-vulnerable player does not internalize the damage done to the environment and care only about the revenues from her industrial activities, i.e., this player maximizes her payoff given by

$$\max W_1 = \max \int_0^{\infty} e^{-\rho t} R_1(e_1(t)) dt, \quad (3)$$

We adopt the feedback-Nash equilibrium as the solution concept for the non-cooperative game. Cooperative game. Following the literature (see, e.g., Jørgensen et al., 2010), an environmental agreement consists in implementing emissions policies that maximize the joint payoff of the two countries, i.e.,

$$\max \sum_{i=1}^2 W_i = \sum_{i=1}^2 \left(\int_0^{\infty} e^{-\rho t} (R_i(e_i(t)) - D_i(S(t))) dt \right), \quad (4)$$

subject to the state dynamics in (1).

The assumed behavior for the non-vulnerable player in the non-cooperative scenario deserves an explanation. In the case of pure downstream-pollution, that is, $D_1(S(t)) \equiv 0$, it is clear that the payoff of player 1 becomes the one in (3). In the developing versus developed countries scenario (DD scenario), the adoption of this payoff function is not due to the absence per se of an environmental damage, but to the economic priorities of that country. In this highly schematic

representation of international environmental negotiation, our formulation amounts at saying that in the absence of an environmental agreement, developing countries would continue to pursue a business-as-usual policy aiming at achieving the best economic outcome (i.e., optimizing their revenues) without any regard to the environment.

To have a micro interpretation of this, think of the country's revenues as the sum of revenues generated by firms choosing their optimal production levels. In the absence of an environmental regulation (tax, cap on emissions, etc.), it is expected that these firms do not internalize the damage cost of their emissions. An environmental agreement is precisely supposed to deal with this situation. More specifically, we view this agreement as a contract between the two parties involving two clauses: the first clause constrains the signatories to reduce their current emissions, and the second clause states that developed countries will compensate developing countries for abiding by the first clause. To determine the appropriate levels of emissions in the sense of the first clause, we have to account properly for the damage caused by emissions. Actually, these two clauses, stated here in a highly stylized way, were actually at the center of the debate during the UN Climate Change Conference (COP15) held in Copenhagen, December 7–18, 2009. For instance, the acceptance by developing countries, e.g., China and India, of monitoring (and hence measuring the damage) of their emissions was considered by some countries, especially the US, as a necessary condition to implement a transfer mechanism to help developing countries mitigate the cost of their emissions reduction to the levels specified in the sought agreement. Note that our approach stipulates that the payoff function of the non-vulnerable player in the DD scenario varies with the mode of play (cooperative versus non-cooperative or environmental agreement versus no agreement). This is new, at least not standard in game-theoretic models of international environmental agreements. We believe that proceeding in this way is not unrealistic in view of actual international negotiation. In any event, this scenario is intellectually intriguing and hence worth analyzing. Although from now on we focus on the

more interesting DD scenario, we will make some comments on the pure downstream-pollution scenario.

For the sake of mathematical tractability, we assume that the revenue and cost functions are quadratic and given by

$$R_i(e(t)) = \alpha_i e_i(t), \quad \alpha_i > 0$$

$$D_i(S(t)) = \frac{1}{2} \beta_i S^2(t), \quad \beta_i \geq 0$$

Note that the players face different revenue and damage-cost parameters. In particular, we assume that the damage-cost parameters satisfy $\beta_1 \geq \beta_2 \geq 0$. The case of pure downstream pollution is obtained by setting $\beta_1 = 0$, i.e., the upstream player is not incurring any damage cost from the pollution stock.

3.3 Non-cooperative and cooperative solutions

In this section, we characterize and compare the cooperative and non-cooperative solutions. The following proposition states the result when the players do not cooperate. We omit the time argument when no ambiguity may arise. The superscript N stands for Nash equilibrium.

Proposition 1. Assuming an interior solution, the unique feedback-Nash equilibrium is given by:

$$e_1^N = \alpha_1 \tag{5}$$

$$e_2^N = \alpha_2 + \mu(X_2 S + Y_2) \tag{6}$$

where

$$X_2 = \frac{2\varepsilon + \rho - \sqrt{(2\varepsilon + \rho)^2 + 4\beta_2\mu^2}}{2\mu^2} < 0, \tag{7}$$

$$Y_2 = \frac{(\alpha_1 + \alpha_2)\mu X_2}{(\rho + \varepsilon) - \mu^2 X_2} < 0, \tag{8}$$

The globally asymptotically stable steady state is given by

$$S_{\infty}^N = \frac{\mu(\alpha_1 + \alpha_2)(\rho + \varepsilon)}{[\varepsilon - \mu^2 X_2][(\rho + \varepsilon) - \mu^2 X_2]} > 0. \quad (9)$$

Proof. See Appendix 3.A.1. Under our assumption that player 1 does not internalize the cost of pollution, her optimization problem reads as follows:

$$\max W_1 = \int_0^{\infty} e^{-\rho t} \left(\alpha_1 e_1 - \frac{1}{2} e_1^2 \right) dt, \quad (10)$$

which leads to the equilibrium strategy $e_1^N = \alpha_1$. The first-order optimality condition (Eq. (A.2) in the Appendix) states that player 2 should choose her emissions level, so that the marginal revenue from pollution (or economic activities), given by $\alpha_2 - e_2$, is equal to the marginal cost, given by $-\mu V_2(S) = -\mu(X_2 S + Y_2)$,

where

$$V_2(S) = \frac{1}{2} X_2 S^2 + Y_2 S + Z_2$$

is the value function of player 2. Note that $V_2(S) = X_2 S + Y_2 < 0$, and, therefore, the equilibrium is interior if

$$e_2^N = \alpha_2 + \mu(X_2 S + Y_2) > 0 \Leftrightarrow \alpha_2 > -\mu[X_2 S + Y_2] > 0.$$

The individual total payoffs in this scenario are given by

$$W_1^N = \int_0^{\infty} e^{-\rho t} \left(\alpha_1 e_1^N - \frac{1}{2} (e_1^N)^2 \right) dt = \int_0^{\infty} e^{-\rho t} \frac{\alpha_1^2}{2} dt = \frac{\alpha_1^2}{2\rho},$$

$$W_2^N = V(S_0) = \frac{1}{2} X_2 S_0^2 + Y_2 S_0 + Z_2,$$

where

$$Z_2 = \frac{\alpha_2^2 + \mu^2 Y_2^2 + 2\mu\alpha_1 Y_2}{2\rho}.$$

Remark 1. The determination of the feedback-Nash equilibrium is very much simplified by the assumption made on the behavior of player 1. Indeed, finding this equilibrium amounted at solving two optimization problems. If the non-vulnerable player internalized the damage cost, then the calculations would have been more complicated with, however, the expected result that the players' value functions are quadratic and their strategies linear.

In the cooperative scenario, we assume that the two players agree to fully internalize the damage costs and to optimize the sum of their payoffs subject to the state dynamics (1). The following proposition characterizes the cooperative solution (the superscript C stands for cooperation).

Proposition 2. Assuming an interior solution, the optimal policy when the two players agree to cooperate is given by

$$e_i^C = \alpha_i + \mu(xS + y), \quad i = 1, 2 \quad (11)$$

where

$$x = \frac{2\varepsilon + \rho - \sqrt{(2\varepsilon + \rho)^2 + 8(\beta_1 + \beta_2)\mu^2}}{4\mu^2}, \quad (12)$$

$$y = \frac{(\alpha_1 + \alpha_2)\mu x}{\rho + \varepsilon - 2x\mu^2}, \quad (13)$$

The globally asymptotically stable steady state is given by

$$S_\infty^C = \frac{\mu(\alpha_1 + \alpha_2)(\rho + \varepsilon)}{(\varepsilon - 2x\mu^2)(\rho + \varepsilon - 2x\mu^2)} > 0, \quad (14)$$

Proof. See Appendix 3.A.2. The interpretation of the results in the above proposition is similar to the interpretation of those in the previous one. Note, however, that player 1's emissions strategy is now state-dependent. The cooperative value function is quadratic and given by

$$V(S) = \frac{1}{2}xS^2 + yS + z,$$

where

$$z = \frac{(\alpha_1 + \mu y)^2 + (\alpha_2 + \mu y)^2}{2\rho} > 0$$

We now turn to a comparison of the strategies and of the steady-state values under cooperation and non-cooperation. For player 1, the comparison is straightforward. Indeed, we have:

$$e_1^N - e_1^C = -\mu(xS + y) > 0.$$

The results for player 1 are standard in environmental economics, i.e., higher pollution under a non-cooperative mode of play than under a cooperative one. The reason is that, in a cooperative regime, this player is internalizing the damage cost of both players. For player 2, we have the following difference:

$$e_2^N - e_2^C = \mu[(X_2 - x)S + Y_2 - y]$$

The sign of the above difference depends on the sign of $(X_2 - x)$ and $(Y_2 - y)$ and, possibly, on the value of S .

Denote by

$$\Gamma = -\beta_1(2\varepsilon + \rho)^2 + (\beta_1 - \beta_2)^2\mu^2,$$

$$\Lambda = \beta_2\mu^2 - (3\varepsilon + 2\rho)(\varepsilon + \rho),$$

$$\psi = (\beta_1 - \beta_2)\Lambda^2 + \beta_2[(\varepsilon + \rho)^2(6\varepsilon^2 + 10\varepsilon\rho + 3\rho^2) + 2\beta_2^2\mu^4].$$

It can be established that the following cases can materialize:

Case 1. If $\Gamma > 0$, then $x - X_2 > 0$ and $y - Y_2 > 0$.

Case 2. If $\Gamma < 0$, then $x < X_2$, and

Case 2a. If $\Lambda > 0$, then $y - Y_2 > 0$;

Case 2b. If $\Lambda < 0$ and $\psi < 0$, then $y - Y_2 > 0$;

Case 2c. If $\Lambda < 0$ and $\psi > 0$, then $y - Y_2 < 0$;

The conclusions drawn from comparing player 2's strategies under both regimes are given in the following proposition.

Proposition 3. The vulnerable player's strategies compare as follows:

- (i) In Case 1, we have $e_2^N < e_2^C$.
- (ii) In cases 2a and 2b, we have

$$\begin{cases} e_2^N > e_2^C \\ e_2^N < e_2^C \end{cases} \text{ if } \begin{cases} S > \frac{y - Y_2}{X_2 - x} \\ S < \frac{y - Y_2}{X_2 - x} \end{cases}$$

- (iii) In case Case 2c, we have $e_2^N > e_2^C$.

The conditions characterizing the different cases involve all of the model's parameters and are not readily interpretable. However, some interesting hints can be obtained by focusing on the damage cost parameters, which satisfy $0 \leq \beta_1 \leq \beta_2$. Indeed, we have $\Gamma \geq 0$ for $\beta_2 \geq \beta_2^+$, where

$$\beta_2^+ = \beta_1 + \frac{(2\varepsilon + \rho)}{\mu} \sqrt{\beta_1}.$$

Therefore, if β_2 is "sufficiently high" in relation to β_1 , then the vulnerable player will emit at a higher level in a cooperative game than under non-cooperation. Given that the result typically found in the environmental-economics literature is that the players reduce their emissions in a cooperative game in relation to their levels in a selfish non-cooperative game, this result looks a priori counterintuitive. However, it can be explained by the fact, that in a non-cooperative game the non-vulnerable country is not making any environmental effort, leaving the whole burden to the vulnerable player. When the differential gap in terms of damage cost is "too high", then it is collectively optimal under cooperation to shift a relatively "large" part of the effort to the non-vulnerable country and let the other player increase its production. Note that the results in Case 1 are independent of the pollution-stock value.

Remark 2. If $\beta_1 = 0$, which is characteristic of a pure downstream-pollution context, then $\beta_2^+ = 0$ and $\Gamma > 0$. Hence, independently of other parameter values, only Case 1 can occur.

Now, if $\beta_2 \in [\beta_1, \beta_2^+)$, then we have $x - X_2 < 0$. However, the sign of $y - Y_2$ cannot be entirely determined and depends on the sign of the quantities Λ and ψ . In this case, depending on the actual values of the parameters and of the stock of pollution, a variety of situations can occur.

Proposition 4. The steady-state values of the pollution stock compare as follows:

$$S_{\infty}^N > S_{\infty}^C$$

Proof. Computing the difference $S_{\infty}^N - S_{\infty}^C$, we get

$$S_{\infty}^N - S_{\infty}^C = \frac{\mu^3(\alpha_1 + \alpha_2)(\rho + \varepsilon)(2x - X_2)[(2x + X_2) - (\rho + 2\varepsilon)]}{(\varepsilon - \mu^2 X_2)(\rho + \varepsilon - \mu^2 X_2)(\varepsilon - 2x\mu^2)(\rho + \varepsilon - 2x\mu^2)}$$

As x and X_2 are negative, the sign of $S_{\infty}^N - S_{\infty}^C$ is the same as the sign of $2x - X_2$.

Compute

$$2x - X_2 = \frac{\sqrt{(2\varepsilon + \rho)^2 + 4\beta_2\mu^2} - \sqrt{(2\varepsilon + \rho)^2 + 8(\beta_1 + \beta_2)\mu^2}}{2\mu^2}$$

which is negative. Therefore, $S_{\infty}^N > S_{\infty}^C$.

From an environmental point of view, cooperation is always beneficial. Indeed, independently of the parameter values, the steady-state value of the pollution stock is lower under a cooperative regime than under non-cooperation. What remains to be seen is if this environmental gain due to cooperation extends to economics (payoffs).

3.4 Sharing the gain of cooperation

We now turn to the three crucial questions related to any long-term

cooperative agreement, namely: (i) when is a cooperative agreement globally feasible? (ii) in the region of the parameter space where cooperation is achievable, how should the dividend of cooperation be allocated among the players? and (iii) how can one ensure that the players abide by the cooperative agreement over time?

A cooperative agreement is globally feasible if the total cooperative payoff minus the sum of total individual non-cooperative payoffs is positive. This difference, which can be called the dividend of cooperation, is given by:

$$DC(S_0) = \frac{1}{2}S_0^2(x - X_2) + (y - Y_2)S_0 + C,$$

where

$$C = z - Z_2 - \frac{\alpha_1^2}{2\rho} = \frac{\mu}{2\rho}(\mu(2y^2 - Y_2^2) + 2\alpha_1(y - Y_2) + 2\alpha_2y)$$

The sign of $DC(S_0)$, a degree-2 polynomial, depends on the sign of the coefficients of S_0 and on its value. The roots of $DC(S_0) = 0$ are given by:

$$S_0^- = \frac{Y_2 - y - \sqrt{(Y_2 - y)^2 - 2(x - X_2)C}}{x - X_2}$$

$$S_0^+ = \frac{Y_2 - y + \sqrt{(Y_2 - y)^2 - 2(x - X_2)C}}{x - X_2}$$

Assuming real roots (i.e., $(Y_2 - y)^2 - 2(x - X_2)C \geq 0$), the following proposition answers our first question.

Proposition 5. The sign of the dividend of cooperation is as follows:

- Case A: If $\beta_2 \geq \beta_2^+$, then

$$DC(S_0) \text{ is } \begin{cases} > 0 \forall S_0 \geq 0 \text{ if } C \geq 0, \\ > 0 \forall S_0 \in [S_0^+, S_0^-] \text{ if } C < 0. \end{cases}$$

- Case B: If $\beta_2 \in [\beta_1, \beta_2^+)$ and $y - Y_2 > 0$, then

$$DC(S_0) \text{ is } \begin{cases} > 0 \forall S_0 \in [0, S_0^-] \text{ if } C \geq 0, \\ > 0 \forall S_0 \in [S_0^+, S_0^-] \text{ if } C < 0. \end{cases}$$

- Case C: If $\beta_2 \in [\beta_1, \beta_2^+)$ and $y - Y_2 < 0$, then $DC(S_0) < 0, \forall S_0 > 0$.

Proof. Straightforward analysis of the roots of $DC(S_0) = 0$.

The above proposition states that an overall cooperative agreement is achievable only in certain regions of the parameter space. It seems that in the presence of a presumably non-vulnerable player, the larger the difference (or asymmetry) in damage costs, the larger is the range, in terms of S_0 , under which cooperation is attainable.

Corollary 1. In the pure downstream-pollution scenario, the dividend of cooperation is always positive.

Proof. In this scenario, we have $\beta_2 > \beta_2^+ = 0$. Therefore, $DC(S_0) > 0$ and hence the result.

Assuming that cooperation is globally attractive, then the next issue is how to allocate $DC(S_0)$ between the two players. Cooperative game theory and bargaining theory offer a series of solutions to this sharing problems, e.g., core, Shapley value, nucleolus, Nash bargaining solution, with each one of them based on some desirable properties, e.g., uniqueness, coalition stability, fairness. In our two-player context, the Nash bargaining solution (NBS) seems a natural choice for its two attractive properties, namely uniqueness and fairness of the sharing.¹⁴ Fairness is understood in the sense that the solution improves equally the fate of the two players with respect to their status-quo payoffs. The latter are assumed to be given by the Nash-equilibrium payoffs (W_1^N, W_2^N) , i.e., the outcomes that the players can secure in the absence of an environmental agreement. Formally, the NBS allocates to the players the following net cooperative payoffs:

¹⁴ It is easy to verify that in our case the NBS and the Shapley value coincide. Further, in this two-player game, there is no much room for coalition stability issue, which is the main focus of the core. Actually, the NBS is trivially in the core here.

$$W_1^{NBS} = W_1^N + \frac{DC(S_0)}{2} = W_1^N + \frac{1}{2}[(W_1^C + W_2^C) - (W_1^N + W_2^N)],$$

$$W_2^{NBS} = W_2^N + \frac{DC(S_0)}{2} = W_2^N + \frac{1}{2}[(W_1^C + W_2^C) - (W_1^N + W_2^N)],$$

where the superscript NBS stands for Nash bargaining solution, and

$$W_1^N = \int_0^{\infty} e^{-\rho t} R_1(e_1(t)) dt,$$

$$W_2^N = \int_0^{\infty} e^{-\rho t} (R_2(e_2^N(t)) - D_2(S^N(t))) dt,$$

$$W_i^C = \int_0^{\infty} e^{-\rho t} (R_i(e_i^C(t)) - D_i(S^C(t))) dt, \quad i = 1, 2.$$

This completes our answer to the second question that was raised.

Turning to the third question, we observe that, while we clearly have

$$W_1^{NBS} > W_1^N \text{ and } W_2^{NBS} > W_2^N,$$

that is, each player collects a higher payoff for the whole duration of the game under cooperation than under non-cooperation, this global individual rationality property does not guarantee that the players will stick to cooperation as time goes on. The breakdown of a cooperative agreement before its completion date (here infinity) may happen for two possible reasons (see Haurie, 1976):

1. If the players renegotiate the original agreement at an intermediate instant of time

$\tau \in [0, \infty)$, it is not certain that they will collectively want to continue with that agreement. In fact, they will not go on with the original agreement if it is not a solution of the cooperative game that starts out at time τ .

2. Suppose that a player is considering deviating from the agreement, that is, as of time $\tau \in [0, \infty)$ she will use a strategy that is different from the cooperative one. Actually, a player should deviate if this gives her a payoff in the continuation game that is greater than what she stands to receive through continued cooperative play.

Denote by $W_i^{NBS}(s^C(t))$ and $W_i^N(s^C(t))$ the cooperative and non-cooperative payoff-to-go, respectively.

Definition 1. A cooperative solution is time consistent at S_0 if, at any $t \in [0, \infty)$, it holds that

$$W_i^{NBS}(s^C(t)) \geq W_i^N(s^C(t)), \quad i = 1, 2, \quad (15)$$

where $s^C(t)$ denotes the cooperative state trajectory.

Note that the payoff-dominance condition in (15) must hold along the cooperative trajectory of the state, meaning implicitly that the players have implemented the agreement (cooperative strategies) until time t . Solving for the pollution dynamics under both cooperative and non-cooperative regimes leads to the following state trajectories:

$$s^C(t) = \frac{\mu(\alpha_1 + \alpha_2 + 2\mu y)}{2\mu^2 x - \varepsilon} (e^{(2\mu^2 x - \varepsilon)(t-\tau)} - 1) + S_\tau^C e^{(2\mu^2 x - \varepsilon)(t-\tau)},$$

$$s^N(t) = \frac{\mu(\alpha_1 + \alpha_2 + \mu Y_2)}{\mu^2 X_2 - \varepsilon} (e^{(\mu^2 X_2 - \varepsilon)(t-\tau)} - 1) + S_\tau^C e^{(\mu^2 X_2 - \varepsilon)(t-\tau)}.$$

To decompose in a time-consistent way the NBS outcomes, we follow Petrosjan (1993, 1997) and introduce the payoff-distribution procedure $\xi_i(t)$, $i = 1, 2$, i.e., a pair of time functions satisfying

$$\int_0^{\infty} e^{-\rho t} \xi_i(t) dt = W_i^{NBS}(S_0), \quad (16)$$

$$W_i^{NBS}(S_0) = \int_0^t e^{-\rho \tau} \xi_i(\tau) d\tau + e^{-\rho t} W_i^{NBS}(S^C(t)), \quad (17)$$

where

$$W_i^{NBS}(S^C(t)) = W_i^N(S^C(t)) + \frac{1}{2} \sum_{i=1}^2 [W_i^C(S^C(t)) - W_i^N(S^C(t))]. \quad (18)$$

Property (16) states that the total discounted payment is precisely the share of player i , $i=1,2$, in the total dividend of cooperation. To interpret the property in (17), suppose that the two players wish to reconsider the initial agreement reached at the outset of the game, i.e., in position $S(0)$ at (any) intermediate instant of time t . At that moment, the state of the system is $S^C(t)$, meaning that cooperation has prevailed from the initial time until t , and that each player i would have been allocated a stream of monetary amounts given by the first right-hand side term of (17). Denote by $\Gamma(S^C(t))$ the subgame starting with initial condition $S_i^C = S^C(t)$. If this sub-game is played cooperatively, then player i will get the Nash bargaining solution payoff given by the second right-hand side term of (17). If what she has been allocated until τ and what she will be allocated from that date onward add up to her payoff in the original agreement, then a renegotiation would leave the original agreement unaltered. Therefore, if one can find a PDP $\xi(t) = (\xi_1(t), \xi_2(t))$ such that (17) holds true, then this PDP is time consistent. This can be done by differentiating (17) to obtain

$$\xi_i(\tau) = \rho W_i^{NBS}(S^C(t)) - \frac{d}{dt} W_i^{NBS}(S^C(t)) \quad (19)$$

This formula has an interesting economic interpretation. It allocates, at instant of time t , to player i , a payoff corresponding to the interest payment (interest rate times her payoff-to-go under cooperation given by her NBS value) minus the variation over time of this payoff-to-go.

Remark 3. To show that the time function defined above is indeed a PDP, one needs to show that the following equality holds

Multiply (19) by the discount factor $e^{-\rho t}$ and integrate

$$\begin{aligned} \int_0^{\infty} e^{-\rho t} \xi_i(t) dt &= \int_0^{\infty} e^{-\rho t} \left(\rho W_i^{NBS}(S^C(t)) - \frac{d}{dt} W_i^{NBS}(S^C(t)) \right) dt \\ &= -e^{-\rho t} W_i^{NBS}(S^C(t)) \Big|_0^{\infty} = W_i^{NBS}(S^C(0)) = W_i^{NBS}(S_0). \end{aligned}$$

Showing that the decomposition overtime of the NBS in (18) satisfies the condition in (15) is equivalent to proving that the dividend-of-cooperation-to-go is non-negative, i.e.,

$$\begin{aligned} DC(S^C(t)) &= \sum_{i=1}^2 [W_i^C(S^C(t)) - W_i^N(S^C(t))] = \frac{1}{2} (x - X_2)(S^C(t))^2 \\ &\quad + (y - Y_2)(S^C(t)) + C \geq 0. \end{aligned}$$

Indeed,

$$W_i^{NBS}(S^C(t)) - W_i^N(S^C(t)) = \frac{1}{2} \sum_{i=1}^2 [W_i^C(S^C(t)) - W_i^N(S^C(t))] \quad (20)$$

$$= \frac{1}{2} DC(S^C(t)), \quad i = 1, 2, \quad (21)$$

The derivation of the conditions for having $DC(S^C(t)) \geq 0$ follows the same line as in Proposition 5, and, therefore, the analysis will not be repeated here. Note, however, that at this stage we would normally exclude from this analysis all cases where the dividend of cooperation is negative at S_0 . Indeed, if $DC(S_0)$ is negative, then the cooperative game will not be played because, i.e., there are no sufficient available funds to buy the cooperation of the non-vulnerable player. The following proposition provides a sufficient condition for non-negativity of

$DC(S^C(t))$.

Proposition 6. Assume an interior solution in the cooperative scenario. If $DC(S)$ is an increasing function with $DC(S_0) > 0$, then $DC(S^C(t)) \geq 0$ for all $t \in [0, \infty)$.

Proof. To prove the Proposition, it suffices to show that $S^C(t) > S_0, \forall t \in [0, \infty)$. Substituting for the cooperative emissions in the dynamics (1) and integrating leads to

$$S^C(t) = \frac{\mu(\alpha_1 + \alpha_2 + 2\mu y)}{2\mu^2 x - \varepsilon} (e^{(2\mu^2 x - \varepsilon)t} - 1) + e^{(2\mu^2 x - \varepsilon)t} S_0.$$

Compute $S^C(t) - S_0$:

$$S^C(t) - S_0 = \left[\frac{\mu(\alpha_1 + \alpha_2 + 2\mu y)}{2\mu^2 x - \varepsilon} - S_0 \right] (e^{(2\mu^2 x - \varepsilon)t} - 1).$$

Assuming that the cooperative emissions, which are given by

$$e_i^C = \alpha_i + \mu(xS + y), \quad i = 1, 2,$$

are interior, implies that

$$\alpha_i + \mu y > -\mu x S > 0, \quad i = 1, 2,$$

Therefore, we have

$$\frac{\mu(\alpha_1 + \alpha_2 + 2\mu y)}{2\mu^2 x - \varepsilon} < 0$$

since $x < 0$. As $e^{(2\mu^2 x - \varepsilon)t} - 1 < 0$, then $S^C(t) - S_0 > 0$.

To obtain $\xi_i(t)$, it suffices to substitute for $W_i^{NBS}(S^C(t))$ in the formula in (19) to get

$$\begin{aligned} \xi_1(t) = & e^{-\rho t} \alpha_1^2 + \frac{\rho}{4} \int_0^\infty e^{-\rho \tau} [\mu^2 ((X_2 S^N(\tau) + Y_2)^2 - 2(x S^C(\tau) + y)^2) - (\beta_1 \\ & + \beta_2)(S^C(\tau))^2 + \beta_2(S^N(\tau))^2] d\tau \\ & + \frac{e^{-\rho t}}{4} [\mu^2 ((X_2 S^N(t) + Y_2)^2 - 2(x S^C(t) + y)^2)] - \frac{e^{-\rho t}}{4} [(\beta_1 \\ & + \beta_2)(S^C(\tau))^2 + \beta_2(S^N(\tau))^2], \end{aligned}$$

$$\begin{aligned} \xi_2(t) = & e^{-\rho t} \alpha_1^2 - \frac{\rho}{4} \int_0^\infty e^{-\rho \tau} [\mu^2 ((X_2 S^N(\tau) + Y_2)^2 + 2(x S^C(\tau) + y)^2) + (\beta_1 \\ & + \beta_2)(S^C(\tau))^2 + \beta_2(S^N(\tau))^2] d\tau \\ & - \frac{e^{-\rho t}}{4} [\mu^2 ((X_2 S^N(t) + Y_2)^2 - 2(x S^C(t) + y)^2)] - \frac{e^{-\rho t}}{4} [(\beta_1 \\ & + \beta_2)(S^C(\tau))^2 + \beta_2(S^N(\tau))^2]. \end{aligned}$$

It is readily seen that the above expressions depend on all model's parameters and take into account, through among other things S^N , what would happen if the players switch to a non-cooperative mode of play at position $S^C(t)$. To obtain the final expressions for $\xi_1(t)$ and $\xi_2(t)$ as functions of time and the model's parameters, we have to substitute for X_2 , Y_2 , x , versus, S^C and S^N . As it can be easily guessed, the resulting formulas are very long, and as they do not convey any additional qualitative insight, we refrain from printing them.

3.5 CONCLUSION

We characterized and compared cooperative and non-cooperative strategies and outcomes in a setting where one of the players is non-vulnerable, or ignores the damage she causes to the environment with her pollutant emissions. We provided the conditions under which the cooperation of the non-vulnerable player can be bought with a suitable monetary transfer. The latter can be decomposed over time to ensure the sustainability of cooperation in the sense of time consistency.

Three extensions would be worthwhile to consider. First, it would be interesting to integrate bargaining power into the analysis. Second, one could relax the assumption that the non-vulnerable player is not always suffering (or unwilling to internalize environmental damage) forever. Back to the developing versus developed countries game, it surely makes sense to assume that sooner or later developing countries will start investing in abatement activities and control their emissions without relying (only) on transfers from developed countries. Therefore, the non-cooperative game would be played over two phases with the developing countries also becoming vulnerable in the second phase. In such a context, the monetary transfers during the first phase would be seen as a way of accelerating the switch to the second phase. And lastly, it is of interest to calibrate our model with actual data and empirically assess the amount of transfers.

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APPENDIXES

Appendix 3.A

3.A.1 Proof of Proposition 1

The Hamilton–Jacobi–Bellman (HJB) equation of player 2 is given by

$$\rho V_2(S) = \max_{e_2} \left\{ \alpha_2 e_2 - \frac{1}{2} e_2^2 - \frac{1}{2} \beta_2 S^2 + V_2'(S) (\mu(e_1 + e_2) - \varepsilon S) \right\}. \quad (\text{A.1})$$

Differentiating (A.1) with respect to e_2 and equating to zero, yields

$$e_2 = \alpha_2 + \mu V_2'(S). \quad (\text{A.2})$$

Substituting in (A.1) leads to

$$\rho V_2(S) = \frac{1}{2} (\alpha_2 + \mu V_2'(S))^2 + \mu \alpha_1 V_2'(S) - \frac{1}{2} \beta_2 S^2 - \varepsilon S V_2'(S). \quad (\text{A.3})$$

Given the linear-quadratic structure of the game, we make the informed guess that the following linear-quadratic value function solves (A.3)

$$V_2(S) = \frac{1}{2} X_2 S^2 + Y_2 S + Z_2, \quad (\text{A.4})$$

and hence

$$V_2'(S) = X_2 S + Y_2, \quad (\text{A.5})$$

where X_2, Y_2, Z_2 are the constant coefficients to be determined. Substituting for $V_2(S)$ and $V_2'(S)$ into (A.3) gives

$$\begin{aligned} & \rho \left(\frac{1}{2} X_2 S^2 + Y_2 S + Z_2 \right) \\ &= \frac{1}{2} (\alpha_2 + \mu Y_2 + \mu X_2 S)^2 + \mu \alpha_1 [X_2 S + Y_2] - \left(\frac{1}{2} \beta_2 + \varepsilon X_2 \right) S^2 \\ & \quad - \varepsilon Y_2 S. \end{aligned}$$

By identification, we get

$$0 = \mu^2 X_2^2 - (2\varepsilon + \rho) X_2 - \beta_2. \quad (\text{A.6})$$

$$Y_2 = \frac{\mu X_2 (\alpha_1 + \alpha_2)}{\rho + \varepsilon - \mu^2 X_2}, \quad (\text{A.7})$$

$$\begin{aligned} Z_2 \\ &= \frac{\alpha_2^2 + \mu^2 Y_2^2 + 2\mu \alpha_1 Y_2}{2\rho}. \end{aligned} \quad (\text{A.8})$$

Solving the first equation, we obtain

$$X_2 = \frac{2\varepsilon + \rho \pm \sqrt{(2\varepsilon + \rho)^2 + 4\beta_2\mu^2}}{2\mu^2}.$$

All parameters being positive, we have one positive and one negative root. It can be easily shown that the state trajectory is given by

$$S^N = S_\infty^N + (S_0 - S_\infty^N) e^{(\mu^2 X_2 - \varepsilon)t}.$$

The global stability of the steady state requires that $(\mu^2 + \theta^2)X_2 - \varepsilon < 0$.

Clearly, choosing the negative root:

$$\begin{aligned} X_2 \\ &= \frac{2\varepsilon + \rho - \sqrt{(2\varepsilon + \rho)^2 + 4\beta_2\mu^2}}{2\mu^2}, \end{aligned} \quad (\text{A.9})$$

fulfills this condition. Consequently, note that Y_2 is negative. Substituting for X_2 in (A.7) and (A.8), we get Y_2 and Z_2 in terms of the model's parameters.

Substituting for the strategies in (1) and setting the equation equal to zero leads to the following steady-state equilibrium value:

$$S_{\infty}^N = \frac{\mu(\alpha_1 + \alpha_2)(\rho + \varepsilon)}{(\varepsilon - \mu^2 X_2)(\rho + \varepsilon - \mu^2 X_2)} > 0.$$

The positivity of the steady state follows from $X_2 < 0$.

3.A.2 Proof of Proposition 2

The joint objective functional is given by

$$W = W_1 + W_2 = \sum_{i=1}^2 \left[\int_0^{\infty} e^{-\rho t} \left(\alpha_i e_i - \frac{1}{2} e_i^2 - \frac{1}{2} \beta_i S^2 \right) dt \right].$$

The Hamilton–Jacobi–Bellman equation is given by

$$\begin{aligned} \rho V(S) = \max_{e_1, e_2} \sum_{i=1}^2 \left(\alpha_i e_i - \frac{1}{2} e_i^2 - \frac{1}{2} \beta_i S^2 \right) + V'(S)(\mu(e_1 + e_2) \\ - \varepsilon S), \end{aligned} \quad (A.10)$$

where $V(S)$ is the value function. Assuming an interior solution, the first-order optimality conditions lead to

$$e_i = \alpha_i + \mu V'(S), \quad i = 1, 2.$$

Substituting in (A.10) leads to

$$\begin{aligned} \rho V(S) = \frac{1}{2} (\alpha_1 + \mu V'(S))^2 + \frac{1}{2} (\alpha_2 + \mu V'(S))^2 - \frac{1}{2} (\beta_1 + \beta_2) S^2 \\ - \varepsilon S V'(S). \end{aligned} \quad (A.11)$$

Given the linear-quadratic structure of the optimization problem, we make the informed guess that the following linear-quadratic value function solves (A.11):

$$V(S) = \frac{1}{2} x S^2 + y S + z$$

Substituting for $V(S)$ and $V'(S) = xS + y$ in (A.11) leads to

$$\begin{aligned} \rho \left(\frac{1}{2} x S^2 + y S + z \right) \\ = \frac{1}{2} (\alpha_1 + \mu y + \mu x S)^2 + \frac{1}{2} (\alpha_2 + \mu y + \mu x S)^2 - \frac{1}{2} (\beta_1 + \beta_2) S^2 \\ - \varepsilon S (x S + y). \end{aligned}$$

By identification, we obtain

$$0 = 2\mu^2 x^2 - (2\varepsilon + \rho)x - (\beta_1 + \beta_2), \quad (\text{A.12})$$

$$y = \frac{(\alpha_1 + \alpha_2)\mu x}{\rho + \varepsilon - 2x\mu^2}, \quad (\text{A.13})$$

$$z = \frac{(\alpha_1 + \mu y)^2 + (\alpha_2 + \mu y)^2}{2\rho}. \quad (\text{A.14})$$

Solving the first equation gives

$$x = \frac{2\varepsilon + \rho \pm \sqrt{(2\varepsilon + \rho)^2 + 8(\beta_1 + \beta_2)\mu^2}}{4\mu^2}.$$

We have one positive and one negative root. It can be easily shown that the state trajectory is given by:

$$S^C = S_\infty^C + (S_0 - S_\infty^C) e^{(2x - \varepsilon)t}$$

The global stability of the steady state requires that $2x\mu^2 - \varepsilon < 0$. Clearly, choosing the negative root

$$x = \frac{2\varepsilon + \rho - \sqrt{(2\varepsilon + \rho)^2 + 8(\beta_1 + \beta_2)\mu^2}}{4\mu^2}$$

fulfills this condition. Consequently, $y < 0$ and $z > 0$.

Substituting for the strategies in (1) and setting the equation equal to zero leads to the following steady-state equilibrium value:

$$S_\infty^C = \frac{\mu(\alpha_1 + \alpha_2)(\rho + \varepsilon)}{(\varepsilon - 2x\mu^2)(\rho + \varepsilon - 2x\mu^2)}$$

The positivity of the steady state follows from $x < 0$

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CONCLUSION GÉNÉRALE

La responsabilité sociale des entreprises (RSE) devient mondiale du fait de la mondialisation des échanges économiques et des pressions de divers acteurs sociaux, économiques et politiques versus des normes et des accords internationaux qui prônent un développement durable. C'est ce qu'on appelle l'approche de la convergence. En revanche, les représentations de RSE tendent aussi à diverger entre les nations, car ce qui est attendu en termes de RSE est déterminé par les institutions en place et les spécificités culturelles. C'est ce qu'on appelle l'approche de la divergence. Cette thèse s'intéresse aux aspects de convergence et de divergence dans les négociations des normes et accords internationaux dans le domaine de l'environnement et de la responsabilité sociétale des organisations. Les trois principaux thèmes abordés sont :

1. Reconsidérer la convergence et la divergence en RSE : Étude empirique de la norme ISO 26000 (essai 1).
2. La distance culturelle importe-t-elle : une étude empirique de la divergence versus convergence des représentations de RSE entre l'Amérique du Nord et l'Europe (essai 2).
3. Acheter la coopération dans un jeu différentiel asymétrique en environnement (essai 3).

Les deux premiers essais étudient l'impact de deux différents ensembles de facteurs sur la convergence et la divergence internationales. L'essai 1 porte sur les facteurs institutionnels, géoéconomiques et stratégiques. L'essai 2 porte sur les

facteurs culturels. Ces deux essais sont intimement liés par le fait qu'ils utilisent dans leurs analyses la même source de données issue des commentaires sur la troisième ébauche de la norme ISO 26000. De plus, le deuxième essai, qui se focalise uniquement sur des groupes nationaux américains et européens, est une dérivée du premier. Il se base également sur les quatre dimensions principales caractérisant la norme ISO 26000, qui ont été développées dans le premier essai.

Enfin, le troisième essai développe un modèle mathématique général, basé sur les jeux différentiels, susceptible de comparer les résultats environnementaux et économiques de la convergence (dans un cas d'agrément) et de la divergence (dans un cas de désagrément) dans le cadre de normes et d'accords internationaux, dans une thématique particulière de la responsabilité sociale, à savoir l'environnement. Cet essai propose des conditions sous lesquelles la convergence sur la politique environnementale responsable entre les deux groupes de pays est possible. Il démontre que la coopération internationale issue de la convergence en matière d'environnement est temporellement cohérente (durable) sur la période de la dite convention ou norme environnementale en question. Les trois essais contribuent conjointement au domaine de recherche sur le développement durable.

Les résultats du premier essai montrent que ni la divergence, ni la convergence sur les différentes dimensions de la norme ISO 26000 ne dominent. Les résultats de l'ACP confirment la coexistence de divergence et de convergence sur chacune des dimensions. Cette forme complexe de deux tendances paradoxales reflète une crossvergence due à un hybridisme des spécificités nationales et à une harmonisation internationale déterminée sur le contenu de la norme ISO 26000 en matière de RSE. En nous basant sur des analyses de la variance, nous avons aussi montré que ni le niveau de développement économique (Nord-Sud), ni la catégorie de parties prenantes, ne sont associés à la divergence des représentations de la RSE entre les participants. Par contre, nous avons trouvé que la divergence sur la dimension « principes de RSE » et « implantation de la RSE » est significativement liée à la nationalité des

commentateurs.

Dans le deuxième essai, nous avons exploré un cas particulier de l'essai précédent. Plus précisément, nous avons mis en relation la culture avec la convergence et la divergence dans les représentations de la RSE entre les groupes nationaux européens (Est et Ouest) et nord-américains. Nous nous sommes plus particulièrement intéressés à examiner les relations potentielles entre la divergence des groupes nationaux en question et le niveau de masculinité versus féminité; le niveau d'acceptation du pouvoir; le niveau d'individualisme versus collectivisme et le niveau d'acceptation de l'incertitude. Cette recherche se base sur les quatre dimensions de RSE que nous avons développées dans le premier essai de cette thèse. Les résultats de la régression linéaire multiple ont démontré que la divergence sur la dimension relative aux principes de RSE et celle relative à l'implantation de la RSE est significativement liée au niveau d'acceptation de la distance de pouvoir. Le niveau de masculinité s'est avéré aussi significatif pour la dimension relative aux principes de RSE. Par contre, ni le niveau d'acceptation d'incertitude, ni celui d'individualisme n'a démontré une association significative à aucune des dimensions de la RSE.

Finalement, dans le troisième essai, nous nous sommes penchés sur la prédiction des résultats de la divergence et de la convergence entre les pays développés et les pays en voie de développement, dans un cas particulier de la responsabilité sociale, à savoir le contrôle de la pollution transfrontalière due à des émissions industrielles. Selon la théorie de politique internationale, la disposition des États à coopérer et à se mettre d'accord à l'égard des normes de gouvernance détermine l'étendue de la convergence de leurs politiques en la matière (Drezner, 2001). Pour ce faire, nous avons considéré deux pays (ou groupes de pays) voisins dont les activités génèrent une pollution d'origine industrielle. Nous supposons que cette pollution porte atteinte à l'environnement, lequel représente un bien commun. Nos deux joueurs sont supposés être asymétriques en fonction de leur comportement environnemental et/ou de leur vulnérabilité aux émissions et à leur accumulation. Le joueur 1, qui représente un

pays (ou un groupe de pays) en développement, optimise les revenus de sa production sans prendre en considération l'impact de ses émissions sur l'environnement global, et par conséquent il néglige ses effets néfastes sur le joueur 2. Ce dernier, qui représente un pays (ou un groupe de pays) développé(s), internalise totalement les dommages causés à l'environnement global et s'investit dans des programmes d'atténuation des émissions. Dans le présent essai, les joueurs 1 et 2 sont supposés asymétriques en termes de leur vulnérabilité à la pollution. Nous avons qualifié le joueur 1 de « non vulnérable » et le joueur 2 de « vulnérable » aux émissions industrielles et nous avons postulé que la différence de vulnérabilité peut provenir du fait que :

1. Le pays (ou groupe de pays) en voie de développement (joueur 1) n'a pas intérêt à ralentir ses activités économiques pour le bien d'un meilleur environnement, alors que le pays développé (joueur 2) est prêt (volontiers ou sous pression citoyenne) à poursuivre des politiques environnementales responsables. Dans cette situation, contrairement au pays développé, le pays en développement considère l'environnement comme une préoccupation secondaire ou plutôt un luxe qui doit attendre un certain temps avant de l'inscrire dans son agenda politique.
2. Contrairement au pays (ou groupe de pays) en voie de développement (joueur 1), le pays (ou groupe de pays) développé(s) (joueur 2) souffre des effets néfastes de la pollution transfrontalière. Cette situation a été considérée dans la littérature comme un jeu de pollution en aval. Le célèbre jeu de pluies acides, qui a été étudié à l'origine, d'une part, dans un contexte statique (Mäler, 1990; Newberry, 1990; Tahvonen et al., 1993), et d'autre part, dans un cadre dynamique (Kaitala et al., 1991, 1992 a, b, 1995; Kaitala et Pohjola, 1995; Mäler et de Zeeuw, 1998), est un exemple d'un problème de pollution en aval.

Nous nous sommes intéressés essentiellement à la conception d'un accord environnemental durable, qui se traduira par une convergence entre ces deux

joueurs, dans un contexte particulier où la fonction objectif du groupe de pays en voie de développement (joueurs non vulnérables) change avec le mode de jeu, soit convergent (coopératif) ou divergent (non coopératif). D'abord, un équilibre de Nash avec rétroaction ainsi qu'une solution coopérative sont déterminés. Ces deux résultats sont ensuite comparés. Nous avons conclu qu'à l'échelle internationale, la convergence de politiques environnementales prime nettement sur la divergence en termes d'impact sur l'environnement à long terme. Ensuite, nous avons établi des conditions sous lesquelles le joueur vulnérable pourrait acheter la convergence de la politique environnementale du joueur non vulnérable afin de contrôler ses émissions et d'investir dans des activités d'atténuation. Finalement, nous avons caractérisé une solution de négociation de Nash (SNN) afin d'allouer d'une façon optimale et de décomposer le dividende de la coopération pour les deux joueurs dans le temps. Nous démontrons que cette décomposition est temporellement cohérente, ce qui permettrait une coopération internationale durable en matière d'environnement.

Les trois essais de la présente thèse contribuent de diverses manières à l'évolution de la littérature relative aux phénomènes de la convergence et de la divergence en responsabilité sociale et celle du management comparatif en gestion internationale.

1. Les trois essais proposent différentes approches quantitatives rigoureuses pour l'analyse de données relatives au phénomène de la responsabilité sociale et environnementale, tant à l'échelle méso que macro dans un cadre général de négociation internationale. Les deux premiers essais développent une nouvelle approche quantitative de traitement de données qualitatives. Principalement, ils soulignent l'utilité de l'analyse de composantes principales (ACP) ainsi que de l'analyse de variance pour l'analyse de contenu dans le cadre des documents relatifs à la négociation des enjeux relatifs à la responsabilité sociale. Le troisième essai propose et détaille une approche analytique basée sur les jeux dynamiques, dans l'évaluation économique et environnementale de la

convergence et de la divergence en matière de responsabilité sociale, dans un cas particulier de négociations des normes et accords internationaux relatifs au contrôle de la pollution industrielle transfrontalière (par exemple : le réchauffement planétaire, la désertification, la biodiversité, la pollution des cours d'eau, etc.). La notion de cohérence temporelle est introduite pour évaluer la durabilité de la convergence internationale sur des politiques du développement durable.

2. Les deux premiers essais permettent un réexamen de la thèse de la convergence et de la divergence en explorant la tendance des groupes nationaux dans leurs perceptions de la RSE dans le cadre de la négociation de la norme internationale ISO 26000. En se basant sur des données naturelles issues du document de travail numéro 3 (WD3) résultant de la négociation de la norme ISO 26000 lors de la rencontre de Vienne en 2007, cette base de données reflète une image non biaisée de la représentation de la RSE dans le cadre d'une approche multipartite.
3. Les deux premiers essais enrichissent la littérature en matière de mondialisation de la RSE en explorant les facteurs sous-jacents, d'une part géoéconomiques, stratégiques et institutionnels, et d'autre part, culturels, qui sont susceptibles d'être associés à la convergence et à la divergence des différents groupes nationaux qui ont négocié la norme ISO 26000 à Vienne en 2007. Ces deux essais confirment bel et bien la thèse d'hybridisme (*crossvergence*) des représentations de la RSE.
4. À l'instar des deux premiers, le troisième essai traite également, non pas seulement des négociations multilatérales sur des enjeux sociétaux et environnementaux entre nations industrialisées, mais il considère largement les nations en voie de développement. La principale contribution provient de la conception d'un accord environnemental durable entre deux joueurs, dans un contexte particulier où la fonction de

paiement du joueur non vulnérable change avec le mode de jeu (coopératif ou non coopératif). C'est une première tentative pour faire face à une telle situation dans le cadre des enjeux environnementaux transfrontaliers.

Certes, notre étude comporte des limites principalement liées aux différentes méthodologies déployées par les trois essais.

L'échantillonnage non probabiliste choisi au niveau des deux premiers essais empiriques a d'indiscutables avantages notamment liés à sa pertinence, à son accessibilité, ainsi qu'à son adaptabilité à un contexte de recherche exploratoire. En revanche, l'aspect transversal, qui est largement utilisé dans le cadre des études internationales, associé à la méthode d'analyse de contenu, ne permet pas une flexibilité en termes d'utilisation des techniques statistiques causatives. Outre la technique de l'ACP pour séparer les grappes des groupes nationaux et ainsi tracer le profil de représentations de la RSE, notre méthodologie dans les deux premiers essais se contentait d'une approche plutôt associative multivariée (One-Way MANOVA et RLM).

Malgré la pertinence des résultats analytiques du dernier essai de cette thèse, celui-ci comporte également quelques limites principalement liées à son design mathématique. En effet, les équations de base sont simplistes et omettent volontairement plusieurs variables. À cela s'ajoute une limite relative à l'égalité des pouvoirs de négociation de pays en développement (non vulnérables) et de pays développés (vulnérables). Enfin, la symétrie entre les deux joueurs reste une conception purement stylisée.

Finalement, afin de pallier aux limites méthodologiques discutées ci-haut et de promouvoir des nouvelles pistes relatives pour de futures recherches, nous recommandons de :

- Réaliser une étude diachronique, donc de consacrer plusieurs périodes de négociation. Ceci permettrait de mieux saisir l'évolution des représentations

de la RSE dans le temps, qui permettrait ainsi de mieux comprendre la dynamique de la convergence et de la divergence tout au long des différents cycles de négociation.

- Répliquer l'approche méthodologique développée dans les deux premiers essais dans d'autres domaines de négociation de la responsabilité sociale et environnementale, notamment dans le cadre des accords multilatéraux, quand les données le permettent. En effet, la combinaison de la technique de l'ACP avec celles des analyses corrélationnelles multivariées (MANOVA ou RLM) déployées dans les deux premiers essais de la présente thèse ont démontré une grande utilité dans l'étude systématique exploratoire de la convergence et de la divergence, ainsi que de la détermination de leurs facteurs sous-jacents. Ceci permettrait de bien comprendre la dynamique de négociation des différents enjeux internationaux et de pouvoir apporter des solutions judicieuses pour un développement durable.
- Avoir recours, dans les deux premiers essais, à une méthode d'échantillonnage probabiliste basée sur un instrument de mesure psychologique destiné aux individus participants aux négociations internationales en matière de RSE. Ceci permettrait d'appliquer et de tester nos cadres conceptuels dans un devis plutôt causal qu'associatif. Ceci générerait une meilleure généralisation des résultats, ainsi qu'une plus grande flexibilité technique au niveau des tests d'hypothèses.
- Prendre en considération, dans le troisième essai, d'autres variables pour rendre le modèle plus réaliste.
- Changer le modèle attitudinal développé dans le troisième essai en prenant en considération la nature asymétrique de deux joueurs en termes d'attitude et de pouvoir de négociation.
- Adapter le modèle développé dans le troisième essai à la négociation de la

norme ISO 26000.

- Calibrer le modèle développé dans le troisième essai par des données empiriques réelles.

APPENDICES



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Buying cooperation in an asymmetric environmental differential game

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ABSTRACT

We consider a two-player asymmetric differential game of pollution control. One player is non-vulnerable to pollution, or unwilling to consider damages when choosing her production policy in a non-cooperative game. We characterize the feedback-Nash equilibrium and the cooperative solution. We establish conditions under which the vulnerable player can buy the cooperation of the non-vulnerable player to control her emissions. We further use the Nash bargaining solution to allocate the total cooperative dividend between the two players and propose a time-consistent decomposition overtime of the total payoff.

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1. Introduction

We consider two neighboring countries whose industrial activities generate pollution that damages the environment. The two players are asymmetric in terms of their environmental behavior and/or vulnerability to emissions and to their accumulation. Whereas player 1 optimizes her revenues from production and disregards the impact of her emissions on the environment, player 2 fully internalizes the damage. We shall refer to player 1 as the non-vulnerable player and to player 2 as the vulnerable one. The difference in vulnerability may stem from: (i) the fact that player 1 has no interest in slowing down her economic activities for the sake of a better environment, whereas player 2 is willing (or under pressure) to pursue environmentally friendly policies; or (ii) the fact that player 1 does not actually suffer as a result of the emissions, but player 2 does. The first situation is meant to be (a cartoon) representation of an environmental game played by developing and developed countries. The group of developing countries faces huge, challenging economic-development problems and sees the environment as a luxury concern that must wait a while before making it to the political agenda. The developed countries can afford such a concern and their citizens (voters) are pushing their governments hard to follow responsible environmental policies. We shall refer to this scenario by *DD* (for developing vs. developed countries).

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