CULTURE, ATTENTION, AND MANAGERIAL ACTION: AN APPLICATION OF QUANTITATIVE CONTENT ANALYSIS TO TEXTUAL DATA IN BRAZIL AND THE U.S.

CULTURA, ATENCIÓN, Y ACCIÓN GERENCIAL: UNA APLICACIÓN DEL ANÁLISIS DE CONTENIDO CUANTITATIVO A DATOS DE TEXTO EN BRASIL Y LOS ESTADOS UNIDOS.

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Abstract

Research and managerial experience have long supported the proposition that culture represents a major influence on individual and group behavior. However, scholars have called for further investigation of how culture influences action, focusing on other sources of cultural influences beyond values and assumptions. This paper explores the role of collective attention as a conduit of cultural influences. It is proposed that culture influences action by directing collective attention to a repertoire of action alternatives, and that patterns of collective attention to action alternatives can vary systematically across countries. The findings support this hypothesis and illustrate the utility of content analysis of textual data for exploring new conceptualizations of culture by comparing attention patterns in business periodicals in Brazil and the United States. Implications for theory and practice are discussed.

Key Words: attention, Brazil, culture, cross-cultural management, national culture, content analysis, business periodicals.

Resumen

Tanto desde la investigación como desde la experiencia en gestión se ha apoyado la propuesta de que la cultura tiene gran influencia en el comportamiento individual y grupal. Sin embargo, más investigación es necesaria para entender cómo la cultura influye en la acción, focalizándose en aspectos que vayan más allá de supuestos y valores culturales. En este artículo se discute el rol de la atención colectiva como un medio de influencia cultural. Se propone que la cultura influye en la acción dirigiendo la atención colectiva a un repertorio de alternativas de acción, y que los patrones de conexión entre atención colectiva y alternativas de acción pueden variar sistemáticamente en los distintos países. Los resultados apoyan ésta hipótesis e ilustran la utilidad del análisis de contenidos para explorar nuevas conceptualizaciones culturales por medio de la comparación de patrones de atención en periódicos de negocios en Brasil y en los Estados Unidos. Asimismo, se discuten las implicaciones tanto teóricas como prácticas de esa investigación.

Palabras Claves: atención, Brasil, cultura, administración intercultural, cultura nacional, análisis de contenido, periódicos de negocios.

Introduction

Research and managerial experience have long supported the proposition that culture represents a major, although certainly not an exclusive, influence on individual and group behavior. Individual achievement is generally more highly prized in individualistic societies than in collectivistic societies. Obedience to authority is generally more common in hierarchical societies than in egalitarian ones. And competition, assertiveness, and change are generally emphasized to a greater extent in mastery-oriented cultures than in harmony-oriented ones. While such knowledge is useful, what remains less understood is the process by with such cultural traits are translated into concrete action. In other words, we know more about the 'what' than the 'why.' This paper addresses one part of this issue by discussing the role of collective attention in managerial action and behavior and exploring variation in collective attention patterns in Brazil and the United States.

Research on cultural values and behavior represent a mainstay in the research on culture and management. Following Hofstede's (1980) path-breaking work on cultural values, as well as later developments by Trompenaars (1993), Schwartz (1992), House et al. (2004), and others, extensive research has focused on developing correlational models of culture in which an independent variable (a particular cultural value like individualism or egalitarianism) predicted a dependent variable of interest. In a review of 180 studies using Hofstede's (1980, 2001) cultural values framework, for example, Kirkman, Lowe, and Gibson (2006) suggested that cultural values were found to be associated with change management, conflict management, decision-making, human resource management, leadership, organization citizenship behavior, work-related attitudes, negotiation behavior, reward allocation, and individual behavior relating to group processes and personality, among others. Clearly, differences in cultural values represent an important variable in research into managerial behavior across cultures.

However, criticism with the 'values cause behavior' paradigm has been growing in recent years, as an increasing number of scholars have suggested that an overreliance on values by themselves leads to hollow models of human behavior (Peterson and Smith, 2008). Earley (2006, p. 925) refers to this as the field's "obsession with values." And Leung and his colleagues (Leung, Bhagat, Buchan, Erez, and Gibson, 2005; Leung and Ang, 2009) note that while research and practice suggest that culture obviously does matter, research and practice also suggest that the influence of culture is frequently overshadowed by other variables such as individual, organizational, or situational characteristics. In the face of this dilemma, researchers have called for a shift in paradigms, some arguing that part of the problem stems from the fact that, while values are an important part of culture, they are only one component of a myriad of culturally salient variables. Some scholars go further to argue that values are not even the most important component of culture. For example, Earley (2006) argues that meaning is a more important component of culture than values because, while two individuals witnessing the same event may agree on the meaning of the event, they may have completely different value-based evaluations of it.

In sociological research, the questioning of the value paradigm is more long-standing. For example, Swidler (1986) questioned the widespread use of values as the major link to action by arguing that what people value is of little help in explaining their actions. Instead, she argued, people construct action based on the tools (e.g., skills, habits, worldviews, and styles) available to them. She argued further that, in changing circumstances, people do not change their strategies in order to maintain a valued end. Instead, the styles or strategies used are more persistent than the ends people seek to attain. Nardon and Aten (2008) found support for this argument in their finding that the adoption of ethanol in Brazil could not be explained by a preference for ethanol over other fuels, as a value-based perspective would suggest, but rather by a persistent logic of action of flexibility and adaptation that lead to the evolution and development of the ethanol technological system. DiMaggio (1997) also joined the movement away from values by suggesting a cognitive perspective on culture in which culture both enables and constrains behavior. On one hand, culture restricts people's ability to imagine alternative arrangements; on the other hand, individuals use cultural elements strategically. This perspective of culture suggests a possible fragmentation in cultural manifestations and challenges the predictive validity of current value-based models.

These arguments have led some researchers to conclude that, rather than continuing to study the relationship between cultural values and action as we have in the past, it may be more productive to begin exploring the underlying links between culture and behavior by focusing on how and when culture influences action (Earley, 2006; Leung and Ang, 2009).

New conceptions of culture and their ultimate influence on behaviors may also require the use of alternative research methods. It is argued here that individual level surveys tend to offer insufficient data from which to fully comprehend a complex multi-level phenomenon such as culture. As Earley (2006, p. 926) points out, "how do we get a nation to fill out a survey?" Leung and his co-

lleagues (2005) also suggest that the field would benefit from more experimental methods, while Marschan-Piekkari and Welch (2004) call for more qualitative methods and Earley (2006) calls for phasing out large-scale, multi-country surveys. Perhaps the field is in need of new methodologies to support the new questions currently being raised.

Thus, the aim of this paper is to contribute to this fledgling conversation by drawing on research in management and sociology to explore the role of collective attention as a conduit of cultural influences. It is proposed that culture influences action by directing attention to a repertoire of action alternatives, and that patterns of attention to action alternatives can vary systematically across national cultures. Additionally, this paper introduces content analysis of textual data as a potentially valuable and underutilized method for exploring new conceptualizations of culture. This paper illustrates the utility of this method by comparing attention patterns in business periodicals in Brazil and the United States.

An attention-based view of culture and behavior

The attention-based view of behavior builds on the precepts of the early Carnegie School, arguing that because individuals and organizations have limited cognitive capacity they can pay attention to, or focus on, only a limited set of stimuli at one time (Simon 1947; March and Simon 1958, Cyert and March, 1963). People must make choices between alternative and competing demands for their attention. Moreover, the alternative responses to these stimuli that are available to individuals, as well as the evaluation of these alternative responses, are influenced by the selected aspects of the situation that are attended to or ignored (Ocasio, 1997). The basic psychological process involved here is selective perception. That is, action is influenced by a process of noticing, encoding, and interpreting issues and possible responses, where issues are the repertoire of categories for making sense of problems and opportunities and responses are the repertoire of action alternatives such as projects, procedures, and routines.

Managers possess a repertoire of responses, or action alternatives, that can be used to deal with a variety of issues. This repertoire includes actions that have been used previously by oneself, as well as the previously observed actions used by others. These action alternatives are encoded in knowledge structures, or schemas, that are products of cultural and institutional processes, and are available to managers as possible solutions to a variety of issues and problems (Ocasio, 1997; DiMaggio, 1997; Swidler, 1986; Scott, 1995).

Following from this, when facing a particular situation, problem, or opportunity, managers tap into their repertoire of issues and responses to interpret a particular situation and to construct an action response. People's repertoires of responses are acquired through life and contain inconsistent information suggesting various alternative courses of action. The selection of which action alternative to use is guided by cues available in the environment (DiMaggio, 1997). Researchers argue that characteristics of the context are even more important than individual characteristics in influencing action. For example, research suggests that individual decisions to litter in public spaces depends more on characteristics of the context, such as amount of visible liter, than on individual littering preferences (Cialdini, Reno, and Kalgreen, 1990). This finding is consistent with recent challenges to value-based views of culture, as well as the argument that culture influences behavior through the interaction between schemas and cues embedded in the physical and social environment (Earley, 2006; DiMaggio, 1997; Swidler, 1986).

The situational context in which managers find themselves is thus a key component in generating action because it guides attention and provides the selection criteria among several possible responses. For this reason, understanding managerial action across countries requires not only understanding internal forces such as values and assumptions but also contextual forces.

According to the principle of selective attention (Ocasio, 1997; Hoffman and Ocasio, 2001), decision-makers attention is influenced by the salience of issues and responses in their context. That is, managers are more likely to consider issues and responses that are highly visible. Thus, while individual attention will vary depending on the micro context in which the individual is inserted, collective patterns of attention are likely to increase the salience of some issues and responses and as a consequence influence patterns of action. Collective attention is expected to influence action by channeling decision-makers' attention to a limited set of issues, situations and activities, providing managers with a repertoire of issues and responses with which to make sense of their environment and to construct action.

At a collective level, attention is situated within participants' channels of communication (Hoffman and Ocasio, 2001; Higartner and Bosk, 1988). Given the limited carrying capacity of these communication channels, some issues and responses receive attention while others are ignored. In this paper we systematically analyze the content of business periodicals, the public communication channel of the business community, to observe variations in the salience of action alternatives.

Culturally-Derived Action Alternatives

The cultural environment provides managers with a repertoire of issues and responses with which to make sense of their environment and to construct action. Based on this perspective, culture does not define the ends of action, but rather provides components, or culturally derived action alternatives, which can be used persistently to construct strategies of action (Swidler, 1986; DiMaggio, 1997; Nardon and Aten, 2008). In this paper, we refer to these cultural components as action alternatives. Action alternatives are response-types integrated in the cultural toolkit and used consistently to construct action. These action alternatives become institutionalized in a way that is fragmented, displaying inconsistencies among elements, but maintaining some "limited coherence" (DiMaggio, 1997).

From a research point of view, the fundamental challenge is the identification of action alternatives that could vary across cultures and provide meaningful information. Unfortunately, the cross-cultural management literature has emphasized values, attitudes, and beliefs over action alternatives, thereby limiting our possibilities for exploration. However, scholars have long recognized the possibility of cultural variations in dealing with problems posed by uncertainty, suggesting three main action alternatives: technology, law, and religion (Hofstede, 1980, 2001; House et al., 2004; d'Iribarne, 1997; Schneider and De Meyer, 1991). Even though Hofstede (2001) introduced these three broad categories of action within the context of uncertainty management, these categories of action can be used to deal with a variety of problems afflicting humans and organizations. For this reason, they provide a good starting point to explore variance in the salience of action alternatives across countries.

• *Technology.* Technology includes all human artifacts that have helped humans to deal with nature (Hofstede, 2001). These artifacts may take the form of scientific developments such as engineering, drugs, medical devices and all sorts of machinery devised to decrease the impact of natural forces on humans such as aging, diseases, natural weather and other natural forces. Technology has increased life expectancy, decreased the impact of severe weather on humans, and promoted the discovery of new lands and planets (Hofstede, 2001; House et al., 2004).

• *Law.* Law refers to formal and informal rules, policies, and procedures used to guide behavior and defend against the behavior of others. It also includes guidelines for dealing with those who break the law (Hofstede, 2001).

• *Religion.* Religion refers to beliefs in the unknown, used to protect against non-defendable uncertainties. Religion is all forms of rites and rituals that help individuals to accept problems they can't solve (Hofstede, 2001).

For any problem there are several solutions, just as one solution can be used to deal with several problems. Technology, law, and religion are categories of action alternatives that can be used to deal with a variety of problems, and they could all be used to deal with the same problem. For example, a manager may cope with the challenges associated with opening a new business by using advanced technological systems, creating clear procedures and rules, or by relying on superstitious rituals to bring good luck. Managers in all cultures are likely to rely on these categories of action alternatives at some point, sometimes simultaneously.

However, countries vary in the extent to which these action alternatives are salient and visible to managers, thereby influencing the types of responses individuals are able to assemble. These three categories of action alternatives available to people provide a starting point from which to construct action and influence the possibility of follow up actions. The present study explores the utility of this perspective by comparing the salience of the action alternatives technology, law, and religion in business periodicals in Brazil and the United States.

Research Setting And Method

New conceptualizations of culture at times require alternative data sources and research methods. As noted earlier, the field of international management has been dominated by surveys, limiting our ability to fully grasp cultural influences on management (Earley, 2006; Leung et al., 2005; Leung and Ang, 2009; Marschan-Piekkari and Welch, 2004). In one review of international management articles published by the Journal of International Business Studies, for example, Peterson (2004) found that 54 out of 78 studies used surveys; ten used quantitative data sets published by governmental agencies; five used scenarios, laboratory simulations, event analyses, or observation; and seven used qualitative methods, mainly case studies and interviews. Similar methods were reported in a review of international management studies in the Academy of Management Journal and Administrative Science Quarterly during the same time period (Peterson, 2004).

It is proposed here that analysis of textual data may provide the field of international management with im-

portant new insights, as it has to other areas of management. As Lee notes, for example, " . . . as the academic study of management addresses new, dynamic, and controversial social issues . . . [document] analysis may become a valued tool of organizational researchers in the future" (São João, 1999: 108). Likewise, as the academic study of culture and its influence in management matures and addresses process issues, text analysis appears to become a valuable tool.

As discussed above, business periodicals serve as sense-making arenas, offering managers a repertoire of tools to make sense of their environment and construct action. In particular, through the selection and framing of issues, such periodicals increase the availability of some action alternatives, facilitating the construction of some strategies of action over others (Swidler, 1986).

Business Periodicals as a Research Tool

Consider the following two excerpts from leading business periodicals in Brazil and the United States, Exame and Forbes:

Excerpt from Brazilian magazine Exame

On the morning of November 14th of last year, the 67 years-old businessman Arthur Sendas, owner of the largest supermarket chain of Rio de Janeiro and 5th largest in the country, repeated one of his preferred rituals: inaugurating a new store. As he usually does in these occasions, he walked through the new store carrying an image of St. Judas, followed by a priest and a small escort. The silent procession walked through all the sections of the supermarket (sprinkling it with holy water) until arriving at the final destination: the management office. There, the image of St. Judas will be displayed, as in all other 84 stores of the group.

. . . Taking the firm public was a painful decision to the family, considering their strong emotional link to the company. Sendas gave a demonstration of this attachment publicly during the inauguration of the store in Cabo Frio. After hearing a presentation of the employees' chorus, singing "Friend" by Roberto Carlos, Sendas made a moving speech remembering his father, the Portuguese immigrant Manoel Sendas. He was the one that, 78 years ago, opened a warehouse in São João do Meriti, Rio de Janeiro – the seed for the current Sendas group. "This music makes me remember my father, who was really a good fellow", said Sendas. He took over the business in 1951, when he was 16, when Manoel suffered a car accident. Nine years later, Arthur opened the first Casas Sendas, and from there on pursued the leading position in Rio de Janeiro.

(Exame, January 22, 2003, "Nada será como antes," translated by author)
Excerpt from American magazine Forbes

Selling everything for 99 cents made Dave Gold a fortune. David Gold and Eric Schiffer glide through the Los Angeles restaurant Tamayo, bestowing gratuities on the maitre d', a busboy and a waitress. But it's not dollars they are dolling out: its vouchers for one free item at any of their 99 Cents Only stores dotting the Southwest. "If they use the coupon they will probably buy $8 or $9 worth of stuff, so it's worth it" says chain founder and Chief Executive Gold as company's President Schiffer scans the room.

. . . Gold drummed up publicity for the store by blanketing the neighborhood with flyers offering televisions for 99 cents, promotion that created lines around the block. The family then took turns calling local television stations asking what all the commotion was. The ploy drew film crews from each local station, including a fledging CNN bureau, all of which ran stories on the evening news. The TV coverage led to a front-page newspaper story the next day. Gold bought 13 black-and-white TVs for $150 a piece for the first-come, first-served promotion. He still continues the practice. . . "Rich people love bargains. That's how they got rich," he says. That's how he got rich too.
(Forbes, September 30th 2002, "The Forbes 400")

Both excerpts describe notable businesspersons and their businesses in the retail sector. Both periodicals are widely read in their respective countries. Both aim to inform businesspeople about events and news that influence businesses. And, on the surface at least, both carry out this task the same way: they describe successful businesspeople and their businesses and provide information on latest laws, technologies, and economic changes. However, a closer look reveals some key differences. For example, although both periodicals describe successful businesspeople opening or expanding their businesses, they do so in very different ways. As the example above illustrates, the Brazilian Exame highlighted the personal side of the executive, talking about their emotions and beliefs, while the American Forbes highlighted the executives' entrepreneurial spirit and business savvy. By emphasizing certain aspects over others, each business publication increases the visibility of some issues over others. Since these periodicals are widely read by the business managers of their respective countries, they both help shape, and are shaped by, the national business culture in which they are embedded.

Next, consider a second set of excerpts from two other leading Brazilian and U.S. business periodicals, Isto é

Dinheiro and Business Week:

Excerpt from Brazilian magazine Isto e Dinheiro

The biggest success of HP: The Company prepares a new version of the 12C, the financial calculator that has never left the leadership position.

There is a mystery that has last 23 years at Hewlett-Packard, the American company known for producing computers and printers. Company executives try to understand how a product [the HP12C] that went through so few changes through time still is a top sale in its category… This device is an icon among executives and market analysts in the world, and few professionals risk using a different calculator. It is equipped with the functions that really matter for those working with numbers…

. . . Technologically, the 12C is outdated comparing to other products available in the market. For example, the HP17B is fifteen times faster and its screen holds four times more information than the 12C. But, nobody cares for the more modern ones. Everyone's passion is the horizontal calculator, which fits easily in the pocket of a jacket or shirt, has 120 functions, some of which pre-programmed which makes any operation easy. With it, it is possible to calculate the cash flow of a firm, the amortization of a debt, make statistical analysis and other options that can be programmed by the user. . .

. . . "The explanation for such success is tradition", explains Roberto Gonzales, Latin America business manager for computers and accessories. It was HP that produced the first scientific calculator and the 12C gained leadership in this sector. Also, this month two new calculators will hit the market, both in the education and financial market, the HP 9g and 9s…. But nothing can threaten the prestige of the 12C.

(Isto e Dinheiro, March 19, 2003, "The biggest success of HP," translated by author)

Excerpt from American magazine Business Week

Putting new shoes on an old warhorse: HP's 12C calculator has been around since 1981. It's still a good tool, and now it's even better.

Hewlett-Packard is about to introduce a new version of the HP12C Financial Calculator. This seemingly mundane fact is actually remarkable, because the original version has been on the market, essentially unchanged, since 1981, the year the IBM PC was first introduced. What accounts for such amazing longevity in an industry where product lifetimes are typically measured in months? The answer is that it does one job both inexpensively and exceptionally well. And that helps explain

the persistence of devices whose roles might long ago have been taken over by the PC.

. . . Nearly all 12C users have access to computers with Microsoft Excel or another spreadsheet program . . . but a calculator is often the tool of choice. PCs do many things splendidly. If I had to use a financial model or run a complicated financial calculation repeatedly with only minor variations, I would fire up a spreadsheet. But spreadsheet models or calculation templates take a lot of time and effort to create, and they are very inefficient for a one-time calculation. That's where calculators shine… once you've learned the tricks, specialized calculators have large advantages over computers in a lot of settings. Unlike a laptop, you never have to decided whether having it along is worth the trouble of carrying it. The 12C, about the size of an index card and just over a half-inch thick, will travel all but unnoticed in a briefcase or a purse. You don't have to worry about power, because the 12C will run for up to three years (Assuming an hour of use a day) on one easily replaceable lithium battery. And it does not create the sort of psychological or physical barrier that a laptop can impose between you and a client.

(Business Week, May 12, 2003, "Putting new shoes on an old war horse.")

These two excerpts discuss the same event: the remarkable success of the HP 12C calculator in completing 23 years of sales leadership over its competitors. But again, the differences are evident. While both articles identify the same issue—how can one calculator model remain successful for 23 years when most technologies get obsolete so quickly—they point to very different reasons for HP's success. The Brazilians focus on tradition, passion, prestige, and continuity, while the Americans focus on performance, convenience, cost effectiveness, and simplicity. In short, these different interpretations to the HP 12C's success are a product of attending to different product characteristics, which leads to different interpretations.

A likely, if partial, explanation for these different interpretations can be found in the research literature on cultural differences. It could be argued that the two cultures differ in key value dimensions that are somehow translated into the articles that are written and read. While values may represent a causal factor here, we suggest that there are other forces at play that must also be accounted for. In particular, we suggest that managers' focus of attention, an often-overlooked yet important cultural manifestation, represents a major factor in these differences. Once public attention is given to some aspects of an issue and not others and one interpretation becomes more salient, further interpretations and actions may be restric-

ted, influencing action in ways that go beyond values. In other words, managers may develop an interpretation and take a particular action not because it is aligned with their values, but because the interpretation and action is highly salient.

Business periodicals have limited carrying capacity, and themes compete for public attention. Not only issues and responses compete for space; different formulations and framings of themes compete as well. The selection of "what's news" and how the news should be framed is influenced by widely shared cultural preoccupations. Formulations that reflect deeply held beliefs or 'mythic themes' of an audience are more likely to gain public attention (Hilgartner and Bosk 1988). The above magazines excerpts demonstrate this principle. Even when similar themes are attended to in both countries, their formulation and interpretations are different.

Public attention is spread through several public arenas, including TV, news media, business magazines, trade publications, etc. Each public arena has limited carrying capacity, focus on a specific audience, and differ in how they discuss, select, define, frame, dramatize, package and present issues and responses to the public (Hilgartner and Bosk, 1988).

An important principle of the attention-based view of behavior is that selective attention is driven by salience. Further, salience is driven not by the objective characteristics of the environment but by how individuals, organizations, industries, or interest groups enact events in their external environment (Hoffman and Ocasio, 2001). In other words, attention is a social and cultural process (Ocasio, 1997), and a public arena's decision regarding the selection of issues and responses and their formulation is a reflection of the culture of the group it represents. Therefore, trade journals reflect its respective industry culture and social structure (Hoffman and Ocasio, 2001; Molotch and Lester, 1975), while national business periodicals reflect the national business culture and social structure prevailing in a country. For this reason, we expect that a comparison of the content of business periodicals across countries will reveal significant variance in the salience of issues and responses.

On the one hand, the content of business periodicals shapes cultures because, even though managers attend to information from multiple information sources, they tend to devote important attentional resources to keeping up with the common body of knowledge that is shared by the members of a strategic group or industry (Aguilar, 1967; Hambrick, 1982; Porac, Thomas, and Baden-Fuller, 1989). This communal knowledge base circulates through a common network of suppliers, agents, and customers, as well as specialized trade publications (Porac et al., 1989; Hoffman and Ocasio, 2001). At a country-level of analysis, an important component of this knowledge is reflected in the business press, including business periodicals, business newspapers, and popular business books, and reflects the knowledge that is shared by the business elites of a country.

On the other hand, the content of business periodicals is itself shaped by culture because periodicals must attend to the interests of their readership. Even though business periodicals may actively push their editorial agenda and offer a biased interpretation of events, these biases are likely to mirror the interests and biases of their core readers (Hoffman and Ocasio, 2001). Like trade journals that have been recognized as a reflection of an industry culture and social structure, business periodicals are a window into the culture and social structure prevailing in a country and serve as sense-making arenas offering managers tools to make sense of their environment (Hoffman and Ocasio, 2001; Molotch and Lester, 1975).

We focus this exploratory study on business periodicals due to business periodicals' national character, wide readership and accessibility. Publicly available meanings facilitate certain patterns of action, making them readily accessible, while discouraging others (Swidler, 1986). Specifically, we expect that a comparison of the content of business periodicals across countries would reveal significant variance in the salience of action alternatives. The public availability of these action alternatives facilitates certain pattern of action, which overtime is likely to increase the salience of such action alternatives even more. As such, we explore the relevance of business periodicals in reflecting patterns of attention to action alternatives by comparing the salience of the action alternatives law, technology, and religion in business periodicals in Brazil and the United States. Two leading business periodicals were selected for each country: Exame and Isto e Dinheiro for Brazil and Business Week and Forbes for the U.S.

Data Sources

Brazil and the United States offer a good starting point to explore the role of business periodicals in providing a repertoire of action alternatives because both are industrialized countries and both are recognized as culturally diverse by the traditional cross-cultural management literature (Hofstede, 2001; House et al., 2004; Trompenaars, 1983). While it is clear that economic and institutional environments also influence the availability of action alternatives, we follow Denzau and North's (1993) argument that the institutional environments in which mechanisms are embedded are strongly influenced by ideology and culture.

In this study, we analyzed the two best selling business periodicals in each country. They were selected from the Ulrich's Periodical Directory, based on their description and circulation. The periodicals cover news and developments affecting the business world, such as business news, finance, economy, legal issues, and political news. Their main readership is comprised of executives, managers, and business professionals. As such, focusing on the same issues and targeting the same audience, these two pairs of periodicals offer a comparable window into the business culture of Brazil and the U.S.

Data Analysis

We analyzed the salience of action alternatives in the two business periodicals using computer-assisted content analysis. Content analysis is a technique of quantitative research based on the analysis of message characteristics (Neuendorf, 2002). It is a research technique focusing on the language used that allows replicable and valid inferences from data to their context (Krippendorff, 1980: 21). Language mirrors mental processes and reflect different cognitions and realities, thereby offering terms, forms, and metaphors with which a particular culture can assemble meaning (Sapir, 1956; Berger and Luckmann, 1967; Chomsky, 1972; Kress and Hodge, 1979; Starbuck, 1983; Potter, Edward, Gill, and Wetherell, 1990; Gill, 2000). Management researchers have content-analyzed organizational documents, such as letters to shareholders, to investigate top management attention (D'Aveni & MacMillan, 1990), concealment of negative outcomes (Abrahamson and Park, 1994) and espoused values and change themes (Kabanoff, Waldersee, and Cohen, 1995). To our knowledge, the potential of content analysis of the media to uncover cultural differences in management has been under explored.

Focusing on two years of publications - from July 2002 to July 2004 - this research is based on a sample of 78 periodicals issues, 39 issues per country. A sample of 25% of the issues published during this period was content analyzed in its entirety, including all written text except advertisements. We employed a systematic random sampling procedure to select magazine issues, in which every 4th two-week period was included for analysis (Neuendorf, 2002). The same weeks were included for analysis in both sets of periodicals, reducing the effect of external events in the interpretation of the results. Using two-week periods allowed for a matching coverage period between weekly and biweekly periodicals.

Salience of Action Alternatives

Categories of action alternatives were operationalized as the number of times words referring to technology, law, or religion were used in the text. They were created through the following process: First, a list of all words appearing across all magazine issues was produced using the software VBPro (Miller, 1995). Two bilingual coders independently examined the list of words and selected every word that might represent any of the constructs of interest. We calculated inter-coder reliability using Cohen's (1960) kappa, which controls for chance assignments. The resulting kappa, 0.78, is acceptable for this type of analysis. Disagreements were resolved and a final list of words was assembled and submitted to a panel of experts for validation.

Second, the text was manually coded for disambiguation; that is, words that were used with a different meaning than the one of interest in this research were excluded (Weber, 1985). One of the main challenges of computer-aided content analysis is that existing computer systems are not able to deal with homographs. Even though there are computer programs able to deal with word senses in English, these advancements were not available in Portuguese (Weber, 1985; Nauendorf, 2002). To overcome this limitation, we extracted from each magazine the paragraphs in which the words were used, using the software VBPro. Each paragraph was read and verified to be sure the tagged word was employed in the correct word sense. When the word was employed with a meaning different from the one of interest, the instance was removed from the dataset. For example, the word "bill" refers to law when it means a "statute in draft before it becomes law", but does not refer to law when it means "money" or "a statement of money owed for goods or services" (WordWeb 2.1, 2001). Therefore, the word "bill" was excluded from the final count in the sentence "customers must pay their bills before a cutoff date," But was retained the count for the sentence "Business and accounting lobbyists had counted on killing the bill championed by Senate Banking Committee Chairman Paul Sarbanes." Finally, word frequencies were recalculated using the clean text. The resulting frequency of each word per issue was used to calculate the categories of action alternative.

Results

Results of the analyses indicated a significant difference in the salience of the constructs of technology, law, and religion across the two countries, but not within countries. Table 1 reports the mean word frequencies by magazine for each of the categories of action (column "mean count"). It also reports the relative salience of the constructs, expressed as the percentage of total words dedicated to each category of action – technology, law, and

Table 1: Descriptive Statistics: Mean Word Frequencies and % of Total

	Technology		Law		Religion		Mean Total Words
	Mean Count	%	Mean Count	%	Mean Count	%	
Forbes (N=13)	143.8	1.88%	185.5	2.42%	4.3	0.06%	7,654.8
Business Week (N=26)	182.5	2.56%	162.3	2.27%	3.2	0.04%	7,138.7
United States (N=39)	163.1	2.21%	173.9	2.35%	3.7	0.05%	7,396.8
Exame (N=13)	104.0	1.51%	114.5	1.66%	5.1	0.07%	6,908.2
Dinheiro *(N=26)*	69.9	1.20%	85.6	1.47%	5.0	0.09%	5,818.4
Brazil (N=39)	86.9	1.37%	100.0	1.57%	5.0	0.08%	6,363.3

religion (column "%").

Table 2 reports the general results using the generalized estimation equation (GEE) approach (Dobson, 2002; Hardin and Hilbe, 2003). This approach was developed to extend the GLM algorithm and accommodate the modeling of correlated data (Hardin and Hilbe, 2003). The results suggest that there is a significant category of action effect ($p < .001$) and a significant category of action by country effect ($p < .01$). The category of action effect suggests that the frequencies of words vary significantly by type of action alternative (law, technology, and religion). More interestingly, there is a significant interaction effect between category of action and country. This interaction will be explored below.

Table 2: Score Statistics

Source	DF	Chi-Square	p
Country	1	3.05	0.08
Category of Action	2	61.44	<.001***
Category * Country	2	11.94	<.01**
Magazine (Country)	2	0.42	0.81
Category* Magazine (Country)	4	5.33	0.25

**p<.01

***p<.001

The results shown in Table 2 also suggest that there is no significant effect for magazine within country and category of action by magazine within country. In other words, there is no significant difference in the salience of categories of action between periodicals in the same country. The salience of categories of action in Business Week and Forbes, both U.S. periodicals, do not vary significantly. The same can be said about Exame and Isto e Dinheiro, the two Brazilian periodicals. These results reinforce the country effect, as it eliminates the alternative hypothesis that the findings where a product of editorial preferences.

To explore the significance of the interaction effect of categories of action by country (Table 2), a contrast analysis is necessary. The contrast analysis compares subsets of means to identify where the significant difference is located. Table 3 reports the contrast estimate results of category of action by country.

Table 3: Category by Country Effect - Contrast Estimate Results

Label	Estimate	Standard Error	Confidence Limits		Chi-Square	p
Technology: BR vs. U.S.	-0.44	0.009	-0.62	-0.26	21.95	<.001***
Exp. Technology: BR vs. U.S.	0.64	0.06	0.53	0.77		
Law: BR vs. U.S.	-0.41	0.07	-0.55	-0.27	33.75	<.001***
Exp. Law: BR vs. U.S.	0.67	0.05	0.58	0.76		
Religion: BR vs. U.S.	0.46	0.19	0.09	0.84	5.80	0.02*
Exp. Religion: BR vs. U.S.	1.58	0.30	1.09	2.31		

* p<.05

*** p<.001

The results of the contrast estimate indicate that:

• A significantly higher frequency of words was devoted to technology in U.S. periodicals compared to Brazilian periodicals ($p < .001$). For every technology word that appears in the U.S. periodicals, only 0.64 words are likely to appear in the Brazilian magazines.

• A significantly higher frequency of words was devoted to law in the U.S. compared to Brazil ($p < .001$). For each time a word about law appeared in the U.S. periodicals, 0.67 words appeared in the Brazilian periodicals.

• A significantly higher frequency of words was devoted to religion in Brazil than in the U.S. ($p < .05$). Words

related to religion were 1.58 times more likely to be seen in Brazilian than U.S. periodicals.

In summary, the results indicate that technology and law were more salient in the United States than in Brazil, whereas religion was more salient in Brazil than in the U.S.

Discussion and Conclusions

This paper adds to the current debate in the field of cross-cultural management by discussing the role of collective attention in shaping managerial action and exploring the variation in attention to action alternatives across two countries. Building on prior literature, it was argued that culture influences behavior by providing cultural components with which to construct action and by making some action alternatives more visible than others. This paper attempted to "peek into the cultural toolbox" by comparing the content of four business periodicals in Brazil and the United States as it refers to the salience of the categories of action alternatives technology, law, and religion. Results suggest that the attention devoted to these three categories of action is significantly different in Brazilian and American periodicals, but it is similar across periodicals within the same country.

The significant difference in the content of business periodicals across the two countries, coupled with the similarity of content within countries, suggests that attention to action alternatives may be an area worth exploring further. As noted above, several authors have suggested that it is time to uncover the links between culture and action. Drawing on significant support in the managerial cognition literature for the role of attention and interpretation of events in defining action, we have argued that one of the steps between culture and action is attention. We further suggested that culture influences management by drawing attention to a few action alternatives with which managers can construct action. The differences in salience of three categories of action alternatives in Brazilian and American periodicals support this idea.

This study is exploratory in nature and its limited scale does not allow conclusive findings. Future research needs to investigate how variance in attention patterns is translated into action, as well as explore further variations in attention patterns. We have argued that attention is a conduit of culture and that action is facilitated by the public salience of some action alternatives over others. Future research needs to tease out the separate effects of values and attention. Situations in which the salient alternative of action is at odds with cultural values would be ideal to explore the complementary but independent roles of values and attention patterns in influencing action.

Further research is also needed to explore the attention to alternatives of action in more countries as well as attention to other action alternatives.

The significant difference in business periodicals content across countries, but not within countries, also reinforces the conclusion that business periodicals can be a fruitful data source for future cross-cultural management research. Several authors have called for the use of new methods and data sources in international business research. We suggest that the analysis of the content of highly visible text may provide important insights into culture and management in different contexts. In particular, business periodicals provide an additional window into a culture's toolkit because they account for a significant amount of the country's common body of knowledge in the business domain, are widely available and accessible to managers within a country, and serve as sense-making arenas for the business elites of a country. Future research can investigate additional types of text including discussion boards, blogs, and newspaper, which can provide different insights into culture.

In this study, we explored the utility of quantitative content analysis to uncover differences in attention across countries. However, like all methodologies, quantitative content analysis as a method has some limitations. Systematic word count is a good way to capture manifest meaning, but it is not efficient in capturing latent meaning. Qualitative analysis of text, such as discourse analysis, narrative analysis, and qualitative content analysis, can potentially bring additional perspectives on culture by uncovering the availability of latent information and providing insight on the interpretation given to events and alternatives of action.

If supported by future research, the findings presented here have important implications for practicing managers. The notion that attention is a conduit through which culture influences action suggests that managers operating in international contexts can gain important insights about the foreign culture by attending to publicly available information. The observation of visible artifacts provides managers with information about cultural logics of action and preferred action alternatives. Not only managers can become aware of them, this perspective on culture also opens the possibility for change and variation. By understanding the culturally derived repertoire of action alternatives, managers can negotiate ways to interact with the foreign environment and its people (Nardon and Steers, 2007, 2008).

The study of culture through surveys has become the most salient action alternative for scholars interested in understanding culture and its influence in management. This paper aims to increase the availability of textual

analysis as a tool to understand culture. Just as managers are encouraged to acquire new cultural tools to navigate foreign environments, international management scholars are encouraged to acquire new tools to study international phenomena.

This study also contributes to the attention-based view of the firm by highlighting the role of the national business context in shaping decision makers' attention. In addition to the organizational (Ocasio, 1997), industrial (Hoffman and Ocasio, 2001), and institutional contexts (Hung, 2005) previously identified, the national business environment is one of the several layers of context shaping decision makers' attention patterns and behavior.

Finally, this study contributes to the international management field by bringing an additional perspective on variations in firm behavior across-countries beyond traditional arguments linking firm behavior to cultural values and economic systems. In this paper, we have demonstrated that some action alternatives are more salient than others in public arenas and that this salience is different across countries. Building on prior literature, it expected that the salience of public available meanings facilitates certain patterns of action, making them readily accessible, while discouraging others. These publicly available action alternatives provide a starting point from which to construct action and influence the possibility of future actions (Swidler, 1986). The attention-based perspective add to our understanding of cross-national behavior by suggesting that managers' actions in different national environments are likely to be influenced by the respective salience of action alternatives.

At the same time, the notion that action is a result of attention patterns, which in turn is influenced by the firm's multiple contexts each providing managers with stimuli, helps explain variance in firm behavior within the same context. Even though firms are within the same context and exposed to similar information sources, firms vary in the degree of embeddedness in an environment, which also influences the degree of attention devoted to stimuli within this context (Hung, 2005). For example, global firms operating in a national business environment are likely to have its behavior less influenced by national business- level attention than firms operating primarily in the local market.

References

Abrahamson, E., and Park, C. (1994) Concealment of negative organizational outcomes: An agency theory perspective, *Academy of Management Journal*, 37(5): 1302-1355.

Aguilar, F. (1967) *Scanning the business environment.* Macmillan: New York.

Berger, P. L., and Luckmann, T. (1967) T*he social construction of reality*. Garden City, NY: Anchor Books.

Chomsky, N. (1972) *Language and mind*. NY: Harcourt Brace Jovanovich.

Cialdini, R. B., Reno, R. R., and Kallgren, C. A.(1990) A focus theory of normative conduct: Recycling the concept of norms to reduce littering in public places, *Journal of Personality and Social Psychology*, 58: 1015-1026.

Cohen, J. (1960) A coefficient of agreement for nominal scales, *Educational and Psychological Measurement*, 20: 37-46.

Cyert, R.N, and March, G. (1963) *A Behavioral Theory of the Firm*, Prentice-Hall, Englewood Cliffs, N.J.

D'Aveni, R. A., and MacMillan, I. C. (1990) Crisis and the content of managerial communications: A study of the focus of attention of top managers in surviving and failing firms. *Administrative Science Quarterly*, 35(4): 634-658.

D'Iribarne, P. (1997) The usefulness of an ethnographic approach to the international comparison of organizations. *International Studies of Management and Organizations*, 26(4): 30-47.

Denzau, A. T., and North, D. C. (1993) Shared mental models: Ideologies and institutions. Working paper, Center for Politics and Economics, Claremont Graduate School and Center for the Study of Political Economy, Washington University, St. Louis, MO.

DiMaggio, P. (1997) Culture and cognition, *Annual Review of Sociology*, 23: 263-287.

Dobson, A. (2002) *An introduction to generalized linear models*. Boca Raton, FL: Chapman and Hall.

Earley, C. P. (2006) Leading cultural research in the future: A matter of paradigms and taste. *Journal of International Business Studies*, 37 (6): 922-931.

Gill, R. (2000) Discourse analysis. Pp. 172-190 in M. W. Bauer and G. Gaskell (eds.) Qualitative researching with text, image and sound.

Hambrick, D. (1982) Environmental scanning and organizational strategy, *Strategic Management Journal*, 3: 159-174.

Hardin, J. W., and Hilbe, J. M. (2003) *Generalized estimating equations*. Boca Raton, FL: Chapman & Hall.

Hilgartner, S., & Bosk, C. L. (1988). The Rise and Fall of Social Problems: A Public Arenas Model. *The American Journal of Sociology,* 94(1), 53-78.

Hoffman, A. J., and Ocasio, W. (2001) Not all events are attended equally: Toward a middle-range theory of industry attention to external events, *Organization Science*, 12(4): 414-425.

Hofstede, G. (1980) *Cultures consequences: Internatio-*

nal differences in work-related values. Beverly Hills: Sage Publications.

Hofstede, G. (2001) *Cultures consequences: Comparing values, behaviors, institutions, and organizations across nations*. Thousand Oaks, CA: Sage Publications.

House, R. J., Hanges, P. J., Javidan, M., Dorfman, P. W., and Gupta, V. (2004) *Culture, leadership and organizations: The GLOBE study of 62 societies*. Thousand Oaks, CA: Sage Publications.

Hung, S.-C. (2005). The plurality of institutional embeddedness as a source of organizational attention differences. *Journal of Business Research*, 58(11), 1543-1551.

Kabanoff, B., Waldersse, R., and Cohen, M. (1995) Espoused values and organizational change themes, *Academy of Management Journal*, 38(4): 1075-1104.

Kirkman, B. L., Lowe, K. B., and Gibson, C. B. (2006) A quarter century of culture's consequences: A review of empirical research incorporating Hofstede's cultural values framework, *Journal of International Business Studies*, 37: 285–320.

Kress, G., and Hodge, R. (1979) Language as ideology. London: Routledge and Kegan Paul.

Krippendorff, K. (1980) *Content analysis: An introduction to its methodology*. Beverly Hills, CA: Sage Publications.

Lee, T. (1999) *Using qualitative methods in organizational research*. Thousand Oaks, CA: Sage Publications.

Leung, K., and Ang, Soon (2009) Culture, institutions, and institutions: an integrative review, in R. Bhagat and R. Steers (eds), *Cambridge Handbook of Culture, Organizations, and Work*. Cambridge, U.K.: Cambridge University Press, pp. 23-43.

Leung, K., Bhagat, R. S., Buchan, M. R., Erez, M., and Gibson, C. B. (2005) Culture and international business: recent advances and their implications for future research, *Journal of International Business Studies*, 36 (4): 357-378.

March, J. G. and Simons, H. A. (1958) *Organizations*, John Wiley, New York.

Marschan-Piekkari, R., and Welsh, C. (2004) Qualitative research methods in international business: The state of the art. Pp.5-24 in R. Marschan-Piekkari and C. Welsh, (Eds.) *Handbook of qualitative research methods for international business*. Cheltenham, UK: Edward Elgar Publishing.

Miller, M.M. (1995) VBPro: *A program for analyzing verbatim text*. Software and users' manual.

Molotch, H., and Lester, M. (1975) Accidental news: The great oil spill as local occurrence and national event, *American Journal of Sociology*, 81: 235-260.

Nardon, L., & Aten, K. (2008). Beyond a better mousetrap: A cultural analysis of the adoption of ethanol in Brazil. *Journal of World Business*, 43(3), 261-273.

Nardon, L., & Steers, R. M. (2007). Learning Cultures on the Fly. In M. Javidan, R. M. Steers, & M. A. Hitt (Eds.), *Advances in International Management: The global mindset* (pp. 171-190). Amsterdam: Elsevier.

Nardon, L., & Steers, R. M. (2008). The New Global Manager: Learning Cultures on the Fly. *Organizational Dynamics*, 37(1), 47-59.

Neuendorf, K. A. (2002) *The content analysis guidebook*. Thousand Oaks, CA: Sage Publications.

Ocasio, W. (1997) Towards an attention-based view of the firm, *Strategic Management Journal*, 18: 187-206.

Peterson, M., and Smith, P. (2008) Social structures and processes in cross-cultural management, in P. Smith, M. Peterson, and D. Thomas (eds.), *The Handbook of Cross-cultural Management Research*. Los Angeles: Sage, pp. 15-33.

Peterson, R. B. (2004) Empirical research in international management: A critique and future agenda. Pp.25-55 in R. Marschan-Piekkari and C. Welsh, (Eds.), *Handbook of qualitative research methods for international business*, Cheltenham, UK: Edward Elgar Publishing.

Porac, J., Thomas, H., and Baden-Fuller, C. (1989) Competitive groups as cognitive communities: The case of the Scotch knitwear industry, *Journal of management studies*, 26(4): 397-417.

Potter, J., Edward, D., Gill, R., and Wetherell, M. (1990) Discourse: noun, verb or social practice, *Philosophical Psychology*, 3(2): 205.

Sapir, E. (1956) Culture, language, and personality, in D. G. Mandelbaum (Ed.) *Selected essays*, Berkeley, CA: University of California Press.

Schneider, S., and De Meyer, A. (1991) Interpreting and responding to strategic issues: The impact of national culture, *Strategic Management Journal*, 12(4): 307-320.

Schwartz, Shalom (1992) Universals in the content and structure of values, in Mark Zanna (ed), *Advances in Experimental Social Psychology*, vol. XXV. New York: Academic Press, pp. 1-65.

Scott, W. R. (1995) *Institutions and organizations*. Thousand Oaks, CA: Sage Publications.

Simon, H. A. (1947) *Administrative behavior: A study of decision-making processes in administrative organizations*. Chicago, IL: Macmillan.

Starbuck, W. H. (1983) Organizations as action generators, *American Sociological Review*, 48 (1): 91-102.

Swidler, A. (1986). Culture in action: Symbols and strategies, *American Sociological Review*, 51: 273-286.

Trompenaars, F. (1993) *Riding the waves of culture: Un-*

derstanding cultural diversity in business, London: Economists Books.

Weber, R. P. (1985) *Basic content analysis*. Beverly Hills, CA: Sage Publications.

WordWeb 2.1, (2001) *Software and database*, Princeton University.