

Literature Review

The Power of Images in Environmental Governance

by

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(MEG Student 2010, Ecuador)

Introduction

Shocking images of melting glaciers, polluted oceans, dying polar bears and desertified lands inundate the media every day. These visual representations give testimony of the centrality that environmental issues have acquired for society since the late mid twentieth century (Greene, 2001:396). Perhaps this all started with the images of Earth seen from space taken by rocket-borne cameras on 1946 (Reichhardt, 2006). Certainly, seeing the “pale blue dot” beyond the atmosphere gave birth to the rhetoric of the Earth’s fragility, finiteness, and ecological interconnectedness (Jasanoff and Martello, 2004:7). This awareness-rise engaged actors of different layers –individual, societal, international– in the search of effective mechanisms to manage the global commons and address environmental issues such as climate change or biodiversity loss. Such efforts comprise what nowadays is known as Environmental Governance. According to Rosenau, the core of Environmental Governance involves

formal and informal rule systems that include steering mechanisms employed to frame and implement goals that move communities in the direction of preserving (or exploiting) natural resources in such a way that present and future generations do (or do not) have available access to comparable standards of living (2003:13-14).

Those formal and informal rule systems are socially constructed through complex processes influenced by various factors. Are images one of these factors? Do images have powers beyond “saying more than what a thousand words can say” when it comes to Environmental Governance?

With the aim to answer these questions, this paper examines how images can influence the dynamics in which the relevant actors of the processes of governing the environment are involved. To facilitate the understanding of this broad theme, the first part of this overview attempts to define the notion of image and examines how the ideology of “seeing cognition” evolved. From this point onwards, the power of images is evaluated at different layers: individual, societal, and international. Thus, the second part of this paper focuses on the individual layer, exploring a current debate of neuroscience regarding the relation between images and language and thought. Focusing then on the societal level, the third section considers the role of mass media in the creation and diffusion of images. Subsequently, the power of images in democratic politics, social movements, and corporate governance is assessed. Shifting attention to the international level, the fourth part of this review considers the Image Theory of International Relations, illustrating it with the example of the globalized images of environmental security in Africa. Finally, the last section presents general conclusions and identifies possible topics for future research.

I. Images and the Ideology of Seeing Cognition

Images have consistently been accused of having enormous power over human minds (Simons, 2006). But what is an *image*? While this term refers directly to the importance of the visual, *image* can simply mean the reproduction of a physical object, but it can

also be a mental picture of something not real, tangible or present (Gamson *et al.*, 1992:374). In Manin's words, *images* are 'highly simplified and schematic mental representations' that are 'relatively hazy' but do have significant content, which meaning is relational. Mitchell, moreover, sustains that *images* express likeness, resemblance or similitude in a non-literal and non-pictorial sense, "an abstract, general, spiritual 'likeness'", in which image refers to something like model or schema (in Simons, 2006). In addition, some political scientists use *image* as a synonym for reputation (Scammell, 1995). For the purposes of this paper, *image* will remain an open term.

Images are central in our day-to-day, was it always like that? According to Jenks (1995) the importance that images currently is linked to the "ideology of seeing cognition" which was initiated with the positivist and empiricist traditions of Sociology. It was Comte, the father of Sociology, who established that "what we can see, can also be believed in" (Jenks, 1995:5). Proper "modern" scientific thought was initially to grow out of the knowledge about phenomena furthest from humankind's own involvement. Then, understanding was to become more specific, relating to phenomena closest to immediate human experience (Jenks, 1995:5). This epistemological evolution brought the "observer" who drew more objects into "vision" as her/his attention was directed more closely towards itself and its immediate environment. Thus, "pure perception" had the power to reveal an "objective" reality".

The positivist/empiricist approach to learn about the social world was later criticized for promoting a "partial sight" of reality (Jenks, 1995:6). In fact, it relied on abstraction, implying removal or drawing out from an original location that produced a "new

world". During this process, manipulation and control of images took place, generating often "unwanted sights" and "reifying" reality (Jenks, 1995:6). This nature of sight and visions awakened suspicion among some intellectuals who condemned that images were "idols of the mind" generated by mere sensory impression as opposed to ideal forms, visible only to philosophers (Simons, 2006). This antipathy towards images is known as iconoclasm.

Rejecting the canon of "pure perception", the postmodern tradition of social theory has proposed that the world is a collection of multiple realities that comprises all human experiences. Different rationalizations of "sight" have fashioned our cultural "outlook". Consequently the world is not pre-formed, waiting to be "seen by the extro-spection of the naked eye"; instead there is no-thing out there intrinsically formed, interesting good, or beautiful... vision is a skilled cultural practice (Jenks, 1995:10).

In a perceptual environment of rapidly changing and infinitely replaceable images much of what is "seen" is pre-received, making the visual experience of the "real" second hand. With technological advances like TV, film, video, photography, we obtain immediate access to the world through frozen, stored, and re-presented images. This was described by Virilio as a "vision machine" and by Braudillard as "simulacra" (Jenks, 1995:10). They sustained that the dramatic changes in the technology of reproduction have led to the implosion of representation and reality that have no foundation in experience (Gamson *et al.*, 1992:374).

II. The Individual Layer: Brain and Images

Holding on to the idea that vision and images are socially constructed, the practicing “see-er” of the positivist/empiricist tradition is liberated and elevated from the status of messenger of nature into the status of theoretician as social thought evolves (Jenks, 1995:10). In seek of understanding how images affect this theoretician’s actions we arrive to a contemporary debate taking place in the field of neuroscience. This debate is centered on the status of images in relation to language and thought. Antonio Damasio is particularly important when dealing with this subject. Damasio’s work on this area suggests that “mental images are the currency of our minds” and that “thought is an acceptable word to denote ... a flow of images” (2000:318-319). Furthermore, for Damasio “any symbol you can think of is an image, and there may be little leftover mental residue that is not made of images” (Damasio, 2000:319). By image Damasio means not merely a visual or audio-visual image, but “a mental pattern in any of the sensory modalities” (2000:9).

Damasio proposes that through complex processes images “of the interactions between each of us and an object which engaged our organisms” come down to the body (2000: 321). Following an evolutionary trajectory, images then become a nonverbal language of body signals that enables sophisticated life regulation of the organism in its environment, beyond the automatic functions of “innately set regulatory actions” such as the secretion of hormones (Damasio, 2000:23). This is how images allow us to choose among repertoires of previously available patterns of action and optimize the delivery of the chosen action (Simons, 2006). Moreover, images signify “goodness” or “badness” of situations relative to the organism’s inherent set of values and “also allow

us to invent new actions to be applied to novel situations and to construct plans for future actions” (Damasio, 2000:30, 24).

According to this theoretical proposal, the images of the natural environment in the human mind determine individuals’ actions towards it. Though Damasio’s theory may sound convincing, it has been contradicted by other neuroscientists who sustain that images are not related to verbal cognitive processes, and that they have no power over the human mind (Simon, 2006). Only further research can end this debate.

III. The Societal Layer

Mass Media and Images of Environmental Issues

It is impossible to continue with this overview without referring to the role of mass media in the production and diffusion of environmental imagery. Concrete examples such as the thrilling media eruption that greeted Rachel Carson's *Silent Spring* and the early celebrations of Earth Day demonstrate how important media relations have been in this realm (Plater, 2006: 521). Modern society, particularly in the western hemisphere, is dominated by a predominantly visual culture where images in the forms of photographs and videos determine what people recall of events. This truth is so dramatic that “if a tree is cut down in a wilderness and no one puts it on CNN” there is the doubt if it really happened (Plater, 2006: 540-541).

A media of massive reach has acquired the role of generating and diffusing images of the world which people use to construct meaning about political and social issues, such as climate change (Boykoff, 2008:12). For some theoreticians, it is the production of images, rather than information or facts, the more subtle form of meaning construction.

Images take on their meaning by being embedded in some larger system of meaning or frame (Gamson *et al.*, 1992: 374). Mass media “frames” environmental issues for policy actors and the public, so that later this information can be interpreted and translated into decisions and potential behavioral changes (Boykoff, 2008:12). Framing can be defined as “the way in which elements of discourse are assembled that then privilege certain interpretations and understandings over others” (Goffman 1974 in Boykoff 2008:14). This practice contextualizes and organizes the dynamics of events.

Since framing essentially involves selection and salience it plays a major role in the exertion of political power (Boykoff, 2008:14). Consequently, though various actors seek to access and utilize mass media resources to shape perceptions of environmental issues contingent on their perspectives and interests, only the most “powerful” succeed. Media scholars have categorized these actors as “interest-group-entrepreneurs” or claims-makers (Schonfeld *et al.* 1979). Interest-group-entrepreneurs communicate, contest and negotiate their perspectives in the media-arena (Boykoff, 2008: 14). They deliver previously manipulated images to the public, constructing a reality through a process that seems so normal and natural that the very art of social construction is invisible (Gamson *et al.*, 1992:374).

The case of the Exxon Valdez oil-spill illustrates how framing serves political and economic interests. The records from the years prior to the wreck indicated that the Alyeska oil-consortium and the Coast Guard –the federal agency with primary authority to regulate the safety and environmental compliance of the maritime oil trade – were constantly cutting back on safety measures and response capabilities to allow industry participants to save on operating costs (Plater, 2006:532). Therefore, due to corporate

and governmental “complacency”, the Exxon Valdez oil-spill had been an accident waiting to happen. However, the industry carefully framed the “incident” in such a way that, despite hundreds of images of bedraggled birds and sea-life, this case was remembered as a disaster caused by a “captain with a drinking problem” (Plater, 2006:532). Furthermore, the media diffused images that showed the cleanup operations and provided interviews with people who would not talk about the systemic failures that caused the accident in the first place (Plater, 2006:532). This strategic coverage contributed to the preservation of Alyeska oil-consortium’s and the Coast Guard’s image.

Additionally, events such as the Exxon Valdez oil-spill remind us that imagery production in the majority of western societies is part of an overwhelmingly for-profit enterprise heavily dependant upon advertisement. Therefore news must be packaged to sell: they have to “entertain” and not only inform. This “Infotainment” industry (Plater, 2006: 545) uses news and other programming as a commodity to attract an audience that it can then sell to advertisers. Beyond its size, advertisers are concerned with the “quality” of their audience (defined in terms of purchasing power) (Gamson *et al.*, 1992: 377).

News is entertaining as long as they lend themselves to images, without images “television can’t do facts” (Dyck and Zingales, 2002: 20). That explains why, though environmental issues naturally generate images, the media attention given to environmental problems has tended to emphasize “visually rich” stories about crises and shocking events over “visually impaired” chronicles (Hempel, 1995: xii-xiii). Accordingly, albeit media coverage on climate change or global warming increased

substantially in Western Europe and North America beginning in 1988 (Boykoff, 2008:12), only few events have received an extended media attention. One of those occurrences was Hurricane Katrina, which made landfall in August 2005 in the Gulf Coast of the USA and portrayed the vulnerability of humankind in the face of climate change (Boykoff, 2008: 13).

The selective media coverage of environmental issues (and events in general) is also related to the pattern of ownership in this industry. Few producers own major media networks, transmitting “more and more messages, saying less and less” (Gamson *et al.*, 1992: 376). Apparently new technologies enhance and reinforce the general ownership model that has given birth to global media empires. Media giants can pour the same images and ideas at a national and global audience in different forms via different media. When corporations own both the production houses and distributors of media images, they can guarantee themselves a captive audience for their product (Gamson *et al.*, 1992: 378). The net result is a narrowing of the range of information and imagery that is disseminated that can lead to a “homogenization of imagery” (Gamson *et al.*, 1992: 380).

Nonetheless, mass media has also great potentialities to promote active citizenry and participation. Studies show that it plays an important role in translation (of information, concepts, developments, debates) between communities, such as scientists and the public. This allows “common people” to access technical and complex data. Moreover, media messages in the form images can act as teachers of values, ideologies, and beliefs and can provide orientation for interpreting the world (Gamson *et al.*, 1992:374). Perhaps the most important media “virtue” is that, regardless of media monopolies,

messages transmitted through media imagery provide a “many voice, open text that can and often is read in opposition (to the meaning intended by its producers)”. Therefore, television imagery is a site of struggle over meaning and constructions of reality that can activate citizenry (Boykoff, 2008:11). Even so, in practice the pessimistic view prevails since mass media often promotes apathy, cynicism, and quiescence (Gamson *et al.* 1992: 373).

“Audience” or “Reader” Democracy?

Several scholars have characterized the current political epoch as a time in which citizens have little meaningful participation in democratic decision-making. The predominant role of privatized mass media, political marketing and funding, and the fact that most citizens do not have professional political competences, nor much time to devote to politics, have contributed to a political scenario where citizens choose between political images instead of engaging in debates and deliberating on policies (Simons, 2006). By doing so democratic judgment is based on what citizens are used to judging and assessing: other people and TV programs.

Manin attributes these changes as results of a natural evolution of representative governments in general, including its more recent democratic forms. The current state of representative governments can be designated as “audience democracy” because it responds to the terms that have been presented on the “political stage” by politicians who succeed as “media figures” (Manin, 1997: 220, 223). Gamson *et al.* suggest that the term “reader” should be employed instead of “audience”. “Audience” implies that television reaches a homogeneous mass of people who are all essentially identical, who receive the same messages, meanings, and ideologies from the same programs and who

are basically passive (Gamson *et al.*, 1992:374). “Readers”, instead, are those who “read” or decode media messages through an active process shaped by context, social location, and prior experiences (Gamson *et al.*, 1992: 375).

In such a scenario the notion of “political image” is central. At first sight, this term can be used as a synonym for reputation. However reputation is relational and is evaluated in respect to something else (economic management, family values, etc.) which is part of the image of the party, politician or country. Furthermore, reputation embraces the “trustworthiness and credibility of the candidates or parties” (Scammell, 1995:19-20). Political trustworthiness and credibility depend on a recognizable political style “which weaves together matter and manner, principle and presentation, in an attractively coherent and credible performance” (Simons, 2006). This enables citizens who may not believe in a cause or ideology to put their trust in people, personified institutions or recognized political brands that have character.

Media presentations in this sense are important because they do not only transmit what political figures say but simultaneously allow a visualization of how it is said and who says it. This provides cognitive and affective information about the authenticity and credibility of individuals which strengthens the citizens’ capacity of judgment by activating emotional intelligence (Simons, 2006). Therefore image-politics might be a form of political thinking better suited to popular democracy than verbally based deliberative reasoning (Simons, 2006). Taking this in account, coherent political images of environmental-responsive decision-makers should be constructed and projected cautiously to capture the trust of the citizens that make up “audience” (or reader) democracies.

Civil society: the case of Environmentalists

Since 1970, active citizen environmentalists, often organized as social movements and then established as NGOs, have helped to create a “multi-centric” governance process and have been a dominant contending force, pushing for the creation and enforcement of environmental laws (Plater, 2006: 521). Kevin DeLuca studied how these groups use images. His findings show that such political collectives use a visual discourse as their primary means of communication, often supplanting written or spoken arguments. DeLuca argues that “image events” staged by social movement as “crystallized philosophical fragments” which, by “reducing a complex set of issues to symbols”, can work as “mind bombs that rearticulate dominant hegemonic discourse” (1999: 6, 3).

Simons’ analysis of DeLuca indicates the use of a key concept of contemporary rhetoric: the ideograph (Simons, 2006). Michael McGee conceived this notion as the building block of ideology (1980: 15), that just as Chinese symbols is a slogan or ‘one-term sum of an orientation’ (McGee, 1980: 7). Ideologies in this account “are consonant clusters of ideographs, whose meanings are understood in relation to each other” (McGee, 1980: 16).

DeLuca establishes a bridge to link McGee’s synchronic analysis of ideographs and Laclau and Mouffe’s Theory of Articulation, Antagonism and Hegemony (Simons, 2006). This provides a frame to understand the contestation of ideological hegemony by social movements. Images, following this explanation, are “created” and “presented” by social movements and act as clusters of ideographs that compete with those of the hegemonic discourse (ideology). Accordingly, whatever power images have to shape

and constitute political thinking is tempered by the competition between them (Simons, 2006). The centrality of image events can create opportunities for politics that do not rely on centralized leadership; and can allow for alternative political meanings to emerge and disseminate even when activists are pictured negatively by the media.

Corporate Governance

In the case of corporate governance Dyck and Zingales have found that media attention can drive corporations to comply with environmental law reforms and even adopt voluntary standards (like the certification of the Forest Stewardship Council) to preserve the public image of the corporation (2002:4). The adoption of such measures can bring benefits to corporations. Among the benefits, a greener public image has the potential of rising sales, attracting new qualified employees, and increasing the corporation's share-value. Moreover, Dyck and Zingales found that corporate managers often adopt environmental sensitive practices because they care about their own reputation, which might affect their wages and professional future. If the payoff of being recognized as environmentally conscious is large enough –or the disutility of being identified as a polluter is significant enough– even bad managers can be induced to take the “right” action by their desire to mimic the good type (Dyck and Zingales, 2002:16). Those effects are part of a broader atmosphere in which consumers are adopting new values and acquiring a deeper environmental consciousness demanding greener products and services.

The need of corporations of differentiation in a market that offers various similar products and services has led to corporate-branding. Though consumers are treated generally as rational choosers of the best product or service, branding has modified this

assumption and appeals to visions, ideas and experiences. Simons (2006) does an overview of the history of branding and points out that already in the late nineteenth century economy of mass production, “the role of advertising changed from delivering product news bulletins to building an image around a particular brand-name version of a product”. By the 1940s, this “corporate personality” had been supplemented by a “corporate consciousness”. By the 1990s the cash value of the corporate brand was measurable, as companies such as Nike and Microsoft realized that they did not produce primarily things, “but images of their brands” (Simons, 2006).

“Images of brands” refer to reputation. By selectively reducing agents’ cost of collecting and evaluating information, mass media play a major role in the creation and accumulation of reputation of a brand. Considering the importance that environmental issues have acquired since 1970s (Plater, 2006: 521), lack of environmental “sensitiveness” can affect a brand’s reputation negatively. The case of the boycott of tuna illustrates this. On March 8, 1988, all the major U.S. networks broadcasted the images of a Panamanian tuna boat, the Maria Luisa, killing hundreds of dolphins while fishing for tuna. Building on public outrage, the Earth Island Institute, Greenpeace, and the Humane Society launched a boycott of tuna that had deep shaming effects. As a result, restaurant chains took tuna off the menu and school boards across the U.S. stopped using tuna until it was “dolphin safe”. On April 12, 1990, the brand Heinz announced that it would only sell “dolphin safe” tuna (Dyck and Zingales, 2002:2).

IV. Image Theory of International Relations

As well as corporations, countries exercise national branding. This practice involves creating and projecting a national image to reinforce the citizens’ loyalties (Simons,

2006). At the same time, the image a country has built of itself affects foreign policy decision-making. The study of the dynamics between primary judgments guiding international images and the selection of international policies has developed into the Image Theory of International Relations. Image theorists suggest that ideas about other actors in world affairs are organized into group schemas, or images (Schafer, 1997: 814). These images are organized in a systemic way, comprised of cognition and beliefs regarding the target of nation's motives, leadership, and primary characteristics. According to image theory, the structural features of International Relations play an important role in determining the specific images countries have of one another. Images, or stereotypes of other nations, stem from perceived relationships between nations and serve to justify a nation's desired reaction or treatment toward another nation (Alexander *et al.*, 2005:28).

Alexander *et al.* identify that three critical structural features of perceived international relationships that lead to associated images are (1) goal compatibility, (2) relative power/ capability, and (3) relative cultural status, or sophistication (2005:29). These dimensions determine threat or opportunity appraisals of the other nation, which then generate behavioral tendencies toward the nation and evoke a specific cognitive schema/image of that nation (Alexander *et al.*, 2005:29).

International Relations scholars have focused most of their attention on identifying and describing the attributes of the *enemy image* and its effects on policy choice. Yet there are four additional images particularly relevant to international relations: the ally, the barbarian, the imperialist, and the dependent (Alexander *et al.*, 2005: 29).

Returning to the realm of environmental governance and taking into account the pronounced concern in academic and policy circles with global environmental change and its implications for global security since the end of the Cold War in the 1980s, it is interesting to look at the case of Africa through the lenses of Image Theory. Obi has done an interesting work on this theme and argues that the focus on non-military issues has propelled the creation and diffusion of a “globalized” image of Africa as the greatest source of environmental threat to global security (2000:47). This image depicts Africa as crisis-ridden, where resource scarcity arising from pressures of overpopulation on renewable resources is at the heart of violent conflict in the continent.

Although such image is based on “experiences” of “tourist academics”, it has been diffused by the global mass media and used by western policy-makers to take actions towards Africa (Obi, 2000:52). Africa thus fits the *dependent image* category. This characterizes it as vulnerable, disorganized, and generally ineffective, incapable of taking care of itself and in strong need of guidance and direction (Alexander *et al.*, 2005:31). As an effect, such depiction has opened the door for global intervention and the promotion of western models of environmental management and conflict resolution in Africa (Obi, 2000:53).

Although perceptions of international images like the one of Africa are generated within broader contexts, individuals within a given society hold them. As human cognitive processes, perceptions are malleable and influenced by individual factors like needs for positive social identity and social dominance (Alexander *et al.*, 2005: 33). Social identity theory (Tajfel and Turner, 1986) proposes that one’s identity is invested in groups to which one belongs, and people are therefore motivated to sustain their own

positive identity and sense of self-worth by ensuring that their in-group's attitudes and beliefs are positively distinct from relevant out-groups. This reasoning can be extended to the arena of International Relations: when people's identities are invested in national groups to which they belong, people are motivated to sustain a positive social identity by ensuring that their nations are positively distinct from other nations (Alexander *et al.*, 2005: 33-34).

A second individual factor influencing images is the preference for group-based inequality and hierarchy in a given society. According to social dominance theory (Sidanius and Pratto, 1999), individuals differ in the degree to which they favor social inequality and hierarchy. Those with a high social dominance orientation desire group inequality and support existing status differences between groups in society. In the service of their desires to maintain social hierarchy, those high in social dominance orientation tend to favor the more powerful groups in society, to identify more strongly with these groups (Levin and Sidanius, 1999 in Alexander *et al.*, 2005:34). If dominant groups within society hold a negative image of another nation-state, those with a high social dominance orientation will embrace it and reinforce it.

V. Conclusions and Further Research Suggestions

Nowadays, images have acquired a power that permeates every dimension of environmental governance. Current environmental governance scholarship has only started to study this theme, making it necessary to borrow findings from other disciplines. Hence, more systematic work from an interdisciplinary approach needs to be done to analyze images so that they can be defined more precisely and their effect can be better understood. Such analysis cannot exclude the role of mass media as the

primary source of information in a system of democratic governance that creates and diffuses images.

By looking at the different layers of environmental governance general conclusions can be drawn regarding the power of images. First, it is important to note that vision is a social and cultural practice in which images are infinitely malleable. From a perspective that focuses on the individual layer, Damasio's proposal of the relation between images, language and thought suggests that images guide human actions. Nevertheless, this assertion remains open since there are contradicting theories that sustain that images have no particular power over human minds. What is certain is that images shape and constitute political thinking, but how strong is their impact in comparison to other conceptual frames? This question should be addressed in future researches.

By looking at the societal layer of environmental governance, the importance of the visual in the present time has forged the evolution of representative governments into a form known as "audience democracy". There are several critics of this political "model" that condemn that political judgment is based on images rather than on policies. Yet images are means of constructing reality that allow different decodings or readings, giving space to plurality. Additionally, images compete with each other and such contest is as good a way of conducting the debate about the state of the environment (and other relevant issues) as any other. Furthermore, the visual discourse utilized by environmentalist social movements has worked as a potent political tool of criticism delivering tangible effects. Looking at corporate governance, the creation and maintenance of public images through practices of branding has been essential for the private sector to comply with environmental norms and adopt voluntary environmental

standards. Even though compelling empirical evidence of the power of images in the societal layer has been collected, further scientific research should measure the power of images in relation to other relevant factors that affect governance such as discourse (in a verbal sense).

Focusing on the global arena, it is interesting to note that images can help policy and decision-makers to organize their cognitions about other nations and take actions. Likewise images can distort reality and negatively affect foreign affairs decision-making, as the case of the globalized image of environmental security in Africa exemplifies. In relation to governance, it remains unclear if images temporarily precede policy preferences or the other way around. This debate poses a great challenge for scholars of environmental governance since the only definitive way to sort out the causal effect of images on international policies would be to “replay” historical events while systematically altering the preexisting images held by the policy-makers involved (Schafer, 1997: 817). For now it can only be affirmed that images do matter.

Bibliography

Alexander, Michele G., Shana Levin, P.J. Henry, *Image Theory, Social Identity, and Social Dominance: Structural Characteristics and Individual Motives Underlying International Images*, Political Psychology, Vol. 26, No. 1, Feb 2005, pp.27-45. <http://www.jstor.org/stable/3792498> Accessed: 17/03/2009.

Boykoff, Maxwell T., *Media and Scientific Communication: a case of climate change, Communicating Environmental Geoscience*, London: Geological Society, 2008, pp.11-18.

Damasio, Antonio, The Feeling of What Happens: Body, Emotion and the Making of Consciousness, London: William Heinemann, 2000.

DeLuca, Kevin, Image Politics, New York: Guilford Press, 1999.

Dyck, Alexander and Luigi Zingales, *The Corporate Governance Role of the Media*, 2002.

Gamson, William A., David Croteau, William Hoynes, Theodore Sasson, *Media Images and the Social Construction of Reality*, Annual Review of Sociology, Vol. 18, Annual Reviews, 1992, pp. 373-393. <http://www.jstor.org/stable/2083459> Accessed: 17/03/2009

Greene, Owen, *Environmental Issues* in John Baylis and Steve Smith (Eds.), The Globalization of World Politics, Oxford: Oxford University Press, 2001, pp.387-414.

Hempel, Lamont C., Environmental Governance: The Global Challenge, Washington, D.C.: Island Press, 1995.

Jasanoff, Sheila and Marybeth Martello, *Introduction, Earthly Politics: Local and Global in Environmental Governance*, S. Jasanoff and M. Martello (Eds.), Cambridge and London: MIT Press, 2004.

Jenks, Chris, "Introduction", *Visual Culture*, Chris Jenks (ed.), London: Routledge, 1995

Manin, Bernard, The Principles of Representative Government, New York: Cambridge University Press, 1997.

McGee, Michael, *The "Ideograph": A Link Between Rhetoric and Ideology*, *Quarterly Journal of Speech* (1980), 66 (1).

Mitchell, Thomas, Iconology: Image, Text, Ideology, Chicago: University of Chicago Press, 1986.

Obi, Cyril, *Globalised Images of Environmental Security in Africa*, Review of African Political Economy, Vol. 27, No. 83 (Mar., 2000), pp. 47-62 Published by: Taylor and Francis, Ltd. <http://www.jstor.org/stable/4006635> Accessed: 17/03/2009

Plater, Zygmunt J.B., *Law, Media, and Environmental Policy: A Fundamental Linkage In Sustainable Democratic Governance*, Boston College Environmental Affairs Law Review, Vol. 33, 2006; Boston College Law School Research Paper No. 109.

Reichardt, Tony, *The First Photo From Space*, Air & Space Magazine, November 01, 2006, <http://www.airspacemag.com/space-exploration/FEATURE-FirstPhoto.html>

Rosenau, James N., *Globalization and Governance: Bleak Prospects for Sustainability*, International Politics and Society, (March) 2003, pp.11-29.

Scammell, Margaret, Designer Politics: How Elections are Won, London: St. Martin's Press, 1995.

Schafer, Mark, *Images and Policy Preferences*, Political Psychology, Vol. 18, No. 4 (Dec.), 1997, pp. 813-829 Published by: International Society of Political Psychology, <http://www.jstor.org/stable/3792211> Accessed: 17/03/2009

Sidanius, J and F. Pratto, Social dominance: An intergroup theory of social hierarchy and oppression, Cambridge: Cambridge University Press, 1999.

Simons, Jon, *The power of the political image*, Paper presented at the annual meeting of the American Political Science Association, Marriott, Loews Philadelphia, and the Pennsylvania Convention Center, Philadelphia, PA, Aug 31, 2006, Accessed on: 2009/03/16 http://www.allacademic.com/meta/p150557_index.html

Tajfel, H. and J.C. Turner, *The social identity theory of intergroup behaviour* in S. Worchel and W. Austin (Eds.), *The psychology of intergroup relations*, Chicago: Nelson-Hall, 1986, pp.7-24.