

Environmental and Climate Change problems of the City of Buenos Aires (Theoretical considerations from a socio-cultural perspective)*

Enrique del Acebo Ibáñez (Universidad del Salvador, Argentina)

Abstract

Climate change and environmental problems deal with cultural, social, individual and natural causes. After several investigations on attitudes and behaviors of urban inhabitants of different cities of Argentina, we acknowledge the importance of a comprehensive theoretical approach to better understand these types of complex and multidimensional phenomena, like climate change is. A socio-cultural approach implies to consider the socio-cultural world as a total phenomenon, that is multidimensional and interdependent, which also considers that climate change not only refers to national and state policies but also to the subject's world and its everyday life realm.

Key terms: Environment, Climate change, Socio-cultural world, Subject's world

1. The environmental and climate change issue in Argentina

In Argentina, during the last decade, were reported different climate change impacts: a) unusual extreme weather events, such as flooding in the Pampas (2000-2002) and hail storm in the Buenos Aires Metropolitan area (2006); b) increases in rainfall in southeast the Argentine Pampas have had impacts on land use, crop yields and the increasing flood in terms of frequency and intensity; c) in the future, sea level rise, weather and climatic variability and extremes modified by global warming are variables that must be taken into account because of the impacts on low-lying areas, such as the province of Buenos Aires coast¹; d) there has been a general

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¹ Cf. The IPCC 4th Assessment Report.

increase in spring and winter temperatures averaged over the country, making the occurrence of warm seasonal temperatures more frequent and cold seasonal temperatures less frequent.

At the same time, there are some climate change impact projections², such as: a) south-west and north Argentina are vulnerable to a moderate increase in water stress with climate change; b) an increase in precipitation extremes with climate change for Argentina; c) a tendency for increasing flood risk in Argentina; d) the country was ranked the 5th highest (out of 84 developing countries) with respect to the amount of agricultural land that could be submerged due to a 1m Sea Level Rise (SLR) and, according to a sub-national-scale study, the city of Buenos Aires could be affected significantly by SLR.

Buenos Aires, the largest city of Argentina, has a population of around 3 million, while its metropolitan area has almost 13 million of inhabitants. Taking into account the 2003-2008 greenhouse inventory, it can be said that Buenos Aires emits near to 16 tons of CO₂ equivalents, while its main sources of greenhouse gas emissions are a) the energy (56%) and b) the transport sectors (38%).

Flooding is one of the most important problems related to the impacts of climate change, because: a) the city is located on the shore of the Rio de la Plata and the Riachuelo, b) the increasing intensity of rainstorms, c) the lack of adequate plans to control the urbanization patterns and the internal and external immigration (mainly from the neighbor countries), and d) the expected rise of the sea level.

Photo 1: *Flood in Buenos Aires City, 2013*



Source: C5N (2013)

² Cf <http://www.metoffice.gov.uk/media/pdf/1/1/Argentina>; <http://www.metoffice.gov.uk/media/pdf/1/I/Argentina>

Photo 2



Source: *La Nación* (2013)

Photo 3



Source: C5N (2013)

Photo 4



Source: C5N (2013)

These are data located at the *objective level* of reality, by sure indispensable for a better planning and forecast; but nevertheless there is a *subjective level* of reality that emerges as indispensable too. In fact, environmental problems, natural disasters and climate change are phenomena that deal with attitudes, social and individual representations, local communities and contexts, *Weltanschauungen*, beliefs and values, norms and anomie. It means that we must realize about the connections between local perceptions, behaviors and discourses on climate change at local contexts, on one side, and global concepts on the other. As T.P.Karjalainen, T. Järvikoski & P. Luoma³ state, although we can speak about globalization of the environment, at the local level it has only partly homogenized public perceptions, opinions and behaviors because “an individual’s engagement with the surrounding environment, local conditions and socio-political contexts shape perceptions of climate change”⁴. As the authors point out in relation to the Komi Republic (but this also applies to different developing countries and regions), climate change can be more a personal concern related to daily life and survival strategies than an environmental, societal or global issue. Once again, the dialectic between local/global and society/individual emerge as indispensable to better understand reality, avoiding any kind of ethnocentrism (explicit or implicit) as point of departure.

³ T.P. Karjalainen, T. Järvikoski & P. Luoma: “Local perceptions of global climate change in the Komi Republic in Russia”, *Arctic & Antarctic – International Journal on Circumpolar Sociocultural Issues*, 2, 2008: 75-109.

⁴ Ibidem, p. 75.

At the same time, as we usually speak in terms of globalization as a necessary process, perhaps we can also investigate how explanatory would be instead to refer to both globalizing and globalized countries. Nature is not only nature: it impacts the different socio-cultural worlds all over the planet and, vice versa it also implies social and power relationships which impact in Nature itself.

2. The socio-cultural world as a total phenomenon

Social sciences and Anthropology have stressed the socio-cultural components inextricably united as well as integrated to any concept dealing with the environment. In fact, the environment and the socio-cultural world are total phenomena: multidimensional and interdependent; it is both a natural realm as well as a built up realm, hence both interdisciplinary and trans-disciplinary approaches are required.

Culture, society, the subject, and environment are dimensions of that socio-cultural world with manifest (evident, clearly perceived) and non-manifest aspects (not evident, implicit, not immediately perceived), all of which are so interdependent that every change in one of them impacts the others, explicitly or implicitly, direct or indirectly, in a short or long term. This can be seen in Figure 1, where time and territory are the coordinates where this world occurs.

Hawley (1991, 1950) considered that "community" is a collective response to the habitat involved, an adaptation of the human organism to the milieu it lives in: while *culture* is an "eco-system considered from an analytic outlook", an *eco-system* is "culture considered from a synthetic outlook" (cf. Lorenz, 1965; Park, 1974, 1952, 1936; Quinn, 1950; Schnore, 1958). The self-criticism of the ecological-human thinking (Ercipun's, 1976) was very valuable when they introduced the *self consciousness* because, consequently, the environment could be seen as an *interiorized milieu*.

As we have already stated (del Acebo Ibáñez, 2004-2005, 2014), that self-criticism of the Human Ecology allowed links to be established with an existential Sociology as a fresh sociological reading of the existentialist thinking -M. Heidegger, J.-P. Sartre, K. Jaspers, among others-. Because the human being, not only develops strategies aimed at the biological survival during his/her stay on board the planet Earth but also the human being *founds* space or territories that represent "realms for meaning". So, the subject *inhabits* in the existentialistic meaning Heidegger (1995, 1954) gives to this concept. Precisely, the fact of inhabiting is a *proprium*, i.e. a

characteristic which defines the human being as such. Every ecological crisis is not free from strong ethic and existential connotations with reference to either its causes or its consequences and the possible ways for the solution and prevention thereof. But those connotations belong to specific and concrete local communities and socio-cultural worlds.

FIGURE 1: SOCIOCULTURAL WORLD AND CLIMATE CHANGE

TERRITORY ↑	SOCIOCULTURAL WORLD		
	DIMENSIONS	MANIFEST ASPECTS	NON MANIFEST ASPECTS
	CULTURAL SUBSYSTEM	Built Environment Technology Language	Social uses Customs Norms / Anomie Values Beliefs Knowledge Social Representations Social Institutions
	SOCIAL SUBSYSTEM	Population Social Actors Migratory processes Primary & Secondary Groups Organizations, NGOs Group Adaptive Strategies Agents of Socialization Social Interaction Social Structure	Socialization Processes (primary, secondary and resocialization) Power relations
	PERSONALITY SUBSYSTEM	Social Action Behavior (towards the Environment) Adaptive strategies Status-Role Social networks	Attitudes Expectations Socio-psychological & existential needs Individual Adaptive Strategies
	BIOLOGICAL & ENVIRONMENTAL SUBSYSTEM	Climate change Environmental disasters Satisfaction/dissatisfaction of Human biological needs	Natural Environment Human biological needs Social representations on Environmental disasters Social representations on Climate Change

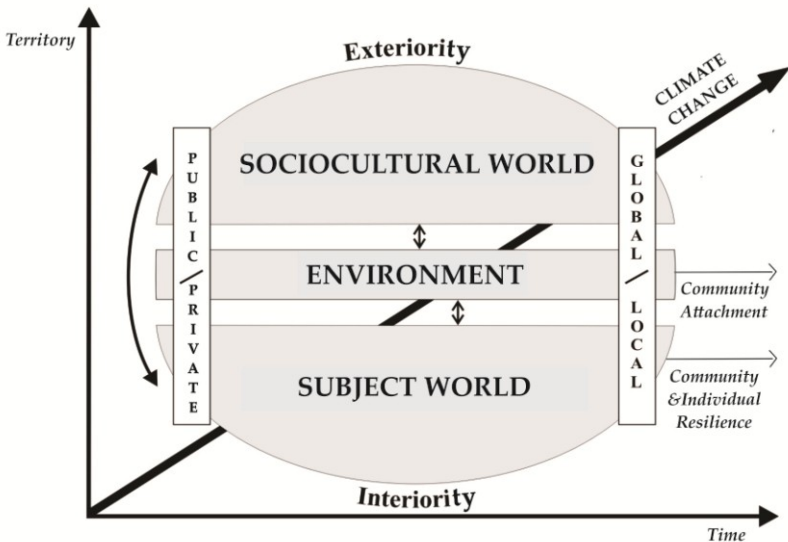
TIME →

Source: E. del Acebo Ibáñez (2013)

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Revisiting the concentricity between the socio-cultural and subject's worlds, it can be observed that there is a dialectic convergence between "exteriority" and "interiority: on the one side, the internalization of the "exteriority", and on the other the exteriorization of the "interiority", according to the public/private and local/global dynamics (v. Figure 2).

FIGURE 2: CLIMATE CHANGE AND SOCIO-CULTURAL WORLD AS TOTAL PHENOMENA



Source: E. del Acebo Ibáñez (2010)

“Local” can be related to the *rootedness approach* we have developed in other works⁵: rootedness appears, then, as vocation and fulfillment. The human being lives (must live) by means of forms of rootedness: otherwise, he excludes himself, leaves solidarity aside, and becomes depredatory.

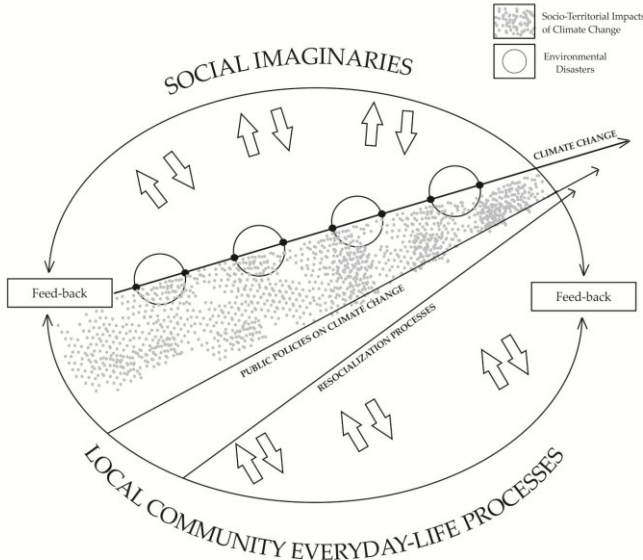
In fact, the **rooted inhabitant** tends to identify the city not only from the *spatial* point of view, but also as a *value* (cf. del Acebo Ibáñez, 2007: 136ss; Simmel, 1977; Lefebvre, 1974, 1970; Lessard, 1985; Lewis & Lyon, 1985). Less individualistic than the rootless residents, they feel involved with the realm they live in, into a kind of *affective adaptation* with it (cf. Leboyer, 1985; Mendes Diz & Findling, 1994; Mendes Diz & Climent, 1988). They have a clear participation attitude, and vocation: with regard to environment they can be classified as "active" or "belligerent" individuals in connection with both the natural and built up environment. Precisely, they consider that the maximum responsibility for environmental problems not only fall on the authorities of the City of Buenos Aires but also on its residents. At the same time, they deem "contamination/pollution" as a problem that also fall on the responsibilities of citizens –this is why they trust the effectiveness of environment-related information and campaigns (cf. Di Pace, 1992).

We have observed that individuals with a high rootedness level, and a low anomie level tend to identify environmental problems dealing with the *immediate human action* in terms of *depredation and/or direct pollution*. This can be envisioned as an explicit acknowledgment of the individual responsibility as far as the etiology of the contemporary environmental problems is concerned. At the same time, this type of social actor (rooted and not anomic) tends to give priority as a solution to the *socialization and information processes*. Once again, subjects are resorting to the capacity and responsibility of individuals –in that sense that individuals are likely to modify their behaviors through an adequate information and formation process. This also implies a certain hope with respect to the possibility of modifying the human behavior –hence, solving environmental problems. As we said in other part (del Acebo Ibáñez, 2007: 142), “perhaps a clear visualization, coupled to a clear experience, of the normative-axiological web of a given society could anchor individuals from which they could be in a better position to identify the environmental problems, their possible causes and solutions.

⁵ Cf E. del Acebo Ibáñez, 1993, 1996, 2008, 2010-a, 2010-b.

The community attachment is continuously reproduced in terms of everyday life processes and social imaginaries, fact that must be taken into account by every policy on climate change and the consequent and necessary re-socialization processes, as we can see in Figure 3:

FIGURE 3: CLIMATE CHANGE AS A MULTI-DIMENSIONAL COMPLEX PHENOMENON / a

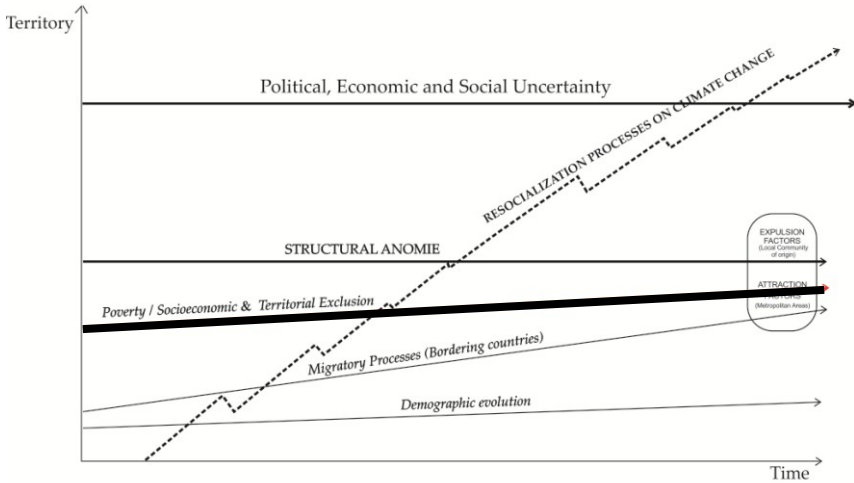


Source: E. del Acebo Ibáñez (2013)

Structural anomie determines attitudes and behaviors, and paradoxically a specific adaptive strategy -that is, “informal norms”- to overcome the risk represented by the lack of respect to the “formal norms”. At the same time, poverty conditions must be monitored mainly in relation to the settlement of populations in very vulnerable areas. So it is not enough to set up early warning systems and putting strategies in place to deal with droughts and floods (v. Figure 4).

All this means that all these phenomena: anomie, poverty, socioeconomic and territorial exclusion, migratory processes, are closely connected, and deal with different levels and conceptions of “vulnerability” (different scientists speak in terms of “resilience”, “marginality”, “adaptability”, “fragility”, “risk”).

FIGURE 4: CLIMATE CHANGE AS A MULTI-DIMENSIONAL COMPLEX PHENOMENON
(VARIABLES INFLUENCING EVERY POLICY ON CLIMATE CHANGE IN LATIN AMERICA)



Source: E. del Acebo Ibáñez (2013)

At the same time, it emerges as indispensable the reinforcement of the importance of re-socialization processes in all levels: citizens, politicians, policy-makers, etc.

Speaking about the solution to the environmental and climate change problems, the different investigations we have developed show that the samples privileges above all aspects from the **Education Subsystem** (Information / Socialization) and from the **Political Subsystem** (Prevention / Government Action proper). A fourth part of our interviewees, however, find some solutions to the environmental problems within the **Normative Subsystem** (Control / Penalties).

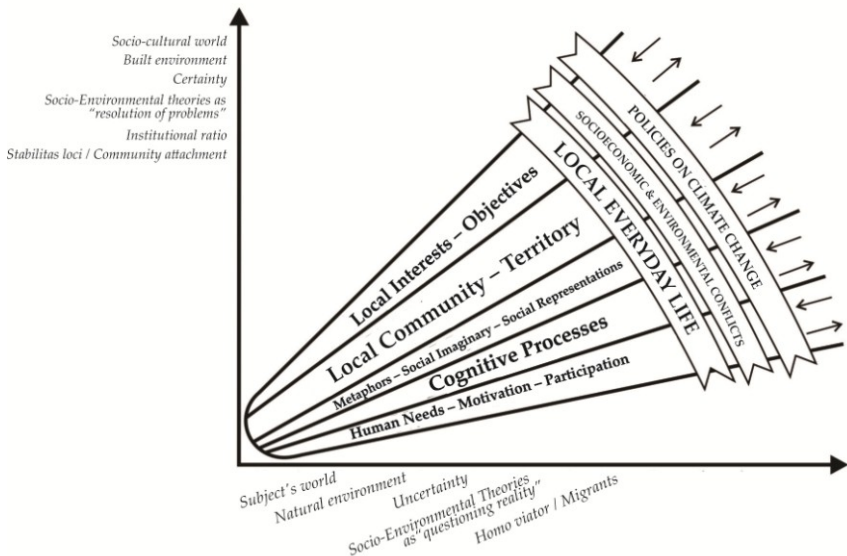
The importance of *Information / Socialization* (Education Subsystem) is especially privileged by those who evidence a *low grade of anomie*. The importance of *Control / Penalty* (Normative Subsystem) increases markedly among people evidencing *low levels of individual anomie, high rootedness level*, and also with a greater relationship intensity in their primary groups. And finally, the importance of *Prevention/Government Action* (Political Subsystem) is found in a greater percentage among male subjects than female subjects (40% vs. 24%). In fact, re-socialization processes are indispensable not only because of the changing climate conditions, but also to overcome some

important structural conditions such as anomie, disadvantage socio-economic conditions, documented and undocumented migration and, consequently, to diminish political, economic and social uncertainties (see Figure 4).

3. Conclusions

As it was said, we ascribe to frame the sociological research on climate change attitudes and behaviors in a total phenomenon which clearly states the differences, but also the convergences, between local and global, in terms of a “glocal” approach. As it is shown in Figure 5, although it is necessary to look for the “resolution of problems”, it is even more necessary to “question reality”, with its uncertainties in the everyday life where the subject’s world is continuously linked to the socio-cultural world. Local community that emerges and develops as an “assemblage” because, as Deleuze & Guattari (1991) state, the assemblage implies that bodies and signs are present and related in terms of problems and problematizations; assemblage that becomes territorial on account of a mixture of chaos, organization and change (cf Sørensen, 2005: 122ss).

FIGURE 5: THE LOCAL COMMUNITY AS AN “ASSEMBLAGE”



Source: E. del Acebo Ibáñez (2010)

Policies on climate change will be successful if (and only if) all these apparently contradictory dimensions are taken into account: a) local interests and objectives, but also human needs and motivations; b) environmental global problems, but at the same time local territory and local everyday life problems; and c) social representations, social imaginary and cognitive processes. All this represents a sort of articulating interface between global and local: the “*glocal*”.

If we underlined the need of the socialization and re-socialization of all the social actors involved, in terms of climate change and environmental problems, is precisely because of the importance of the cognitive-affective maps opening up analytical possibilities which include the comparison of the subject and the socio-cultural worlds, the individual and the social belief systems. The climate change issue challenges us because of its complexity: although it appears clearly as a problem that involved the whole planet and humanity, power relationships are still there under the public discourses to protect Nature and people from all over the world, which means that sometimes there is a long distance between beliefs and decisions.

As T.P. Karjalainen et al. (2008: 76s) state, “*glocal* perception means that an individual’s perception of the environment is embedded in his/her everyday life engagement with the surroundings –this is why it is *glocal* [...], but the framework for interpretation of perceptions is influenced by global concepts and discourses (e.g. “global warning”), and thus it is also global. Consequently, climate change may also have regional and national ‘shapes’ of interpretations or meanings”.

In sum, we must be alert about the necessary relationship between “local perception” and “local representation” of environmental changes, and the global environmental discourses became, as T.P. Karjalainen et al. (2008: 76) alert, some scholars “argue at least that the global discourse takes its shape in each country and in different locations on the basis of local conditions and socio-political contexts”.⁶ These contexts may prioritize other social problems, such as poverty, unemployment, lack of education, internal and external migratory processes, etc., creating different levels of uncertainties. But it does not mean that the global environmental discourse is not relevant, but that the climate change discourse it is not

⁶ Cf K. Burminsham & M. O’Brien (1994). The same can be said in relation to the conceptualization of “vulnerability” (cf. H.-M. Füssel, 2007).

only scientifically based: it is also closely linked to attitudes, behaviors, representations of reality, social change, and power relationships within each community and country, and between Northern and Southern hemispheres.

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