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How governance based on the Nexus (water, food and energy) could help us to strengthening democracy and open societies?[1]

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ABSTRACT

In a world context of institutional crises, we are challenged to confront the accuracy of our traditional ways of governance to support institutions that allow us to assure democracies and open societies. Bringing together the environmental issues to this backstage, this paper intends to analyze the possibilities to better improve the management of environmental crises if we were engaged in thinking the governance of resources in a integrate perspective, more precisely, we are think about the potential of the Nexus Governance among water, food and energy. These are methodological preliminary reflections that we are developing to support an empirical research in a social-economic and environmental vulnerable area in Brazil, more precisely at Guarulhos City. Further, this research at Guarulhos will be compared with empirical researches at Kampala, in Africa, and at Sofia, in Bulgaria, to understand the potential Nexus Governance (water, food and energy) on different historical, political and social realities. Inspired by a view that democratic societies are the product of techno-scientific and political construction processes guided by participatory and democratic practices and methodologies (Callon, Lascoumes, Barthes, 2009; Funtowicz e Ravetz, 2009), we seek alternatives to deal with environmental issues and their social, political and economic consequences. Moreover, based on practices ecology (Stengers, 2005; Nicolini, 2013; Reckwitz, 2002; Magnani, 2002) and looking for alternatives to deal with environmental crises and its social, political and economic consequences, we are analyzing how we could create methodological improvement, driven by the nexus solutions, to support the possibilities of dialogue among the several instances involved, since from local communities and how these interact with public agents, and how from these interactions is possible to create an agenda focused on the construction of public policies to implement policies based on nexus.

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Introduction

We are living in a context of institutional crises, both national as well as international, which challenge us to confront the efficiency of our institutions and political practices and our usual mechanisms of governance, to guarantee the maintenance of democratic societies.

At the same time, there is no way to advance toward to better mechanisms for building democratic cities without environmental issues being placed as one of the main axes, given the interdependence between the management and distribution of natural resources and quality (and viability) of life in these contexts. We understand the socio-environmental systems of our contemporary societies, whether represented by cities, countries, river basins, biomes, productive chains, or by commodity markets, as open systems. By one hand these systems are dynamics, with intense temporal and spatial interactions, implying increasing degrees of interdependence, but, on the other hand, they also cause an exacerbate the weaknesses of life support systems, while being characterized in increasing threats given the contexts of environmental vulnerabilities and injustices. Actually, the perspective of contractions on consumption of water resources, on food production, and on production and use of energy demands for solutions. It requests nexus of compensation due to imbalances that put their respective fields of intervention and management as inseparable elements in the pursuit of sustainability (Jacobi, P. e Giatti, L.; 2016).

Building a viable and sustainable urban life has become a major governance challenge in the 21st century. Unfortunately, many cities are spatially disconnected from their resource base, increasing the occurrence of long-distance transport of basic resources, such as water (real or virtual), for example. Cities also present new challenges to ensure adequate living conditions for their population, especially the most vulnerable. Currently, there are 1 billion of slum dwellers (who are expected to increase to 2 billion by 2030), which are especially insecure in food and are disconnected from government services of water and energy (or dependent of expensive prices). However, there are opportunities for cities to increase resource efficiency and move to sustainability

because they are economic and knowledge centers, with lower per capita infrastructure costs and more localized transport needs compared to rural areas. It is believed that to approach cities based on nexus could include integrated planning of water, wastewater and energy infrastructures. By enabling cities to create strategies that would enable synergies between their water suppliers and markets for agricultural products, recycling waste products inside and outside cities, for example (Hoff, 2011).

When we speak about nexus, we are referring to a concept that has been gaining prominence among various actors of civil society and integrating the vocabulary dedicated to sustainability. The understanding that more efficient solutions can be achieved by fostering connected practices, i.e., by fostering the building of knowledge and practices that are based on the links between the different areas of knowledge and their different actors, was widely discussed at the United Nations Conference For Sustainable Development, Rio +20. In addition, the perspective of the nexus is also present in important recent international documents, such as the World Economic Forum, the European Commission, Global Waters Partnership and the World Bank. In fact, the nexus discourse merge as an alert that is apparently recognized by the private economic/ financial elite as an important constraint, yet completely permeated by the uncertainties of climate change. In propositional terms, the nexus approaches conceptions and initiatives related to the ecological economy, allowing a rationality and actions aimed at investing in the conservation of ecosystem services, creating more with less, and accelerating the access of excluded groups, promoting the inclusion of poorer populations (Allouche et al. Giatti, L., Jacobi, P., Favaro, A., Empinotti, V., 2016).

This article intends to contribute to this debate, reflecting on the possibilities of improving the management of environmental problems, especially in urban contexts, through this proposal of an integrated perspective around the nexus and interdisciplinary. More precisely, we are seeking to assess the potential of building a governance nexus between water, food and energy. The focus of this communication is to present preliminary methodological reflections that we are developing to support the fieldwork that is being developed at Recreio São Jorge, in the city of Guarulhos. The choice of this

locality is due to the interest in observing the potential of applying practices guided by the convergence of the nexus in a context of environmental and socioeconomic vulnerability urban. It should be noted that this research in Guarulhos is part of a broader research that aims to compare the viability of the implementation of techno scientific and political techniques in contexts as diverse as in Kampala, Africa, and in Sofia, Eastern Europe, aiming at understand the potential of a governance based on the nexus between water, food and energy, in different historical, political, social and economic realities. In the development of such methodologies, we work with the normative horizon of democratic and open societies and with the assumption that there is no way forward in this direction without the way we deal with environmental crises are faced head on.

Public Action and Governance: thinking of research as an instrument of public action

In this part, we will try to articulate the concept of environmental governance, based on the nexus perspective, from the perspective of public action. We will try to argue that the possibility of a better use of the approach to environmental issues through the nexus, which is centered on the idea of rearticulation of knowledge and practices, will only be achieved if we are able to resume the Gordian knot, rearticulate other dichotomies that are dear to our modernity (Latour, 2000, Callon et al., 2009). In this article, we will be referring more specifically to the rearticulating between politics and science.

We find in the bibliography different interpretations about the concept of governance, in which is often given to the State a central role in the analysis. Despite our recognition of the State as a relevant and fundamental actor for public policies, we work with the concept of governance more broadly. We understand governance as a process of incorporating non-state actors into new arrangements for decision-making, and, therefore, as an instrument of democratic construction, essential in enabling an inclusive process in the search for conflict resolution, arising from contingencies and different levels of management. In this sense, governance is a challenge in itself. Often it remains a

goal to be achieved in certain sectorial contexts - for example, water governance. Governance here is also understood as a set of practices from which actors in situations of exclusion and vulnerability may have the possibility of representation in the decision-making process, which can serve as a mechanism to corroborate a practice of Actors as to resources and their use, as well as a constant situation of social learning, capable of incorporating other perspectives and practices of interest and innovative potential to management (Jacobi, P., Sinisgalli, P., 2012). This governance perspective is intimately articulated with the proposal for public action, as proposed by this group of work, which seeks to understand social participation and the possibility of strengthening citizenship, through the positioning and movement of social actors in the process of building public policies.

Moreover, we understand public action as a socio-political space, in which all the elements that are mobilized for the practices, that is, the instruments and techniques used to compose the actors' contents and projects, as well as their purposes, are relevant while Instruments of public action. An instrument of public action constitutes a device, both technical and social, which organizes specific social relations between the public power and its addressees according to the representations and the meanings of which it bears. This approach is based on the works of history of the techniques and sociology of the sciences that denature technical objects (Lascoumes, P; Le Galès, P; 2012: 21).

This set of definitions helps us to compose a scenario in which the dichotomy between science and politics, that is, between facts and values, can be debated and questioned (Latour, 1997, 2000 and 2004). Uncovering the connection between science and politics brings us elements to understand that in a society engaged with democratic values, scientific research, in the process of building facts, is part of a kind of continuum that extends to the application of policies. The widespread perception of modernity that the scientist would be responsible for describing the world in the most reliable way possible, in a neutral way; and to the man of politics, to use a weberian expression, it would fit the choice on which knowledge produced should be applied, in function of the social values to be represented by him, does not support itself anymore. Neither

as a procedure assessed collectively as legitimate, nor as an efficient model of management of the practical issues of social life.

We work with the hypothesis that: 1) the research process itself - when built on a perspective of forming an enlarged community of peers (Funtowicz; Ravetz, 2000; 2003), from participatory techniques (such as, research-action, for example), which enable us to build "hybrid forums" (Callon, Lascoumes, Barthes, 2009) - would be an instrument capable of promoting a process of "democratization of democracy". And, that 2) in this process of co-production of knowledge, between the scientists and the actors involved in the object of analysis, we would be, at some level, subsidizing the expansion of the development of capacity of the individuals (Sen, 2000), applying in practice the vocation of university extension activity, and, above all, contributing to the enrichment of democratic institutions.

Expanded Community of Peers and Hybrid Forums as instruments for the democratization of democracy (in progress)

When we think about Brazilian situation (especially nowadays), could be useful to deep our reflections on the hypothesis posed by Callon, Lascoumes e Barthes (2009, 225): "indeed, when uncertainties about the possible states of the world and the constitution of collectives are dominant, the procedures of delegative[4] democracy are inefficient in measuring the overflow caused by science and technology".

In this sense, we are looking for procedural innovations: methods of consultation and mobilization; decision-making mechanisms that allow the deepening of democracy, a model of decision-making that, in many ways, contrasts with the logic of representative and formal democracy. We are talking

[4] For a brief understanding of the meanings attributed to democratic models see: O'Donnell, G .: "The main points of my argument are: (1) existing theories and typologies of democracy refer to representative democracy as practiced, with all their variations and subtypes, by the developed capitalist countries; (2) some newly established democracies (Argentina, Brazil, Peru, Ecuador and Bolivia, plus the Philippines and South Korea, and probably some Central and Eastern European countries, now more clearly Poland) are democracies, in the sense of that they meet Robert Dahl's criteria for the definition of polyarchy; (3) but these democracies are not - and do not seem to be heading for it - representative democracies; they present a set of characteristics that make me tempted to call them delegative democracies; (4) Delegative democracies are not consolidated or institutionalized democracies, but they can be enduring. In most cases, there are no imminent threats of open authoritarian regression, but no progress has been made towards institutionalized representativeness; (5) Finally, I argue that we have an important interaction effect: the profound social and economic crisis that most of these countries inherited from their authoritarian predecessors powerfully multiplies the consequences of certain conceptions and practices that lead towards the delegative democracy, and not representative.

about practices capable of deepening the democratic process (what Rothschild, for example, calls Democracy 2.0) from the dissemination of a dialogic and cooperative logic, capable of making the actors involved explore creativity, solidarity and autonomy based on the common good (Rothschild, 2015, Callon, Lascoumes and Barthes, 2009, Singer, 1996).

However, the group's proposal to work with methodologies capable of fostering the understanding, solutions and agendas of social and environmental issues from a dialogic and collaborative logic implies neither the recognition of the formal State as a central actor nor of the normative orientation of the as the building space of the best possible life for its citizens. In this sense, we are cautious with positions that circumscribe the state within a delegative logic, and that only in the societal plane could we advance in the deepening of a dialogical democratic logic. On the contrary, despite the great challenge of establishing a proactive dialogue with the State, this has been one of the central axes of the fieldwork we are developing in Guarulhos (for example). (Rewriting) In addition to having a prompt answer on the efficiency of this parallel practice, however, the almost inevitable involvement of people in this dissonance, it seems to me fundamental to point to the growing tendency to leave in suspense the "certainty" of colonization or cooptation of the world of life through a systemic logic (Rotondaro, 2015).

- Interdisciplinary science à Peer Community
- Cooperative politics and democracy 2.0 à Hybrid forums
- Questions that have not been overcome, but that would be within a logic of delegative democracy and not of a dialogical democracy, that should be "put in its place" so that the contributions brought by the hybrid forums can be reached. It is interesting to note that methodologically this can be an efficient tool - we can mention examples of research done by members of the group (Toledo and Giatti, 2014) that point in this direction. However, in a prospective sense this assessment requires a little more caution.

Contradictions caused by the delegative logic - In this sense, as researchers we are faced with a contradictory situation. Precisely because the interaction, through the techniques of research-action, happens in a successful way and the object-subject also sees itself as one of the protagonists of the

production of that knowledge; however, they return us to their dissatisfaction with the possibility of rupture of the initiated process, demanding from us researchers a responsibility to accompany them in the forwarding of demands and / or proposals to the more deliberative spaces of state power.

The question that we should ask ourselves is: in a context of advancing conservative scenarios, what is the gain in suspending categories of a delegative logic and focusing on a more dialogical notion? It is not a question of constructing an evolutionist or even a statist view of democracies. When we look at society, when we are in the fieldwork and observe the degree of scarcity and vulnerability of those citizens, we clearly realize that the miserability situation in many respects conditions the development of the human abilities/ capacities of those individuals, and therefore their capacity participatory approach. The most challenging here is how to coordinate and foster the deepening of democratic (dialogical) practices in a context of clear flirtation of political reversals at almost dictatorial levels?

"[...] relations among science and politcs [...] may also be a formidable weapon against hybrid forums, since, if we stop at the initiative [...] The only purpose of a wide consultation of experts (...). When it comes to the organization of hybrid forums, it is to save delegate democracy" (229-230). It is precisely at this point that we focus one of our greatest concerns.

Trying to deal with this threat, we have adopted the following methodology: we first identify the spaces of public debate, although precarious, and we propose, first, to take part in this forum, and, afterwards, we go after other actors interested, in order to build the extended peer community (FUNTOWICZ, S.; RAVETZ). We have used specific techniques to develop participative methodologies, such as map, speaker, photo voice, world coffee, focus group, etc.

Final Reflections

- The object of investigation
- General problems: different context (comparison)/ differences in the relationship between state and civil society
- Techniques - Ecology of practices

- Action research
- Public Action
- Challenges: democracy, adaptive measures, strategies for resilience, management of natural resources as central to economic development proposals (see Piketty)
- Without planning there is no way to find a solution
- These methodological tools are efficient resources for the construction of the collaborative agenda

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