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What do people have to say? Some thoughts about investigating people's perceptions in climate and environmental change research

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Should climate researchers be interested in knowing if and how people perceive climate change and/or environmental change? If so, why should they? When trying to answer this question, which might sound a bit simplistic, one hits on some preliminary issues such as the relationship between different spheres of knowledge which claim to be inter related, but in fact are not and the links between knowing and acting since the very production of knowledge about climate change is stirred by an expectation of "action", be it political action or the agency required by changing one's habits as consumers and producers of "dangerous" artifacts, energy sources, etc.

Social scientists (anthropologists most of all) will claim that societies and cultures *perceive and adapt to climate change from the perspective of their own unique socio-cultural framework*. On the other hand, one might stress the universality of the phenomenon which hits the "earth" globally, no matter which "lands", "soils", "territories" and cultures we consider: CC is a monument to inter relatedness, a definitive homage to global responsibility. We are told that this is peculiar of this particular climate change we are living through as different from others in the past.
 It may be that the difference lays in the social *communication systems* we live by, more than in the facts and data themselves and in what has been called the "shrinking" of time (and space) produced by communication technologies, among other factors. Data which are communicated globally tend to become global "knowledge" or common sense which might be projected on people's life experience as a sort of self fulfilling prophecy or ready made explanation of *Change (tour court)* which is, as we all know, a disconcerting experience, anyway. Therefore, the complex and multiple experience of "change" we all live through, our capacity to distinguish internal and external changes, individual and collective or shared experiences of the "new", all require some explanation in order to cope. "I 'll move into town" is a statement which is always accompanied by a sentence which starts with a "because….". When we actually move and when we pronounce the statement giving the reason why, we mobilize some kind of knowledge which pertains to the uniqueness of our life experience, but also to the tools, the bits and pieces of knowledge available on the market of acceptable explanations.

Now we would like to ask: which knowledge, based on which experience, produced by whom, communicated or transferred by whom to whom and how? In other words: what do people know about the world they live in, the near and the distant, how do they link their actions and behaviors to what they know? When, under which conditions do they (we) discover that our actions may be based on a lack of knowledge or even on false knowledge?

This link between knowledge and action is similar to the one so peculiar of Climate Change research, as we noticed above. Scientific knowledge on climate change calls for action a wide variety of actors: policy makers at national level, administrators at local level, the biggest corporations and the common consumers. On the other hand the agency suggested for each requires specific knowledge. Scientists must understand how institutions work and think in order to "mainstream" their discoveries and avoid or prevent disasters, while policy makers face a triple front: first the need to develop proper sensors capable of observing the territory they are accountable for, second to design and implement appropriate interventions and third to understand how all this crosses the lives and livelihoods of the citizens they are accountable to. This third front is quite obviously the most important one since it embodies the very reason why it matters to produce any knowledge and take any action: the fact that the planet is inhabited and also that the condition of being the planet's inhabitants is a shared one.

One might object that the importance of observing the ways people perceive change and act thereupon and thereafter is just a matter of interest for social scientists who need to do research and publish. Or, if we move to regions which have been "hit" by development aid, like Africa and especially sub-Saharan Africa, this kind of knowledge might interest donors (or would be "beneficiaries") in order to identify targets for aid and support to *vulnerable* social groups, having observed their movements in space and time and their lack of tools for integrating into the mainstream.

What is relatively new and interesting in a research that is somehow anchored to changes which take place in the environment which supports and surrounds women and men, is that they, the people, are now seen in their relationship with what is outside their individual persons, as linked to the rest : be it the social group they refer to, but also the land, the water, the air, the soil, the roads and the buildings which are parts of their lives but seem to have also, now more than ever, a life of their own: waters, soils, winds and even buildings and roads change and move independently of our actions and also quite unexpectedly. We *adapt* to such changes. We become smarter in doing it. But do we know better?

To a certain extent all societies and cultures have created "technologies" to cope with the unexpected and uncontrolled, nature being the source of most of it. There have always been, of course, those who knew how to tame the unexpected and a chain of actions and different scales of knowledge allowed the access to this elite of wise men (and women) who could guarantee rain or soil fertility when it was the case.

It might be a paradox, but today, in the age of global communication, this chain seems fragile and interrupted. The knowledge of the elite is spread globally, but little is known and done in order to let it trickle down and to

explore the differences of the impacts at all the steps and stages, at the level of all the human groups who are or will be effected.
 The other paradox is that in this case, the causes of the changes which are presented as unexpected, are well known human behaviors.
Investigating women's and men's perceptions of changes in their environment is then a crucial piece of knowledge which will help to construct the chain. Last but not least, knowledge and actions (and calls for action) are situated. If the distinction of a North and a South (or Norths and Souths) of the world still holds, the old picture of power relationships comes back: in the "North" (or West) lay both the main causes of climate change and the call for action to counteract both causes and effects. The "South" is still represented as the victim, receiving the impacts with less capacity to cope and to negotiate. A way out of this new edition of colonial power relationships, might well be to give value and visibility to the ways people, societies and cultures **act in response to changes** in areas like African cities. [1]
What might come out, as it happens in the research conducted by the Ardhi Institute in cooperation with La Sapienza's researchers, other changes, not attributable to climate change, might be identified as the most important ones and nearest to the life experience of citizens who are questioned on climate change. This is a challenge to go deeper into at least three issues: 1) A *space* related question. In which areas are people more exposed to changes (environmental *and* climate changes) and have therefore developed strategies to cope with them 2) A *policy* related question: what are the advantages of showing other issues, different from climate change effects, which are perceived as near to the life experience of city dwellers. 3) A *research* related question. Are there possible links between different groups of changes perceived? Is it possible to draw a chain of interactions which combine existing problems (infrasctructures, waste management, water and energy access) with future climatic effects which can intensify the present situation?

The case of autonomous adaptation in the peri-urban areas of Dar es Salaam as investigated by the Ardhi Institute & Sapienza programme.

The experience of the research conducted in the peri-urban areas of Dar es Salaam well illustrates some the issues discussed above and produces suggestions for further in depth investigation
The research brings up three issues all three strictly related to the nature of the peri urban space in which it took place.

The first is *Change* as a broad category which refers to time and space. Asking people about their perception of climate change elicits answers which engage memory and the spatial experience of the respondents. Here one faces the depth of memory when it is not related to personal or historical events. It is well known that different social and cultural groups have different ways of managing individual and collective memory. Peasants scan time by

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[1] "*The impacts of climate change on humans, though mediated by wind and weather, are as social as gender relations, and are products of a particular set of power relations*"Hornberg, A. 2008. Machine fetishism and the consumer's burden. Anthropology Today, 24 (5).

agricultural seasonal sequences which unfold by cycles. (*Rain is naturally the most important marker in rain fed agriculture, but not the only one: the quality and quantity of the harvested crops might be another as well as the market prices; all together contribute to mark a season or a year in time. There are rural areas where rain increased (climate change effect) although with patterns different form the past, but where people are ready to take advantage of this quite efficiently (in Tanzania, the Handeni case).*

Urban dwellers use different markers for scanning their memory of the time past. Women manage the past differently from men and of course age is a crucial variable. This means that by simply asking a question such as "Did the climate change?" one unveils all sorts of *differences* in the lived experience of change related to the environment and to the climate.

Also space as experience comes into the picture. People move. This is true especially of those who live in the peri urban areas of a big city. They are mostly new comers and as such bearers of a multiple experience of dwelling which they often maintain in the form of a double residence: the rural and the urban joined in their moving from- to and back and forth. The richness of this multi locality in a life experience is a source of knowledge and of multiple skills which needs to be known and valued.

But the most provocative question which shows how important such researches might be in dealing with the complex issue of change and climate change is the one on the future perspectives of peri urban dwellers.

Here we deal with what should be described as women's and men's *aspirations.* Caught in between rural and urban or having consciously chosen this "in betweeness", these people of the margins, but not marginal, know a lot about both realms. They perceive social and spacial hierarchies and very often they don't express the intention of moving out of their mixed situation. Some agriculture, some subsistence activity, some petty trade. The sober way of life which is often proposed (especially in the rich regions of the world) as the model for a sustainable future, the most suitable to cope with future climate changes, the best kind of autonomous adaptation. But is this what these people actually *aspire* to?

Arjun Appadurai[2], working with the slum dwellers of Mumbai , brilliantly discusses the ways in which aspirations are distorted by many conditions people live in. The **capacity to aspire**, as Appadurai puts it, referring to Amartya Sen's work, is built, shaped and reshaped not only by the physical and economic conditions people live in, but also by culture (not meant as education). This means simply that *voice*[3] is an asset people can have even when lacking other resources and that it nourishes the capacity to aspire, i.e. to see a future) once this voice is *recognized.* Once again it is inter-relatedness that is brought up through a research like this one. In other words, the capacity to see a future depends on how people's voice is recognized and also, by the *patience* a whole society can afford to develop and sustain the capacity to shape aspirations. By the way, when investigating on climate change, this means that what was called the "tyranny of emergency" which

[2] Arjun Appadurai, *The Capacity to Aspire:Culture and the terms of recognition , in Culture and Public* Action, Vijayendra and Michael Walteon, eds, Stanford University Press, 2004

[3] Albert O.,Hirschman, 1982, *Shifting involvments: Private Interest and Public Action*, Princeton University Press

can be a side effect of certain approaches to CC, should be replaced by a patient, step by step stream of action.

Finally, we may comment what I see as the *ambiguity of Climate Change as an explanation of different experiences of change*. Since we saw that the research on adaptive behaviors and perceptions of CC brings up different groups of issues, most often changes which are not immediately related to climate change, one might want to look deeper into this. We saw how important it is for all the actors engaged in this activity that people's voice is expressed and recognized. We also stressed the importance of seeing vulnerability as not an inherent quality of women and men who live in a certain time and space, but as related to the environment (natural, but also social, economic, etc.) they live in, with and by. We stressed the importance of CC as a frame of reference which can broaden the very concept of the environment building links with the rest of the world which may reconstruct the chain of relatedness from the most local to the most "global" scale.

But the question now is: what happens when the near (to experience) is moved towards the far (from experience)? To put it simply: what happens if and when the changes we experience in everyday life (loss of soil fertility, lack of water, air pollution, loss of land, loss of the capacity to dispose of waste, etc.) are attributed to climate change, may be by the very fact that the researchers introduce themselves uttering the words "climate change"?. It is easy to imagine that the action towards which these issues tend when brought up and uttered in actual words, will be addressed to somebody. To whom? To whom it may concern? But who is to be concerned?

Climate Change as an explanation of several different changes may hold as reasonable as long as one can see the chain in space and time (pointing to a very distanced future) between this waste here and now and that flood which might occur in the future. Floods occur in the present, of course, and are treated as emergencies caused by distant causes, but the variety of their effects points to near causes and accountability can be claimed here and now.

Here we can see how doing research on CC can build relationships. But we should ask which ones and with which effects.

Doing field research and triggering people's stories, opinions, perceptions on issues as complex Climate Chage is perharps less rewarding as a possible source of information on people's behaviors (mainly adaptive) than it is the opening of a dialogue on what has changed, is changing and might change in the relationship between humans and the environment meant in the broadest possible sense. Dialogues which engage laboratory scientists, policy makers, administrators , investors , planners among themselves and with the people who are, or should be, the ultimate "owners" of the knowledge and of the decisions made in managing the landscape, be it urban, periurban or rural. Such dialogues, we saw, have the power to shape and reshape people's aspirations, their plans for the future and also to give sense to what they can recall of the past, near or far. They require some kind of reciprocity, since information must flow in both directions and they should become a constant source of knowledge and interaction for all the actors involved: the pillars of

preparedness if one wants to avoid the "tyranny of emergency" which is a negative side effect of research on climate change.

The importance of "consciousness" and the risks of overestimating its contents, in the understanding and shaping of human adaptation was underlined, long ago, by Gregory Bateson[4], in his seminal work "Steps to and Ecology of Mind". I Conscious man, as a changer of this environment, is now fully able to wreck himself and that environment with the very best of conscious intentions introducing the image of system" as relationship between man, his society and his ecosystem, Bateson poses a "question of great scientific interest and perhaps grave importance in whether the information processed through consciousness is adequate and appropriate for the task of human adaptation. It may well be that consciousness contains systematic distortions of view which, when implemented by modern technology, become destructive of the balance between man, his society and his ecosystem…..we believe that consciousness has feedback into the remainder of mind and so an effect upon action. Bur the effects of this feedback are almost unknown and urgently need investigation and validation[5]…. " A task which is more and more here with us and which should at least call for the merging and dialoguing of different perspectives.

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[4] Gregory Bateson, *Effects of Conscious Purpose on Human Adaptation*, in "Steps to and Ecology of Mind, pp.440-447, New York: Ballantine Boks, 1972. Reprinted in Michael R. Dove and Carol Carpenter, eds, 2009, *Environmental Anthropology, A Historical Reader,* Blackwell

[5] Dove M.R.,Caroebter,C., 2009., pg.458