Territorial representations and collective participation in the planning process: A case study in suburban Dakar

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Abstract

In order to support community involvement in the planning process of its living environment, the research uses a participatory process to elicit inhabitants' territorial representations as the groundwork for a participatory geographic information system (PGIS). It is conducted in a poor Senegalese neighborhood located in the immediate vicinity of Dakar's rubbish dump, which is undergoing foreclosure as a part of important infrastructure projects that will change the territorial dynamics of the area. The research aims to show that the process will transform the citizens' territorial representations of and relationships to their environment, as well as, stimulate the collective will to be a part of the ongoing planning process of which they are presently excluded.

Background and Relevance

PGIS research has focused on access to information. It has often been used to value local knowledge of the territory (see for example community-integrated GIS in Harris et Weiner, 2002; Elmes and al, 2005; Koti et Weiner, 2006) or to provide a better community access to spatial information (Elwood, 2008; Kyem, 2009). There is also room for using GIS to elicit conversations on place perceptions. This research stresses the process of sharing, reflecting on and discussing place and space representations as a means to awaken a community's involvement in planning its environment. It is interested in the way citizens describe their environment, or *space description* (Mondada, 2000); their travels and daily activities, or *living space* (Di Méo, 1996); their feelings associated with their surroundings, or *lived space* (Di Méo, 1996) and *place attachment* (Altman and Low, 1992; Breux, 2007). GIS can contribute to the process by integrating this information, as well as by superposing it with more usual territorial information integrated in GIS. The purpose of the research is to provide citizens with a basis for discussions on the future of their territory and to encourage planners and decision makers to take into consideration the citizens' territorial representations.

Part of a wider ongoing action-research project in planning and architecture, this presentation bears on two stages of the research: 1. a participatory process aimed at reflecting on place representations and the future of the neighbourhood; 2. the integration of the qualitative material thus generated into a GIS equally accessible to citizens and planners. The transfer of the GIS to the community will be studied in a future stage of the research.

Methods and Data

The first participatory meetings with the community were held during the summer of 2009. The views expressed at this first stage serve as a reference for assessing community change during the whole action research project. At stage two in the summer of 2010, a structured interactive process was carried out in order to study the inhabitants' representations and their transformation both at the individual and the collective levels.

Four groups of five inhabitants – segregated by age and gender – were involved in participatory workshops that focused on their representations of their living space. In the first workshop, held at the community health center, each group drew a mental map. The second workshop consisted of a neighborhood walk, where participants commented, took pictures, and interviewed people on their way through. Data thus collected about important places were integrated in a GIS to produce static maps. The four groups were then brought together to evaluate the maps, which were thereafter presented and analyzed during a community meeting. All the material generated through the workshops and the community meetings was analyzed further in the fall, with an exploration of ways to integrate this type of qualitative material in the GIS. Several important elements, as well as, comments and pictures taken by participants during workshops and walks were integrated into the GIS. The regroupment of this data facilitated the analysis of the differences and similarities in territorial representations expressed by the four groups.

To measure the participants' *awakening to* the planning process, two concepts were used. These two concepts depict the participants' sense of engagement in a situation. The researchers may then measure the change in the participants' mindset concerning the control or the impact they have on the planning process. The first concept is the «locus of control» developed by Julin B. Rotter in 1954 (Smith and all, 1995). An individual's locus of control can be internal (the person thinks he controls his life and the events that affect him), or external (the person believes that external forces, or a higher power, control events that happen in their life and their environment). The second is Perry's «scale of cognitive and intellectual development» (1981). In a first stage of «dualism», the person considers only binary viewpoints concerning a situation. In a second one of «multiplicism», the person understands that different perspectives co-exist. In a third of «relativism», the person qualifies his own thoughts. In a final «engaged relativism», the person feels he has to do something about a situation. A person or group with a dualist understanding of the urban planning process and an external locus of control would tend to be reluctant to engage in discussions concerning the future of his/its neighborhood. Conversely, a person or group with an engaged relativistic mind frame and an internal locus of control would more readily participate in debates and actions aimed at improving his/its living environment.

Individual open-ended interviews before and after the participatory workshops were used to measure change in locus of control and cognitive and intellectual development. At the community scale, using the same concepts, the content of a community meeting held in the summer of 2009 around aerial photographs of the neighborhood and its surroundings was compared with the content of the one held in the summer of 2010 after the workshops around the resulting maps.

Results

The results show that participants advanced in terms of locus of control and scale of cognitive development. For example, when asked what they could do to improve the neighborhood, some of the young women replied, before the workshops, that the men – the heads of the households – should be responsible for the community. When asked the same question after the workshops, they had changed their discourse to include themselves as agents of change and they pointed at the necessity of community meetings and collective actions, hence, showing a shift from an external to an internal locus of control and an *engaged relativistic* position concerning this topic. Participants also argued that their capacities and skills were improved due to their participation in the workshops.

The analysis of the issues discussed during the community meetings point to the emergence of a common discourse about the future of the neighborhood and the prioritization of needs and actions for territorial planning. In 2009, the residents had a tendency to rely on researchers to delineate further action for their neighborhood. They then listed their needs without prioritization in the form of a wish list. According to age and gender, they expressed different viewpoints concerning future actions and solutions. Overall, during this meeting, the community expressed a predisposition to count on an external locus of control and a *dualistic* understanding of neighborhood issues. During the 2010 meeting, there was a real conversation between all participants and land development emerged as a major issue over which the community should have control. Contrasting with the minimal internal locus of control expressed in 2009, at this meeting, a community leader, and his supporters, emphasized the necessity to create a plan for future development. There was a consensus at the end of this meeting to further the discussion by engaging the neighborhood chief and the mayor in the process.

Conclusions

As in all research-action processes planned over many years, there are many uncontrolled factors may have influenced these research results. Indeed, during this research, other participatory activities were held in the neighborhood and, over a year, many events may have contributed to the observed changes. However, the change observed in individuals happened over a relatively short period, under relatively controlled circumstances. As to the community, although change over a year cannot be controlled, the comparison between the meetings held in 2009 and 2010 underlines the importance of relying on the situation as defined by the community to really engage the inhabitants in the planning process. It remains to be seen whether change will be sustained over the years to come and how the community will appropriate further development in the PSIG.

Despite its limits, this research shows the way towards a promising role for PGIS in transforming the representations people have of their territory and in raising their interest in neighborhood and urban planning. In conclusion, next stages in this research will be discussed.

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