The travel of global ideas of waste management. The case of Managua and its informal settlements

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ABSTRACT

Informal settlements in the global South cities are often neglected by formal solid waste collection services. In the city of Managua, the municipality and international and local NGOs recently implemented several waste management projects to provide waste collection in informal settlements. These projects supported or created cooperatives or microenterprises of waste pickers collecting household solid waste in barrios inaccessible to modern waste trucks. The projects also created three waste transfer stations, on barrio fringes, where the collected waste could be disposed and transported by municipal truck to the municipal landfill. New institutionalism theory and the "travel metaphor" illuminate how the "waste transfer station" idea travelled to Managua from various international organizations. New urban infrastructure and waste management models introduced by donors were decoupled from existing waste management models and practices. Despite the organizational hypocrisy of the city administration, introducing this new model via pilot projects in three city districts challenges the logic of the existing centralized waste management system, which ignores the city's informal settlements. The introduced waste transfer stations and associated waste collection practices were translated, and sometimes contested, in some informal settlements through protests, occupations, and other defiance strategies enacted by municipal waste collectors, squatters, and residents.

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Introduction

Household solid waste collection in informal urban settlements of the global South is often ignored by public waste collection services; instead, the informal sector frequently provides this critical service (Arroyo, Rivas, & Lardinois, 1998; Coad, 2000). Waste collectors, individually or collectively, collect household solid waste with carts drawn by horses, bicycles, or trimotos (Katusiimeh, Burger, & Mol, 2013; Oteng-Ababio, Arguell, & Gabbay, 2013; Zapata Campos & Zapata, 2013a). Many development projects have supported the informal services provided by these local entrepreneurs due to their multiple contributions to the Millennium Development Goals: creating employment for low-income citizens, improving public health, and reducing the environmental footprint of cities (e.g., Anand, 1999; Furedy, 1992; Hasan, 2006; Mitlin, 2008; Wilson, Velis, & Cheeseman, 2006).

In this paper, based on a case study of the city of Managua, we explain how ideas of waste management travel — via international aid development agencies, international consultants, and other policy actors — and how these ideas are locally translated to provide a solution to the lack of household waste collection in informal settlements. In Managua, the municipality, international and local development agencies and NGOs recently implemented several waste management projects to provide waste collection in informal settlements. These projects supported or created cooperatives or microenterprises of waste collectors collecting household solid waste in barrios (i.e., neighbourhoods of informal settlements) inaccessible to modern waste trucks. The projects also created three waste transfer stations, on barrio fringes, where the collected waste could be disposed and transported by municipal truck to the municipal landfill. The paper demonstrates that the new waste transfer stations and decentralized waste collection practices introduced in Managua via pilot projects are challenging the existing logic of a centralized waste management system, based on modern waste trucks, that ignores the absence of this critical service in the city's informal settlements.

The travel of ideas metaphor from new institutionalism theory serves as the theoretical framework to analyze the case study,

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which is presented in the next section. Then, the methods used to collect and analyse the data are described. Thereafter, we present the three waste management projects in Managua, funded by international development organizations, which are examined in the case study. The findings are discussed in the next section. The paper concludes by discussing how the new decentralized service and the waste transfer station will either become institutionalized or fade away, and the potential implications of this for the municipality and the informal settlements of Managua.

Theoretical framework: new institutionalism and the travel metaphor

In new institutionalism theory, imitation is conceptualized as a basic mechanism for circulating ideas that become rational myths (Meyer & Rowan, 1977), for example, decentralized waste management models or new critical infrastructure such as waste transfer stations. Organizations will respond with compliance strategies by adopting these ideas if they perceive benefits from following the rules of the institutional field (Oliver, 1991; Sharfman, Gray, & Yan, 1991). In the case of local governments in many global South cities, aid development agencies are powerful institutional constituents that bring ideas of governance and management in association with the projects they fund. There are many examples of these isomorphic pressures (e.g., Caulfield, 2002, 2006; Zapata Campos & Zapata, 2012, 2013b); for example, New Public Management ideas have travelled the globe and been implanted in developing countries under donor pressure (Sulle, 2010). Other ideas, such as participatory processes, have become internalized habits and the normative expectations of the agents and subjects of development (Green, 2010). In other words, what ideas travel seems to depend more on who transports and supports them and how they are packaged, formulated, and timed (Czarniawska-Joerges & Joerges, 1996; Sahlin & Wedlin, 2008) than on the ideas themselves.

It is important to clarify that ideas, practices, institutions, models, or technologies cannot travel until they are simplified, abstracted, embodied, and inscribed, as only bodies or things can move in time and space (Czarniawska, 2002: p. 7). In the translation process, as elaborated by Czarniawska-Joerges and Joerges (1996: p. 46), an idea is disembedded from its institutional surroundings, packaged into an object, translated and unpacked to fit the new context, translated locally into a new practice, and is then re-embedded. What is finally re-embedded is not the idea or technology as such, but rather accounts and materializations of it (Sahlin & Wedlin, 2008) in different local versions in different local contexts.

Therefore, the travel of ideas does not imply the reproduction of exact copies of original ideas; instead, the adoption of new ideas can eventually bring about change and innovation. The travel of ideas metaphor has developed from a "diffusion" to a "translation" model, in which institutional pressure, or rather, external ideas, are translated, changed, and localized in the new organizational context (Czarniawska-Joerges & Joerges, 1996; Czarniawska-Joerges & Sevón, 1996, 2005; Sahlin-Andersson, 1996). Accordingly, the travel of models and policies cannot be reduced to the simple compliance, assimilation, and appropriation of programmes transferred from North to South. Instead, development aid projects are also locally contested and eventually localized, overt or covertly. Local actors (e.g., city managers and community leaders) can create new spaces in which to interpret, adapt, and twist these projects to fit local needs, meanings, and interests (Zapata Campos & Hall, 2013; Zapata Campos & Zapata, 2013b).

This explains why organizations such as local governments, although subject to the same effects of institutional forces, do not

all respond in the same manner to these pressures (Scott, 1995). Organizations can respond to the travel and adoption of ideas not only with compliance and compromise strategies, but also with avoidance, defiance, and manipulation (Oliver, 1991).

Once ideas have travelled to local governments, cities, and local communities, inconsistencies with well established practices and institutions can emerge; these can be resolved by decoupling ceremonially adopted ideas from existing organizational practices (Meyer & Rowan, 1977). This has also been called "organizational hypocrisy", i.e., the extent to which organizations decouple organizational discourse from decisions and actions (Brunsson, 1989). For example, the introduction of participatory policy making models in municipalities has eventually led to the decoupling of decision-making power still retained by municipal politicians and officers with the participation of non-governmental organizations (NGOs) launched to gain social legitimacy (Zapata Campos & Hall, 2012). Despite this, even the decoupling of adopted ideas from organizational practices may eventually have consequential effects on formal structures and day-to-day practices, resulting in organizational change (Sahlin & Wedlin, 2008), as we will demonstrate was the case with the travel of the waste transfer station model to Managua.

Methodology

The paper is based on the case study (Yin, 2009) of the city of Managua and the waste management projects implemented by the municipality and international and local NGOs to provide waste collection services in informal settlements. The data analyzed here were gathered on three field visits to Managua in December 2009–February 2010, January–February 2011, and June–August 2012. The research was qualitative (Silverman, 2005), based on semi-structured interviews, meeting observations, workshop participation, and photographs.

On the first field visit to Managua, our focus was on the origin of the waste management projects. We interviewed, among others, donor and aid development managers (from UN-Habitat Nicaragua, UNDP, Spanish Aid Development Agency, Italian Cooperation, and Habitar) responsible for conceptualizing the projects, seeking to learn how the projects were formed and where and from whom the ideas and models originated. On the second and third visits, we concentrated on what had happened over the intervening year. We interviewed project managers, politicians, and municipal officers, but also waste collectors, community leaders, municipal waste operators, and informal settlement residents, to understand how the projects were being translated into Managua's waste management system during their implementation, by whom, and with what implications for the municipality, districts, informal settlements, waste collectors, and residents. In visiting the organizations' headquarters, we concentrated on the relationship between the field offices and headquarters when formulating and implementing the projects. When visiting the informal settlements, we concentrated on the provision of the waste collection services, the coordination between the municipality, waste collections, aid organizations, and residents.

During our fieldwork, we conducted a total of 70 personal interviews, including community leaders, residents, waste pickers, NGO workers, development aid organization officers, city managers, public officers, politicians, ambassadors, development aid organization managers and directors, municipal waste operators, waste collection cooperative members, waste handling and recycling corporation personnel, NGO volunteers, engineers, and architects. Most interviews were semi-structured and lasted around 50 min. Other interviews constituted spontaneous encounters with residents, waste collectors, and municipal waste operators during