

The ecological transition to the management of gardens and green spaces of a local authority, an opportunity for the development of collective work

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Abstract

With this contribution, we wish to highlight the development of collective work that underlies the implementation of the ecological transition.

To do so, we rely on the results of an intervention that took place in the gardens and green spaces department of a local authority and on a doctoral research in progress. In a context of ecological transition, this department is undergoing significant changes in the missions entrusted to gardeners. The implementation of these evolutions on the territory is accompanied by different and sometimes contradictory appropriations according to the actors (gardening agents, team leaders, users, local elected officials). In this context, users and elected officials express requests that the agents must manage.

To do this, we show here the collaborative work that was instituted between the secretaries of the management, the team leaders of the gardeners and the gardeners in order, on the one hand, to harmonize the logics of the actors and, on the other hand, to adapt to the requests that are sometimes contradictory with the rules that have been set collectively.

Keywords

Ergonomics - Ecological transition – Development - Collective work

Context

In this contribution, we defend the point of view that the ecological transition can be a source of development for individuals, collectives and organizations (Le Bail, Boudra, Zara-Meylan, 2021).

The ecological emergency requires us to rethink our ways of producing, consuming and working. The sixth Intergovernmental Panel on Climate Change report (2022) states that this transition requires political, technical and productive choices and a drastic change in lifestyles towards more sobriety. As sociologist Pierre Lascoumes explains, the territory appears to be the lever for implementing environmental policies. The complexity of moving from principles to environmental action lies in the conjunction of the global and the local (Lascoumes, 2012).

In addition, changes related to the ecological transition lead to significant contradictions in social relations with the environment (different degrees of environmental concern of individuals and lifestyles, different values and solutions considered) (Coulangeon, Demoli, Ginsburger, 2023).

Reinforced by the decentralization of the state to the territories, the participation of social actors in the construction of public policies is now valued and commonplace. Jean Daniel Reynaud highlights the existence of interaction games between actors leading to the development of decision-making. He speaks of social regulations to show that rules are part of a systemic and multi-actor mutation (Reynaud, 1991, 1997, 1999). To deepen industrial relations, it follows from the theory of social regulations, the "territorial regulations" (Jobert, 2003). Understanding the territory invites us to build with multiple interlocutors with different logics of action (Jobert, 2006; Denieul, 2008; Garabige, 2012). This applies all the more in this ecological context that animates society by virulent debates. Indeed, the transformation of the

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environment refers to the transformation of our place of life as individuals. This touches on identity, reveals feelings of belonging, appropriation of space, anxiety about the future and citizenship, which may explain the liveliness of these debates (Altman, 1975, 1986; Moser, 2009).

It is therefore in this context that the ergonomist in a developmental perspective can participate in advancing debates on "needs and expectations, points of view, norms and rules, and value systems" (Le Bail, Boudra, Zara-Meylan, 2021).

In a systemic perspective of the intervention, we are interested in looking at how this plurality of actors intervenes in the implementation of the ecological transition and influences the activity of public officials.

In this communication, we rely on the results of an ergonomic intervention carried out at the management of gardens and green spaces of a town hall. This department has implemented many changes in the missions of gardeners to improve their impact on nature (more respectful maintenance of biodiversity with plots of "short grass / tall grass", cleanliness of green spaces, tree planting plan, and so on.). Decisions coming from the actors of the administration, users, regulations or local elected officials are at the origin of these evolutions. They generate many requests addressed by users and elected officials for gardeners. These are often claims on their part and calls for action (for example: picking up garbage, cutting grass, and so on.). The processing of these queries is reported as problematic by the gardeners team leaders. The ergonomic request aims to understand the solicitation management process and the impact on the work of management officers.

From this intervention, it is highlighted in another communication that the implementation of projects concerning the ecological transition questions the actors (gardeners, users, elected officials, team leaders, and so on.). We show (1) that they appropriate these changes in different and sometimes contradictory ways. Indeed, there are various conflicts of goals (Cloutier, David, Teiger, & Prévost, 1999; Flageul-Caroly, 2001) created by diverse perceptions of ecology, representations of gardeners work and inconsistent issues. We illustrate the contradictory requests with the following example: a query to cut herbs for more aesthetics versus a request to let herbs grow to increase biodiversity. We also show (2) that gardeners team leaders work to manage contradictions and reach an agreement (Iran, Chassaing, Petit, Caroly, 2023).

Objectives

From this same intervention we wish in this contribution, to highlight (3) the development of collective work that underpins the implementation of the ecological transition. We show collaborative work (Rogalski, 1994; Caroly, 2010) which was formed between executive secretaries, gardeners team leaders and gardeners to reduce these requests. This reduction in queries is based, on the one hand, on a harmonization of the logic of actors and, on the other hand, on an adaptive response of public officials to the requests that sometimes contradict the rules set collectively.

Methods

To carry out this ergonomic intervention, we first made preliminary interviews (with the heads of departments, the prevention assistant and the management) and a literature review. This made it possible to analyze the request and to sample the intervention.

Four instances have been created to structure the approach: a steering committee (with the management of gardens and green spaces), a project group (with the project manager, heads of gardeners departments and the technician) and two working groups (composed of secretaries

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on one side and team leaders and gardeners on the other).

We considered the entire query management process. This required analyzing the work of secretaries, team leaders and gardeners. Two teams of gardeners were selected with the help of the department head looking for certain heterogeneity of people, places and practices.

The analyses of the work include a series of semi-structured exploratory interviews (5 hours) carried out using an interview grid. A total of 43 hours of observations (open and systematic). Following the analysis of the data, the working groups first made it possible to confront the actors with the results, to make them debate on their activity and representations. Then, we worked collectively to develop possible solutions, first in a working group and then in a project setting. This was finally presented to the steering committee.

implemented tools	Time spent (in h)		
	Secretaries	Managers	Gardeners
semi-structured exploratory interviews	1h	4h	
Observations	7h	18h	18h
Collective confrontation	1.5h	1.5h	
Co-construction of courses of action	1.5h	1.5h	

Table n°1: Distribution of the number of hours of observations according to the profession

Main results

The prescribed, analyzed from the job descriptions, puts into perspective the management of requests as follows:

Tasks prescribed with reference to query management		
Secretaries	Team leader gardeners	Gardener
Query management and follow-up	Ability to inform the user	(not specified)

Table n°2 – The tasks prescribed on the management of requests according to the actors

In reality, ergonomics intervention shows that this management requires complex organization and collective work at several levels within the management of gardens and green spaces: that of secretaries, team leaders and gardeners.

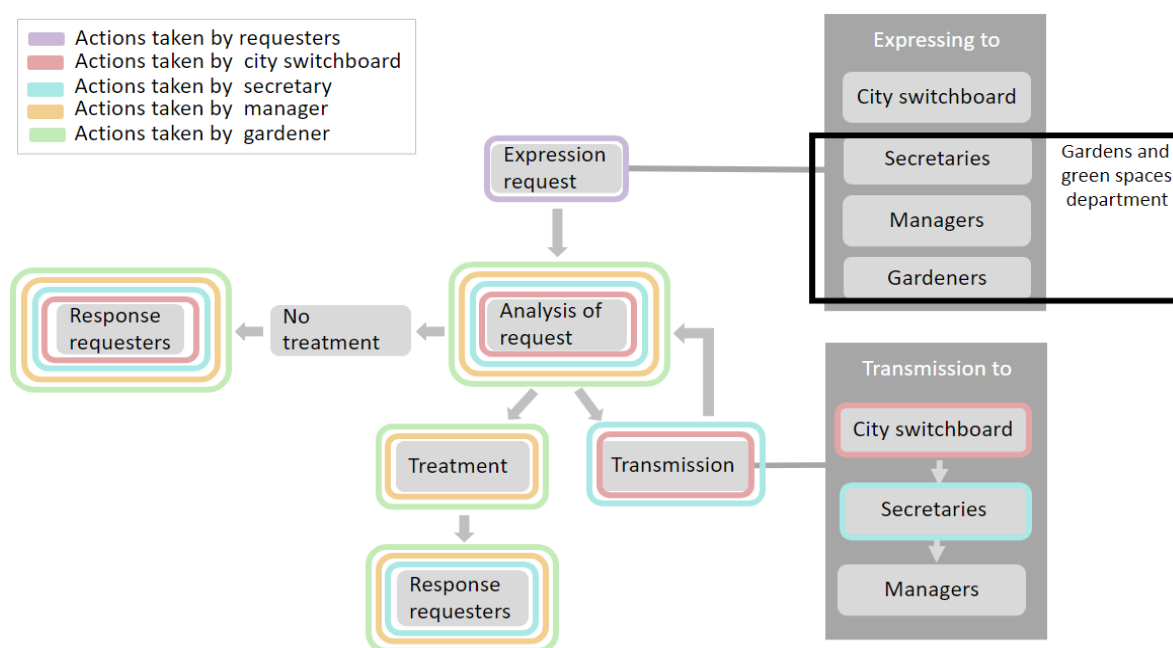


Figure 1 – The simplified overall process of query management

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To facilitate understanding, we want to show the simplified global process engaged in the management of requests.

We see with this process that there are different levels of query addressing, analysis, and processing. In forms of collaboration we show that the secretaries of the management, the team leaders of the gardeners and their gardeners, work differently to reduce the number of requests.

This objective is based on two parameters that structure our work: (1) the analysis of queries, (2) the anticipation of future queries.

1. Analyse requests to reduce the number

It is expected that requests will be addressed to the city switchboard. In reality, applicants use three other levels of addressing: the management secretariat (by e-mail, telephone call or post), team leaders (by e-mail, telephone call or physically) or gardeners (physically).

A request analysis step takes place as soon as they are received, for all levels of addressing. Thus, secretaries, team leaders and gardeners practice in their activity an analysis of queries.

Whatever the levels of addressing, the analysis questions:

- novelty (new request or reminder of applicants if dissatisfaction with the response or treatment);
- location (public or private domain);
- admissibility (whether or not the work of gardeners is a matter of the gardeners);
- urgency (requests priority treatment if there is a risk of a security breach);
- feasibility of processing (possibility to process queries for team leaders or gardeners).

The objective of this step is therefore to take certain requests out of the process (solicitations from the private domain, not corresponding to the work of the gardeners, urgent and infeasible as it stands).

We distinguish different roles, ways of doing things, difficulties generated and strategies implemented according to the actors and phases of the process.

Secretaries are of paramount importance in this stage. They represent the first filter supposed to crowd out all intractable solicitations.

The analysis of requests for secretaries requires them to increase knowledge of the territory, the actors (applicants as well as team leaders) and the work of gardeners. They constantly seek to deepen, integrate, maintain and adapt this knowledge to contexts and actors.

The evolution of gardeners' missions to promote a more sustainable treatment of nature, makes it difficult to represent the profession together between applicants, gardeners, team leaders and secretaries. Exchanges with applicants and team leaders allow them to deepen and integrate knowledge on the different representations to build their own. Together with the team leaders, they develop common rules for the analysis of requests.

The maintenance of this knowledge is based on many times of sharing between secretaries. In addition, informations are carefully tracked and procedures developed to facilitate future activity and maintain consistency in responses from one secretary to another.

Finally, reducing the number of requests is based on the analysis of the actors and adaptation to the context. In some cases, secretaries choose to go against the rules set with team leaders in order to avoid accumulation. Indeed, if many queries to be removed from the circuit have the same purpose, they sometimes still send them to the team leaders for processing. The same applies where the applicant is an elected official. We can illustrate this with an example: Several

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users have requested to install a picnic table in a green space in a residential area. To support the solicitations, an elected official himself makes a request. These led to the installation of a table which would not have been the case if it was an isolated query.

The role of team leaders in the analysis of requests is to reduce the number of solicitations to be processed in order to avoid increasing the workload of gardeners. They develop strategies to find the best possible agreement between processing conceivable requests, on a short time, according to profitable trips.

Arriving a query early in the process, respecting the level of addressing, is a considerable advantage for team leaders who find themselves less overwhelmed by queries that do not match their work. However, the activity of team leaders remains conditioned by the analysis of their requests. In fact, despite the help provided by the secretaries, the number of solicitations they receive is considered too high. In addition, some requests are sent directly to them, which is one less analysis phase when they arrive at them. As explained above, the representations of the work of gardeners are not the same according to the actors given the evolution of the profession for the ecological transition. This generates contradictory requests and the team leaders are then the arbiters.

Like secretaries, they arbitrate according to the type of applicants and may choose to go against the rules they have set for themselves or by management. For example, to avoid accumulation, they sometimes process requests from the private domain, cut grass in a tall grass area, install equipment, and so on. This is all the more true for the many queries, coming from an elected official or a regular user.

Team leaders also arbitrate based on the feasibility of processing requests. They reorganize their schedule in order to handle as many queries as possible themselves. However, some require too much work to do alone, so they reorganize their team's schedule. From a temporal point of view, the management of requests takes up most of their activity. Going out on the field with their team becomes complex. Thus, they empower some gardeners unofficially. This strategy allows them to have trusted people on the ground. This makes it easier to distribute teams and therefore more feasible to process queries.

Finally, gardeners analyze the requests they receive directly from users or elected officials on the ground. Their goal is to prevent solicitations from passing through the official circuit, which would require their leader or team to return to the field to process them. To analyze the requests, the reflections go through the same stages of reasoning. They can call the team leaders when they have trouble refereeing. It is often observed that "responsible" agents carry out this analysis. Gardeners also sometimes go against the rules they have set with their team leader to avoid the formalization of queries (for example, trimming a hedge of an applicant on his private land).

2. Reduce the likelihood of future queries

In order to reduce the number of future requests, the three businesses use their response to applicants and anticipatory strategies.

The mayor of the city has vowed that each applicant is an answer when requesting the services of the city. As you can see in Figure 1, there are different levels of responses to applicants made by secretaries, team leaders or gardeners.

For the three businesses, the strategy behind the response is to share with users and elected officials the rules established collectively. This is intended to develop a common culture and to dissuade certain intentions from future solicitations. It is observed among gardeners, that it is

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often the gardener "empowered" by the team leader who addresses users to formulate an answer.

Finally, in order to reduce the number of queries, we show that secretaries, team leaders and gardeners anticipate probable future requests and adapt to avoid them.

The secretaries observed that a refusal can lead to one or more reminders despite the explanations given. It was said during an interview: "*with time we begin to know the users and we know those who will not give up*". Thus, they will tend to process queries from booster requesters more easily.

Team leaders also gained knowledge about the identity of the usual applicants but also about their location and the type of solicitations. Thus, when possible, they go around addresses where requests are recurring. Depending on the status of the maintenance and redundant queries, they proactively process likely future requests.

In the same way, gardeners, with their experience, know some applicants and the type of applications involved. They adapt their maintenance to these users. In addition, the requests that come up very regularly are those related to differentiated management (treatment with short grasses or tall grass depending on the place to preserve biodiversity). This is seen as a lack of aesthetics and lack of maintenance. Gardeners seek in their activity a compromise between working time and "*semblance of maintenance*". For example, when they have time, they pull out certain "*less beautiful*" or very visible herbs (which protrude from the others) to give an aesthetic impression that resembles that expressed by the applicants.

Discussion/perspectives

We see that the application of decisions concerning the ecological transition leads to an implementation at the origin of different appropriations depending on the actors. This generates contradictions. From this, a collective work is set up whose complexity is far from the prescribed. Secretaries, gardeners' team leaders and gardeners develop strategies to reduce the number of requests. These strategies are based on the development of common rules that they allow themselves to transgress in order to adapt to the logics of actors who have the "power" to recreate demands. For this, they collectively rely on sharing, arbitration, adaptation, non-compliance with rules and learning. With a constructive aim, it would have been interesting to develop working groups bringing together management, secretaries, gardeners, team leaders but also users and elected officials to discuss the work, which was not possible in the temporalities devoted to the intervention.

This intervention shows the developmental nature that the ecological transition can allow. It is in this context that a doctoral thesis in progress has started.

In 1994, Moray called on the discipline to link global environmental problems with ergonomics. Following this address and since 2010, research has multiplied and demonstrated the interest and benefits of the discipline for sustainability (Haslam & Waterson, 2013). Dekker, Hancock and Wilkin, are more critical of the contributions of ergonomics. This discipline could be an advantage provided it embraces complexity (Dekker, Hancock & Wilkin, 2013). In a developmental perspective of constructive ergonomics (Engeström, 1987, 2016, 2018; Falzon, 2013), this research questions and supports the ecological transition as an opportunity for the evolution of collectives, organizations and individuals (Barcellini, 2017, Le Bail, Boudra, Zarameylan, 2021). It will question the organization of the ecological transition in local authorities at several hierarchical levels (decision-makers, managers and operators) and scale (macro, meso and micro determinants).

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