



# From NIMBY to enlightened resistance: A framework proposal to decrypt land-use disputes based on a landfill opposition case in France

Léa Sébastien

## ► To cite this version:

Léa Sébastien. From NIMBY to enlightened resistance: A framework proposal to decrypt land-use disputes based on a landfill opposition case in France. *Local Environment*, Taylor & Francis (Routledge), 2017, 22 (4), pp.461-477. hal-02010493

**HAL Id: hal-02010493**

**<https://hal-univ-tlse2.archives-ouvertes.fr/hal-02010493>**

Submitted on 7 Feb 2019

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.

## RESEARCH ARTICLE

**From NIMBY to enlightened resistance:**

**A framework proposal to decrypt land-use disputes based on a landfill opposition case in France**

Lea SEBASTIEN PhD

*Assistant Professor in geography, Toulouse II University;*

*Senior researcher, CNRS, Laboratoire GEODE (Geography of the environment), Toulouse, France.*

*5 Allée Antonio Machado, 31058 Toulouse cedex 9, France*

Tel: 0033-610-575781; @: [lea.sebastien@univ-tlse2.fr](mailto:lea.sebastien@univ-tlse2.fr)

### **Abstract**

NIMBY (Not In My Back Yard) supporters are presented as citizens opposed to new local developments whose costs are perceived to be only local though the aims are for general gains. However, these conflicts have proven much more complex than the NIMBY concept can explain. The objective of this paper is to provide a framework to facilitate the understanding of opposition movements and how they can affect society at large by triggering social change. The conceptual framework is applied to a case of local opposition to a landfill project in the village of Saint-Escobille (Essonne, France). Through analysis of the structure of the opposition movement and the changes it underwent over time, the author shows how such movements can evolve into a social movement that enriches democracy through the constitution of four types of capital: social capital, scientific capital, patrimonial capital and political capital. The authors argue that scientific and patrimonial capitals allow social capital to evolve into political capital. The shift from being a self-interest to a civic interest movement takes place through *enlightened resistance*, which reveals local public interest, called *territorial interests*. In the study of environmental controversies, the authors emphasize the importance of recognizing the evolution through time of (1) the social landscape, (2) the different types of legitimate knowledge, (3) the role of place attachment, and (4) the political dimension of identities. After reviewing three approaches to the NIMBY phenomena in the literature, the paper exposes its conceptualization of land-use disputes. It ends with a discussion of the concepts of common interest and participation, two controversial notions which need to be clarified.

**Key words:** Waste, resistance, NIMBY, activism, environmental controversy, public interest

**Words count: 8363**

## **Introduction**

In the broad socio-political context, the term NIMBY (Not in My Back Yard) is usually used to explain local opposition to new local land use projects due to their spatial proximity to the local community. Movements in opposition to harmful projects are most often associated by industrialists and some scholars with the NIMBY phenomenon, presented as a set of protectionist attitudes adopted by community groups facing an unwelcome development in their neighborhood (Dear 1992). The NIMBY phenomenon is cited when a project's costs and risks, such as impacts on human health, on the quality of the environment or on property values, are geographically concentrated, whereas the benefits are presented as being shared among a broader and more widely spread population (Inhaber 1998). Opponents of newly proposed installations may argue that the project in question is not needed, does not belong in the area, will have harmful effects and that its designated site or operating procedures are insufficient (Popper 1985).

In environmental planning, decision making regarding land use is increasingly controversial, in particular regarding contested policies such as waste management (Wolsink and Devilee 2009). Allotting locations for waste disposal infrastructure easily generates conflicts, because decisions pre-eminently concern the distribution of 'bads', the axial principle of the risk society (Beck 1992). Following European directives, a French law of July 13<sup>th</sup>, 1992, states that as of July 1<sup>st</sup>, 2002, waste disposal centers are henceforth authorized to receive only so-called final waste matter, that is to say "waste which can no longer be treated in current economic and technical conditions". However, this is an unclear definition which allows landfill waste centers to remain the prevalent form of waste disposal, an option found at the bottom of the hierarchical scale of techniques used in environmental management of waste. Their use continues to generate well-known nuisances (noise, odor and liquid or gaseous effluents) but with an immediate burial cost so competitive that this process remains the most frequently adopted.

In this context, the announcement that a waste disposal landfill is to be created at a given site triggers lively opposition movements on the part of local citizens and authorities who intend to investigate the legitimacy of any such project. These movements are very often associated with the NIMBY syndrome by planners, the media, and some researchers. However, is the story always so simple? Land use conflicts have proven much more complex than what can be explained simply as the NIMBY syndrome (Gibson

2005) and here we wish to provide a framework to help better understand opposition movements as well as their societal impact, the latter point being poorly studied in the literature (Louis 2009). Our case study is a final waste disposal project in the small rural community of Saint-Escobille, in the Essonne Department, France. We test the hypothesis according to which some local contestation cannot simply be ascribed to NIMBY supporters —often called Nimbies— but can lead to an enrichment of democracy by giving it social, cognitive and political values as well as values of local heritage, what we call patrimony. In the first part of our study we attempt to dissect the NIMBY phenomenon. In the second part we apply our framework to our case study, analyzing how the opposition movement evolved over time. Given the creation of social ties, specific knowledge, political and patrimonial values, we propose the notion of *enlightened resistance* (Sebastien 2013).

## **I. Does the term NIMBY still make any sense?**

### *I.1. Nimbies are 'villains' ('80s)*

Scientific literature dealing explicitly with the NIMBY phenomenon (published since the 1980s) is mainly North American and can be seen in three main postures. The first, dominant in the 80s, is highly critical of the Nimbies. Seen as a veritable wrench in the works for the advancement of projects destined to serve the greater public interest, the multiplication of NIMBY movements is presented as an obstacle to public action delaying economic development, or even as a danger to general interest, as Nimbies appear as the defenders of private concerns, following a logic of individualism (Dear 1992). According to this conventional perspective, controversial facilities are constructed in order to fulfill objectives arising from a rational-technical decision-making process, and local residents are portrayed as fighting against the common good, steered by two main characteristics which recur in the literature: ignorance and selfishness (Freudenberg and Pastor 1992; Kraft and Clary 1991; Elliot 1997).

One can thus read in the scientific literature, "The NIMBY syndrome is a recurrent mental illness which continues to infect society," (Piller 1991) or "the Nimbies selfishly erode the rights of the community" (Brion 1991). Many scientific articles analyze the motives and tactics of local opponents to offer state planners strategic advice on how to "handle" and "overcome" the NIMBY syndrome. To deal with the ignorance issue, solutions are found in public education and technical rationality through the process of experts informing others about the truth (ex: Plough and Krinsky 1987). To deal with the

selfishness issue, solutions are found in compensation strategies through cost-benefit approaches (ex: Groothuis and Miller 1994).

### *I.2. Nimbies are 'heroes' ('90s)*

The conventional perspective was imported with little controversy into planning literature until the mid'90s when an emerging network of public policy scholars began to rethink the Nimbies as activists representing a legitimate redefinition of general public interest (Hunter and Leyden 1995). First, reducing land-use disputes to the narrow question of *location (where should the facility be built?)*, has the effect of censoring any discussion of alternatives, *(how else could we manage the issue?)* (Lake 1993) and presumes the legitimacy of expert claims regarding the necessity of the disputed project (Wexler 1996). Second, it is highly questionable to consider selfish motives as the principal stimulus behind an oppositional behavior. Public concern about environmental risk is linked to wider psycho-sociological factors (Pol *et al.* 2006), and as moral principles play an important role, compensation may not be viable in most cases (Frey *et al.* 1996). Third, the conventional approach is inappropriate due to its failure to consider the social context of risk, and it harbors simple and unsustainable dichotomies between rational/civic interest on the one hand and irrational/special interest on the other (Gibson 2005).

For McAvoy (1998), far from acting as irrational obstructionists, local opponents instead create a vigorous democratic debate about alternative solutions, from which emerges a more promising policy than that initially advanced by the rational, objective experts. Here, local opposition does serve the general interest by questioning the notions of participation, decision making, progress and development (Hager and Haddad 2015). Positive characterizations of NIMBY responses point to the inherent value of grassroots citizen opposition, seen as "a triumph of Western democracy, as virtuous citizens band together in search of political and environmental justice and usher in an era of 'ecodemocracy'" (Rabe 1994). Activists are moving away from negotiation over a tightening of pollution emissions in their communities, toward a challenge for control over the decision to pollute in the first place (Kaswan 1997). This ideological shift from calls from NIMBY to calls for NIABY (Not in Anybody's Backyard) (Heiman 1990) is a wider realization of an environmental justice movement that engages with broader questions of gender, class and racial inequality, lack of democracy, the power of knowledge and the wider capitalist political economy: in short the enclosures that shape and are shaped by social relations of power (Ford 2003). Partisanship can play an important role in political debates by sensitizing decision makers to the needs and perspectives of a

diverse populace, by contributing instrumental as well as normative knowledge to these debates, and by providing an important check on the claims of state officials (Schively 2007). Even narrow partisanship camouflaged within a cynical rhetoric of the "civic good" can strengthen the contested, democratic process (Gibson 2005).

### *I.3. The notion of NIMBY should be abandoned (2000s)*

Since 2000, environmental policy scholars have begun to rethink the NIMBY concept, arguing that it is authority-centered, pejorative, with no explanatory utility and reduces land-use disputes to a moral struggle between rational/civic-minded planners and irrational/self-interested opponents (Devine-Wright 2005; Wolsink 2006; Burningham 2000). Firstly, there is a tendency to label all opposition to spatial development as NIMBY, without proper evidence of its existence or without taking into account case specificities, which is academically unacceptable (Wolsink and Devile 2009), ie: "NIMBY describes the organized resistance of communities to the siting of controversial land uses and facilities" (Takahashi and Dear 1997). Second, the term NIMBY is being overused by developers seeking to avoid deliberation in the process of assigning risk and to discredit their opponents, which in turn categorizes opposition movements as necessarily illegitimate (Burningham 2000). Third, several empirical studies have failed to find evidence for the presumed negative effect of spatial proximity upon public attitudes (ex: Michaud *et al.* 2008). As Wolsink (2012) remarked, the validity of the NIMBY theory is questionable as the reasoning behind the theory is faulty; therefore the NIMBY significance remains very limited. Finally, binary dichotomies of the NIMBY syndrome offer scholars little help in the attempt to understand this complex struggle between alternative visions of the social good. To cite Gibson (2005), "it is time for progressive activists and critical sociologists to begin living without NIMBY".

### *I.4. Proposition of a conceptual framework*

Our position is less clear-cut and doesn't fall directly into any of these 3 approaches as we want to focus on the temporal dimension of siting issues, stating that movements can evolve through time and cannot be categorized into fixed positions; opponents are neither villains nor heroes. Like the large body of literature that undermines the concept of NIMBYism as a credible theoretical construct, we agree that the NIMBY can be opaque, inappropriate and unhelpful, especially when the term continues to be given credence in academic and public discourse (Ellis *et al.* 2007) without a clear definition. Some researchers still see local opposition as a form of 'deviant' behavior on the part of objectors, which can then be neatly

labelled as NIMBYism (e.g; Kahn 2000; Short 2002; Warren *et al.* 2006; Oakley 2002; Simsek *et al.* 2014; Sun 2015; Botetzagias *et al.* 2015; Scally and Tighe 2015, etc). Such analysis tends to project monolithic notions of opposition which fail to grasp the intricacies of local disputes from which more deliberative solutions could emerge (Smith and Marquez 2000).

At the same time, we are not totally rejecting the term NIMBY provided that it is precisely defined. Social sciences are built on many non-stabilized concepts and to simply not use them does not eradicate the theoretical conflicts hiding behind them. NIMBY is used here with precaution to define local opposition based on limited information and self-centered interest, which we consider to be an instinctive rejection in the face of the appropriation of a familiar and everyday territory (Jobert 1998). The question, however, is not whether a movement can be characterized as NIMBY or NIABY, but to understand how it can evolve over time and how we can analyze its societal impacts.

In order to go beyond NIMBY, various alternative concepts and perspectives have been proposed, such as studies on social acceptance (Wustenhagen *et al.* 2007), on collective and societal stakes (Bell *et al.* 2013), on place-protective actions and place-related identities (Devine-Wright 2009), or on the use of discourse analysis as a new analytical framework (Haggett 2010). Several authors, though, stress the need for theoretical tools to help organize this field of research in a more integrative way (Batel and Devine-Wright 2015; Walker *et al.* 2011).

In this paper, we propose a conceptual framework which aims to better characterize opposition movements as well as to identify their societal impacts over time. This framework is based on the analysis of four types of capital which can be enhanced through the opposition process: social capital, scientific capital, patrimonial capital and political capital. The combination of these capitals constitutes what we call an *enlightened resistance*. We apply our model to an opposition movement against a waste landfill project in a rural village in France.

## **II. Case study: a waste landfill project in Saint-Escobille, Essonne, France**

The landfill project in question is in Saint-Escobille, a small rural locality in Ile-de-France (450 inhabitants) situated 50km from Paris, in the extreme southwest of the department of Essonne (91), in the region of the Beauce, one of the largest agricultural areas in France. Saint-Escobille has the distinction of

having tolerated the garbage of the city of Paris over a 50-year period, since the construction, without any form of authorization whatsoever, of a waste disposal dump during the First World War and that remained in operation until the 1960s. "Every morning, 35 train cars from Paris would return to the capital after dumping their contents. A flow of absolutely everything inscribed in the life of the Parisians, from the first cigarette butt to the slightest condom," wrote the French author Michel Tournier in *Les Météores* in 1975. It wasn't until 1992 that a company moved in to redevelop this former illegal dump, transforming it into a production zone for vegetal fertilizer and creating 20 local jobs. Saint-Escobille had finally emerged from its century-long battle against a Parisian lobby whose interest was in storing the city's refuse in the *greater suburbs*. According to the local citizens involved, the community's past as the receptacle of illegal waste at the site called *La Gadoue* (the mudland) was not to be invoked as a justification to bring in a new landfill, quite the contrary, "*We'd had enough*"<sup>1</sup> (Figure 1).

Figure 1: Map showing fields of grain as main land use in the region of Saint-Escobille (source: Google)

Yet, in 2002 an inhabitant of a neighboring village proposed 46 acres (19 hectares) of land situated within the township of Saint-Escobille to a large company then seeking a site for a landfill. On this agricultural land, the promoter hoped to construct a class 2 landfill center with a burial capacity of 150,000 tons of ordinary industrial refuse per year over a period of 10 years (Figure 2). The same year, a non-profit association was created called the Association for the Defense of Saint-Escobille (ADSE), which counted about a hundred members and whose president was the mayor of the village. As "weak actors", that is to say under-represented persons (Sebastien 2011), excluded from negotiations, the local population originally hoped to make their voice heard and to actively fight the construction of the landfill center in order to "*prevent the region from becoming the garbage bin of Paris*".

Figure 2: Pictures of the village (left) and of the compost site (right) (source: Author)

Our objective is to decode the organization of this movement and the effects that it produced in the area over time. We collected data from a number of sources. Scientific literature about NIMBY and landfills, but also national strategies of waste management, local and national press releases and planning inquiry documents were collected between 2005 and 2012. In terms of opposition, a comprehensive search was undertaken for campaign groups formed to oppose specific developments; websites were analyzed. Our presence in the field in 2007, 2009 and 2012 allowed us to analyze, through the methodology of participant observation, how the content of arguments of the protesters changed throughout time. Finally, in order to compile such delicate information as that dealing with perceptions or

---

<sup>1</sup> Waste management companies will often identify former illegal dumps as sites for new waste disposal plants as the social acceptability of refuse is generally more easily admitted.



the relations of power between different interested parties, it appeared necessary to conduct interviews (8) with the actors involved in and affected by the project and to analyze their social and environmental relations in the area (Table 1). Discourse analysis was undertaken under three categories: knowledge, practices and perceptions of actors regarding social and environmental stakes on a series of issues (landscape, risk, landfill, territory, stakeholders, etc.). Opponents' discourses were analyzed collectively, as the idea was not to pursue a sociological analysis of each activist but to try to decrypt the evolution of a common action. Therefore the quotes found in the article are from speeches given by ADSE members with no specification about the type of actor met.

Table 1: Research methodology

### **III. Results: enlightened resistance through four types of capital**

#### ***3.1. Resistance generating social capital***

Social capital is defined as the riches of the networks that connect the members of a society and their resulting norms of reciprocity and confidence (Putnam 2000). It is generated by the relationships created within a social structure and which give rise to social organizations making it possible to achieve previously unattainable objectives. Our results show that opposition to the landfill center in Saint-Escobille created an important social capital in the area, mainly through three social networks.

The association's first objective was to make contact with a series of experts so as to acquire the knowledge necessary to analyze the impacts the landfill would have in the area. First, a lawyer for the legal aspects, then an engineer for any geomembrane deficiencies, followed by a doctor for any aspects in connection with health and finally a hydrologist for technical concerns. The association's members managed little by little to find the best experts and established a technical network in order to fix the level of environmental uncertainties and to structure the fight against the landfill project.

Concerning the flora and fauna, ADSE contacted several associations for the protection of nature (APN). However, the association's request for support was rejected, at first. Indeed, how paradoxical it would have been for the APN to support the farmers of the Beauce, known as representatives of intensive agriculture and accused of being largely responsible for the deterioration of the regional environment. The APN judged that, if a new landfill had to be built, it was not unreasonable to place it in the heart of the Beauce, a zone whose biodiversity was already severely compromised. ADSE, however, did not give up and finally managed to prove to their interlocutors that it wasn't a question of the local inhabitants

wanting to protect their living conditions, but of local citizens actively mobilized in demonstrating the incongruity of such a project in the southern Essonne. Having proven its legitimacy, ADSE finally received the official support of several APNs, though the latter did not go too far in their collaboration. This was nevertheless a victory for the local actors of Saint-Escobille, but also for a rapprochement between two worlds that previously had always been in conflict: ecology and rural life. A second network, of social organizations or associations, was thus created, which was quickly joined by many others, those working in the fields of waste management or environmental protection, both in France and abroad. ADSE is often solicited by other associations in the same situation for its savoir-faire. *“We were overtaken by our success! We had recently helped another association to cancel a landfill project, as if we were more efficient elsewhere than at home. That, undoubtedly, is what it is to be anti-NIMBY! (laughter)”*.

Finally, with the creation of ADSE, a local network was born. Saint-Escobille is home to farmers on the one hand, and to *rurbans* (rural-urban people) on the other, local inhabitants who work in Paris, two worlds that, until then, had little contact. The landfill project united these two populations which had to collaborate in a joint effort. Thus, during weekly meetings, they worked side by side, elected officials of all political parties, farmers, professionals or retired, ecologists and city dwellers, local actors with antagonistic visions and who, without the landfill project, would have had little chance to meet. This type of association—in the sociological sense of the term, as an action aimed at creating a collective existence—had the effect of producing a social link. Individuals had to accept to speak to each other and to jointly prepare common arguments, to the point where an association—in the institutional sense—could indeed represent them all before public authorities, though their motives were diverse and heterogeneous. A common local territory both induces and participates in the construction of social capital (Ghorra-Gobin 2001). By developing social networks along the way towards collective action, it revealed an unusual solidarity and proximities that are out of the ordinary. Networks—technical, associative and local—such was the effect of the Saint-Escobille landfill project: it created social dialogue between on-site actors.

### **3.2. Resistance generating scientific capital**

We define scientific capital as the total knowledge acquired (technical, juridical, procedural, institutional, vernacular) during the process of resistance. An assumption commonly made in policy documents and some academic texts is that the main strategy for overcoming opposition to installations is through education to raise objectors out of their state of oblivion, with the assumption that better information will generate consensus and thereby resolve disputes (Short 2002; Warren *et al.* 2005; Barry

*et al.* 2008). Similarly, industry actors frame non-industry actors in terms of a deficit model, by which public opposition may be explained by public misunderstanding based on deficits in scientific and technical literacy. In reality, there is little evidence of any correlation between knowledge about land-use facilities and their acceptance (Lennon *et al.* 2015).

Other researchers analyze what they call *citizen knowledge* (Brown 1992; Irwin 1995), the emerging intellectual capital which directly challenges the deficit model of public knowledge and understanding: here civil society is seen as active in drawing together relevant information and evidence (Burningham 2000). When laymen acquire broad scientific capital, they are then capable of questioning the impact studies furnished by promoters and can scientifically criticize the data, methods and technical aspects of a project (Schively 2007). Activists have the power to become "popular scientists" who can win the support of scientific experts for the sake of knowledge. In many examples found in the literature such as Woburn (Massachusetts, USA) or Love Canal (New York, USA), laymen activists take the initiative in detecting disease, generating hypotheses, pressing for state action, and conceiving and overseeing scientific studies (Brown 1992). Citizen initiatives can also lead to counter expertise, situations called "scientific duels" (Busenberg 1999), which is precisely what happened in Saint-Escobille.

ADSE first identified the *radical uncertainties* associated with landfills. Leakage in the geomembrane, which would cease to be an effective barrier to contamination anywhere from 0 to 4 years after installation (Rowe *et al.* 2003), would lead to runoff of toxic leachate, heavy metals dissolved by anaerobic treatment (Vilomet 2000) and biogas discharge, principally composed of methane and highly problematic in global warming (Binder and Bramrud 2001). In addition, the association compiled all existing studies on the pathologies affecting the residents living in the vicinity of landfill centers (Fielder *et al.* 2000) (leukemia, bladder and stomach cancers in adults and birth defects in children) and showed that landfills have an obvious impact on the quality of life of the citizens and on housing prices in the area (Bouvier *et al.* 2000).

ADSE then showed that the impact study initially furnished by the industrial promoters neglected the great permeability of the soils of the Beauce Plateau (BRGM 2004). "*We all contributed to the costs of getting a second opinion from the French Bureau of Geological and Mining Research that showed a fracture site in the zone which, curiously enough, had not been reported by the promoter.*" ADSE members also examined the classified areas in the vicinity, the protected species (flora and fauna), the agricultural presence, the visual impact, odors and the prevailing winds, to realize that the impact study had merely

skimmed over these points which, according to ADSE, were definitely of general public interest. All of these gaps in the impact study were first identified by laymen and then confirmed by the bureau in charge of the new assessment. *“Now people call me Doctor of Garbage when I arrive at our meetings.”*

Through scientific research and discussions with experts, the inhabitants of the southern Essonne realized that not only was a class 2 landfill inappropriate for the designated site, but that the construction of such a basic installation was an aberration in the 21<sup>st</sup> century, given technological advances. Indeed, during visits to several European sites that use these techniques, ADSE members investigated the best technologies available, along with the advantages and disadvantages of thermolysis, methanization or mechanical-biological sorting. *“In mechanical biological sorting, the word ‘biological’ is crap [...] well, at first we liked the idea of thermolysis, but we changed our minds after visiting the factory in Arras which has since closed! [...] anaerobic combustion only works for mini-units.”* Among the association’s different proposals are: biomethanization under certain conditions, installation of small treatment units on a community scale, stabilization of refuse prior to burying, sorting of wastes by bundles, development of recycling and, obviously, increased obligations for industry along with a general reduction in waste production.

Finally, through all its activities, the association members also developed their knowledge of the roles and functions of institutions involved in waste management. They acquired skills with which to deal with various electoral levels, administrations and their technical services. Working on the case for more than ten years, opponents mobilized an array of knowledge—technical, political and procedural—concerning waste management in France and more specifically on landfill centers. ADSE systematically participates in any conference in France on the theme of waste and takes advantage of such occasions to question scientists on the subject. *“We’ve just come back from a colloquium at the museum with which the company is collaborating to promote biodiversity! What nerve! We tried to call them out, but they flat out denied everything”.*

In Saint-Escobille, opponents bring along technical knowledge and expertise but also real-life experience, common sense and knowledge, both local and practical. During the planning process, these alternative forms of knowing are not usually taken into account or are else undermined compared to “valid” forms of knowledge (Aitken 2009). Opposition cases raise questions on how expertise is constituted and reveal a situation of multiple epistemological perspectives that produce alternative facts (Lennon and Scott 2015). Due to the radical uncertainties associated with landfills, the distance between the views of

experts and laymen narrowed with the appearance of the ADSE group, diverse and well informed, having both knowledge and specific skills in relation to their experience and capacities which endowed its members with "laymen's expertise". This diverse knowledge constitutes what we call the scientific capital initiated by the resistance movement.

### **3.3. Resistance generating patrimonial capital**

We call patrimonial capital, or "heritage capital" the totality of bonding with the land, in both space (nature) and time (tradition). It is derived from place attachment, a complex phenomenon incorporating an emotional bond between individuals and the familiar locations they inhabit or visit such as the home or neighborhood (Altman and Low 1992). It is usually a positive bond reflecting the experience of living or spending time in a particular place (Bell *et al.* 2013), often featuring social and physical sub-dimensions (Hidalgo and Hernandez 2001) and leading to action, both at individual and collective levels (Manzo and Perkins 2006). In Saint-Escobille, though mobilization began in the name of a local bond, further attachment was created little by little as the resistance movement progressed. The landfill project comprised a disturbing element which brought the local territory (back) to life and served as an analyzing force for what is implicit to the local land. In fact, parallel to carrying out scientific research and gathering different expertise, ADSE organized numerous demonstrations so as to attract ever more support for the movement and increase attachment to the place. Thematic evenings, concerts, auctions, heritage days, debates or gala evenings are just a few examples of how the ADSE members attempted to rally people around the Beauce territory.

In addition to social rapprochement, the commitment by association members led to unexpected rebound effects. For example, the association discovered a Gallo-Roman site within the township. Likewise, an evening was organized on the theme of the "garbage of Saint-Escobille" when numerous speakers evoked the former illegal landfill. "*Rats attacked the horses and fires broke out everywhere. We can't go through that again.*" Finally, ADSE sought to protect the area's abandoned wetlands, as well as the migratory bird, the Montagu's harrier. Thus, the fight against the landfill project indirectly contributed to a reclaiming of the territory of the Beauce, to the rediscovery of its history and heritage and to the creation of a territorial loyalty. This, in turn, led to a general rise in indignation at the landfill project. The ADSE members first reinforced their attachment to the area and then succeeded in transmitting it to other local actors, presenting their "Beauce" differently from the usual clichés. "*The plains are nevertheless*

*beautiful; we have to get more publicity for our Beauce, unjustly underappreciated.*" The introduction of an outside factor (the landfill project) stimulated reflection about the future of the region, in turn symbolizing a will to live together. Resistance to the project thus gave a sense of belonging to the actors on this stage, through the creation of what we call patrimonial capital. We argue that research should focus on the interactions between place attachment and collective actions in both ways: the role of processes of social conflict and contestation in shaping place meanings (Di Masso *et al.* 2011), the social implications of place representations and associated identities (Devine-Wright 2009).

### **3.4. Resistance generating political capital**

We define political capital as the capacity of different actors to place themselves on the political stage, based on their credibility (furnishing valid information), their salience (response to needs in the area of decision making) and legitimacy (as representatives of the area). According to Bourdieu (1980), the conquest of social capital requires the construction and maintenance of a "sustainable network of relationships" which can be transformed into political capital. Protagonists in opposition movements act not as single individuals but as members of social groups. A politicized collective identity arises, identity being a place in the social world (Simon and Klandermans 2001). We argue that social capital is necessary but insufficient to become political capital. Regarding land-use conflicts, it is scientific and patrimonial capitals which enable social capital to evolve into political capital (see Figure 3) (Sebastien 2013). This is what happened in Saint-Escobille. Again, according to Bourdieu, access to power in the field of politics remains above all subordinate to the existence of a certain political capital conferring a specific authority. In the case of Saint-Escobille this authority was legitimized by the constitution of the first three types of capital. Indeed, ADSE mobilized these different sets of resources in order to first oppose the local project and then to propose certain alternatives, proposals first made locally, then regionally and today nationally. A remarkable fact in this evolution is that the acronym ADSE, which in 2002 initially stood for Association for the Defense of Saint-Escobille, in May 2011 became the association for the defense of health and the environment (*Association pour la Defense de la Santé et de l'Environnement*), proof that the association's members sought to address more general issues. ADSE, whose president is now the mayor of the neighboring village of Mérobert, totals a thousand members and devotes its energy to similar causes throughout France.

The first political stand taken by ADSE, and thus a step towards addressing further and more general issues, came in 2005 when the association published a proposal entitled "Moratorium on Landfills and Final Waste" which proposed to redefine the notion of final waste, reevaluate deposits of final waste and seek innovative technological procedures for its treatment. The proposal was well received by local actors (institutions, elected officials, associations), which encouraged the association to persevere. Among the weaknesses in the promoter's case, the local actors pointed out the numerous contradictions they observed with respect to various official documents (regional plan for elimination of household waste, plan for construction waste management, local Agenda 21, plan for urban removal and plan for water management for the Beauce water table). *"During our study of the water management plan, I only slept 2 hours per night. We wanted to include a norm for refuse dumps, but it wasn't easy to master all the procedures that had to be followed."*

The public inquiry issued a negative opinion on the proposal to modify the area's land-use plan (the request to approve a landfill center in agricultural zones). Nevertheless, the prefect—the local appointed authority of the central government—demanded that the project be classed as being of public interest, in disagreement with the opinion of the Regional Council of Ile-de-France which normally had jurisdiction in matters of waste management planning. ADSE filed an appeal against this order, receiving the formal support of 27 elected officials of all different political levels, 132 municipalities spread over several departments, 11 agricultural groups and 43 associations. For the activists, the prefect's decision was a denial of democracy, wishing to impose the landfill, at all costs, against the opinion of everyone else. *"In fighting this project, we discovered all the deceit possible in legal and administrative procedures; one might say that the system will do anything to prevent the citizen from being heard. We were appalled."*

Today the members of ADSE wish for a policy that places the citizen at the heart of the waste system according to a balanced scheme and to proximity. In 2011 the president of the association appeared before the Commission of Petitions of the European Parliament to defend this position. The case should lead to an inquiry to see if France is indeed respecting European prerogatives governing waste management. To show the scalar changes in concerns, ADSE has also filed two appeals before the French State Council to cancel decrees concerning waste management on a national basis. Empowered citizens who both oppose and propose: this is an example of a front for refusal, which has come out of the private backyard to undertake a profound political effort in favor of a common cause, an example of sizeable political capital initiated through local opposition. In Saint-Escobille the farmers, inhabitants and elected

officials present a global vision of the situation of waste in France and in Europe, endorsing a *Not in Anybody's Backyard* attitude. Similarly to Batel and Castro (2015), we show that the opponents' representations changed over time, being based mainly on local arguments in the initial phase, but on global arguments in the final phase. The protesters were able to maintain their goals while reframing the scale of the arguments, attracting additional support; it is at this point that their collective identity is fully politicized (Simon and Klandermans 2001).

The two first reactions engaging an opposition movement are distrust towards planners and authorities (Beck 1992; Dalton 2004) and a feeling of unfairness regarding decision making and the distribution of benefits and burdens (Haggett 2010; Smith and MacDonough 2001). The feeling of unfairness is particularly strong on the issue of waste management as building a landfill usually consists of transferring urban waste to the countryside, where people are geographically isolated and weakened. If feeling aggrieved is a necessary first step for people to engage in a power struggle, it is not enough to become politicized as a group. For Simon and Klandermans (2001), the final stage in a politicization process after unfairness and distrust is involvement in society at large. We argue that the involvement in society (political capital) cannot be achieved without the other 3 types of capital presented (Figure 3).

*"An association founded in order to fight a project usually disbands afterwards. At ADSE our objective is to endure, even if the landfill project is cancelled. Given the technical and legal knowledge that we have acquired, and since there are similar problems everywhere in France, we consider that we have a mission. The change in our name is more than symbolic; we want to progress towards greater consideration for local actors in environmental management."* In this regard, the literature points out that the more permanent an association is, the more it defends diverse and spatially extended interests, and therefore the more objective it appears, devoted to general interest and altruism (Trom 1999). Our framework proposal highlights the important role of the temporal dimension in the analysis of land-use struggles for apprehending the emergence (or not) of social, scientific and/or patrimonial capitals, which over time, can become political capital.

Figure 3: Proposition of a framework to help conceptualize land use disputes

## **IV – Discussion**

### **4.1. Who has the right to define the public interest?**



The first point to raise is that of general public interest. Indeed, the prefect's decree aiming to have the landfill project declared a project of public interest despite the opposition of associations and elected officials of all levels, reveals a loss of legitimacy by those who traditionally embody it. *"The prefect now wants to change the land-use plan without asking the people and calls that public interest! That's shameful. Given that the local population has been taken hostage, our strategy is to seize all occasions to oppose the general interest as presented and imposed by the prefect and to prove that it is really a question of private interest!"* Thus, the standoff between *public* and *private interests*, which seemed so obvious in the past, is today less and less pertinent to describe the tensions in land-use planning. The borders are shifting between different types of legitimacy, with technico-economic legitimacy facing greater and greater challenges (Jobert 1998). Private interests tend to hide behind a (relative) equalizing of legitimacies (scientific and technical, or representation and proximity). The basic dichotomy between the "general interest" and the "narrow (backyard) self-interest" simply fails to account for the complex *realpolitik* of contemporary land-use controversies (Gibson 2005).

As in Saint-Escobille, the notion of public interest is increasingly evoked by associations elsewhere as a mechanism in the construction of what public interest is. Indeed, local contestation underscores the contemporary difficulty encountered in considering public authorities as the only sources of public interest in a world that we are discovering to be unstable and uncertain, through our experiencing the (un)expected, (in)direct and enduring consequences of the modernization of space and public action (Latour 2003). We argue that it is important to recognize the obvious presence of local territorial interest and the new legitimacy of local actors in defending it, territorial interests (meaning those present within the same space) being first in the definition of public interest. *"We are not Nimbies; we can't be opposed to the landfill without making other propositions. This fight has opened our eyes to all of the environmental problems which local actors must face, and not only landfills. Now that we know about them, we have no choice but to take action."* The particular challenge faced by local opposition groups is to disrupt the NIMBY label in the public debate, mostly by engaging in a process where their interest in halting a project is universalized and comes to represent the "general interest" (Simon and Klandermans 2001). Whether unconscious or strategic, opponents' actions must be investigated in each case; as self-interest arguments are unlikely to win a public debate, they can sometimes be hidden behind principled arguments (Bell *et al.* 2013). In Saint-Escobille we showed that the constitution of the 4 capitals (social, scientific, patrimonial, political) transformed the initial self-interest arguments into universal

preoccupations about waste management and raised fundamental questions as to whose opinion counts in defining the public interest.

Conflicts over land use will comprise the markers of economic, technical and social evolution and constitute so many tests for the quality and acceptance of planning decisions. The work of activists consists of shaping the common and universal good so as to be able to compete with general interests as defined and decided by traditional authorities. Lennon (2016) argues that we should stop thinking of public interest as 'out there' but rather as something 'in here' which can be identified through moral and ethical frameworks. Local concern is not in contradiction with the common good, quite the contrary. It is through the expression of local concern that we can understand the common good.

#### **4.2. New forms of participation needed**

Industrial promoters often neglect to consult local residents, yet it is not reasonable to believe that a project such as a landfill center can be anonymously implanted in a rural community. The planners' perspective is ultimately based on the frame that the facility "has to go somewhere" as if there were full consensus about the need of it (Owens 2004). Though technical criteria is fundamental, the unavoidable fact is that such a project must be accepted by local elected officials and by the population through an authentic co-authorship of a shared diagnosis and not a simple consultation. Yet the most common response to land-use conflicts has been to call for more public consultation and/or awareness-raising, based on the understanding that this will lead to significant reductions in public opposition. But Devine-Wright (2010), having explored the 'local participation' hypothesis, notes the poor quality of public consultations typically carried out by private developers and public institutions.

The first issue is that many scholars advocate citizen participation for the following objective: overcoming the NIMBY syndrome. Kearney and Smith (1994) focus on the distrust existing among participants in opposition processes, O'Hare *et al.* (1983) on compensation processes and Takahashi and Dear (1997) on the anticipation of residents' potential reactions. More recently, Scally and Tighe (2015) encourage planners to enhance participation in order to reduce NIMBY attitudes. There has to be a clear idea of the purpose of any public participation and that objective must be shared by both planners and protesters. A participation process with the hidden objective of undermining Nimbies is unlikely to dissolve local opposition and will not develop a better mutual understanding of respective positions.

Secondly, the idea is to change the underlying character of the planning process from confrontation to collaboration, with 'deliberative' (rather than 'technical') rationale as the basis for environmental decision making (Healey 1997; Owens *et al.* 2004). In its most idealized form, this aims to achieve consensus through communicative rationale – an issue that has been criticized when faced with the realpolitik of planning practice (e.g. Flyvbjerg 1998; Huxley 2000). For environmental negotiations, without a deep change in governance modes, a consensus might be made on behalf of weak actors (underrepresented groups) and absent actors (future generations and nature) (Sebastien 2011).

For these two reasons, consultation, *in situ*, is sometimes seen by local residents as a “trap of deliberation” (Blondiaux 2011), a symbolic version of cooperation in which the *strong actors* refuse the redistribution of a part of the decision-making power to the benefit of *weak or emerging actors* (Sebastien 2011). Activist citizens are aware that if they participate in deliberations organized by the *strong actors* there is probably little chance that they will be heard because the techniques of participation will also serve as techniques of domination. Thus, ADSE refused to participate in certain meetings since, for the activists that would have been the first step towards accepting the landfill in their community. More than consultation, local actors expect a collective sharing of information.

If there is to be a process of participation, it has to take into account not only technical information, but also patrimonial values and perceptions of risks and uncertainties (Burningham 2000), and to focus on how to integrate antagonism and dissent in the understanding of social change rather than consensus (Mouffe 2005). Public engagement should be viewed as an interactive rather than a one-way process, with the aim of changing the attitude of developers as much as that of objectors (Ellis *et al.* 2007). The critical task ahead is to create a truly contested political field: a local public sphere where all claims to represent the public interest are advanced, challenged and legitimized within a vigorous debate marked by an equitable distribution of economic, political and symbolic power (Gibson 2005). The idea is thus to generate new relations between expertise, the working of democracy and public decisions, in other words to establish governance by mutual trust.

## **Conclusion**

For a long time NIMBY functioned as the only theoretical framework for the understanding of opposition movements regarding siting decisions (Batel and Devine-Wright 2015). Its uselessness as an

explanatory framework (Burningham 2000) has thus “left a lacuna that needs to be filled” (Devine-Wright 2005: 136). Our framework helps to better characterize collective actions against new land-use facilities as well as to apprehend their impact on social change. Applied to a case of opposition to a landfill in the Beauce region, France, we argue that the evolution over time of four types of capital can transform a local and self-interested association into a more universal civic interest movement, which we refer to as “enlightened resistance”.

Indeed, four types of effect arise from this citizen’s mobilization, *a priori* stigmatized under the banner of NIMBY. First of all, this battle, which has not yet ended, has led to the implementation of solid technical, associative and local networks (social capital). Following this, the association members developed technical, political and procedural knowledge and skills concerning the question of building a landfill center, and they learned how to mobilize so as to propose laymen’s expertise (scientific capital). Mobilization also engendered a new territorial attachment on the part of residents through a renewal in the value of the Beauce region, a rediscovery of its history and local heritage (patrimonial capital). Finally, the totality of these capitals leads to political capital in which the refusal movement is transformed into a force of proposition, with the activists proposing credible alternatives to the industrial project. With time, the local opposition in Saint-Escobille gave way to a structuring according to differing logics of mobilization as its claims came to be included within a collective cause.

Globally, when studying environmental controversies, we emphasize the importance of recognizing (1) the unexpected reconfiguration of the social landscape that arises following the organization of resistance (social capital), (2) the different types of legitimate knowledge of a territory (scientific capital), (3) the role of place attachment in social representations (patrimonial capital), and (4) the political dimension of identities (political capital). To do so, it is fundamental to take into account the temporal dimension of conflicts since land-use struggles tend to last for years, allowing representations, practices and knowledge of actors to change over time. Finally, we argue that *enlightened resistance* can reveal some form of local public interest, what we call *territorial interests*.

To attempt to characterize these four types of capital is to re-open the debate on the social fundamentals of the political connection and the relations between civil society and democracy. Alexis de Tocqueville saw in the voluntary association of citizens the key to democratic vitality which enlarged the horizons of the participants, stimulated discussion and debate, and instructed them in how to undertake common action as equals. This is very far indeed from the NIMBY phenomenon. In order to enrich and strengthen our conceptual framework, it should now be confronted with other cases. Keeping in mind that

opposition to any proposal is context-dependent and that researchers must pay cognizance to local concerns (Ellis *et al.* 2007), our objectives would be to detail each type of capital through a series of indicators and to deepen the analysis of divergences and convergences among cases.

The construction of a landfill center can only be approached politically as it concerns the entire socio-economic system within which it is anchored. In it we find the distance which separates urban and rural areas, agricultural and industrial activity, the long and the short term, the knowledge of both laymen and experts and representations among the various participants. In the case of Saint-Escobille, to enter into conflict does not simply mean to oppose. It is a means to integrate the citizen into administrative action and the process of local, public decision making. Neighborhood movements work to appear in the form of improbable dynamics of political socialization and these *collective hybrids* reconfigure the political qualities of physical spaces. It is in the context of specific projects that citizens come to invest the political realm and to again ask questions about the organization of collective life within a given territory.

More and more studies have revealed the complexity in movements opposed to controversial projects and installations. McAvoy (1998), for example, found that residents remained opposed to the building of a hazardous waste treatment facility, even when their own locality was removed from the list of potential sites. Hunter and Leyden (1995) or Johnson and Scicchitano (2012) found that residents distant from a proposed waste facility were just as opposed as citizens located alongside the proposed site and expressed a more universal concern about the long-term ecological consequences. Similarly, we show that, faced with environmental uncertainties, neighborhood movements broaden their views, thus giving rise to competition among actors as to how the common interest and public utility should be defined within a specific locality. This rising 'opposing and proposing mass' must call upon scholars, planners and policy makers and evoke their concerns for democracy, participation and modes of governance.

For more in-depth analyses of environmental controversies, two dimensions must not be forgotten. First, our study resonates with Ellis *et al.* (2007) when they state that scholars and planners, when looking at opposition movements, must include the analysis of wider views and values relating to the social and natural world which can help to establish a common ground between actors and to enhance dialogue. Research that can unravel the dynamic subjectivities that frame land planning disputes may offer insights capable of overcoming the current policy impasse. Secondly, it would be beneficial to deepen the understanding of the role of developers and decision makers, and, specifically, the ways communication is

used by and between individuals, groups and institutions to negotiate or contest representations, defend identities and resist or promote change (Batel and Castro 2015).

Land planning disputes may be the expression of legitimate demands and of democratic opposition to projects that do not have unanimous support. In order to grasp what is at stake in environmental conflicts, the politicization process in progress in local opposition movements must be better formulated. Also, means of access to the structuring of debates concerning the common good and forms of participation in public life must be better questioned. To the question 'why are some local opponents seen as public-minded 'heroes' and others as selfish 'villains'?' our answer is that with time and the development of the 4 capitals, villains can be transformed into heroes, NIMBY into enlightened resistance.

## References

- Aitken, M., 2009. Wind power planning controversies and the construction of 'expert' and 'lay' knowledges. *Science as Culture*, 18(1) 47-64
- Altman, I. and Low, S., 1992. *Place Attachment*. New York: Plenum Press.
- Barry, J., G. Ellis, and C. Robinson, 2008. Cool rationalities and hot air: A rhetorical approach to understanding debates on renewable energy. *Global Environmental Politics*, 8(2)
- Batel, S. and Castro, P., 2015. Collective Action and Social Change: Examining the Role of Representation in the Communication between Protesters and Third - party Members. *Journal of Community & Applied Social Psychology*, 25(3), pp.249-263.
- Batel, S. and Devine-Wright, P., 2015. Towards a better understanding of people's responses to renewable energy technologies: Insights from Social Representations Theory. *Public Understanding of Science*, 24(3), pp.311-325.
- Beck, U., 1992. *Risk society: Towards a new modernity*, 17. Sage.
- Bell, D., Gray, T., Hagggett, C. and Swaffield, J., 2013. Re-visiting the 'social gap': public opinion and relations of power in the local politics of wind energy. *Environmental Politics*, 22(1), 115-135.
- Binder M. and Bramrud T., 2001. Environmental impacts of landfill bioreactor cells in comparison to former landfill techniques, *Water Air and Soil Pollution*, 29, 289-303.
- Blondiaux L., 2001. Démocratie locale et participation citoyenne : la promesse et le piège. *Mouvements*, 18, 44-51.

- Botetzagias, I., Malesios, C., Kolokotroni, A. and Moysiadis, Y., 2015. The role of NIMBY in opposing the siting of wind farms: evidence from Greece. *Journal of Environmental Planning and Management*, 58(2), 229-251.
- Bourdieu P., 1980. *Le Sens pratique*. Paris : Les Éditions de Minuit, coll. Le sens commun.
- Bouvier R.A., Halstead J.M., Conway K.S. and Manalo A.B., 2000. The effect of landfills on rural residential property values : some empirical evidence, *The Journal of Regional Analysis and Policy*, 30 (2), 23-37.
- BRGM, 2004. *La nappe des calcaires de Beauce*. Service géologique Régional Ile de France et DIREN de bassin Loire-Bretagne.
- Brion, DJ.,1991. *Essential industry and the NIMBY phenomenon*. New York: Quorum Books.
- Brown, P., 1992. Popular Epidemiology and Toxic Waste Contamination: Lay and Professional Ways of Knowing. *Journal of Health and Social Behavior*, 33 (3), 267-281.
- Burningham, K., 2000. Using the language of NIMBY : a topic for research, not an activity for researchers. *Local Environment*, 5 (1), 55-67.
- Busenberg, G., 1999. Collaborative and adversarial analysis in environmental policy. *Policy sciences*, 32(1), 1-11.
- Dalton, R., 2004. *Democratic challenges, democratic choices: The erosion of political support in advanced industrial democracies*. Oxford, UK: Oxford University Press.
- Dear, M., 1992. Understanding and overcoming the NIMBY syndrome. *Journal of the American Planning Association*, 58, 141-149.
- Devine-Wright, P., 2005. Beyond NIMBYism: towards an integrated framework for understanding public perceptions of wind energy. *Wind Energy*, 8 (2), 125-139.
- Devine-Wright, P., 2009. Rethinking NIMBYism: The role of place attachment and place identity in explaining place-protective action. *Journal of Community and Applied Social Psychology*, 19(6), 426-441.
- Devine-Wright, P., 2010. From backyards to places: Public engagement and the emplacement of renewable energy technologies. In: Devine-Wright Editor. *Renewable Energy and the Public: from NIMBY to Participation*. London: Earthscan, 57-74.
- Di Masso, A., Dixon, J., & Pol, E., 2011. On the contested nature of place: 'Figuera's well', 'The Hole of Shame' and the ideological struggle over public space in Barcelona. *Journal of Environmental Psychology*, 31, 231-244.
- Elliot, D., 1997. *Energy, Society and Environment*, London, Routledge.

- Ellis, G., Barry, J. and Robinson, C., 2007. Many ways to say 'no', different ways to say 'yes': applying Q-methodology to understand public acceptance of wind farm proposals. *Journal of environmental planning and management*, 50(4), pp.517-551.
- Fielder, H.M.P., Poon-king, C.M., Palmer, S.R., Moss, N., and Coleman, G., 2000. Assessment of impact on health of residents living near the Nanty-Gwyddon landfill site: retrospective analysis, *Br. Medicine Journal*, 320, 19-22.
- Flyvbjerg, B., 1998 *Rationality and power: democracy in practice*. The University of Chicago Press Ltd., London, UK.
- Ford, L.H., 2003. Challenging Global Environmental Governance: Social Movement Agency and Global Civil Society. *Global Environmental Politics*, 3 (2), 120-134.
- Freudenberg, W. and Pastor, S., 1992. NIMBYs and LULUs, stalking the syndromes. *Journal of Social issues*, 48(4), 39-61.
- Frey, B.S., Oberholzer-Gee, F., and Eichenberger, R., 1996. The old lady visits your backyard: A tale of morals and markets. *Journal of Political Economy* 104 (6), 1297-313.
- Ghorra-Gobin, C., 2001. Les espaces publics, capital social. *Géocarrefour*, 76 (1), 5-11.
- Gibson, T.A., 2005. NIMBY and the civic good. *City and Community*, 4(4), 381-401.
- Groothuis, P.A., and Miller, G., 1994. Locating hazardous waste facilities: The influence of NIMBY beliefs. *American Journal of Economics and Sociology*, 53 (3), 335-47.
- Hager, C. and Haddad, M.A. eds., 2015. *Nimby Is Beautiful: Cases of Local Activism and Environmental Innovation Around the World*. Berghahn Books.
- Haggett, C., 2010. Why not NIMBY? A response, reviewing the empirical evidence. *Ethics, Place, and Environment*, 13 (3), 313-316.
- Healey, P., 1997. *Collaborative Planning: Shaping Places in Fragmented Societies*. Basingstoke: Macmillan.
- Heiman, M., 1990. From not in my backyard!' to not in anybody's backyard!' grassroots challenge to hazardous waste facility siting. *American Planning Association Journal*, 56 (3), 359-362.
- Hidalgo, M. C., and Hernandez, B., 2001. Place attachment: conceptual and empirical questions. *Journal of Environmental Psychology*, 21, 273-281.
- Hunter, S. and Leyden, K.M., 1995. Beyond NIMBY: explaining opposition to hazardous waste facilities. *Policy studies journal*, 23 (4), 601-619.
- Huxley, M., 2000. *The limits to communicative planning*. *Journal of Planning Education and Research*, Vol. 19, p369-377.
- Inhaber, H. 1998. *Slaying the NIMBY Dragon*. New Brunswick, NJ: Transaction Publishers.



- Irwin, A., 1995. *Citizen Science: A Study of People, Expertise and Sustainable Development*. London: Routledge.
- Jobert, A., 1998. L'aménagement en politique ou ce que le syndrome NIMBY nous dit de l'intérêt général. *Politix*, 42, 67-92.
- Johnson, R. J., and Scicchitano, M. J., 2012. Don't Call Me NIMBY: Public Attitudes Toward Solid Waste Facilities. *Environment and Behavior*, 44(3) 410-426.
- Kahn, R., 2000. Siting struggles; the unique challenge of permitting renewable energy power plants. *The Electricity Journal*, Vol.13, p.21-33.
- Kaswan, A., 1997. Environmental justice: Bridging the gap between environmental laws and 'justice'. *American University Law Review*, 47(2).
- Kearney, RC., and Smith AA., 1994. The low-level radioactive waste siting process in Connecticut: Anatomy of a failure. *Policy Studies Journal*, 22 (4), 617-31.
- Kraft, ME. and Clary, BB., 1991. Citizen Participation and the Nimby Syndrome: Public Response to Radioactive Waste Disposal. *The Western Political Quarterly*, 44 (2), 299-328, University of Utah, Western Political Science Association.
- Lake, RW., 1993. Rethinking NIMBY. *Journal of the American Planning Association*, 59, 87-93.
- Latour, B., 2003. *Un monde pluriel mais commun, entretien avec F. Ewald*, Editions de l'Aube, coll. Interventions.
- Lennon, M. and Scott, M., 2015. Contending Expertise: An Interpretive Approach to (Re) conceiving Wind Power's 'Planning Problem'. *Journal of Environmental Policy & Planning*, 17(5), pp.593-616.
- Lennon, M., 2016. On 'the subject' of planning's public interest. *Planning Theory*, p.1473095215621773.
- Louis, W., 2009. Collective action—And then what? *Journal of Social Issues*, 65, 727-748.
- Manzo, L., and Perkins, D., 2006. Finding common ground: the importance of place attachment to community participation in planning. *Journal of Planning Literature*, 20, 335-350.
- McAvoy, GE., 1998. Partisan probing and democratic decision making: rethinking the NIMBY syndrome. *Policy studies journal*, 26 (2), 274-292.
- Michaud, K., Carlisle, JE., and Smith, E., 2008. NIMBYism vs. environmentalism in attitudes towards energy development. *Environmental Politics*, 17, 20-39.
- Mouffe C, 2005. Some reflections on an agonistic approach to the public. In: Latour B and Weibel P (eds) *Making Things Public: Atmospheres of Democracy*. Karlsruhe: Center for Art and Media / Cambridge, MA: Massachusetts Institute of Technology, pp. 804-807.

- O'Hare, M., Bacow L., and Sanderson D., 1983. *Facility siting and public opposition*. New York: Van Nostrand Reinhold.
- Oakley, D., 2002. Housing Homeless People: Local Mobilization of Federal Resources to Fight NIMBYism. *Journal of Urban Affairs*, 24, 97-116.
- Owens, S., 2004. Siting, sustainable development and social priorities. *Journal of Risk Research*, 7, 101-114.
- Owens, S., T. Rayner, and O. Bina, 2004. New agendas for appraisal: Reflections on theory, practice, and research. *Environment and Planning A*, 36(11), 1943-1959.
- Piller, C., 1991. *The fail-safe society: community defiance and the end of American technological optimism*. New-York: Basic Books.
- Plough, A., and Krinsky, S., 1987. The emergence of risk communication studies: Social and political context. *Science, Technology, and Human Values*, 12, 3/4, 4-10.
- Pol, E., DiMasso, A., Castrechini, A., Bonet, M.R., and Vidal, T., 2006. Psychological parameters to understand and manage the NIMBY effect. *European Review of Applied Psychology*, 56, 43-51.
- Popper, F.J., 1985. The environmentalist and the LULU. *Environment*, 27 (1), 7-11, 37-40.
- Putnam, R.D., 2000. *Bowling Alone : the Collapse and Revival of American Community*. New York: Simon and Shuster.
- Rabe, B.G., 1994. *Beyond NIMBY: Hazardous waste siting in Canada and the United States*. Washington, DC: Brookings Institution.
- Rowe K., Sangam H., and Lake C., 2003. Evaluation of an HDPE geomembrane after 14 years as a leachate lagoon liner. *Canadian geotechnical journal*, National Research Council of Canada, Ottawa, 40 (3), 536-550.
- Scally, C.P. and Tighe, J.R., 2015. Democracy in Action?: NIMBY as Impediment to Equitable Affordable Housing Siting. *Housing Studies*, 30(5), 749-769.
- Schively, C., 2007. Understanding the NIMBY and LULU Phenomena: Reassessing Our Knowledge Base and Informing Future Research. *Journal of Planning Literature*, 21, 255-266
- Sébastien, L., 2011. Quand les acteurs faibles et absents s'immiscent dans la négociation environnementale. *Territoire en mouvement*, 11, 66-81.
- Sébastien, L., 2013. Le nimby est mort. Vive la résistance éclairée: le cas de l'opposition à un projet de décharge, Essonne, France. *Sociologies pratiques* 2013/2, 27, 145-165.
- Short, L., 2002. Wind power and English landscape identity. In Pasqualetti, M.J., Gipe, P. and Righter, R.W. (eds), *Wind power in view: energy landscapes in a crowded world*, Academic press, San Diego.

- Simon, B. and Klandermans, B., 2001. Politicized Collective Identity, A Social Psychological Analysis. *American Psychologist*, 56 (4), 319-331.
- Simsek, C., Elci, A., Gunduz, O., and Taskin, N., 2014. An improved landfill site screening procedure under NIMBY syndrome constraints. *Landscape and Urban Planning*, 132, 1-15.
- Smith, E., and Marquez, M., 2000. The Other Side of the NIMBY Syndrome. *Society & Natural Resources*, 13, 273–280.
- Smith, P. D., and McDonough, M. H., 2001. Beyond public participation: Fairness in natural resource decision making. *Society & Natural Resources*, 14(3), 239-249.
- Sun, Y., 2015. Facilitating generation of local knowledge using a collaborative initiator: A NIMBY case in Guangzhou, China. *Habitat International*, 46, 130-137.
- Takahashi, L. M., and Dear M.J., 1997. The changing dynamics of community opposition to human service facilities. *Journal of the American Planning Association*, 63 (1), 79-93.
- Trom, D., 1999. De la réfutation de l'effet NIMBY considéré comme un pratique militante. Notes pour une approche pragmatique de l'activité revendicative. *Revue française de science politique*, 49 (1), 31-50.
- Vilomet, J.D., 2000. *Traçage des pollutions lixiviats de CET sur les eaux souterraines*. Thesis (PhD). Aix-Marseille III University.
- Walker G, Devine-Wright P, Barnett J, Burningham K, Cass N, Devine-Wright H, et al., 2011. Symmetries, expectations, dynamics and contexts: A framework for understanding public engagement with renewable energy projects. In Devine-Wright P (ed.) *Renewable Energy and the Public: From NIMBY to Participation*. London: Earthscan, 1–14.
- Warren, C.R., Lumsden, C, O'Dowd, S and Birnie, R.V., 2005. "Green on green"; public perceptions of wind power in Scotland and Ireland. *Journal of Environmental Planning and Management*, 48 (6), 853-875.
- Wexler, M., 1996. A Sociological Framing of the NIMBY (Not-in-my-backyard) syndrome. *International Review of Modern Sociology*, 26 (1), 91-110.
- Wolsink, M. and Devilee, J., 2009. The motives for accepting or rejecting waste infrastructure facilities. Shifting the focus from the planners' perspective to fairness and community commitment. *Journal of Environmental Planning and Management*, 52 (2), 217–236.
- Wolsink, M., 2006. Invalid theory impedes our understanding: a critique on the persistence of the language of NIMBY. *Transactions of the Institute of British Geographers*, 31 (1), 85–91.

Wolsink, M., 2012. Undesired reinforcement of harmful 'self-evident truths' concerning the implementation of wind power. *Energy Policy*, 48, 83-87.

Wustenhagen, R., Wolsink, M. and Burer, MJ., 2007. Social acceptance of renewable energy innovation: An introduction to the concept. *Energy Policy* 35(5), 2683–2691.