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How Can We Study Environmental Policies?

Environmental policies are difficult to circumvent. In a book on environmental conflicts in the Everglades, Gail Hollander (2008) shows that the opposition between environmentalists and sugar cane producers in Florida is not just a private conflict of interest, but that moral and political considerations on sugar have been at stake since the 18th Century. Florida's sugar industry was indeed built as a condition for the political autonomy of the United States from the British, Spanish and French empires and then as a factor of political adherence to the country's economic model when sugar became a key ingredient in mass-produced food. But to fully understand the success of this political economy, it is also necessary to study the competing products of sugar cane (sugar beet, sweeteners derived from corn), the strategies developed to fight cane viruses and the effect of the futures markets on sugar price volatility. Finally, this competition is not just about food. The governance of the sugar industry and its environmental effects in Florida now depends on the geopolitics of biofuels, which can also be produced with sugar cane. In the face of this network of interdependencies, how can we assess the importance of each of these factors on Everglades' environmental policies?

The proliferation of issues poses a methodological difficulty for any investigation into environmental politics. For the social sciences, it is not only a matter of identifying a theme or terrain, but also of constructing an object of analysis that is relevant to what the literature on the subject has highlighted. How to define this object of analysis? How can we make sure we do not forget any actor? Which scenes to observe? How far back in time

can we go? One solution consists of addressing them through policy instruments (laws, incentives, contracts, etc.) that have been adopted to regulate the environment. This makes it possible to abstract from the singularities of each issue in order to construct a general diagnosis on the evolution of environmental policies. However, as discussed in section 1.1, these governance tools reflect only a small proportion of political issues in an area that is difficult to govern (Weale 1992, Theys 2003). To fully understand the meaning that the environment has for actors, it is necessary to take better account of the ordinary categories that describe it and understand what makes them unstable, prone to controversy and uncertainty. This is the purpose of the rest of this chapter.

1.1. Interests and limits of an approach to the environment through policy instruments

Two factors regularly reconfigure the networks of actors involved in the production of environmental policies and make it difficult to carry out an exhaustive investigation: the production of new knowledge[1] and the instability of political agendas in the various political arenas of the territories concerned (Jordan 1998, Richardson 1994). There is no clear and sustainable convergence of interests in this area of public action. The environment concerns local residents, experts, industrialists (Bonnaud and Martinais 2017, Michel 2012), activists (Lascoumes 1994), elected officials, and others. Public action is highly fragmented; networks are complex and recompose over time. Political exchanges take place in mediation spaces that are difficult to observe, very diverse and sometimes informal, whose access is often controlled by a few actors (Gilbert and Henry 2012). It then becomes particularly tedious to assess the whole scope of a change by following all actors, whose involvement constantly varies in the manufacturing or implementation process of public policy. Studying actors does not make it possible to conclude in a general way on the results of their mobilizations: do the regulatory instruments adopted make it possible to reduce waste production and avoid pollution?

1 For example, the epidemiology of respiratory diseases has provided new resources for environmental actors to strengthen air quality regulation (Boutaric and Lascoumes 2008). In another field, Guerrin (2014) shows that the changes in scale of the hydraulic modeling of floods on the Rhone have redistributed the resources of the actors involved in renaturing the river.

The study of policy instruments (Moisdon 1997, Lascoumes and Le Galès 2004, Linder and Peters 1990, Howlett 1991) may then appear to be the solution to overcoming the methodological difficulty associated with the dispersion of actors. An instrument (law, contract, consultation mechanism) is in fact a stable, instituted form, which offers a means of circumscribing the analysis. The construction of the instrument gives rise to official meetings with written records that make it possible to identify those present and those absent. Its content embodies the power relationships that forged it and conveys the frameworks that influence its implementation. The evolution of instruments is considered "an excellent indicator of change" in political relations and legitimacy (Lascoumes and Simard 2011). However, the instrument approach does not highlight a significant change in the way the environment is taken into account, whereas an approach based on environmental motives does.

Within the European Union, the vast majority of environmental regulations are adopted at the European level and then transposed into a national law. What the authors who have studied the policy instruments show is that, at the European level, there have been no new instruments likely to give more power to environmental authorities (in particular more information) or to destabilize the vested interests of polluting industries (Halpern and Le Galès 2011). Environmental directives are a classic community decision-making process that produces uniform standards. Two developments limit their binding nature. On the one hand, the sanction for failure to achieve the objectives set by these directives remains dependent on the case law of the European Court of Justice. The first environmental convictions with financial penalties date back to the 2000s and concern directives adopted more than 10 years earlier[2]. France, for example, has been convicted several times for non-compliance with European environmental law, but none of these convictions has yet given rise to the penalties due in the event of "failing to comply with earlier judgments". So far, France has managed to regularize its situation before a second conviction for the same offense[3]. The time lag between the adoption of a text at the European level

2 See, for example, Spain's order of November 25, 2003 (C-278/01) to pay a penalty payment of €624,150 per year for each percentage of inland bathing areas not complying with the Bathing Directive 76/160/EEC.

3 This is the case in particular with the last conviction on September 4, 2014 (C-237/12) for non-compliance with the Nitrates Directive (91/676/EEC). France had already been condemned in 2002 for insufficient designation of vulnerable areas in the Bay of the Seine, but the case had been regularized.

and the accountability of Member States for its effectiveness thus favors a slow and negotiated transcription at the national level. On the other hand, the obligations imposed by the directives are increasingly procedural. They define how to set objectives according to areas. The result is a "two-tier system of negotiation", the European level for the adoption of directives and the national level for its implementation (Halpern 2011, Halpern and Le Galès 2011). According to Charlotte Halpern and Patrick Le Galès, this system has enabled national actors opposed to better environmental protection to negotiate the application of texts (by focusing on those that cost them little) without those procedures involving the public increasing, in return, the steering power of European institutions. They also note that the European level has not created specific instruments for environmental policy, but that it recycles instruments that have a history in a Member State. This is particularly the case for zoning, tax incentives and eco-labels, which were first introduced in France. Their generalization to the European Union would therefore not be a guarantee of change in France insofar as French actors have already implemented strategies to adapt to these tools. The authors then conclude that the European policy has little autonomy vis-à-vis member countries and international organizations that have also inspired most of its instruments.

The instrument approach does not reveal any changes at the national level either. Rather, research concludes that neocorporate strategic logics are still at play (Nilsson 2005). Environmental policies would leave too much room for interpretation for actors, at the risk of no longer having an effect on the environment. Regulatory modes where economic sectors co-decide with public authorities are dominant (Barré *et al.*, 2015, Rumpala 1999, Berny 2011, Larrue and Chabason 1998). Environmental issues would be aligned on managerial logics and diluted under the term sustainable development (Villalba 2009). Magalie Bourblanc has identified local public policies which, in order to reconcile environmental principles and principles of intergenerational equity between farmers, set up parallel accounting systems for agricultural land, which do not make sense even for the agents responsible for implementing them (Bourblanc 2011). Finally, the selective transcription of European directives negotiated at the national level would favor technical-managerial instruments mastered by the sectoral actors in place (coalitions between industrialists and major state technical bodies) or even neutralized by political will at the national or local level.

Scholars have also identified several mechanisms for neutralizing greening instruments. Some of them are at a very early stage of public action when defining the public problem at stake. Claude Gilbert and Emmanuel Henry (2012) have identified discrete scenes where the assignment of public problems to a particular department is played out, which subsequently provides officials in that department with a monopoly on legitimate expertise to select and implement appropriate policy instruments. Sectoral actors (agricultural, industrial, urban) are also able to divert regulatory instruments such as limit values (amount of pollution not to be exceeded) and zoning, by negotiating the nature of regulated discharges, exemptions (Bourblanc 2011) or more favorable implementation deadlines[4]. Neutralization (Le Bourhis and Lascoumes 2014) is also played out in the production of environmental information, in order to mask degradation diagnoses. To counter the monopolization of the definition of public problems, nature protection associations have called for an independent environmental information agency (Lascoumes *et al.*, 2014). Several authors thought that the European Union would play this role, because of the obligation on Member States to provide environmental information available to the public, which would act as resources for mobilizing the judicial forum (Dezalay 2007, Kallis and Nijkamp 2000). However, an indicator *on the* state of the environment is not necessarily an indicator *to* protect the environment (Le Bourhis 2015). Unsustainability indicators constructed by the *Institut français de l'environnement* (IFEN) before 2007 were subsequently drowned in a bureaucratic statistical production in which it has become difficult to find resources for pro-environmental action. Even though some controversies testify to a wear and tear on technocratic strategies (Michel 2012, Sébastien 2013) and suggest that these neutralization mechanisms do not always work, the dominant observation in the literature is that of a strong inertia in favor of sectoral policies to the detriment of environmental action. The objectives of environmental policies would remain unclear, soft regulations and flexible trade-offs (Lascoumes 2012).

However, this pessimistic observation by political scientists on the integration of environmental issues into public action is based on analytical tools that adopt an institutional definition of the environment, i.e. what is

4 The deferred definition of eutrophication-sensitive areas in the Seine basin is discussed in the following section.

classified under environmental sections by law, professions or political organizations. Of course, these sections were standardized from ordinary categories for government purposes. The institutions that govern the environment, such as the Ministry of the Environment created in France in 1971, were built by aggregating these codified categories (preservation of the natural and cultural heritage, living environment, nature, pollution, risks, etc.), themselves based on inventories of species, objects and activities (Charvolin 2003). However, these inventories lose important characteristics of the environment, which are its dynamics and interdependencies (Carter 2018, Guimont and Petitimbert 2017). These definitions do not exhaust the diversity of things perceived in the environment and struggle to account for its presence, forms and consistency for the actors.

1.2. Defining the environment

Institutions can be seen as both aggregating and integrating principles, i.e. both rules for allocating resources and legitimate ways of giving meaning to the collective and its context (March and Olsen 1989). We place ourselves here in the more integrative tradition of analyzing institutions to reflect an environment that can never be reduced to clearly identified resources. The environment includes nature, artifacts, human behavior and hybrid things. It is neither clearly defined nor bounded. Individuals can call on institutions whose role is both distributive and interpretative to bring order to this multiple reality.

The challenge of this book is to understand how ordinary perceptions of the environment can influence public decisions and vice versa how public decisions can make some environmental realities more or less perceptible. To do this, we need to redefine the term "environment" to better grasp how actors experience and make sense of it. In everyday language, the environment is an ordinary way of capturing the space and temporality that surrounds us, without precise delimitation. It is a vague term that has the same root as the noun "environs". Unlike other contextual terms such as "society", "entourage" and "relatives", which also lack precise boundaries, the environment is not restricted to humans and their interactions but includes "natural" elements, i.e. elements that, from the viewpoint of the

observer, are at least partially escape human intention. We propose the following definition:

DEFINITION 1.– Environment. *The environment, for individuals or social groups, is the surrounding biophysical reality that we perceive through our senses, and which results from human and non-human actions. We can address the environment in general or focus on a specific one such as professional, family or natural environments*.

This definition of the environment as a perceived biophysical reality goes beyond the scope assigned to it in nature policy, but this expansion is necessary to understand what an environmental issue means for actors. Indeed, the distinction between society and nature is changing, so we need a definition of the environment that is not restricted to what is considered natural at a given time, but that accepts this distinction between natural and social as one of the characteristics of a given environment. What seems purely artificial and social here and today may be associated with ecological considerations tomorrow. For example, the pill has long been considered as a purely human and social issue. It is only recently that hormones used for female contraception have been accused of being endocrine disrupters for aquatic wildlife. Conversely, what is described as purely material and environmental also has a linguistic, and therefore social, existence. Although contingent, the ontological separation between the natural and the artificial is the most widespread way in the Western world to understand reality, as Philippe Descola states (2005). This "great divide" continues to have currency, not only in science. Overcoming this dichotomy, as Bruno Latour (1997), for example, proposes, requires us to get away from the meaning experienced by most individuals. This effort is never made on a routine basis, it requires an analytical effort. Our definition of the environment grasps altogether social and natural elements in any context.

The biophysical reality perceived around the actors is not limited in space and time. The environment is not a well-framed object. Its division into categories is neither unambiguous nor perfectly stable. The social classifications that serve as benchmarks are often challenged. While polar bears and brown bears were considered as two distinct species, melting ice forces polar bears to move out of snow-covered areas, which favors a natural hybridization with brown bears. This has been observed since 2006 in the Canadian Arctic zone, whereas previously it had only been observed in zoos. The distinction between the two species is fading. Unlike a smartphone

interface where each icon corresponds to one and only one application and has been designed to be immediately identified and distinguished by anyone, individuals do not perceive the same shapes in the environment. By changing the observation tool or conventional definitions, it is always possible to bring out realities in the environment that have not been perceived before.

1.3. Perception of environmental forms and motives

People perceive concrete forms in the environment: objects, animals, plots, clouds, ponds, cracks, fissures, smells, color spots, textures, sounds and combinations of sounds, smells, textures, colors and flavors. All of these forms produce stimuli for an individual who will recognize them, put them in order and align them with known categories. These categorization operations are the result of learning and vary according to the socio-cultural context, and they can also be debated. Henry Dicks (2012) points out that the category is a way of showing something in the public space through language. Etymologically, the term comes from the Latin *categoria*, derived from the ancient Greek κατηγορία, katêgoria ("accusation, category") derived from κατηγορέω, katēgoreō ("accuse, speak out against") from κατά, kata ("against") and ἀγορεύω, agoreuō ("speak"). The category is a way of seeing or accusing that confronts others in the public space through language.

The categories used to describe the environment give meaning to material forms. The "river" category captures the continuity of water flowing through a valley, beyond the discontinuity of urban and rural areas, fast-flowing sections and slow waters. This "river" category also makes it possible to account for the physical discontinuity that separates two banks. To describe the environment, individuals have at their disposal a repertoire of forms (vocabulary of geography, flora, fauna, color chart, musical repertoire, etc.). They can learn to recognize these forms in the environment because they meet them several times. Forms repeat themselves; they look like a standard ideal. In English, a recurrent shape is called a *pattern*. In French, to capture an ideal type, whether in visual, textural, sonic or olfactory form, the term *motif* is sometimes used*:* a fabric motif or a musical motif. In this sense, an environmental motif is *a form* (*figure*, *pattern*) perceived in the living space. It may be a landscape motif (Béringuier *et al.*, 1999), but here it is given a

broader meaning to also include physical forms of the social environment (concrete marks of distinction, stigma, etc.).

To share an environmental "*pattern-motif*" with others, you have to name it. Learning the form is not just an *intentional* chain of events that classifies experiences according to linguistic entries[5]. The process of encoding this form is also part of the body of individuals and its recognition may become unintentional, even irrepressible, and therefore pre-interpretative. This is the case, for example, with reading. It is no longer possible for those who have learned to read to perceive letters without reading the words, because the writings are then part of a lived and incorporated environment. Learning environmental forms involves the education of the senses and language and becomes routine.

The recognition of a "*pattern-motif*" is a source of emotions. Consider Proust's madeleine. Madeleine and herbal tea are tasteful motifs in the French culinary environment. This common reference makes the situation described by Marcel Proust in *Du côté de chez Swann* relatively familiar to the reader who is familiar with herbal teas and madeleines. However, only the narrator experiences such a strong and unexpected emotion in recognizing this motif that it opens the door to happy memories, closed for too long. Magnified by the novelist's prose, the individual emotion becomes a collective aesthetic motif that in turn generates an emotion in the reader. Among naturalists, Rebecca Ellis observed how the senses of perception are sharpened by repeated observation. She explains that when amateur naturalists are able to identify a species at first glance, this rapid alignment between the known category and the being in question gives them a great joy that amateurs call among themselves the "jizz" (Ellis 2011). While administrative and scholarly discourses on the environment keep emotions at bay, it must be recognized that environmental forms can convey passions (Roux *et al.*, 2009) and emotional logics (Bauman 2013).

5 In an article on the encoding work of a pedologist and a botanist in the Amazon, Bruno Latour shows that scientific production proceeds through a series of inscriptions according to conventions that only retain their truthfulness as long as the information circulates along the chain and its connections are not called into question (Latour 1993). We would like to emphasize here the interpretative work that this encoding requires in a reality that contains an element of ambiguity.

Not all "*pattern-motifs*" are as recognizable as Proust's madeleine, and reality often presents itself in equivocal contours. These ambiguities have delighted the authors of *Gestalt theory* who have become masters in the art of interweaving two forms in the same drawing to create an effect of surprise when the spectator who has recognized the first meaning discovers the second interpretation. More generally, in the environment, the association of a set of perceptions with a "pattern-motif" is never exclusive. Where some will associate the presence of a crowd with a political demonstration, others will see it as a gathering of no political significance. Interpretative plurality is the rule rather than the exception. There is room for debate, and individuals are not trapped in the forms they perceive irrepressibly[6]. Beyond first impressions, other continuities or discontinuities of reality can be highlighted individually or through debate because perception is objectifiable and sensitivity can be improved. In our example, the presence of banners with a political slogan or the concentration of crowds at the entrance to a shopping center may help to separate opposing perceptions.

Emotions generated by "pattern-motifs" can give rise to private or public commitments and motives for action, in the sense of *motivations*. For ecologist John Muir (1838–1914), the fine *texture* of sheep's wool was both a form and a reason to celebrate the superiority of wilderness over domesticated nature[7]. For biologist Rachel Carson (1907–1964), the *silence* of spring was not only a noticeable absence of birds, but also a cause for concern and mobilization against pesticides (Carson 1962). In Mouscron, Belgium, it was the desire to distinguish the *olfactory* motif produced by a slaughterhouse from that produced by an incinerator that motivated local residents to organize themselves into a network of "noses" that ensured vigilance over their local environment (Melard 2013). The notion of environmental motive thus makes it possible to grasp, on the one hand, the form and meaning (pattern) that the actors give to their environment (representations, arguments) and, on the other hand, the emotions and motivations (motives) that they associate with this perception.

6 In this respect, perceptions differ from Bourdieusian *habitus*, which is also socially acquired and incorporated, but which encloses the individual in a single interpretative scheme (Bourdieu 1987).
7 Muir, J. (1875). Wild wool. *The Overland Monthly*, April (Worster 1973).

DEFINITION 2.– Environmental motive. *An environmental motive is a form or set of forms perceived in the environment, with contours (discontinuities) and associated with representations, arguments, emotions and motivations*.

Individuals perceive environmental patterns by their shape(s) or outline(s). The outline of a shape pattern is defined by the limit of the extent beyond which its presence is no longer seen, felt or heard. Sometimes form is perceived first and motivation comes second. At other times, motivation reconfigures the perception of the environment. For those who are tired, any flat surface is perceived as a potential resting place.

Motivation too is perceived because individuals have learned to associate it with patterns that reflect its presence. It has long been known that to understand the abstract motivations of others, i.e. their reasons for action, you need to know the codes of their social environment. For Max Weber, behavior is perceived by relating the elements that compose it to "a typical configuration of meaning" that constitutes its motivation, "its meaningful reason" in a particular context, "according to average habits of thinking and feeling" (Weber 2016, p. 104). Charles Wright Mills (1940) adds the inseparable link between the interpretation of conduct and language: "motives are words" (p. 905). According to Mills, a vocabulary of *motives* can be learned in a situation at the same time as behavioral norms. He quotes the adult who says to the child "do not do this, it is selfish", linking in the same sentence the condemnation of an act and its imputation to a motivation. This vocabulary of motives constitutes the social environment in which we are caught. Even the sociologist is obliged to interpret the behaviors he observes according to the vocabulary of credible reasons available to society in general or to his profession. When a word provides a definitive answer to the question "why does such a person behave in such a way?", it means that this word is part of the vocabulary of motives in the social group here considered. For example, we might say that such an action was done "out of love" or "for money", "out of loyalty" or "out of revenge". These motivations have a performative dimension when they are expressed. Presenting one's actions with reference to the vocabulary of current motives "in force" makes them acceptable, reduces conflicts and ultimately facilitates their realization. We also become accountable for the motives we have

verbalized because others will perceive our actions in relation to the motives posted.

Mills believes that the vocabularies of credible motives have historically been located and compartmentalized in social structures. The well-framed traditional situations had their own sub-vocabulary of motives. However, modern urban life would be full of confusing situations where competing sub-vocabularies confront each other. To interpret the motivations of others, each actor should rely on socially recognized indices as specific brands of a type in the common repertoire. However, sociologists Mills and Weber have remained vague about the sensitive dimension of the perception of these clues. Although Weber talks about "average thinking and *feeling* habits", he does not define what this sensitive perception of the situation is.

What does it mean to feel in this case? To attribute a motivation to a behavior, is it enough to represent this behavior in a cognitive way or is it necessary to see, touch and hear it? When the adult says to the child "don't do this, it's selfish", the child understands and learns what it means, because "it" refers to gestures, words, ways of interacting that both protagonists have seen, heard, felt at the same time in their lived space. Behavior and its qualification are interpretations based on a series of perceived cues. If Mills' *motives* are abstract notions (love, hatred, jealousy, etc.), they are nevertheless identifiable in situation through forms (gestures, facial expressions, voice intonation, etc.) which are motifs in the sense of *patterns.* To perceive jealousy in others means that we identify in their physical and linguistic behavior forms that we interpret as envy. This interpretation is a learning process in which we can become a prisoner. Mills thus mocks the Marxist ideology that leads to perceiving the world only through struggles of interest: "to many believers in Marxism's terminology of power, struggle, and economic motives, all others, including Freud's, are due to hypocrisy or ignorance. An individual who has assimilated thoroughly only business congeries of motives will attempt to apply these motives to all situations, home and wife included" (Mills 1940, p. 912).

To reflect the ordinary perception of the environment, we need both meanings of the term motif in French, both pattern and motivation. This term captures the perceptions on which individuals rely to categorize reality and the meanings associated with the presence (or absence) of these forms, whether they are related to attachment, fear or a norm. Compared to other

categories of language that designate motivations (love, jealousy, punishment, etc.), "environmental motive" is a phrase that also explicitly designates a form (silence, the smell of the incinerator, the texture of the mouflon hair, trout, river, fire, oil slick, daisy field, grass, rubber, etc.). From an ontological point of view, the environmental motive is a social construction, but as we will see later, it carries a way of seeing and judging the environment that becomes routine. Furthermore, its institutionalization can have material effects on the environment.

The link between observers and the material reality they perceive is a phenomenological experience that cannot be shared in the public space. This link has been well studied by pragmatic sociologists (Barthe *et al.*, 2013) through the notion of "affordance". This term was first used by psychologist-ethologist James Gibson (1977) to designate both the means by which a person (or an animal) can grasp a situation and what this situation offers to his perception. For example, a handle offers a grip to a human while it is less convenient for a cat. Under the hand that tries to grasp it, a handle may be too round or too big to grab. It is from the encounter between materiality and the individual's intention that the grasp is born. Whether this affordance is deliberately "constructed" for a use or opportunely captured "in nature" for want of anything better does not have much importance in this conceptualization. It remains valid whether the reality is natural or artificial. The pragmatic environment is socionatural. For the climber, not all the roughness of the rock is a catch. They have in their head possible types of catches, but those that will really be useful will be revealed during the climb. The action reveals the gap that can exist between sensory perception in situations and representations. Affordance is a means of action that is recognized by devices of perception and understanding (hands, tools, representations, etc.) that are affirmed, sharpened and refined with experience. For its part, reality offers *folds*[8], protrusions and interstices that more or less "bend" to the devices of perception and understanding of individuals. When sensory receptors and physical reality intertwine, folds offer a grip for the individual.

Even for pragmatists, the individual is not alone in this exploration. Collective action sets conventional *benchmarks* on things to facilitate the articulation of perceptions and representations. In the environment, there are

8 The term is borrowed from Gilles Deleuze, who himself takes it from Leibniz (Bessy and Chateauraynaud 2014).

often situations that do not correspond to those that have been socially identified. Benchmarks are not always enough and can also be misleading. Even where labels exist, Christian Bessy and Francis Chatauraynaud (2014) note that there are risks of error. It is then necessary to be an expert to avoid being "caught" by false labels on counterfeit products. Leaving behind the markers diverted by counterfeiters, experts manipulate objects and inspect them from every angle to perceive other characteristics (texture, sound, weight, etc.). The authors of *Experts et faussaires* (*Experts and Counterfeiters)* characterize expertise by the extent of the inventory of affordances that an individual has learned to recognize. Sensations that do not correspond to any sensory experience already experienced can disappoint an individual's expectations and generate *disorder* or be used to support "increased vigilance of actors" or "investigation" (Ginelli 2015). To the extent that these discrete affordances do not necessarily have names in the social world, their identification is not only a matter of socially constructed dispositions but also of curiosity and attention to a wide variety of experiences. For Bessy and Chatauraynaud, the expert is the one who pushed the border between the known and the trouble. They describe the evaluation of authenticity as a back and forth between abstract representation that keeps the body at bay and the material experience that may take *control* over the subject (Bessy and Chateauraynaud 2014). Environmental motive is defined here not as material affordance, but its meaning. It is the meaning given to a perceived form and is therefore semiotic.

This pragmatic perspective sheds new light on the way individuals perceive behavior in society. They capture the motivations of others through material affordances (e.g. upper body movement) that they attempt to match with a known benchmark (e.g. shoulder shrug). As a representation, this landmark is part of what Mills calls the cultural vocabulary of patterns. As a form with normative significance, shoulder shrugging is an environmental motive. You can live in a social environment that is more or less rich in shoulder shrugs. In some social environments, shoulder shrugging signifies offhandedness. But let us note that the two words are different. Offhandedness is a motivation. It is not an environmental motive, because it is not a form.

1.4. Perception of institutions in the environment

Often the term "perception" is used in political science as a synonym for "representation". For example, in the model of Paul Sabatier and Hank Jenkins-Smith's causal coalitions (1993), it is through internal conflict regulation through brokers that actors in very different positions gradually come to share "a belief system… causal assumptions and *perceptions of the problem*"[9]. These are common definitions that do not refer to sensory abilities. However, we can also further distinguish representations and perceptions by trying to understand whether there are material traces of the presence of institutions.

Even when institutions are conceived as systems of meaning (March and Olsen, 1989), appropriate to certain situations and legitimate to guide collective action, they are not only "views of the mind". Their maintenance is a matter of cultural transmission practices such as myths and ceremonies (Meyer and Rowan 1977), which in turn are based on concrete objects and ritualized physical places. Pierre Muller's "referential", which is a system of meaning "built by actors and which imposes itself on them as a framework for interpreting the world" (Muller 2005), is based not only on values, norms and algorithms but also on images that "make sense immediately without going through a long discursive detour. From this point of view, images constitute a central element of the frame of reference" (Muller 2006). He quotes: "the bearded terrorist, the dynamic and modernized young farmer, the American troops overthrowing the statue of the dictator". These examples correspond well to what we have called environmental motives, located in the living space. These are both socially constructed categories, perceptible by the senses, and signs that motivate the fight against terrorism, the modernization of agriculture or adherence to American foreign policy. This suggests that institutions manifest themselves in the environment, in particular authoritative forms that help to frame the situation and guide the perception of other motives. Actors identify the relevant institutions through these canonical motives whose meaning refers to these institutions.

This is also what Yannick Barthe and Cyril Lemieux suggest (1998) when they mention the importance of "making visible" what is not visible in

9 "advocacy coalitions (…) are people who share a particular belief system – that is, a set of basic values, causal assumptions, and *problem perceptions*" (Sabatier and Jenkins-Smith 1993, p. 25).

order to transform the consideration of collective risks. According to these scholars, the challenge of political mobilization is "to shift the spontaneous perception of political decision-makers and journalists" to increase the visibility of victims. They support a conceptualization of institutions that would be built by organizing material perceptions, categorizing them and politicizing them. The legitimacy of the institutions thus constructed would be maintained by the obvious presence of objects directly associated with the institution (images, ritual objects, etc.). Without this material support, individuals would not perceive the meaning of collective rules. The hypothesis of a functional link between material perceptions and individuals' adherence to institutions is explored in greater depth by Virginie Tournay (2014) in *Penser le changement institutionnel.*

Virginie Tournay conceives institutions "not as fictions magically created by a glance, by a conscience or by a history (myth), but rather from their form of attestation and the traces they are likely to leave in the mind" (p. 20). The world is populated by elements that can be recognized and named by language, which our ordinary perception interprets as indicators of the presence of more abstract and less contingent realities and institutions. Sometimes they are pure symbols whose materiality does not matter (the colors of the flag). But other elements inseparable from their materiality and spatiality also have this symbolic power. A wedding ring on a finger makes the institution of marriage visible materially. The ringing of a bell at an educational institution reminds us via our ears to be punctual to lessons. What would quality certifications defined between stakeholders be worth if they were not visible through a label on products offered to consumers? The nation is not an "imagined community" (Anderson, 1983) made from nothing. The idea of the nation is constantly updated by its perceptible physical manifestations. The flag, symbolic places, language and patriotic songs are all environmental motifs of the nation.

For Virginie Tournay, individuals constantly work to adjust their perceptual categories to "bring together the perspectives, contours, reliefs and contrasts of something familiar, in order to reconstruct a recognizable world" (p. 154). When a piece of the institutional puzzle is recognized, the individual reconstructs the continuity of the whole by assigning to this presence all the properties inherent to the institution. For the author,

institution is a more perceptive than cognitive category. It passes into the register of representation through language. But this representation does not erase the perceived characteristics. In the idea of the nation, for example, the distinction between inside and outside is decisive. From this perspective, what makes an institution exist is precisely the ability of actors to attribute a normative meaning to a perceived thing or person: "[see] money [in] a piece of metal, a flag [in] a piece of cloth, (…) [and in a person] the postman, policeman…" (Tournay 2014).

In this conceptualization, institutions have a certain consistency because of the physical, spatial and historical characteristics usually associated with them in language. "The consistency of the institution (…) is determined by language because the linguistic mode of existence of the institution allows different ways of articulating the elements of this being to form a totality" (Tournay 2014, p. 305). The consistency of institutions is not of the same nature as environmental forms. They are built beyond the material elements. They are always open in time or space, which makes them more general and more robust to criticism because they are less contingent and contextualized.

Virginie Tournay designs four types of perceptual relationships with institutions, which she models by combining Philippe Descola's ontologies (2005) and Charles Tilly's explanatory registers (2006). For Philippe Descola, there are four ways of perceiving beings in the world: naturalistic, totemic, animic and analogical ontologies. Naturalist ontology pays attention to the visible characteristics of beings and refers to natural laws and cultural choices to understand their diversity. For Tournay, this ontology would correspond to the explanatory register by causal reasoning identified by Charles Tilly. Totemic ontology perceives in beings a clan identity. The differences in the appearance of non-humans correspond to differences between human clans. Tournay proposes to match this ontology to the explanatory register of Tilly's founding myth. The animic ontology does not give importance to the form of beings but to their intentionality. Tournay articulates this ontology in the explanatory register of the exchange agreement. Finally, analogical ontology sees in beings the possibilities of relationships. Tournay associates it with the explanatory register of the prospective narrative. These four categories are summarized in Table 1.1.

Ontology	Physical properties	Interiority (elements of permanence)	Spatiality	Temporality	Explanatory register
Naturalist	Attributes defined by the observer	(What needs to be explained)	Variations due to cultural differences	Historical evolution following a founding project	Causal explanation
Animic	(Extremely varied)	Moral principle	Friendship, kinship, (citizenship)	(As long as these links hold)	Exchange agreement, reciprocal obligation
Totemic	Indivisible	Identity	Unitary, territorial	Founding act	Rituals, codes, commemorations, founding myths, symbols
Analogical	Overrun, network, crisis			Looking to the future	Forward-looking story

Table 1.1. *The consistency, temporality and explanatory register of institutions. Adapted from V. Tournay (2014, p. 173, p. 190, pp. 258–259)*[10]

According to Tournay, to understand institutions in *a naturalistic way* is to be critical of them, not to believe in their permanence. This involves asking how and why individuals feel the presence of an institution. The naturalist observer always looks to an external cause (the actors, a myth, a lock-in process, a configuration) for what makes the institution stand. When explaining institutional evolution through the interplay of actors, the analyst gives actors their own ontology. Other analysts will take such actors' strategies as a variable to be explained by values. The variations observed over time then generate questions about origin and history in an evolutionary conception of institutions. The changes can be explained according to the various neoinstitutionalist currents: one institution was born from a founding project (historical neoinstitutionalism), another is maintained because of inertia (paths of dependence) and a third appears following calculated reasoning (rational choice) or by social mimetism (sociological neoinstitutionalism). This naturalistic relationship to institutions opens up

10 Words in brackets have been added by the author.

the emancipatory possibility of imagining other codes for living together. It is by comparing institutions with each other that we reveal their spatial outlines and historical evolutions.

According to Tournay, individuals also perceive the presence of an institution when they feel obliged by a moral principle and a bond of reciprocal obligation. In such case, they apprehend this institutional obligation as an *animistic ontology*. Animic institutions are based on common definitions of good and evil and a convention of exchange within a group. They do not evolve over time once established. They are spatially manifested by bonds of friendship, kinship or belonging that make individuals feel solidarity with the institution. The public good and the general interest are animistic institutions. What makes these institutions tangible to individuals is the fact that they feel solidarity between citizens (beneficiary of the public good) or that they do not detect any obvious asymmetry in the way issues are handled (general interest).

When individuals perceive a collective identity, such as the nation or regional cuisine, based on cues indicating the presence of this identity, what they perceive is an *institution of the totemic type*. It is based on codes, rituals, commemorations, founding myths and symbols. It is spatially deployed in a single scope, through a language or practices. For Tournay, the territory is the archetype of the totemic institution.

Finally, the author proposes to report on relationships with emerging institutions, those perceived in a crisis situation without reference to traditions, to reflect a profusion of links to be built from a central point. These *analogical or connexionist institutions* rely on networks that are only activated in the event of an alert or emergency regime and are based on forward-looking, action-oriented narratives. The project is an example of an analogical institution. Although a project is constantly evolving, it is also conceived by the perceptions of its actors: its plans, its program, the statements made on its behalf, etc.

In the examples cited by Virginie Tournay, signs that indicate the presence of an institution are not important. The flag, the alliance and the polling station are purely conventional. Only their meanings matter.

The institution itself has a consistency but not really a precise outline. Even in the case of territory with a large spatial dimension, the outline remains unclear.

According to Tournay, the attention paid to morphology is a naturalistic concern that indicates a step back. If we adhere to the institution, only its consistency counts and its contour fades. The ability of an institution to direct behavior does not result from its form but from the intentionality that actors attribute to it (animic ontology), the history they tell about it (totemic ontology) or the possibility it offers them to connect beings and things (analogical ontology). In the extreme, the most instituted realities no longer have any unambiguous relationship to their visible manifestations. Their presence is only attested because they are named and they become the pure product of the actors' oral or written belief and performance, beyond the appearances of the environment.

From these various works, it can be seen that institutions, such as "socionatures", are perceived in the environment either through their material manifestations or through pure symbols. There are in fact myths, slogans, convictions, narratives, utopias and identities that have an obvious character and a strong mobilizing power, although their concrete manifestations can take very varied forms. These are motives without their own materiality. These are pure arguments or motivations that can live up to various appearances. These are referred to here as institutional motives.

DEFINITION 3.– Institutional motive. *An institutional motive is a discursive expression based on heterogeneous communication skills (argumentation, image, narrative) that serves as a reason for action and derives its justification from an institution (law, rule, norm). Such a motive does not refer to a specific shape in the lived environment.*

1.5. Emerging environmental policy issues

The definition of the environment we propose is not reduced to the way it is thought of politically, but integrates what the actors perceive physically around them, geographically and historically. This emphasis on perceptions

decompartmentalizes the environmental issue from its ecological meaning (to which we will return later). The environment may also be the food world, the professional world, the media, religion, etc. In all situations, actors sort their perceptions out using meaningful forms of the material context that are socially transmitted through language.

This approach to the environment makes it very widespread but not omnipresent. There are also well-bounded situations in which the material context is perfectly defined and there is no need to focus on the environment, because perceptions are unambiguous and merge with the representations that the actors have of it. This is the case with digital device interfaces, which are designed so that icons always refer to the same applications regardless of their relative position, regardless of their environment. Other situations under controlled conditions ensure that the things perceived are identical to actors' expectations (laboratories, industries, etc.). In these cases, an environmental approach is not justified. On the contrary, in all cases where perceived forms may depend on context, an environmental approach makes it possible to restore the distinction between the perception of a form and its representation and to pay attention to the effects of visibility, scale and focus.

Following Virginie Tournay's theoretical proposal, it is possible to draw a parallel between how individuals perceive environmental motives and how they perceive institutions, based on clues, by reconstructing shapes and assigning them an explanatory principle or motivation. However, when individuals adhere to an institution without questioning it, the precise form of that institution in time and space loses its importance to them in favor of a more permanent consistency.

In the remainder of this book, we will focus on the processes by which environmental motives can be articulated with institutional motives, i.e. how material forms observed in time and space are invested by social groups to become legitimate patterns of perceiving and categorizing the environment. These forms evoke emotions because their perception is not just a chain of intentional operations but an incorporated process. And emotions can also motivate collective action. This will lead us to redefine environmental

policies as collective responses to the perception in the environment of forms whose appearance or disappearance is a problem. In this perspective, we take for granted the material basis for the perception of environmental problems, but we underline how framing processes shape this perception. These problems are therefore both natural and constructed.