



## A methodological approach to analyze the territorial appropriation of high-speed rail from interactions between actions and representations of local actors

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### Abstract

In response to the difficulties in discriminating the specific transport impact from other factors influencing economic and spatial development, researchers are now focusing more on understanding the process by which territorial changes occur to explain how economic and social agents and local authorities have appropriated the new transportation system. This appropriation plays a crucial part in the territorial dynamics. The diversity of economic and spatial changes produced by high-speed rail indicates the existence of multiple modes of appropriation which vary according to the location of stations, the mobilization of local stakeholders confronted with the transport operators' logic and the geographical and historical context of the infrastructure implementation.

Appropriation is defined as a dialogical and identity process that must be explained in order to facilitate the understanding of the gradual and mutual adjustments between the transportation system and the territory. The analysis of the mechanisms of high-speed rail transport appropriation opens up new research opportunities in the quest to respond to a three-pronged issue:

- firstly, the issue of improving the understanding of the relation between the agents involved in the territorialization of the transport infrastructure by analyzing the interrelation between transport practices, the functioning of firms and development projects;
- Secondly, the issue of observing the "image" effect linked to the individual and collective representations of high-speed rail;
- and lastly, the issue of examining the temporal dimension of the territorialization process.

Thus, my contribution rests on the conception of an analysis grid to explain how appropriation has gradually taken shape throughout the various stages of the high-speed line project. Inspired by Brunel and Roux's research work on consumers' habits, this analytical grid aims at reporting on the modes of HSR appropriation, emphasizing the temporality of the process. Appropriation is, in fact, a long-term evolutionary process which has started long before the implementation of the new infrastructure and continues even after the trivialization of its uses.

*Keywords: High-speed rail, territorialization process, appropriation, practices and representations, image effect.*

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## 1. Introduction

Faced with the great diversity of territorial implications of high-speed rail (HSR) and in response to the difficulties in discriminating the specific transport impact from other factors influencing economic and spatial development, researchers are now focusing more on understanding the process by which territorial changes occur, to explain how economic and social agents and local authorities have appropriated the new transportation system through their behaviours, practices and representations. If appropriation plays a crucial part in territorial dynamics, it's necessary to decipher its mechanisms in order to facilitate the understanding of territorial reconfigurations linked to the arrival of high-speed rail. Appropriation is considered as a collective construction process resulting from the multiple interactions between the agents involved in the territorialization of the HSR system. The focus is on examining how political and institutional strategies have acted upon other agents' practices throughout the different stages of the HSR project and how the companies' expectations and users' representations of high-speed rail have influenced the decisions and strategies adopted by the political sphere to strengthen the territorial integration of the new transportation supply.

Defining the territorial appropriation of high-speed rail from the relations between the actions and the representations of local actors requires the development of a specific methodological approach which simultaneously takes these various social interactions and the temporal dimension of the process into account. This approach is presented in three sections. After mentioning the issues of an analysis focused on appropriation, the article proposes a dynamic perspective of the process by transposing the analysis grid conceived by Brunel and Roux (2006) for the study of consumers' habits and finally reviews the methods used to analyze the process of appropriation that participates in the territorialization of a new transport infrastructure.

## 2. Scientific issues of an analysis focused on the appropriation of high-speed rail

### 2.1 The decisive role of the territorial appropriation of high-speed rail

The complex interdependencies between transport, society and territory make it difficult to dissociate the effects of a transport infrastructure from other factors involved in economic and spatial changes. Many scientific studies have shown that the infrastructure and the new conditions of accessibility are, ultimately, only development opportunities that territorial actors have to grasp by the means of accompanying measures and appropriate development strategies. So appropriation is recognized as a condition of success for the territorial development projects which started with the commissioning of a new transport infrastructure. For example, regarding the North European high-speed line, P. Menerault has clearly shown that the territorial changes linked with the improvement of rail accessibility closely depended on the national, regional and local modes of appropriation of the high-speed rail service (Menerault, 1996, 1997 and 2000). By analyzing the impact of the French eastern European high-speed line on the activation of tourist resources in Reims, Bazin, et al. (2010) have highlighted that the collective appropriation of the HSR service and the ability of actors to collaborate were the key to the emergence of the positive "effects" of the infrastructure. In order to understand how the territory appropriates the new transport supply, a few works focus on the actors' strategies and logics (Blanquart, et al., 2010; Chaplain, 1994; Cohou, 2000). Cecilia Ribalaygua has conducted a very detailed analysis of enhancement strategies that intended to anticipate, support and promote the arrival of high-speed rail in small-sized Spanish cities and has emphasized the major influence of these strategies in the spatial and economic changes she has observed (Ribalaygua, 2006).

Ultimately, the issue must be seen from another angle. Instead of inquiring into the "effects" of the new transport supply on spatial organization, it is better to start from the territory as a whole in order to analyze how it has generated the infrastructure, has adjusted to the new conditions of accessibility and has appropriated the new transport supply. As C. Chaplain has shown in her PhD dissertation on the Channel Tunnel and the French Northern high-speed line, the understanding of the actors' behaviours and practices that accompanied the infrastructure project, from conception to completion, is essential for analyzing territorial dynamics (Chaplain, 1994). As F. Plassard has written concerning the relations between transport and territory, the commissioning of a new transport infrastructure « *renvoie au fonctionnement global de la société qui, par cette construction, s'approprié son espace et transforme progressivement son territoire conformément au système de valeurs qui lui donne sa cohérence globale* »<sup>1</sup>(Plassard, 2003).

Prolonging these works, my research on the HSR stations has shown that, according to geographical and historical contexts, the process of territorialization of high speed rail has encountered a number of territorial inertia which is due as much to "the effects of place" as to the appropriation modes of the new transport supply by territorial actors. The degree of appropriation of the potentials of high-speed rail has been a major factor of the involvement of local actors in the decision-making process leading to the choice of the location of HSR stations, and in the implementation of coherent and coordinated strategies improving the territorial integration of high-speed rail. When local actors anticipated the opportunities presented by the connection to the HSR network, not only did they widely get involved in obtaining a location of the station in compliance with their territorial development project but also in implementing measures to strengthen the territorial integration of the high-speed rail service. Focusing on the locations of stations, these analyses suggest the existence of different modes of appropriation which vary according to the degree of centrality of railway stations, the mobilization of local actors confronted with the transport operators' supra-territorial logic and the temporal context of the HSR project implementation (Facchinetti-Mannone and Bavoux, 2010; Facchinetti-Mannone, 2012). These different elements result in highly diversified territorial dynamics which can be highlighted by an analysis of the appropriation of high-speed rail.

## 2.2 Appropriation : a multifaceted notion

In geography, the concept of territory is used in conjunction with the notion of appropriation which is a many-sided notion and a cross-disciplinary one which refers to a dual process within the usual meaning of the term. First, the term 'appropriation' means "to adapt something to specific uses, needs or expectations". Secondly, it may be defined as the action of assigning oneself the ownership of something, taking possession of an object or a place, or acquiring experience or knowledge. It involves the exercise of a form of power, the preparation of a strategy and the construction of an identity.

In a heuristic perspective, this dual meaning and the numerous definitions of the notion of appropriation have led me to examine the scientific works dealing with the appropriation of public spaces and that of innovation. The purpose is to specify how the various disciplines which have studied these topics define and mobilize the concept in order to provide a theoretical and methodological framework to improve the comprehension of the appropriation process. A first review of the French scientific literature has shown several common characteristics particularly fruitful to analyze the process of appropriation of high-speed rail. Based on « *la confrontation de deux potentialités, la potentialité d'un monde présentant de l'appropriable à un individu et la potentialité de ce même individu à s'approprier les objets et espaces dans*

<sup>1</sup> [Translation: the commissioning of a new transport infrastructure "refers to the overall social functioning which, through this construction, appropriates its space and gradually transforms its territory, in accordance with the system of values that gives it its overall coherence"]



*une quête identitaire* »<sup>2</sup> (Cova et Cova, 2001), appropriation is a dynamic process derived from complex systems of interdependence (Fischer, 2011) between the possessive, adaptive and identity dimensions of the notion.

By its possessive dimension, appropriation is first a conflictual process in which social actors are confronted with a certain number of constraints (Fischer, 2011), which they have to take into account and even to surpass. Analyzed from the angle of the power relationships expressed by struggles for the appropriation of places, from the territorial marking of individuals and groups or from the oppositions between the design logic and the user's (De Certeau, 1990; Perriault, 1989), this underlying conflictual dimension is an essential key to understanding the appropriation process of high-speed rail. Even if the strategies of appropriation adopted by the territorial actors of intermediate cities remain subject to the supra-territorial logics of transport operators, they have revealed that some territories have succeeded in reversing the logic prescribed by the railway operator to serve their own expectations while others have not been able to derive the expected benefits although they have obtained a rail service. Because these different "appropriative trajectories" vary according to the spatial and temporal contexts of the location of HSR stations, they invite us to revisit the actors' interactions occurring during the choices of the location of stations and the implementation of development strategies.

Beyond the diversity of the topics and scientific fields, many research studies have also underlined the dialogical dimension of the appropriation process which involves continuous, progressive and mutual adjustments (Orlikowski, 1996), according to a recursive logic (Brunel and Roux, 2006) between the adaptation of the subject and the modification of the object. As regards urban public places, P. Serfaty has shown that the user adjusts to the function of the place throughout his routine practices which gradually change the sense of place (Korosek-Serfaty, 1988). *Based on the Adaptive Structuration Theory* developed by De Sanctis and Poole (1994) from A. Giddens' work (1987), this interactionist approach proves relevant to investigate the appropriation of high-speed rail stations and to understand the renewal of territorial structures in connection with the changes in the transportation system. Because it is gradually taking shape in the relation to its object (Jouet, 2000), appropriation takes part in the spatial structuration and the emergence of new territorial dynamics. These greatly contingent territorial changes are the result of a process in which territorial actors interpret the changes introduced by the new transport supply, adapt them to their expectations and incorporate them into their practices, thus modifying the characteristics of the transport supply and the values that it conveys. In the course of interactions, this dual mechanism of adaptation affects the general territorial system which in turn changes the functionalities of the new transportation supply and the actions and representations of local actors, explaining the wide variety of territorial dynamics generated by projects yet designed according to the same logic.

Finally, appropriation constitutes an identity process. Social sciences have thus largely proved that the property of objects, the assimilation of knowledge or the acquisition of experiences have contributed to shaping the identity of individuals. By extension, high-speed rail appears to be an "identity referent" (Brunel and Roux, 2006). The integration to the HSR network doubly contributes to the building of territorial identity. On the one hand, the improvement of accessibility and the modern image linked to high-speed rail change the way the territory belongs to the world and increase its visibility on a national scale and on a European one, as shown by the renewal of the architecture of train stations or the territorial marketing strategies adopted by the cities and regions that have recently joined the "Club of HSR cities". On the other hand, high-speed rail changes the way local actors consider their territory; the new transportation supply becoming, through appropriation, a medium for territorial identity.

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<sup>2</sup> [Translation: "the confrontation of two potentialities: one of a world presenting things that can be appropriated by an individual, and the capacity of this same individual to appropriate objects and spaces in an identity quest"].



### 2.3 A multi-pronged problematic approach of the appropriation of high-speed rail

Addressing the issue of the territorialization process of high-speed rail through the prism of appropriation offers the advantage of focussing the analysis on territorial actors. As pointed out by Ripoll and Veschambres, “reasoning in terms of appropriation has the major methodological and theoretical interest to emphasize the spatial dimension of society, rather than the space itself, considered as something distinct, autonomous and external from society ” (Ripoll et Veschambres, 2005). Among the numerous stakeholders involved in the territorialization process of the HSR stations, three categories of territorial actors have more particularly attracted my attention (see figure 1): the railway customers, the economic players and the local political and institutional actors.

Differentiated by their practices, relations to places and expectations raised by the new transportation supply, these three groups of actors have a very different role in the territorialization process of high-speed rail. Even if railway users and economic players only have a limited decision-making power over HSR lines and location of stations, their spatial distribution, characteristics and travel practices are widely taken into account during the negotiations concerning the location of stations and the definition of the railway service. Their travel practices and their ways of using HSR stations, which affect the profitability of projects, are also taken into consideration in the design, equipment and layout of these places. Lastly, the way they integrate the station and the new transportation supply into their daily lives has spatial repercussions that influence the territorialization process of the new transportation system. The political and institutional sphere, which has more prerogatives than ever before to negotiate the location and rail service of the stations, has had an unequal influence depending on the geographical and temporal contexts of the implementation of the projects. Whether these political actors have obtained or not a location of a HSR station and services corresponding to their expectations, they have supported the accompanying strategies and territorial development plans set up to improve the territorial integration of the high-speed rail network.

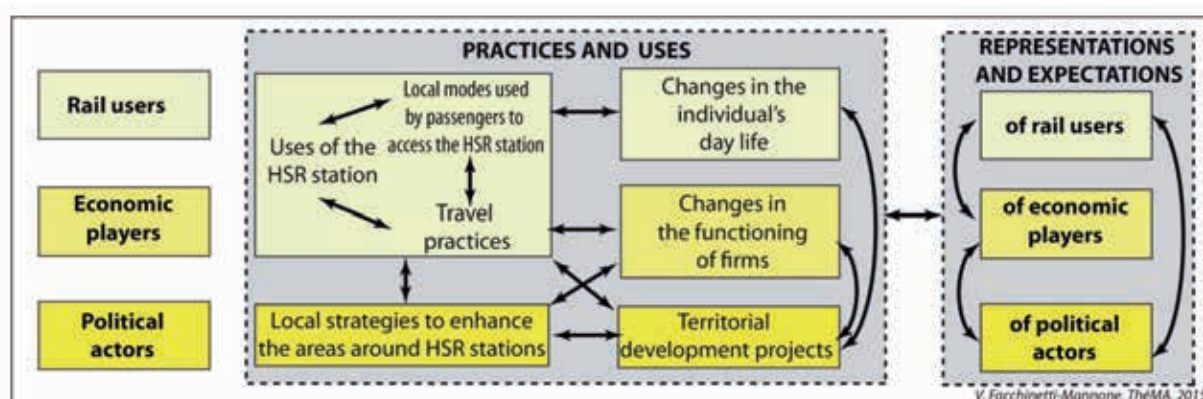


Fig. 1: the appropriation of HSR: a collective construction process

While the forms and mechanisms of appropriation differ according to the types of actors, they are nevertheless interdependent. Thus, after specifying how each of them has appropriated the renewal of transport supply, it will be necessary to analyse the relations which exist between these different modes of appropriation. This interactional approach, which reveals the actors' interactions involved in the territorialization of the infrastructure, considers appropriation as a collective construction process resulting from mutual adjustments between the various forms



of appropriation which have been identified. Indeed, if the measures implemented by the political sphere to strengthen the territorial integration of railway stations weigh on the way in which passengers and economic players use HSR, these strategies depend on the various forms of appropriation that have preceded or accompanied them, insofar as territorial planning takes into account, to some degree, the forms of appropriation revealed by the companies' expectations and users' representations.

Appropriation appears in two ways: first through the strategies, practices and uses generated by the new transportation supply, and then through high-speed rail representations and actors' expectations. Practices and behaviours, which refer to the real life experience of the territorial actors, are numerous. The appropriation of high-speed rail can be analyzed through people's travel practices and companies', in relation with their use of stations, and more generally by the way they integrate the new transportation supply into their daily life or in the functioning of their firms. Similarly, the strategies for enhancing the railroad sites and territorial projects linked to high-speed rail reveal the logic of appropriation supported by political and institutional actors (see Figure 1).

If the various studies dedicated to appropriation have emphasized social players' actions, these acts cannot be separated from the representations that gave birth to them. Practices and representations are always linked (Gumuchian, 1991) and constitute two facets of a complex process that closely mingles collective representations, individual perceptions and response and adaptation mechanisms (Taddei and Staii, 2008). The representations led by the renewal of railway accessibility constitute an essential factor in understanding the practices and strategies which induce territorial changes in connection with the implementation of a new high-speed line. Thus, my analysis emphasizes the representations of the different territorial actors and describes the various interactions that bind them in order to confront these representations with the practices and strategies from which they are derived and that they constantly change (see Figure 1).

### **3. A dynamic perspective on the appropriation of high-speed rail**

The analysis of the territorialization of high-speed rail in terms of appropriation encourages researchers to highlight the temporal depth of the process. Indeed, appropriation is a long-term evolutionary process which has started long before the implementation of the new transport infrastructure and has continued even after the trivialization of its uses (de Vaujany, 2003). Therefore, if the choice of location and the opening of stations are highlights of territorialization process, insofar as they confer a tangible reality to the HSR project, their appropriation has taken shape since the first reflections on the emergence of the high-speed line project. Then it has gradually developed and changed during the various stages of the project implementation. Taking this diachronic dimension into account is fundamental. On the one hand, it allows me to understand how the appropriation modes of the project have influenced the choice of the location of stations and the strategies developed to promote the territorial integration of high-speed rail. On the other hand, it enables me to specify how these strategies may modify the stakeholders' practices and representations in return.

#### **3.1 An approach adapted to the temporality of high-speed line projects**

Several authors have attempted to deconstruct the chronology of the appropriation process. Among them, Brunel and Roux, inspired by Sartre's work on desire and possession, have constructed a comprehensive analytical grid of appropriative acts in the field of marketing (see Tab.1). The intention of their study was to grasp the dialogical and conflictual relationship between demand and supply in order to understand how the purchase and the consumption of any product participate in the individual's identity building. Thus, they have identified four

strategies of appropriation (the contamination, the knowledge, the creation and the control) which come in a specific way according to the different stages of consumption act (Brunel and Roux,2006).

**Tab. 1: Comprehensive analytical grid of appropriation**

	Contamination	Knowledge	Creation	Control
Pre-appropriation	Intrusion	Impregnation	Preconception	Will to vanquish
Pre-acquisition appropriation	Identification	Researching information	Ressource allocation	Takeover
Appropriation during acquisition	Transfer	Choice	Personalization	Taking possession
Pre-consumption appropriation	Internalization	Discovery	Transformation	Possession
Appropriation during consumption	Incorporation	Learning	Self-fulfilment	Domination
Post-consumption appropriation	Passing on	Dissemination / Withholding	Transformation of self and society	Enjoyment

Their chronological approach appears relevant to examine how the territorial appropriation of high-speed rail changes throughout the three main stages of the HSR projects (see figure 2):

Over the two or three decades which have elapsed between the first evocations of the project and the conclusions of the public debate, appropriation has built up gradually from the numerous and often contradictory representations which condition the territorial identification of the HSR project and the ability of local actors to collaborate and to implement development projects. During this gestation phase, numerous studies from the transport operator and the institutional and socio-economic actors have helped fuel the debate. Although at this stage nothing has been decided yet, the mobilizations against or in favor of the infrastructure project, lobbying actions, the first technical and economic feasibility studies - now widely co-financed by local actors - then the consultation organized for the public debate have given a virtual reality to the project.

Then, the project gets into an active stage of development which constitutes a turning-point in the spatial integration of infrastructure. Reports and consultations preceding the Declaration of Public Utility (DUP) allow to refine the technical and spatial characteristics of the project, to evaluate its socio-economic and environmental impacts and to consider its financing terms. Preliminary engineering studies and public inquiries gradually give substance to the HSR project, reducing the range of possibilities before the DUP initiates its concrete realisation. From there, preliminary project studies, land acquisitions, financial negotiations, the construction site and the definition of railway services replace one another and materialize the *“désir de gare”* (desire for a rail station) (Troin, 2010). The new HSR station becomes a valuable potential resource and gives rise to anticipation strategies that are expressed through development projects and an intense territorial marketing campaign.

The official opening of the high-speed line renews the forms of appropriation. During the first years of operation, new travel practices have accompanied the adjustments of transport supply.

Finally, with the gradual trivialization of high-speed rail, the new mobility practices associated with the gain in accessibility go hand in hand with the slow implementation of the economic and urban projects linked to the HSR station and the territorial integration of the new transport supply.

During these three phases, appropriation has evolved; the conflictual, dialogical and identity facets of the process get organized into a different hierarchy according to the temporalities of each project and the specificities of each territory. The conflictual dimension, often predominant during the gestation of the project, is gradually replaced by the dialogic facet during its implementation, and then gives way to the identity dimension once the commissioning of the high-speed line is completed. Nevertheless, these three components of appropriation occur to varying degrees of intensity depending on the geographical context. The methodological approach that I have chosen aims to identify and to explain these different forms of territorialization.

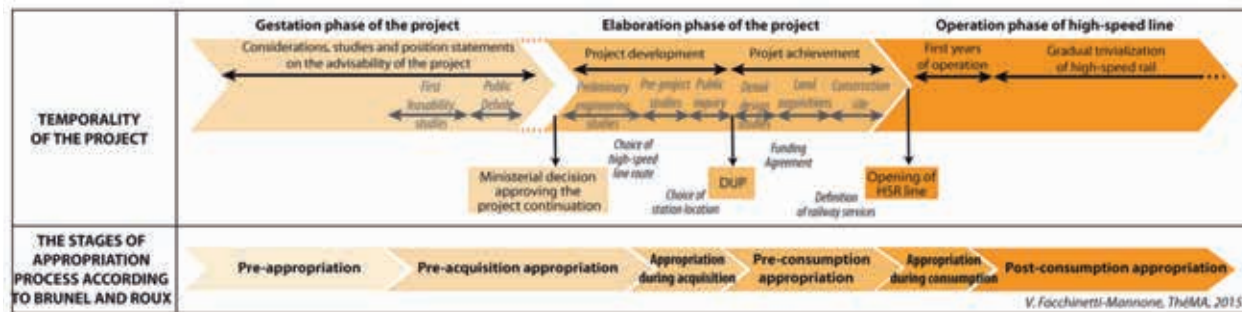


Fig. 2: Evolution of appropriation according to the different stages of the HSR project

### 3.2 Evolution of the appropriation mechanisms of high-speed rail stations

Because the analysis grid designed by Brunel and Roux emphasizes the recursive dimension of the process, it seems to be relevant to understand how the appropriation of high-speed rail has developed (see fig. 2).

The first mentions and the slow emergence of the HSR project correspond to a pre-appropriation phase when imagination construes reality and elaborates desire (Brunel and Roux, 2006). Faced with the possibility of a high-speed rail service, some territorial actors inquire about the project and become imbued with it. They start to interpret the potential renewal of accessibility that may be brought by high-speed rail system, in various ways according to their expectations or fears. By a kind of symbolic deciphering (Brunel and Roux, 2006), pre-appropriation participates in the formalization of the desire for a railway station: the territorial actors begin to consider the most favorable location of the station to realize their aspirations. During the slow maturation of the project, the multiplication of studies and consultations marks the gradual transition to the pre-acquisition appropriation stage which contributes to the recognition and identification of the Object of Desire (Brunel and Roux, 2006). Until the layout of the high-speed line has been chosen, the successive studies which confront the project with the territorial specificities allow to improve the knowledge of the project. Appropriation becomes learning, thus contributes to the gradual identification of the project with the territory. The desire for a HSR station is transformed into a particular project, and high-speed rail is gradually integrated into the territorial development project.

Established by the Bianco circular, the public debate, which offers local actors the opportunity to express their opinions about the project imagined by the transport operator, is today a highlight



of this pre-acquisition stage. The balances of power between proponents and opponents of the project and/or between competing territories, reflect the conflictual dimension of appropriation in a quest for a progressive coherence between local actors' expectations and the transport operator's logic. As the "Cours des Comptes" has pointed out in a recent report (2014) devoted to high-speed rail, these initial consultations contribute to fixing the project into local reality, as it is shown by the beginning of the considerations on the strategies to be implemented to take advantage of the real or alleged opportunities of the arrival of high-speed rail.

From the choice of the HSR route to the Declaration of Public Utility, a phase during which the technical and spatial characteristics of the project are defined together with the stakeholders concerned, appropriation changes its nature, getting closer to the sequence of "appropriation during acquisition" that Brunel and Roux have defined as a phase of choice of conditions the most appropriate to the realization of the desire. If the choices of the HSR route and location of stations reduce the scope of possibilities they give a symbolic weight to the project which becomes identified with the served territory. During this stage, the territorial agents negotiate the best conditions to give concrete expressions to their expectations with the infrastructure operator and they conceive the development strategies to convert the improvement of accessibility into attractiveness.

From the Declaration of Public Utility to the completion of the infrastructure works, « *l'appropriation pré-consommation constitue une phase intermédiaire où l'objet n'est pas encore consommé et incorporé, mais préparé et intégré dans une mise en scène préalable à sa consommation*» (Brunel et Roux, 2006). During this particularly active phase of mutual adjustments between representations and expectations, territorial actors take hold of the project and give it a meaning by adopting the first accompanying measures, initiating the negotiations on HSR services and elaborating territorial marketing campaigns.

The opening of the HSR line marks the transition to the stage of appropriation while consuming. The expectations created by the new transportation supply among the different categories of actors are submitted to reality and lead to positive or negative evaluations (Brunel and Roux, 2006). This appropriation by use, which marks the gradual integration of the new transport supply into users' and economic actors' travel practices and territorial development strategies, indicates successive adjustments between the territory and the new transport system. Finally, the post-consumption appropriation, that accompanies the trivialization of the transport supply, refers to what the territory retains from its experience according to the expectations created by the project. Becoming an integral part of the territorial identity, high-speed rail is, at this stage, integrated into territorial actors' everyday life, contributing, through the story-telling of the project, to the orientation of attitudes and beliefs in future situations of choice (Brunel and Roux, 2006).

Although the complete grid proposed by Brunel and Roux to analyse individuals' appropriation acts in a context of food consumption could easily be applied to the various stages of an HSR project for understanding the territorialization of stations, its transposition nevertheless raises a few remarks which require further clarification. Even if HSR gives access to new destinations and alters the image of served territories, it is not an ordinary consumer product. Thus, it will be necessary to re-examine the appropriative dimension of HSR stations in the light of the relations that the various actors maintain with these places and the forms of territorial appropriation that they may generate. The transposition of analytical methods designed to describe individuals' appropriate actions to the questions posed by the territorialization of high-speed rail also requires caution and circumspection. Indeed, even if individual appropriation remains a collective process (Taddei and Staii, 2008), territorial appropriation cannot be reduced to the aggregation of forms of individual appropriations but is built through the interactions of the appropriation logics of the various categories of actors.

<sup>3</sup> [Translation: "pre-consumption appropriation constitutes an intermediate stage during which the object is not yet consumed and incorporated, but prepared and integrated into a staging prior to its consumption"]



## 4. Methods of analysis of the territorial appropriation of high-speed rail

### 4.1 Reconstitution of the trajectories of high-speed rail appropriation

According to the proposed framework, the adopted diachronic approach allows to understand the progressive construction of appropriation during the different stages of the project. As the research devoted to the sociology of uses has emphasized (Flichy, 1995 ; Jouet, 2000 ; Chambat, 1994), new uses do not come out of nowhere but they prolong previous practices incorporating the reproduction of existing configurations into the progressive construction of new social or spatial structures. Thus, different methodological approaches, specific to each sequence previously identified, are suggested to understand the diversity of the trajectories of the appropriation of the new transport supply. The objectives are to show, on the one hand, how the appropriation forms that have been developed during the genesis of the project have had repercussions on strategies and practices observed later on and to explain, on the other hand, how the interrelations between the different stakeholders' actions stimulate the territorial appropriation of high-speed rail. Therefore, my presentation envisages three types of analysis, modelled on the stages of the realization of a high-speed line (see figure 3):

- Focused on the political logics that occur during the territorialization process of high-speed rail, the first analysis suggests a geopolitical interpretation of actions, negotiations, compromises and possible conflicts that have led to the choice of the high-speed line and the location of stations. It will be necessary to identify the actors involved in the decision-making process according to their scale of intervention and their degree of mobilization. While the genesis of the project mainly involves political and institutional actors beside transport operators, the other categories of actors -through the associations and consular structures that represent them- are not absent from the debates. The analysis of their actions, in relation to the positions expressed and the arguments developed by each of them during the consultation phase, will allow me to clarify their respective roles in the decision-making process. The identification of the nature, the intensity and the evolution of the relationships that have been established between the different stakeholders will help characterize the actors' interactions and to specify their influence on the spatial integration of stations according to the geographical, historical and political contexts of the implementation of the HSR projects.

Several types of data will be collected to reduce the pitfalls involved in the retrospective reconstruction of facts and decisions that have marked out the different stages of the projects. Reports and studies produced during the preparation of the HSR project, press articles and interviews with the various actors involved in the choice of the location of stations, lend themselves to a geopolitical rereading of the actors' interactions during the territorialization process. The adopted approach also allows me to analyze the documentary resources produced during the consultations which punctuated the implementation of the project. The deliberations taken by the various local authorities, the documents resulting from the public inquiries and, for more recent projects, the reports and working papers of the public debate provide rich research materials which have not been much exploited up to now. An exploratory study of the documents resulting from the public debate questioning the opportunity of the high-speed line *Paris-Orléans-Clermont-Ferrand-Lyon* and particularly a qualitative study of the fears and expectations expressed in the contributions dedicated to the territorial development, (Maréchal, 2014) revealed the diversity of the "pre-appropriation" and "pre-acquisition" logics aroused by the project according to actors' political and spatial affiliation.

Centred on a systemic approach, the second analysis meant to assess the coherence and complementarity of the strategies and actions accompanying the project will allow me to re-examine the co-constructed dimension of appropriation in connection with the exogenous dynamics that affect the functioning of the territorial system. In this second phase, appropriation

evolves and takes specific forms according to the categories of actors. From the political and institutional actors' sides, the negotiations on the choice of rail services, the spatial planning intended to encourage the integration of stations and the strategies to promote and to enhance high-speed rail, shed light on the territorial appropriation of the new transport infrastructure. From the users' and economic actors' sides, the appropriation of the new transport supply appears at this stage through the way they adapt their travel practices to the changes introduced by high speed rail. The joint analysis of these different appropriative logics thus makes it possible to assess the coherence of the implemented development strategies by relating them to the appropriation forms that have accompanied the preparation of the HSR project. The example of small-sized French and Spanish cities (Facchinetti-Mannone, et al., 2013) has thus clearly emphasized that the strategies developed to facilitate the expansion of new metropolitan functions near the peripheral HSR stations corresponded neither to the expectations of companies which, in their great majority, have not regarded HSR as a factor of location, nor to the strengthening of the polarization of large cities revealed by railway customers' travel practices.

- Most high-speed lines in operation today offer the necessary perspective to analyze the "post-consumption appropriation" stage. The follow up of valorisation strategies and complementary surveys to those already carried out will help to improve the understanding of the forms of appropriation that accompany the trivialization of the transport service. If the reorientations of development strategies highlight the evolution of the appropriation logics, the follow-up of these strategies will be more specifically put into perspective with the way in which the renewal of rail accessibility and the development projects created by HSR have been integrated into the territorial projects. The latter will be approached through an analysis of the "Schéma de Cohérence Territoriale" (SCOT)<sup>4</sup>. The general and transversal nature of these planning documents, intended to reinforce the link between spatial planning and travel management policy makes it possible to objectively apprehend the role devoted to high-speed rail in the territory project, the degree of the integration of stations into territorial development strategies as well as their degree of appropriation by institutional actors.

For instance, the comparison between the territorial coherence plans of "*Pays Barrois*" (served by the Meuse TGV station) (Pays Barrois, 2014), Great Besançon (served by the Besançon Franche-Comté TGV station) (Syndicat Mixte du Schéma de Cohérence Territoriale, 2014), and Great Rovaltain (served by the Valence TGV station) (Syndicat Mixte du SCOT du Grand Rovaltain-Ardèche-Drôme, 2014), all served by new HSR stations built on the outskirts of cities, underlines the very different roles played by high speed rail in the territorial project. Despite a similar spatial distribution of train stations, the three territorial planning documents point out distinct modes of appropriation of high-speed rail by local political actors. Thus, high-speed rail occupies a marginal place in the territorial project of *the Pays Barrois*. This low appropriation contrasts with the strong willingness to transform the new transport supply into a vector of European openness and economic development of Greater Besançon, or into a **ferment** of coherence and territorial identity in the case of Rovaltain.

The modalities of appropriation identified through these planning documents will have to be compared with those of the other categories of actors and more specifically with the way in which railway users and economic players adapt the new transportation supply to their daily lives and functioning. Early business surveys revealed that high speed rail, whatever its use and degree of influence in firms' location decisions, has introduced a number of changes in their functioning. Some of them have taken advantage of the land available in the vicinity of the stations to gather activities formerly scattered over several national or regional sites in a single place. Others have taken the opportunity offered by the improvement of accessibility to acquire new markets, expand their recruitment area or develop new economic partnerships. Beyond

4 Territorial Coherence Plan established on the metropolitan area scale.

their spatial implications, these functional changes reflect specific forms of appropriation that need to be identified in order to better understand the diversity of territorial impacts of high-speed rail.

The various approaches proposed to analyse the co-construction of the appropriation process, from the emergence of the HSR project to the trivialization of its uses, aim at reconstructing appropriative trajectories to identify, in the long run, the relations that these trajectories maintain with the location and territorial integration of stations. Even if it is difficult to compare HSR projects designed at different times, this long-term follow-up allows to specify the influence of the decision-making context on the appropriation process, in relation with the spatial representations intrinsically linked to the travel practices and the uses of high-speed rail stations. Indeed, these places are invested with meanings and values that participate in their appropriation. This necessary confrontation between practices (concrete appropriation) and representations (abstract appropriation) involves an exploration of the imaginary dimension of stations in order to relate it to the individual and collective strategies created by high speed rail.

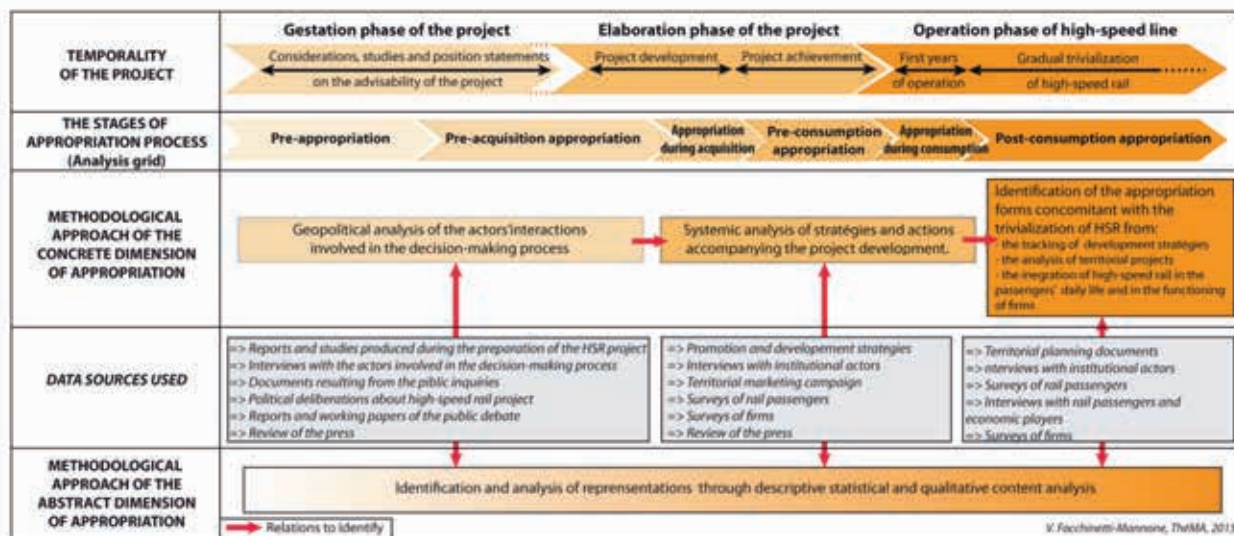


Fig. 3: Synthesis table of the proposed methodological approach

## 4.2 A semantic exploration of high-speed rail imaginary representations

High-speed rail, synonymous with renewal of accessibility and symbol of modernity, has largely enhanced the image of regions with high speed train services. Vectors of this “image” effect, the renewal of the architecture of railway stations, the redevelopment of the station area and territorial marketing campaigns promoting the attractiveness of newly destinations, participate, each in their own way, in increasing the legibility and the reputation of the areas served by HSR (the image they give of themselves) and in the construction of territorial identity (the image that they have of themselves).

Neglected for a long time by geographers, spatial representations, under the influence of social geography, have completely become objects of research whose heuristic interest is no longer to be demonstrated. As Bailly and Ferras (1997) have pointed out, geography draws its richness from the analysis of a permanent mixture of the real and the imaginary. By analogy with the *Image of the City* studied by K. Lynch (1960) or Y. Chalas (2003), the image of train stations refers to the representations they produce, the expectations and fears they feed, the values they convey and the myths they help to forge. By mixing perception of reality, social values and



affective relationships with places, these representations fully participate in the production of space. In relation with the practices and strategies they influence, they show how territorial actors appropriate space and transform it into territory.

Just like the material characteristics of spatial organization, these ideal representations, that are constructed from the way in which territorial actors perceive and interpret the changes introduced by high-speed rail, influence and guide individuals' daily practices and the policies implemented to facilitate the territorial integration of the new transport supply. The identification of the social values attached to high speed rail, the understanding of how these values have been constructed and sometimes exploited, are essential for analyzing spatial practices and implemented strategies.

In order to explore these representations, the speeches of the various actors involved in the project have been submitted to a semantic analysis which mobilizes the tools and methods of the content analysis. The different textual and oral sources gathered to study the spatial practices and strategies linked to the arrival of high-speed rail constitute a relevant material to apprehend the representations (see figure 3). The words used to describe a project or an object refer to a mental representation of the real object (Hernandez, 2003). They enlighten the understanding of spatial practices and the construction of the process of appropriation. Studied from a quantitative and qualitative approach, the transposition into words and pictures of high-speed rail during the process reveals distinct forms of appropriation depending on the actors and the territories served by HSR. The challenge is then to identify how individual and collective representations affect spatial practices but also to better understand the reciprocal influence that the different speeches have on each other throughout the temporality of the appropriation process.

At this stage, the approach does not exclude any of the speeches and texts collected in connection with the reconstruction of the appropriative trajectories (see figure 3). These corpuses, each in their own ways, make it possible to understand the expectations and fears created by high-speed rail projects, the multiple representations attached to the location of HSR stations and the strategies used to develop railroad sites and the added values of the improvement of accessibility. To decipher these language games, the different textual data will be the object of a semiological and lexical analysis by mobilizing the tools and methods of the content analysis (Bardin, 2013 ; Lebart and Salem, 1994, Maingueneau, 1987) that Berelson defined as *"a research technique for the objective, systematic and quantitative description of the manifest content of communications, with the aim of interpreting them"* (Berelson, 1952). First of all, it will be necessary to analyze the enunciative context of the textual data studied, not only to situate them in relation to the temporality of HSR projects but also to clearly identify the elements that influence representations. Indeed, while some of the analyzed speeches are limited to a restricted circle, others, by their wide diffusion, contribute to the construction of social norms. This contextual study is based on an identification of the authors of the textual data and of the people to whom they are addressed, specifying their sphere of influence, their spatial scale of intervention and their position in the decision-making process. This approach also needs to determine the motivations of speeches which can take on very distinct tonalities depending on whether they are required to relate facts, to provide information, to explain a decision, to convince an audience or to promote a territory. Finally, the concomitant events associated with their enunciation must not be neglected insofar as they are likely to influence the individual and collective representations of the territorial actors.

Speeches and texts produced during the different phases of the HSR project will be subjected to a first quantitative lexicometry analysis. Based on the occurrence of the terms used, the frequency of co-occurrences, the relations established between the identified themes and the connotations attached to them, the analysis allows to obtain a first classification of the representation systems produced by high-speed rail. Then, the representations identified by these statistical treatments will be the subject of a more in-depth qualitative analysis which will be aimed at understanding the logics that have structured the representation systems,

taking the contextual elements previously highlighted, the modalities of speech articulation, the allusive references and the stylistic registers into account.

The analysis of the image of high speed rail conveyed by Territorial Coherence Plans confirms the unequal role of the new transport supply (see figure 4). Thus, high-speed rail and HSR stations are mentioned only 13 times, usually laconically, in the SCOT of Pays Barrois, in which the first mention of high speed rail, appearing very late compared to other SCOTs, refers to the noise pollution caused by the rail traffic. Presented in the very first pages of territorial diagnosis, high-speed rail is the subject of more numerous references in the presentation reports of Great Besançon (28 references) and Great Rovaltain (39 references), most often under the form of extensively argued paragraphs.

A first quantitative analysis of the words associated with stations and high speed rail also reveals distinct representations of the traditionally established link between railway accessibility and territorial attractiveness. Thus, while the SCOT of Pays Barrois conveys a rather negative image of high speed rail, that of Great Besançon highlights the link between a widely idealized European openness and the economic development of the urban area with numerous hyperboles. For the SCOT of Great Rovaltain, the HSR station and the economic activity zone to which it is systematically associated are major vectors of European reach, development and territorial cohesion.

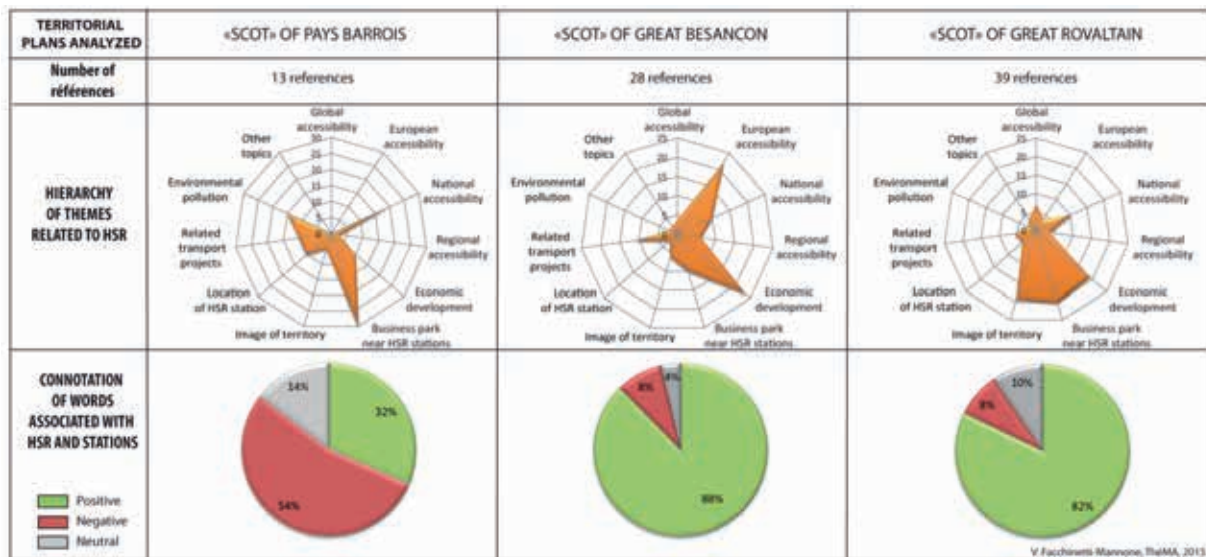


Fig. 4: Hierarchy and connotation of the words associated with high-speed rail

The joint analysis of the role devoted to HSR stations in the territorial project and that of their symbolic representations reveals the unequal appropriation of high speed rail by local actors. Beyond the specificities of the served regions, this unequal appropriation reflects the degree of local actors’ involvement in the choice of the location of stations. When, as in Besançon or Valence, local actors played an active role in the negotiations leading up to the implementation of stations, the territorialization of high speed rail is based on the adoption of development strategies that are largely integrated into the territorial project. It is also based on the construction of representations which exploit the mythical link between accessibility and attractiveness to serve the achievement of this project. Reflecting institutional actors’ expectations, these imaginary constructions play an essential role in the territorialization of high-speed rail because they influence the measures and policies adopted to enhance the spatial integration of stations. In the Pays Barrois where the appropriation of HSR is governed by an “intrusive logic”, the SCOT describes the station as a foreign object, over-imposed on territory,

whereas the SCOT of Great Rovaltain has made the new HSR station a real local symbol (Lussault, 2007) and a strong element of territorial identity at the service of its economic development.

The exploration of the imaginary dimension of HSR stations from the representations conveyed by the speeches of the actors involved in their territorialisation is a useful complement to the reconstitution of appropriative trajectories. A comparative analysis of the representations and values of HSR stations will help to clarify how this imaginary dimension contributes to the appropriation of high-speed rail. A dual comparison will be implemented. First of all, for each project, the comparison of the representations of different categories of actors will allow to understand how their mutual influence boosts the territorial appropriation of high-speed rail. Through their interactions, the various individual representations thus identified contribute to build a collective image of high-speed rail which is much more than the aggregation of the multitude of individual representations according to the principles of systemic thinking. Secondly, putting the different analyzed cases into perspective will allow to interpret the spatial fluctuations of these representations in relation with the different choices of the location of stations and the measures implemented to enhance their integration.

## 5. Conclusion

By focussing the analysis on the many relations between the practices and representations of local actors involved in the territorialization process, the challenge is to grasp appropriation in its multiple components in order to understand the interactions between the location, the integration and the appropriation of HSR stations according to the various contexts of HSR projects implementations. Analyzing the logics of HSR appropriation suggests new research perspectives in order to examine the diverse forms of territorialization of high-speed rail. By mobilizing various data and observation angles (see fig. 3), the methodological approach considered in this paper makes it possible to understand how spatial representations and practices feed each other and to specify the mutual influence of the appropriative logics of territorial actors during the successive stages of the territorialization process. The initial exploratory analyses thus reveal the emergence of different forms of appropriation which emphasize that the territorialization of high-speed rail and HSR stations is ultimately the result of the overlapping of multiple territorialities which could be identified by the joint study of spatial practices and representations. By considering representations induced by high speed rail, my study allows to shed light on the actors' interactions involved in the territorialization of the new transport supply, integrating the symbolic and imaginary dimensions that guide spatial strategies and practices throughout the temporality of the HSR project.

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