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The performance of planning hypotheses about urban-transport futures: the Light Rail Transit in Granada

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Abstract

Researchers and practitioners on transport and urban planning have seen in the art of scenario-making a key to pursue a renewed visionary role, as well as an instrument for the exploration of alternative urban transport images. Developers of scenario methods usually depart from the idea that scenarios are underused. In turn, the approach of the present research is founded on the premise that planning is a forward-looking practice that already embodies elements performing as scenarios (here called planning future hypothesis). This paper explores the inception of potential future scenarios related to the Light Rail Transit (LRT) project in Granada (Spain). The research was based on a review of planning documents from the Metropolitan Area. Different arguments were collected, related to five planning hypotheses about the LRT system, and interpreted according to three criteria of scenario performance: consistency, plausibility and coherence. The results exemplify the diversity of representations and mechanism with which future can be built.

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1. Introduction

For long time, there has been a demand around urban planners to actively think about future, recovering a visionary role forgotten at some point of the history of urban planning (Cole, 2001; Myers and Kitsuse, 2000). This demand is echoed by transport academics (Banister, 2012), who, after the detachment of transport planning from other aspects of urban planning, see it again as part of the whole picture. Indeed, transport was an indivisible part of the great urban visions of the twentieth century, from decentralized communities or de-urbanized low density regions to refurbished cities of modernity concentrated along powerful transport infrastructures (Timms et al., 2014). The forward-looking motivation was also inherited by rational comprehensive planning, to which the transport forecasting tradition belongs; but the wave of scientific optimism of the 1950s and 1960s began to fade off in times of increasing uncertainty about society and economy. Since then, writers of urban utopias, authors of master plans, social scientists and economists have faced more complex cities and fragmented planning processes, involving multiple forces and actors. Furthermore, the irruption of incrementalism and strategy into planning practice left visionary planners tie-handed, leaving them few short term decisions to make (Cole, 2001).

In response, researchers and practitioners have seen in the art of scenario making a key to put back the future into planning. However, their interest usually start from the basis that future scenarios are still absent in planning practice, and can be useful tools for urban planning. In turn, the approach of the present work is founded on the premise that planning practice still embodies elements performing as scenarios, here called “planning future hypotheses”. In other words, planners already use and build scenarios for their plans for facing different situations of uncertainty (even if they not explicitly represent them).

Hence, before looking for new methodological artifacts, we should ask about how planners currently build the future of transport and urban development. The purpose of this paper is to make a first inquiry in the assessment of planning hypotheses, exploring the diversity of planning arguments supporting them, and discussing how they would perform as potential scenarios.

2. Research design

2.1. Case study

This research takes as a case study the urban agglomeration of Granada (Spain), and focuses on the Light Rail Transit (LRT) project.

The Granada’s LRT system has been an important source of hypothesis about the future of transport since the end of the 1990’s, symbolizing an overhaul to the hitherto fragmented metropolitan transport system. After ten years of surveying and other ten years of construction, the line 1 started operations on September 2017. Over these two decades, urban and transport plans (e.g. urban master-plans, spatial plans, mobility/transport plans, urban strategies, LRT project surveys and reports, etc.) have gradually incorporated this new element of the transport system, adapting it to their own discourse or creating new expectations. Nevertheless, they also have managed uncertainties derived from unexpected situation (i.e. economic downturn), delayed decisions and changes in the project.

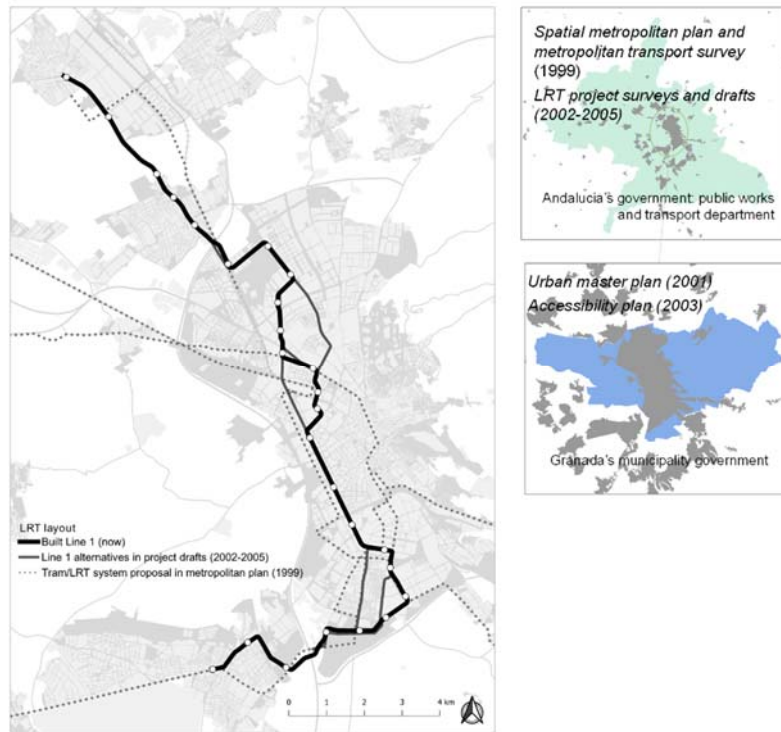


Fig. 1. The planned (and built) LRT system and planning/project boundaries.

2.2. Methodology

In order to analyze LRT hypothesis and the contribution of plans to them, this work undertakes a review of planning figures, carried out through a content analysis of planning documents and a further argumentative interpretation (Khisty and Arslan, 2005; Lapintie, 1998). Nonetheless, the argumentative approach requires the use of additional information (local literature, scientific literature, informal sources ...) in order to gain some insights about the political frame and the planning process background.

The methodological process of the review involves three iterative steps: first, main discourses and future hypothesis about LRT system are highlighted through planning documents (see Table 1). Then, planning arguments or counter-arguments related to those hypotheses are exposed, and their structure is analyzed; this entails the identification of potential standpoints, claims, grounds (evidences), inferences and justifications made by planners (either explicitly or implicitly) (Lapintie, 1998). Finally, the contribution of those arguments to the strength of planning hypotheses is addressed, using a scenario assessment framework based on the concept of “scenario performance”.

The scenario performance framework encompasses three criteria to explore how planning hypothesis can help to build the future in plans, overcoming different situations of uncertainty (Navarro-Ligero et al., 2017). These criteria, normally used on scenario definitions, have been reinterpreted according to scenario planning literature, specially, from the Intuitive Logic school (Derbyshire and Wright, 2017; Ramírez and Selin, 2014):

- *Consistency* is related to the use of planning hypotheses as anticipation tools, generating strong expectations over the effects of plans (under low levels of uncertainty). Those hypotheses are built over notions of probability, credibility, inductive/deductive validation and efficient causality.

- *Plausibility* is linked to the interpretation of hypotheses as practical assumptions for alternative planning conceptualizations and designs, as well as conduits for planning narratives (under more structural uncertainties). Plausible hypotheses are generated or challenged via intuition, validated by abductive inference (i.e. weak evidences and connections, heuristics, etc.) and elaborated under spatial and temporal frameworks; they also reflect intentionality and motivation of spatial agents.
- *Coherence* reflects the function of planning hypothesis as transactive instruments, as they are used in the construction of planning problems, discourses and realities, showing their relevance (under deep or radical uncertainties). Such hypotheses employ internal conflicts or contradictions (e.g. use of boundary objects, transitional spaces, images, metaphors, etc.); they are validated through their ability to capture public interest (e.g. creation of interest communities) and withstand or carry social discourses about institutional trust, legitimacy and empowerment.

3. Results

3.1. Transport-planning future hypothesis of LRT

Five core hypotheses have been identified across planning documents, related or embodied in the representation of the new LRT system:

- *Hypothesis of capacity*: LRT is depicted in the future as a high-capacity mode, which will increase supply, competitiveness and presence of the public transport system.
- *Hypothesis of demand*: LRT address the increasing or new needs of mobility in the metropolitan area, which will be redirected through the public transport (instead of private modes).
- *Hypothesis of urban traffic*: LRT will help to decrease car traffic in main street-roads, metropolitan roads and urban centers, as well as the related environmental impacts.
- *Hypothesis of accessibility*: LRT will address the access demands (specially, to the city center), improving accessibility along its corridor.
- *Hypothesis of urban/metropolitan transformation*: LRT will refurbish the image of Granada and its metropolitan area, contributing to its economy and development.

The hypothesis of capacity mainly lies in the definition and design of the system, which it is not clear in most of plans previous to implementation. For instance, the use of concepts “tram”, “light rail” and “metro” in the same planning documents reflects a general ambiguity in the perception of the system design by planners before project implementation. Also, the mixed idea of the LRT as a flexible and versatile system oriented to address demand, and a robust system, which is used as a supportive element for organizing transport system and passenger flows in the metropolitan area. Therefore, capacity is not only treated as a transport load concept, but it is related with an idea of the strength, efficacy and efficiency of the system.

Connected to the previous, the hypothesis of demand is mostly sit on the observed high mobility rates in Granada (around 2.5 trips/person) and increasing travel demand, which overwhelms historical limits of the interurban bus network (based on a concession system). In addition to the level of demand, there are new “demands”, which get spatially complex in the consolidation of a metropolitan mobility realm. Both problems require an upgrade of the public transport system, increasing demand capacity and restructuring mobility.

The hypothesis of urban traffic take as a departure point the problems of road congestion, and derived social and environmental concerns about pollution, barrier effects, accidents and loss of urban quality. This problem is worsened due to the extremely centralized structure of the urban metropolitan area, with most travel destinations located in or near the city center, and the traditional street layout of the historical city center. As a result, it is mostly

perceived as a conflict of the central municipality, after which mobility plans have for long pursued traffic restriction and reorganization. LRT, as part of public transport reorganizations, is an instrument for enabling those policies, without sacrificing overall accessibility.

The hypothesis of accessibility connects both the issue of access to city center and the creation of metropolitan connections in order to consolidate a balanced urban area. However, access demand mostly emphasizes to address the unmanageable access demand to center (mostly based on car), in line with traffic problems. LRT can work both as an access provider to urban center (within an intermodal strategy), as well as a support to the development of new metropolitan centers and facilities.

The hypothesis of urban and metropolitan transformation offers a sustainable image of public transport and LRT system, being part of the construction of a “mature” and “integrated” image of the city of Granada and the regional context. But, on parallel to this, the preservation and identity of the historic center is a strategic endeavor of the central municipality, and also, an economic asset. The urban integration of LRT work both ways: transforming urban spaces into something new and modern, catalyzing activities, but also, adapting to the historic configuration of the city, preserving its values.

Table 1. Summary of contribution of plans to different planning hypothesis (“+” contain supportive arguments; “-“ contain unsupportive/contradictive arguments; “?” contain qualifying arguments or open questions).

<i>LRT future hypothesis</i>	<i>Main premises</i>	<i>Spatial metropolitan plan</i>	<i>Metropolitan transport studies</i>	<i>Urban master plans</i>	<i>Urban mobility/ accessibility plans</i>	<i>LRT project surveys and reports</i>	<i>Urban development plans and projects</i>
Capacity increase	PT reorganization	+	+				
	Right-of-way/ PT prioritization	++	++	+	++		
	Robust and efficient public transport		+++	+ -	+++ ? -	+++?	
	Address high demands (load)		+	+		++ ? -	
	Service coverage/efficacy (flexibility)	+	+++		+	+	
	Improve access/site capacity	+	+	+	+++	-	+
Demand increase	Demand rebalance/ redirection	??	+ ? -			+ ? -	
	Mobility increase/ induction	+	++	?	?	+++	
	Address complex demands (“inter-modality”)	+	+ ??		+++	+	
	Capture car demand	? -	?? -		? -	++ ? -	+
	Spatial integration/ urban growth	++	+ ?			+++ -	
Car traffic reduction	Car-access restriction / redirection (urban center protection)		++	+++ ? -	+++ ? -		
	Improve traffic flow	+	+		++	+ ??? -	
	Reduce car use	+		+	++	+	+
	Avoid traffic concentration and impacts (traffic segregation)	+++	++	+	+++ ?	+++	

Table 1. (continuation).

<i>Light Rail future hypothesis</i>	<i>Main premises</i>	<i>Spatial metropolitan plan</i>	<i>Metropolitan transport studies</i>	<i>Urban master plans</i>	<i>Urban mobility/accessibility plans</i>	<i>LR project surveys and reports</i>	<i>Urban development plans and projects</i>
Accessibility improvement	Access-demand management (spatial)		+	+++	+++		
	Balanced accessibility		+	+++	+++ ? –		
	Access/connection provision (urban/metro.)	+++	+++ ?	++	+++ ?	+++ ??	++
	Urban permeability		?	?	+	+++ ? –	
	Proximity design /walkability	++ ?		+++ ?	+++	?	
Urban transformation	Modern and sustainable transport/city projection	+	+	++	+++	+++	
	Metropolitan area formation/unit	+++		+	+	++	
	Urban landscape integration				++	+++ ? – –	
	Environmental and urban quality improvement				+++	++ ?	
	City center regeneration and livability		+	++	+++ ??	+++ ??? –	
	Support development plans and projects					++ ?	++ ?

3.2. Planning arguments and performance of transport-future hypothesis

The LRT project idea was received and followed by a high diversity of planning arguments, reflecting the variety of technical and political backgrounds, topics and concerns covered by transport and urban planning documents. Most of them are inherited from planning issues of the 1990'. The main arguments are recovered here, connected with the five abovementioned hypothesis, and interpreted under the three scenario-performance criteria: *consistency*, *plausibility* and *coherence*.

In first place, *consistency* is associated with an analytical, descriptive or quantitative representation of transport problems, as part of transport studies and modeling exercises. However, it also underlines plan diagnostics and LRT project design guidance.

The main mechanism for arguments in increasing consistency is cause-effect relationship. This has also been called “simulation heuristic”, or the perception of two events as probable when one is explained through the manifestation of the other (Derbyshire and Wright, 2017). Frequently, planning arguments in Granada have linked more public-transport supply with more public-transport demand, traffic reduction and environmental improvements near the city center. At the same time, they are used to build expectations over urban growth in areas allowed by urban plans.

Other important causal argument supporting demand and accessibility hypotheses is travel-time improvement. According to the demand model used for LRT surveys, induced demand and modal shift from car is extrapolated from time improvement between modes. In addition, demand increase and effective transport location is related to proximity, coverage and density of settlements (i.e. a “gravitational model”). Indeed, the spatial design of the system at the metropolitan scale is heavily influenced by the hierarchy of municipalities arranged by population, as it was first stated by the metropolitan plan.

Setting functional thresholds or limits for transport systems (e.g. flow capacities, load factors, etc.) is another mechanism related to consistency. Although the discourse of “infrastructure capacity limits” has been used,

comparisons of the line or system capacity levels of bus systems and the new LRT system were less frequent. Real capacity figures can be even counter-intuitive (regarding the historical high capacities of the bus system through Gran Via –a corridor parallel to the current Line 1–).

Temporal and spatial continuity are important to generate consistency. The preservation of mobility patterns (modal and spatial) are essential in predicting public transport demand after LRT implementation, and in the identification of higher-demand corridors. Urban morphology and transport system/street layouts are also involved in the effective design of LRT. Besides, definition of transport or mobility management zones (as statistical or functional homogeneous units) has worked for describing problems of access in the city center. Surface occupancy or extent is also connected to the magnitude of impacts, a mechanism which has been used to express either the benefits of LRT projects in increasing pedestrian areas, as well as the negative impacts of the occupation of the platform in the street (i.e. barrier effect).

Table 2. List of arguments contributing to the consistency of future hypotheses (“+” increase consistency; “-” decrease consistency).

<i>Planning arguments</i>	<i>Capacity increase</i>	<i>Demand increases</i>	<i>Car-traffic reduction</i>	<i>Access. Improve.</i>	<i>Urban transform.</i>
Transport-systems improvement redefining their limits and thresholds (i.e. demand capacity)	+ –	++	+ –	++	
Transport supply as an urban development and regeneration factor		+			++
Transport system increasing population coverage (population density-demand correlation)	+	++	+	++	+
Distance to city center as indicator of mechanized mobility rates (i.e. metropolitan population)		++			
Travel/access time improvement		++		++	
Correlation between public-transport supply and traffic levels (and their impacts)			++	+	++
Continuity of mobility patterns and trends (change as incremental)		++	+	++	
Effective LRT design, transport system geometry and transport zoning (descriptive)		+		++	+
Problems of effective urban form and street layout				+	+
Surface occupancy correlated with impact (negative or positive)			+ –	-	++ – –

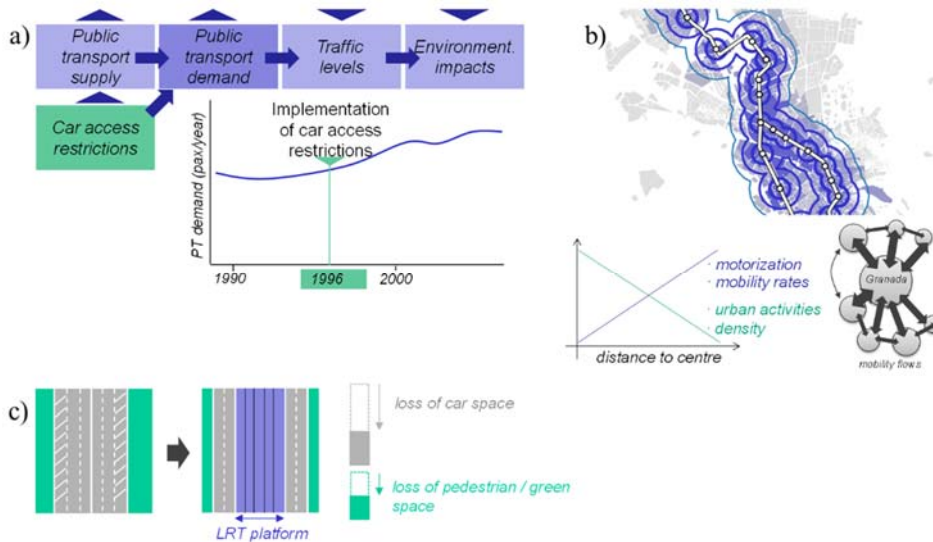


Fig. 2. Representation of planning arguments supporting consistency: (a) Simulation heuristics; (b) proximity and gravity-based relationships; (c) LRT-platform design impacts measured as surface occupancy.

In second place, *plausibility* is mainly connected to the spatial design of transport solutions, in support of the applicability of the hypotheses and the identification of options. Plausibility is also important as plans expose issues and potential solutions as part of urban processes, involving the intervention of agents. The “spatial vision” is stressed in metropolitan and urban plans, also inherited in the LRT project drafts, and used to understand the relational space of the metropolitan area.

Visualization of mobility problems as spatial design issues is a common feature in urban and metropolitan plans, and it contributes to portray one of the main concerns about the public transport system: its lack of adaptability to the evolving mobility relationships, driven by private modes. Breaking the radial layout of the transport system and the strong network centrality of Granada was used as an argument to support new connections and infrastructures, both road and LRT.

The identification of north-south axis in planning documents comes from an old expectation (back to the first regional plan in the 1970’) of organizing the city along transport corridors, creating two poles: residential (south) and industrial (north). It is interesting how this idea is still retained in some arguments related to the reinforcement of the north-south axis by LRT and public transport improvements. Nevertheless, this argument competes with the aim of generating stronger connections between the city center and its outskirts, which relies in the existent radial layout (under a radial-concentric scheme). Also, planning documents mainly identified north-south axis in road infrastructures, being the bypass road the most conspicuous of them. The bypass road, designed as a motorway, not only steers regional and urban mobility in such direction, but also have attracted development and creating new destinations (commercial centers, facilities, etc.). So, even if LRT is defined as a core element of the transport system, city development initiatives still use the bypass road as the main spatial reference.

To counterbalance the dominance of car-oriented infrastructures, LRT project is supported by the idea of an “intermodal” design. LRT axis and nodes create new connections and complementarities between the already existing transport systems (e.g. urban and interurban bus systems, regional train, and park and ride facilities), extend their capacities (in terms of flexibility) and address more complex demands. In parallel, to become a reference for the organization of the public transport system, LRT is depicted as a robust and stable connector.

Additionally, the LRT initiative is also billed as an independent project of reorganization of the transport system along segregated platforms. But beyond the “materialities” of the project, dependencies from different actors (e.g. metropolitan and urban operators, those regulated by city municipality and regulated by metropolitan consortium) still require coordination between them. For instance, the plausibility of hypotheses that involves a transport project

crossing administrative borders becomes a matter of common intentions and agreements. How LRT may work in the future as a new metropolitan agent was not fully explored by any planning figure.

Finally, LRT and the public transport initiatives in Granada have been also represented within a decentralization process happening both on urban and metropolitan levels. The extension of the “mental” spatial boundaries of Granada beyond the physical limits of the historical city started at the beginning of the 20th century. However, decentralization regained interest in the second half, and leads proposals of latter plans. New public infrastructures, such as the LRT system, are part of the construction of a metropolitan vision, based on new structural elements. Stations and platforms, in connection to new facilities, also work as centers, axis or boundaries of new urban structures which help to avoid a vision dominated by the city center.

Table 3. List of arguments contributing to the plausibility of future hypotheses (“+” increase plausibility; “-“ decrease plausibility).

<i>Planning arguments</i>	<i>Capacity increase</i>	<i>Demand increases</i>	<i>Car-traffic reduction</i>	<i>Access. Improve.</i>	<i>Urban transform.</i>
Correction of the radial spatial design of the transport system	++	++	++	++	++
LRT/PT-design as part of a metropolitan decentralization and relocation process	+	+	+	++	++
Transport system as a structural or supportive element of mobility	++	++		++-	+
Transport system as a referential axis to mobility relationships (“belt model”)			++	++	
Transport system as urban development support and growth axis (spatial structure)		+	+	++	++
LRT and public-transport as a set of new transport technologies (e.g. vehicle, platform, stations, etc.)	+		+	++-	++
“Inter-modality” as diversity, redundancy and flexibility of options (multi-modality)		+		+	
“Inter-modality” as complementarity and interconnectedness between transport systems		++	+	++	++
Transport network design as able to redefine urban and metropolitan relationships (connections, movements, flows, borders...)	+	+	++	++-	++
Polarized north-south relationships in the spatial arrangement of the metropolitan area		++		++	
Center-periphery duality, as a spatial scheme of the metropolitan relationships			++	++	++
Urban facilities and LRT stations as units of the urban structure (metropolitan hierarchy, districts, neighborhoods, etc.)		++		++	++
LRT and PT systems management as independent projects (actor-driven, decision-driven)	+ -	++	++	++	++
Coordination of urban development and transport interventions		++		++	

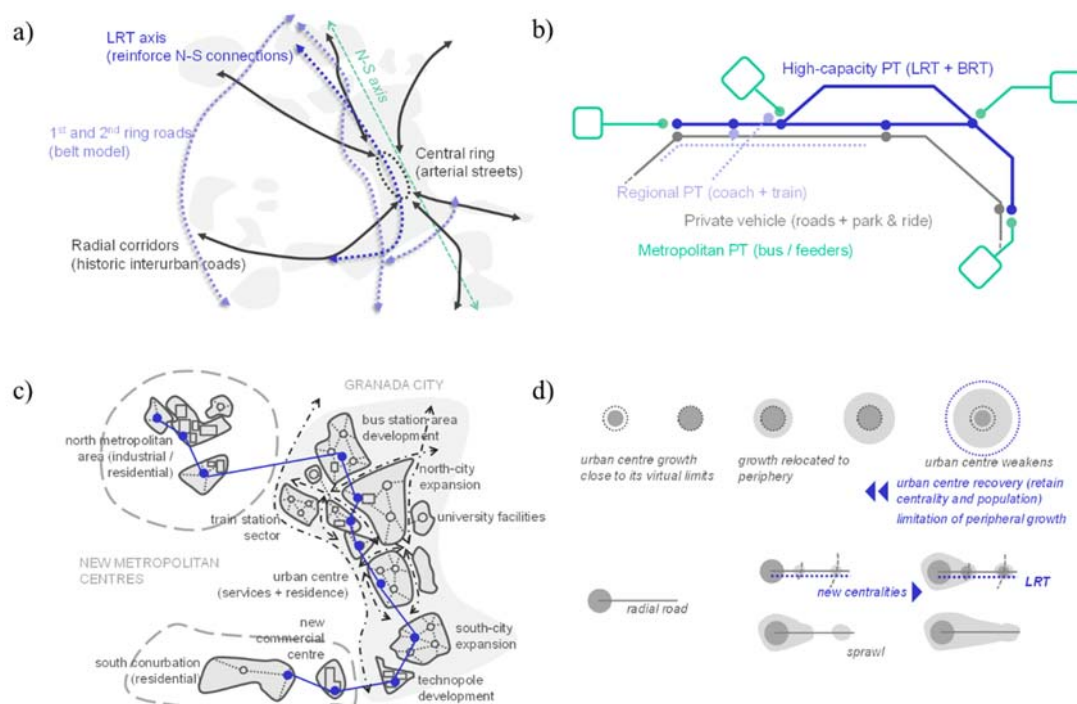


Fig. 3. Representation of planning arguments supporting plausibility: (a) metropolitan referential axis and spatial structures; (b) multi-modal design as interconnectedness of transport systems; (c) LRT Line 1 design connecting urban structures; (d) metropolitan processes, represented in the centre-periphery duality.

In third place, *coherence* is gained in the way problems are expressed as conflicts, dilemmas and desires for transformation (or resistances to it). The whole entity of planning problems is built as to generate interest, relevance or integrate different part of the same problem. This criterion is more difficult to apply using planning documents only. However, the use of different concepts and rhetoric in written sources have helped to detect potential planning discourses supporting the hypotheses.

The main mechanism proposed here to increase coherence is the creation of “boundary objects” (Star and Griesemer, 1989). Boundary objects create multiple “points of entrance” for the same issue, attracting different publics and highlighting potential conflicts, paradoxes, tensions, etc. LRT, as a new transport project, exhibits different sides of mobility issues: as problems of needs and quality of life (social side), as a problem of flows (traffic management side), as deficiencies of the current transport services (service management side), as increasing problems of excessive mobility (sustainable side) or as a conflict in the use of space (politics of space side).

Conflicts are evidenced in spatial boundaries themselves. Line 1 of the LRT project crosses or is near to the most recent urban developments; as a consequence, it has been included in debates about the most dynamic urban and metropolitan areas, currently undertaking major transformations. Such spaces become images of the new city, with an external projection. And, at the same time, they evolve as arenas for the defense of traditional neighborhoods, community structures and historical places against pressures of the “modern city”. It is quite significant how the LRT may work either as a symbol of modernity, against the interest of preserving the traditional center, or as a part of a strategy to avoid the loss of population and activities and replace the impacts of car access.

“Policy (re)framing” is another mechanisms which can be important in building coherently certain future hypotheses, which are sensible to social concerns (Richardson et al., 2010). For example, reframing “problems of mobility” to “problems of access” (to the city center) has been helpful for mobility plans to highlight certain issues (i.e. urban pressures created by traffic demands, problems of equity of access, etc.) from standpoints that classical traffic and transport studies had previously underestimated. Moreover, the construction of policy frameworks across planning figures has helped to create an envelope of institutional concern and trust over longstanding problems.

Table 4. List of arguments contributing to the coherence of future hypotheses (“+” increase coherence; “-“ decrease coherence).

<i>Planning arguments</i>	<i>Capacity increase</i>	<i>Demand increases</i>	<i>Car-traffic reduction</i>	<i>Access. Improve.</i>	<i>Urban transform.</i>
LRT as part of the overall improvement of the public-transport service quality	++	++	+	++	+
Mobility as a basic need to be addressed (PT-adaptation to demand)	++	++	+	++	+
Mobility as an amenity, part of new lifestyles and new (complex) mobility needs		+–	+	+	+
LRT addressing commuting mobility problems		++	+		
Need for new sustainable mobility modes	+	++	++	++	++
Negative impacts of transport infrastructures (roads, LRT, etc.)		+	+–	+–	+–
Definition of new conflictive spaces and borders (e.g. West border); problem of city center growth		+	++	++	+
Problems of access of the population to alternative mobility modes (PT captive demand, car dependence)		++		+–	+
Reframing mobility as a problem of accessibility (access demand problems)		+	++	+–	++
Transport systems as subjected to functional ambiguity and tensions	+	+	++	+	+
Mobility as a conflict of space between modes (use of surfaces, networks, etc.)	++	+	+–	++	+–
Mobility as a problem of traffic, flow, permeability, speed...	+–		++	++	
External projection of the city (touristic, service, university), and conflicts of traditional and modern city		+	+	++	++
Recovery and protection of the city center (historic center): urban regeneration, environmental/urban improvement			+–	++	++

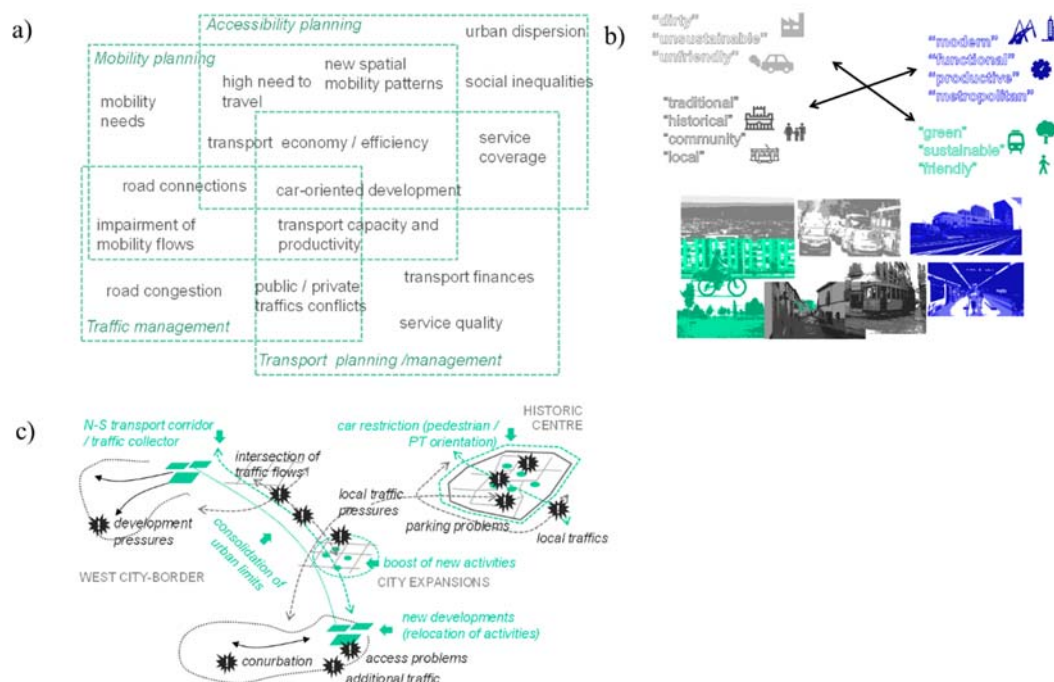


Fig. 4. Representation of planning arguments supporting coherence: (a) problem framing and use of *boundary objects*; (b) dialectics, symbolic values and images about transport and the city; (c) conflictive spaces, border tensions and transformation areas.

4. Conclusions

This paper has shown the diverse and complex ways in which future can be built in transport planning, involving different hypotheses, arguments supporting them and mechanisms that strengthen or weaken those arguments. An scenario-performance approach has been used to reflect how similar arguments can be represented under different purposes: to understand problems and validate or explain how solutions work (consistency), to design options in a way they make sense to planners and guide them to an appropriate solution (plausibility) or to generate interest and relevance about certain issues (coherence).

Arguments increasing consistency of transport planning hypothesis were mainly found as part of causal mechanisms and heuristics embedded in transport demand and capacity analysis, as part of projections and extrapolations made by early transport studies in the area. However, the use of quantitative indicators to represent mobility problems is broadly spread in different planning diagnosis, particularly, in arguments about the increasing mobility rates or about the need to balance transport modal share in the metropolitan area. Causal inferences are also usual across different plans when referring to impacts of LRT implementation or public transport improvements (e.g. in the reduction of car-traffic and pollution levels).

Arguments increasing plausibility of transport planning hypothesis belong to very different sources: alternatives designs or strategies about LRT or the transport system (layout, operations, multimodality, technological components...), urban and spatial visions and models, which deal with the complexity of metropolitan processes by highlighting certain urban structures and relationships (e.g. the argument of LRT as the “spine” of the future public transport system), or well-known “spatial narratives” about urban processes with high impact on mobility, traffic and accessibility (e.g. center-periphery relationships in the urban dispersion argument, decentralization process).

Arguments increasing coherence of transport planning hypothesis are elucidated where plans referred to their political context (e.g. sustainable mobility policies in the European agenda), where they reconstruct mobility problems from a critical point of view toward previous planning practices (e.g. criticism to traffic engineering approaches from mobility management perspectives), or where they point out conflicts, tensions or transformations

created by new transport interventions (e.g. street space occupation by car, modernization of the city...). In all those cases, planners or planning institutions reveal their standpoint in ongoing planning issues. Concepts and ideas are reframed, and the flexibility of language is used to create new attractive or meaningful images (e.g. “the new mobility”, “the new accessibility”, “sustainable accessibility”).

Current results are preliminary, being part of an ongoing research on methods for the construction and assessment of future scenarios in communicative/collaborative environments, departing from different arguments and discourses detected in current planning practice. The core idea is to create a more robust scenario-planning perspective in transport planning, by placing scenarios across a broad variety of planning environments (from rational-technical to political-strategic) and by connecting the use of scenarios to a shared concern in managing uncertainties about the future.

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