Impetus and Resistance to Changing Work-Related Mobility Patterns in Catalonia: The Role of the Social Actors and Participation

Àngel Cebollada Frontera

Àngel Cebollada Frontera, Department of Geography, Universitat Autònoma de Barcelona, Barcelona (angel.cebollada@uab.cat)

Abstract

Transport accounting and accountability, in addition to traditional infrastructure costs (i.e. vehicle and service operation), now include sustainability considerations: costs in terms of the environment, society and time spent in transit. This new perspective has highlighted the elevated expense of current daily mobility models in Western society, which are based on massive use of the car. We can see a willingness in present political agendas to change this mobility model for one which would reduce these high costs. These are primarily based on positive discrimination policies towards non-motorised and collective transport models which are reinforced by territorial management policies that promote proximity to the work place and services, as well as the use of high-capacity public transport means. Mobility model studies have generally tended to approach this topic from the perspective of actions taken by public administrations (i.e. providing more public transport vehicles or alternative criteria for managing parking spaces), overlooking the many and varied contributions by representatives of non-public administration organisations that play an active role in generating daily mobility. Therefore, in this paper we look at the contributions of these organisations to this changing model. The particular focus of our analysis is the largest trade union in Catalonia, Comissions Obreres, and its role in shaping a new scenario for workrelated mobility, seen as an organisation that not only makes claims and negotiates with public administrations and employers' associations, but also propagates new mobility models among its own members.

Keywords: work-related mobility, public transport, mobility costs, non-public administration organisations, trade unions

Introduction

The sustainability paradigm has not only alerted us to the impact and consequences of the Fordist social development model for society and the environment (WCED, 1987), but also placed the need to address this situation within the agendas of public administrations. In particular, we need to be alert to the consensus of current scientific opinion concerning the anthropic role en climate change and the conviction that this is one of the main challenges for society in the forthcoming decades.

It is from within this framework that we need to analyse daily mobility since it is one of the factors which have most impact on the environment and society (Ambrosino, Nelson & Romanazzo, 2004). And if we break mobility down further according to type, then job-related mobility is the one which has the most negative impact due to the elevated levels of car use.

Given this context and the critical situation in Catalonia regarding mobility, the Catalan autonomous government has been fostering a legal regulatory framework since the turn of the 21st century in accordance with criteria for sustainable mobility and the fight against climatic change that have come to light from proposals at an international level. The reason behind these regulations is to establish a basis from which to work

towards sustainable mobility that reduces present costs in terms of the environment and society.

The role of participation in achieving sustainable mobility

The process of moving towards a sustainable mobility model is not a purely technical matter, but rather requires the participation of all the various actors involved (Aparicio & Sanz, 2004) since this is, mainly, a profound social change (in behaviour patterns) concerning everything that the car represents symbolically for Western society. Consequently, the implication of citizens, companies, transport operators and other social organisation becomes a key factor to dealing with the challenge of sustainable mobility (Bickerstaff and Walker, 2001). Anderton (2010, p. 55) argues that, "the challenge posed by climate change is used to highlight this need and to demonstrate exactly why integration –of disparate organizations and the institutions they deliver- is fundamental to achieving transport and in this case, reducing emissions"

This has to lead us towards a new form of mobility governance in which the public and private agents collaborate in decision making and which maps out the hierarchical relationships between the various agents (Marsden & Rye, 2009). Hansen (2006) stresses the role of interdendence and trust in this new mobility governance. Seen from this view, interdependence is understood as a form of raised awareness about the need to collaborate for the common good; in this case concerning sustainable mobility and slowing down the process of climatic change. As regards trust, this helps to construct complex, lasting and interdependent social networks across time which will allow for designing medium and long-term sustainable mobility strategies. Finally, this has to allow for generating complicity among the various social agents (Aparicio & Sanz, 2004) so that the steps taken are as inclusive as possible and that all the parties feel a joint responsibility.

Nevertheless, Bisckerstaff, Tolley and Walker (2002) point out that on occasions joint participation in mobility planning and management remain at a "superficial" and formal level, but does not allow for including the most disfavoured collectives in discussions and decision making due to ambiguity in central government policies.

Returning to the main focus, in the sphere of mobility, participation by all actors, public and private alike, emerges as a key element to achieve mobility guidelines that are more respectful towards the environment and which generate less greenhouse effect gases (i.e., increased use of public transport, cycling or walking) (Alegre, 2009). The key figures in the sphere of work-related mobility, and who by necessity have to work together to address the climate change challenge in mobility patterns, are the public administrations, companies and trade unions (Ferri, 2003). As regards public administrations (in plural because of their multi-level and multi-sector nature), these are the bodies which are legally empowered to plan and manage mobility; companies are the financial institutions, while the trade unions represent the users of the various transport modes to get to the work place.

The regulatory framework concerning mobility in Catalonia

Without a doubt the most important regulations are those established by the Catalan mobility law (Parlament de Catalunya, 2004). This law, passed in 2003, is innovative both at a Spanish and European level and allows Catalonia to institute changes to planning and managing mobility at an autonomous level. This law provides for a hierarchical system of planning instruments, creates assessment and monitoring apparatus and, as in the case of the United Kingdom where legislation has included the participation of the citizens (Bickerstaff, Tolley and Walker, 2002), establishes specific

bodies to manage mobility and channel the participation of the social actors involved. The same set up also applies to work-related mobility with provisions for taking specific action in industrial areas.

Legislating mobility in the workplace

This law provides for implementing mobility plans in industrial estates, which are the most poorly linked areas in Catalonia. In order to appreciate the magnitude of the problem here, one needs to take into account that there are 1,748 industrial estates in Catalonia (Miralles-Guasch & Donat, 2007) which accommodate a growing number of workers, and because of the major deficits in public transport, the percentage of people who use a car is higher than 90% (Cebollada, 2007) in the majority of cases. This territorial phenomenon is on the increase because these areas are not only growing in number, but also losing their exclusively industrial profile: there is now greater diversification of economic activities such as logistics and tertiary industries in the widest sense of the term since they not only include shopping centres but also the central offices of major corporations and/or banks.

These mobility plans assess the travel requirements of everyone who needs to access a given area (workers, haulage companies, visitors etc.) and the impact of present solutions to these mobility needs on society, the environment and the economy generated by the system in effect at the time of drawing up this mobility plan. Based on this diagnosis, the plan then proposes measures that need to be taken to minimise the adverse effects of the current system in coordination with the various actors operating in the territory. At the moment in Catalonia there are 33 mobility plans in operation, or in the process of being implemented, which involve 125 industrial estates (Generalitat de Catalunya, 2009).

This mobility law also provides for creating mobility managers whose task is to coordinate all operations related to improving mobility in industrial estates. What commonly happens is that the mobility manager is responsible for taking whatever actions are specified once the mobility plan has been drawn up. Another basic role of the mobility manager is to organise the participation of all the parties involved from the industrial estate and to be able to forge agreements so that the established plan of action can be put into effect. However, in the case of Catalonia, this law does not give clear indications in some areas, such as the lack of a clear financing policy for public transport¹. In fact there is even ambiguity concerning where the money comes from to pay mobility managers themselves, which makes it enormously difficult to provide mobility managers for Catalonia. Consequently, there are only three of them for the entire territory at present.

Another instrument provided for in The Catalan legislation are the territorial mobility councils (*consells territorials de la mobilitat*). These councils can be found at different levels ranging from the autonomous Catalan government to infra-municipal, which include industrial estates. Generally speaking mobility councils are another wheel in the mobility planning and management machinery in industrial estates. They are platforms which allow for the participation of all the actors involved in mobility (Aparicio & Sanz, 2004) and are supposed to be a fundamental support mechanism for the mobility managers.

¹ The financing of public transport in Catalonia is the responsibility of the Catalan public administrations, which in the case of metropolitan areas requires multi-level negotiations between the state government, autonomous government and local councils. While the joint participation of private actors is allowed for in current legislation, no specific regulation has been introduced, which means that it is on a purely voluntary basis.

The grey areas regarding financing mentioned above highlight the role of participation and agreement between the various council members since this financing also has to be agreed upon by all of them (e.g. how much money each company has to contribute so that agreed measures can be put into operation). However, these councils run the risk of losing credibility if they do not live up to expectations, failing to carry out the agreed course of action in their own meetings or being inactive for long periods of time.

In addition to the aforementioned instruments, there are also company mobility plans, which address planning and managing mobility to and from the workplace. These have been taking on increasing importance since the 2008 Plan for Improving Air Quality in the Metropolitan Region of Barcelona was passed,² which affects 40 municipalities where atmospheric pollution exceeds the maximum levels established by the European Union. Although this is a small territorial area, it is one of the main population centres in Catalonia, and taken as a whole, accounts for 3.7 million inhabitants (50% of the total population of Catalonia). This plan sets out 73 measures, and among these, to draw up mobility plans in workplaces and centres which generate mobility (such as a shopping malls which generate mobility beyond the people employed there). More to the point, this plan requires plans to be drawn up in public administration and public company workplaces with more than 200 workers and for private companies, workplaces with more than 500 workers. In addition there is the 2008-2012 Action Plan under Spain's Energy Saving and Efficiency Strategy,³ covering the entire Spanish state which recommends drawing up "Company Plans".

The positions adopted by the social actors involved in changing mobility modes

The initial positions adopted by the work-related mobility actors vary significantly. Despite participation and agreement throughout the territory, we find ourselves faced with initial standpoints on sustainable mobility (often apparently intransigent) which means that progress is still minor. This section outlines the reactions of the three main actors (public administration, private companies and trade unions) involved in the case of industrial estates. Particular emphasis will be placed on the trade unions as they are not only more open to the idea of change but also the main advocates of a change in mobility models in this territorial area.

The findings given in this section are drawn from different studies that have been carried out during the last four years in different industrial estates in Catalonia. This research was largely based on qualitative methodologies, in-depth interviews with representatives from all the parties involved, analysis of their publications and information posted on their web sites.

Public administration

Public administrations are the institutions that are entrusted, at least in principle, with powers regarding mobility planning and management. Likewise, they are the institutions that are responsible for carrying out, or taking steps to carry out, the plan of action laid out in current legislation. This means they are also the "target" for a great many of the claims made by other actors involved with mobility.

But here, we should not forget that we are talking about "public administrations" in the plural which cover different territorial areas and levels, and as a whole have legislated powers over mobility (Miralles-Guasch & Tulla, 2000). In effect, these are structured vertically, which in Catalonia consists of three general levels of government:

² Pla de Millora de la Qualitat de l'Aire de la Regió Metropolitana de Barcelona, 2008.

³ Estrategia de Ahorro y Eficiencia Energética en España 2004-2012.

autonomous, metropolitan/regional and local. In more specific terms, these map out to five specific levels of public administration: autonomous, provincial, metropolitan, regional and municipal. All of these public administrations are involved, to one degree or another, in planning and managing mobility.

Similarly, one finds a horizontal organisation of administrative powers. In the case of mobility, we find that different departments are involved (the very transversal character of mobility encourages this), and these are: transport, town and country planning, economic development and environment. The first of these is what we could call the "core" department because it is the transport department which has the power to carry out policies for both transport infrastructures as well as transport services. The second has powers covering, among other areas, promoting urban planning projects and making changes to public spaces. The third and fourth approach mobility from a different angle, but even though they have no immediate powers they do have a vested interest in actively participating to defend their own interests. In the case of economic development, improved mobility and accessibility makes the territory more economically competitive and opens the way to attracting new companies and investments. As regards the department for the environment, their interests are quite obvious: reducing pollution, particularly atmospheric pollution and fighting against the greenhouse effect and climate change can only be achieved through a change in the mobility model.

Bearing in mind this public administration scenario, one can distinguish between those areas which support a change in mobility modes and those which are more reticent. When it comes to the distribution of powers regarding mobility, we have a situation which can be described as inversely proportional: the further we move away from the core, the more pro-active the department is in the search for new sustainable mobility models. In fact, it is areas within the Department for the Environment that are most sensitive to this need, followed by areas in the Department for Economic Development. But these two departments do not have any direct legislated powers, and end up having to negotiate with central departments who do, but from the position of any other directly interested party. There are some real examples which illustrate this. The office for the environment at a provincial public administration level has headed a European project to draw up mobility plans, policies for reaching agreement between the various social actors and setting up mobility managers in six industrial estates in Catalonia. The project has been underway for three years, but its continuation (carrying out their plan of action and, above all, keeping mobility managers) is on hold because they lack the necessary powers and available resources (Cebollada, Miralles-Guasch & Solé, 2006). Another example is the case of the office for economic development in a regional council. In this case, a regional plan of action was drawn up and a mobility plan for an industrial estate, but once again lack of powers and resources together with failure to reach agreement with the central public administration, has meant that the course of actions laid out in their documents can not be put into action in any shape or form (Fuentes, 2009).

So, given the diversity of areas and range or powers involved, in practice those who really have a direct impact on changing mobility models boils down to the transport departments and, to a lesser degree, town and country planning. These departments are not only under pressure from other social actors, but also from different areas within their own administration, so they are reticent when it comes to implementing certain courses of action and, on a number of occasions, complying with the provisions set out in their own plans. But it is also true that the previously mentioned ambiguities in the law (reading between the lines, companies would have to share in meeting costs) leave the issue of where resources come from up in the air. Given the lack of a, long-awaited, law covering funding of public transport, this means that putting many plans into effect depends on the actors coming to an agreement in order to secure the necessary resources, and on their willingness to do so. Consequently, many action plans do not reach the stage of being implemented.

Companies

Business organisations have not incorporated sustainable mobility into their own discourse at a theoretical level, and the same holds for putting it into practice. In contrast to the trade unions, covered in the next section, private business does not see changing the traditional mobility model as meaning improved competitivity. So, these organisations keep a watchful eye on proposals regarding mobility to see that they do not imply extra costs for them.

As mentioned earlier, the regulatory framework implies that the responsibility for certain actions needs to be taken on by private companies, but the fact that no clear formula has been established for financing means that their involvement is minimal. This is illustrated by one particularly significant fact. Companies who employ more than 500 workers were required to draw up company mobility plans prior to the 31st of December 2008 in accordance with the *2008 Plan for Improving Air Quality in the Metropolitan Region of Barcelona*. Now, in July 2009, the first is yet to be seen.

This means that while business organisations do not view certain claims and actions in a negative light, such as increasing the offer of public transport services, it is not a priority item on their agenda. In contrast, they have rejected other mobility proposals from different sectors which have been embodied within the objectives of the mobility plans in industrial estates, such as promoting carpooling among workers. They maintain that there is a risk of absenteeism when the driver is off sick / on leave and it creates problems changing workers from one shift to another, all of which they consider to be prejudicial to productivity. In these cases, the participation of the different actors can allow for reaching mutual agreements which address the needs and concerns of all the parties.

In contrast, these actors are more active in putting pressure on public administrations to construct new infrastructures, primarily road networks, but also ports and airports. Here, they are mainly concerned with links to international markets and only incidentally worried about work mobility. Since they do not perceive any direct links between competitivity and accessibility to the work place, they do not question the present mobility models.

For business organisations, posing the need to change the modes of transport used to get to and from work means, to some degree, to undo part of their efforts in the last three decades. Throughout these years, we have witnessed a gradual process of externalising the costs of worker mobility. When the first companies set up business in the industrial estates that had just been built on the periphery of urban areas in Catalonia, many of them had to procure transport means for their employees because levels of motor vehicle ownership were very much lower at the end of the 1970s than nowadays (Miralles-Guasch & Cebollada, 2001). Since then, this service (in many cases in the form of company transport) has been disappearing and the workers have been renouncing this right. Consequently, when proposals have been put to companies during this first decade of the 21st century to collaborate in changing work related mobility patterns, this has meant having to re-address a "problem" they had already externalised to society as a whole.

Trade Unions

As regards trade unions, this section focuses on one of them, Comissions Obreres (CCOO), because they play an active role in the area of work related mobility and are the major trade union in Catalonia, which means that they have a wide sphere of influence. This trade union has incorporated the sustainable mobility discourse into their working agenda and claim the right of access to the work place as a basic working condition.

As opposed to other social actors, this trade union has maintained its claim for sustainable mobility and is one of the main driving forces behind changing the mobility model. Towards this end, CCOO has created its own discourse which attempts to discredit the dominant ideological discourse generated around the privately owned car throughout the 20th century. Their position can be summarised as follows:

- Access to the work place is not the individual responsibility of each worker as where economic activities are located in the territory is the result of the logic of capital accumulation. Therefore, it is the company's decision which determines getting to and from work.
- The widespread use of the car to get to and from work is not the result of individual decisions taken by each worker, but rather the consequence of company decisions about where to set up their businesses, territorial planning policies which have followed functionalist land-use precepts and public transport planning that has overlooked areas of economic activity regarding territorial services.
- The mobility model based on using a car does not generate well-being. When neoclassical economics accounts for the role of mobility in generating wealth, it does not consider all the "external" effects that it generates. When these are included (impact on the environment, ecology and society), the costs outweigh the benefits. Latouche (2007), for example, calculates that by including the costs generated by road congestion alone, the US GNP would drop by as much as 63 billion dollars.
- Travelling to and from work is also part of the job. Mobility is a derivative activity which only serves a purpose when it satisfies a need or desire (Estevan & Sanz, 1996). Therefore, travelling to work only happens if there is work. Travelling as a job pre-requisite has lead to spotlighting how the constant increase in travelling to the workplace (in both time and distance) (Pooley & Turnbull, 1999) has effectively meant a hidden lengthening of the workday.

By constructing this new discourse on mobility they are trying to create a new hegemony, but filtering this new discourse down through to society is a slow process. This is not only due to the reticence of other social actors discussed earlier, but also within the heart of the unions themselves. The reason for this is because: "the attitudes and views of the people the trade union represents (...) reflect the options and behaviour of society as a whole, the corresponding consumer behaviour cultural models, the illusion of individual freedom by owning a car, and the importance of believing in the need for sustainable growth, etc." (Tapia, 2001, 98).

Trade union action in this area comes under three different headings: first, publishing materials and organising one-day or extended courses; second, carrying out proposals; and third, making claims in different areas and formats

Trade union publications on mobility are primarily aimed at their own members to prepare them in their role as trade union representatives in the sphere of companies and sectors of the production industry. Taken as a whole these publications cover the following areas: they provide a diagnostic on work-related mobility guidelines, underline environmental and social dysfunctions caused by current mobility patterns, explain the current legislation on mobility, provide methodological guidelines for developing plans of action (for example, how to go about it and the areas that need to be addressed in a company mobility plan) and provide examples of good practices that could serve as an example for other actions. In addition to these publications, they also give day-courses on mobility aimed at providing union representatives with the necessary background and tools. Finally, each year they organise courses on sustainable mobility, and while the training of those who attend is more complete, their numbers are far fewer.

As for carrying out proposals, these are channelled through different routes. One the these is participating in the mobility councils, which, in accordance with Catalan legislation, have been set up at different territorial levels, that is: from the Catalan Council for Mobility (*Consell Català de la Mobilitat*), which is the highest level and covers all of Catalonia, down to the mobility councils in some of the industrial estates. Another way of channelling their proposals is by providing arguments for mobility plans being drawn up, whether sectorial (public transport, bicycle, etc.) or territorial (industrial estates, the metropolitan region of Barcelona, etc.). And there is a further third channel which deals with drawing up *motu proprio* proposals. In this case, these proposals are put forward to generate debate in areas where such proposals are absent or, alternatively, taking up an opposing position where there is fierce debate.

Finally, we come to the section on claims. These complement the actions mentioned in the previous section. In this area, we find the claims for creating mobility tables, carrying out plans, either in industrial estates or companies, and setting up mobility managers. In short, they have adopted a line of lobbying for enforcing the current legislation and so their demands are principally directed at public administration.

But they also include these claims in collective bargaining with companies. These are particularly evident in cases when there is a change of workplace with a company moving to another location or provisional situations. A good example is the case of the SONY plant in the Viladecavalls municipality. At the time that the company was considering presenting a plan for laying off the work force (*ERO - Expedient de Regulació d'Ocupació*), the company and trade union signed an agreement to withdraw it in return for setting up a mixed commission that was to guarantee the viability of the company. Among the measures to be introduced, was a trade union proposal to draw up a company mobility plan aimed at increasing competitivity and, more importantly, obtain a firm commitment by the company to stay in the territory.

Conclusions

Despite apparent general consensus on the problems associated with the mobility model (the mobility law, for example, was passed unanimously by the Catalan Parliament), the positions adopted by the social actors differ substantially. The positions adopted by each correspond to how they perceive the benefits and harm that changes in mobility patterns can bring for them.

On the one hand, the trade unions argue in favour of and press for a change in the mobility model because they consider that brings objective benefits for the population in general and workers in particular. These benefits take the form of improved health (less road accidents, less pollution-related illnesses, fall in stress levels) and an improved financial situation since the (individual) costs generated by using a car are high. As regards public administrations, we find that they have limited resources for carrying out the actions set out in the law and, in addition, with non-existent financing instruments. This puts them in the middle, under pressure from different sides, not forgetting the context of economic globalisation, and the fear that applying too much pressure to companies would mean them off-shoring or outsourcing their economic activities.

A detailed analysis of the trade union discourse, however, shows how among the arguments they maintain there are those which attempt to convince companies that changing mobility patterns towards more sustainable modes is also to their advantage. They argue that this will result in increased company competitivity and major sustained profits in the course of time. It appears that the trade union proposals attempt to make companies partners in the change of mobility models process, and with this make the translation towards a new model, with the intention of interweaving the productive fabric into the territory as a mid or long-term option.

Bearing this in mind, participation allows for reconciling the different standpoints of the various actors and arriving at general agreements, but with difficulty regarding agreement of applying measures. The lack of clarity in financing is an obstacle to this since nobody wants to take on the financial burden. For this reason, a general law which clearly sets out how measures are to be financed would facilitate matters and allow progress to be made in this debate so that we can move on from "whether we pay or not" and "who pays", to "how the money should be spent". The lack of legislation covering financing transport in Catalonia represents an obstacle to arriving at a mutual agreement on measures aimed at favouring sustainable mobility.

References

- Alegre, L. (2009) "La col·laboració entre l'àmbit públic i privat a la Regió Metropolitana de Barcelona" Sabadell Universitat S9: La gestió de la mobilitat als centres de treball. La col·laboració entre els sectors públic i privat. (http://www.sabadelluniversitat.org/sbduni_nou/p/S3_09_cat.asp) (August 30th 2010)
- Ambrosino, G., Nelson, J.D., & Romanazzo, M., (ed.), (2004), *Demand Responsive Transport Services: Towards the Flexible Mobility Agency*. Rome: ENEA.
- Anderton, K. (2010) "The need for integrated institutions and organizations in transport policy. The case of transport and climate change". In: Givoni, M. & Banister, D. (Ed.) *Integrated Transport. From Policy to Practice*. London: Routledge
- Aparicio, A. & Sanz, A. (2004) "Mobility Management and collaborative planning: helping each other", *Ecomm*, 2004. Lyon, GrandLyon, Communauté Urbaine. (http://www.epomm.org/ecomm2004/workshops/anglais/Aparicio.pdf) (February 17th 2009).
- Bickerstaff, K. & Walker, G. (2001) "Participatory local governance and transport planning" *Environment and Planning A*, 33, p. 431-451.
- Bickerstaff, K.; Tolley, T. & Walker, G. (2002) "Transport planning and participation: the rhetoric and realities of public involvement" *Journal of Transport Geography*, 10, p. 61-73.

- Cebollada, A. (2007) "Access to industrial estates: unfinished business". *Papers. Regió metropolitana de Barcelona*, 45, 99-104.
- Cebollada, A., Miralles-Guasch & Solé, G. (2006) "Public policies for improving access to industrial estates. The case for the Catalan metropolitan region Vallès Occidental". *Sixth European Urban & Regional Studies Conference*. Roskilde, European Urban and Regional Studies (21st – 24th September 2006).
- Estevan, A. & Sanz, A. (1996) *Hacia la reconversión ecológica del transporte en España*. Madrid: Los Libros de la Catarata.
- Ferri, M (coor.) (2003) *L'accés sostenible al lloc de treball*. Barcelona: Comissió Obrera Nacional de Catalunya.
- Fuentes, S. (2009) "Planes de movilidad a varios polígonos: Proyecto Gesmopoli (Cataluña)" Jornadas Técnicas 'Planes de Transporte a los Centros de Trabajo. Experiencia y Buenas Prácticas'. Madrid: IDEA (19th – 20th May 2009).
- Generalitat de Catalunya (2009) 2026.CAT. Estratègia per al Desenvolupament Sostenible de Catalunya. Mobilitat (document de treball). Barcelona: Generalitat de Catalunya.
- Hansen, C. J. (2006) "Urban transport, the environment and deliberative governence: the role of intedependence and trust" *Journal of Environmental Policy & Planning*, 8:2, p.159-179.
- Latouche, S. (2007) La apuesta por el decrecimiento. ¿Como salir del imaginario dominante? Barcelona: Icaria.
- Marsden, G. & Rye, T. (2009) "The governance of transport and climate change" *Journal of Transport Geography*, doi:10.1016/j.jtrangeo.2009.09.014.
- Miralles-Guasch C. & Tulla, A (dir) (2000) *Mobilitat sostenible: innovacions conceptuals i estat de la qüestió*. Barcelona: Diputació de Barcelona.
- Miralles-Guasch, C. & Cebollada, A. (2001) "Desigualtats socials en l'accessibilitat als llocs de treball", *Quaderns de l'escola*, 4 (Mobilitat, transport públic i treball), p. 81-95.
- Miralles-Guasch, C. & Donat, C. (2007) "Industrial estates in Catalonia: an analisis of supli and demand". *Papers. Regió metropolitana de Barcelona*, 45, 89-99.
- Parlament de Catalunya (2004) *Llei de la mobilitat*. Barcelona: Publicacions del Parlament de Catalunya.
- Pooley, C.G. y Turnbull, J. (1999) "The journey to work: a Century of change" *Area*, 31 (3), p. 281-292.
- Tapia, J.M. (2001) "El transporte colectivo en relación a la organización flexible del trabajo; propuestas sindicales", *Quaderns de l'escola*, 4 (Mobilitat, transport públic i treball), p. 97-110.
- WCED (1987) Our Common Future. Oxford: Oxford University Press.