

END OF THE ROAD? – EXAMINING THE CAUSES OF THE DECLINE IN CYCLING IN DUBLIN

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Gavin Doherty's 'ode to the humble bicycle' is a sad and sorry tale. It is a telling indictment of our recent economic success and the resultant affluence, that the cyclist has become an endangered species in Dublin, both literally and metaphorically. Poorly planned urban sprawl and changes in attitudes have contributed to the decline in cycling. As a result, the bicycle has become an inferior good. This paper contrasts the Irish experience with that of other European nations, suggesting that if the bicycle is to be saved, countries such as the Netherlands must serve as a guide to future policy.

End of the Road for the Bicycle in Dublin?

*'Let a man find himself, in distinction from others, on top of two wheels with a chain - at least in poor countries like Russia - and his vanity begins to swell out like his tires. In America it takes an automobile to produce this effect.'*¹

In a world with energy shortages, the bicycle is the most energy efficient form of transport (Gordon, 1991). In a world struggling to control emissions, the bicycle emits no pollution. Over short journeys it is often the most expedient form of transport, not being constrained by traffic congestion. However the latest census has revealed that only 1.9% of workers commute by bicycle in Ireland, less than a third of the proportion cycling to work in 1986 (CSO, 2006). This reflects the downward trend in the number of cyclists, mirrored by consistent increases in the number of motorists.

The scope of this essay will be limited to urban cycle commuting and thus will centre on Dublin; however nationwide trends will also be discussed. The

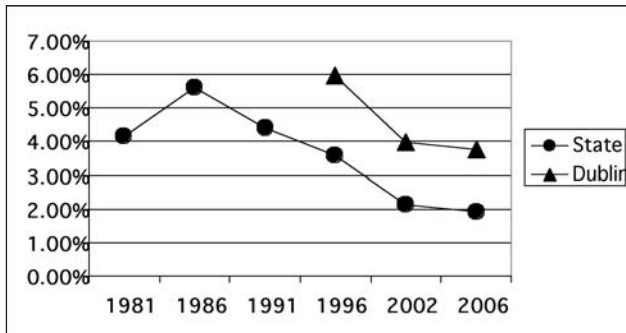
¹ Leon Trotsky (1879-1940) - Russian revolutionary

causes for this seemingly terminal decline will be examined and contrasted with the experience in other countries to see if there is any hope left for the bicycle in Dublin or Ireland.

The Decline

Figure 1 clearly shows the decline of the bicycle in Ireland. Every year since 1986 the proportion of people using a bicycle to commute has fallen and the trend seems destined to continue. Conversely, this decline has been met by a huge increase in people driving to work. In 1981, 44.1% of people used a car to commute; by 2006 the figure had increased to 62.6% (CSO, 2006). In a country nowhere near its target to reduce greenhouse gas emissions under the Kyoto protocol and with rising levels of obesity, the continued switch from bicycle to car has serious implications.

Figure 1. Percentage Travel to Work by Bicycle²



The Causes

There are several reasons for the decline of cycling in both Dublin and Ireland. The chief causes of this decline, including poor transport and housing planning and changing consumer preferences will now be examined.

Urban Sprawl

Many contributing factors to the decline of cycling in Dublin are linked to

² Source: Census online at www.cso.ie

planning; be it housing, land use or transport planning. Poorly planned housing development has allowed the greater Dublin region to expand into neighbouring counties. It appears the dubious doctrine of ‘any development is good development’ has been slow to die off. High house prices combined with a lack of suitable high density accommodation and personal housing preferences, have seen Dublin expand outwards rather than upwards (EEA Report, 2006). This has led to a situation in which many commuters are living on the far side of the M50. Without adequate public transport links, suburban dwellers must resort to their cars.

People are most likely to use bicycles for short journeys and only a small proportion are willing to cycle over a distance of 10 kilometres.³ A study on cycling in Dublin showed that distance was the fifth largest reason for motorists not cycling, with 16% citing this reason (Keegan and Galbraith, 2005). Clearly Dublin’s urban sprawl is a major impediment to cycle commuting, and with a higher proportion living further and further away from the city it is natural to expect a decrease in the overall proportion of commuters cycling.

Transport Planning: Moving in the Wrong Direction

A government minister, Mary Harney, once noted that Ireland is ‘closer to Boston than Berlin’ and this is especially true for transport planning. Ireland has unfortunately followed the United States’ lead with its penchant for auto-centric planning. The motorisation of cities has made them less attractive for walkers and cyclists, with planners viewing the city from ‘behind a windscreen’. Planning policy has gravitated towards catering for cars with the result that most city centre streets are merely motoring thoroughways, with pedestrians or cyclists perceived as an ‘obstacle’ to traffic flow. Solving traffic congestion by building more roads is the equivalent of digging oneself out of a hole. Road pricing and discouraging car usage in city centres through restrictive measures such as traffic calming are both sensible options. However, such policies remain political hot potatoes that few are brave enough to handle. Car orientated policies should not be underestimated in the deleterious effect they have on bicycle usage; one econometric study found that such policies accounted for 40% of the differences in bicycle usage levels (European Cyclists Federation, 2006). It is unfortunate that we have taken our lead from the United States’ unsustainable model instead of looking to Europe, where cities like Amsterdam and Enschede in the Netherlands have planned around the needs of pedestrians and cyclists. The following sentiment from a Dutch councillor in Enschede highlights a belief

³ According to the 2006 census figures only 10.3% of cyclists travelled over 10km to work.

not held in Ireland: 'our city's main infrastructure does not only belong to cars, it is everybody's' (European Cyclists Federation, 2006).

Cycle lanes in Dublin are of notoriously bad design without any regard for proper continuity or integration of the system. Cycle lanes in many cases are there just to pay lip service to cyclists, not to actually address their practical needs. Evidence of this can be seen in the fact that cars are legally allowed to park on some cycle lanes in the evenings and at weekends, while cycle lanes often end abruptly onto a busy road. The continued lack of inclusiveness of non-motorised transport modes in Irish planning is one factor contributing to cycling's decline in this country.

Attitudes: Crowding out the Cyclist

Policy can lead the way in changing attitudes. If good policies are established the public will most often follow them. An example of this includes the Irish smoking ban, which despite the initial outcry has been a complete success. Another example of policy changing attitudes was the 'zero tolerance' policy on crime in New York which contributed to a hugely diminished crime rate. The same principles could and should be applied to transport policy and the attitudes it fosters.

The application of 'signalling theory' is as relevant here as it is to principal-agents' reactions to central bank announcements. If the agent (in this case the government) makes an announcement, the principals (the citizens) will react to it in a way that benefits them the most. So if the agent's priority is to focus on road and motorway building, that sends a signal to the principals to use their cars more. If the agent announces urban traffic calming measures and road pricing, the principals will take this information on board and reduce their car usage accordingly. Constantly increasing the traffic volume capability of roads sends the signal that cars should be used as the main form of personal transport. Dublin city centre is of medieval design but has been adapted for motorists and for use as a throughway for heavy trucks making their way from Dublin Port. As a result pedestrians and cyclists have been sidelined and overlooked as valid road users. The opinion amongst many is that the streets are far too dangerous for cycling (Keegan and Galbraith, 2005; Irish Times, 2007). The motorisation of the city and decreasing safety for non-motorised modes of transport is another major reason for the decline of cyclists.

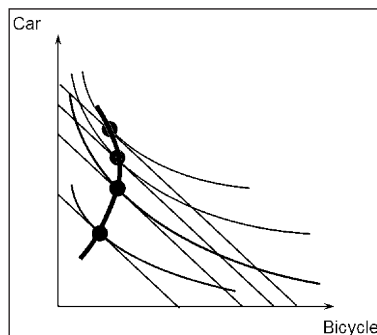
The Bicycle: An Inferior Good

In Ireland the bicycle has been transformed from a normal good to an inferior good. While there are no available statistics for Irish bicycle usage fifty years ago, it is certain that a much larger proportion of people used a bicycle as their

main form of transport. UK figures from the 1950's show the bicycle was used in 15% of all trips and the Irish figure was likely much higher (Pucher and Bueher, 2008). The following quote from a bicycle shop owner gives an idea of past usage and the attitudinal change that has taken place: 'Nearly everyone had a bike then, doctor or tailor...there were lots of women cyclists in the 1950's. All changed now, all the young girls want cars these days' (Irish Times, 2006). Further evidence for the transformation of the bicycle to an inferior good can be found in a survey conducted in Dublin (Keegand and Galbraith, 2005). In this survey only 21% of car commuters would consider cycling to work, with the largest reason cited for not cycling being 'I prefer to drive' (ibid). This does provide strong evidence for the assertion that the bicycle has transformed from a normal good into an inferior good in the mind of consumers. Changing preferences are likely linked to changing economic conditions. Bicycles are seen as a substitute for cars rather than as a possible complement. Therefore they are not seen as desirable, as only people who cannot afford a car use this 'inferior' substitute. This mindset was concisely captured by a past deputy mayor of Shanghai, China: 'the bicycle is just a reminder of past poverty' (Hilary, 1997).

In contrast it is interesting to note that in the Netherlands, Germany and Denmark cycling is distributed evenly across all income groups. This suggests that the bicycle is a normal good in these countries, as rising income does not affect bicycle usage (Pucher and Bueher, 2008). The bicycle's income inelasticity in those countries may be attributed to social norms as cycling is perceived as 'normal' behaviour for everybody to engage in, not just for poor people, children or athletes. The bicycle is seen as a complement to the car, as it is used for short journeys and the car for longer ones. Figure 2 below illustrates Irish consumer preferences in relation to bicycles and cars.

Figure 2. Income Offer Curve for Bicycles and cars in Ireland



The experience in other countries

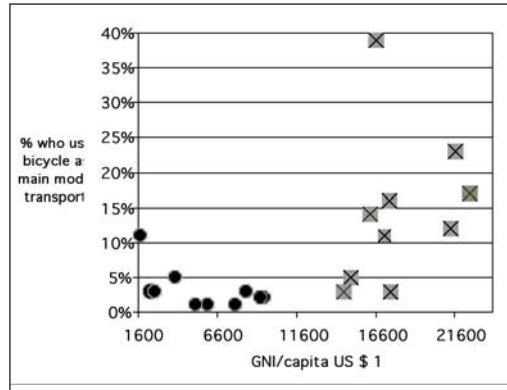
Countries that experience high rates of economic growth that results in transformation from a poor to a wealthy economy over a short time period are likely to have low levels of bicycle usage. The private car is seen as a symbol of success, and myopic transport policy centres on building more and more roads to accommodate the increasing number of cars. However there is a cohort of mature economies that take a more enlightened and holistic approach to transport planning and policy. Some of the best examples are the Netherlands, Denmark and Sweden. In these countries bicycle usage declined to low levels in the 1970s but a reversal of transport and urban planning policies revived cycling to its present healthy state.

The construction of Figure 3 gives an informal insight into the difference in levels of cycling uptake between countries that have been developed for a long time and those that have only recently achieved similar levels of development.⁴ While it is not a large sample, it gives a rough idea of the trends among different European countries. The countries are divided into two groups; wealthy and poor, with wealthy being represented by square markers, poor by circular ones.⁵ A country is defined as wealthy if its 1988 GNI surpassed \$10,000. The year 1988 is used, as a country's policies would have a lagged effect on the behaviour of its citizens, especially with regard to an issue such as cycling which requires an attitudinal change. As such, 20 years should be enough time to produce an effect. One might expect that a poorer country would have more people using bicycles than a richer one, but it is also likely to have poorer planning. Many countries that were considered poor 20 years ago are now wealthy, with motorisation of the masses often taking priority over other forms of transport. Countries such as Ireland that were coming from a poor background would likely have viewed the bicycle as a reminder of backwardness and the car as a symbol of progress. Overlooking the bicycle as a valid means of transport both in policy and road design is a sure way to displace cyclists from the roads. A good contemporary example of the transition from poor to rich economy and its detrimental effect on cycling can be seen in Beijing today, where cycle lanes are being appropriated for the use of cars (China Daily, 2004).

⁴ Figure 3 was constructed using data from the UN statistics division and the Flash Eurobarometer (2007) article 'Attitudes on Issues Related to EU Transport Policy' published by the European Commission.

⁵ Wealthy countries include: Austria, Belgium, Denmark, Finland, France, Germany, Italy, Netherlands, Sweden and the UK. Poor countries include: Bulgaria, Cyprus, Czech Republic, Greece, Ireland, Malta, Poland and Portugal.

Figure 3. GNI/capita 1988 and % using Bicycle as Main Mode of Transport 2007



A rough trend can be identified in this simple graph showing that the countries that have been wealthy since at least the 1980s have a higher proportion of people who use a bicycle as their main form of transport. The probable reason for the visible disparity in the levels of cycling among the two groups is due to a country's policies and resultant attitudes. Transport planning that takes cyclists into consideration is more likely to engender better attitudes towards cycling than auto-centric planning. In most cases a country that is wealthier will have a more enlightened approach to planning and development than a country that is poorer. Countries with well established economies tend to give greater consideration to ideas of sustainability, the environment and urban gentrification, while poorer countries are more concerned with rapid economic development, leaving such issues take a back seat. As the graph suggests, bicycle usage ultimately comes down to planning and resultant attitudes. It is no surprise that the Netherlands, a country that actively pursues pro cycling policies, has the highest level of bicycle usage at approximately 40%. Positive policies foster positive attitudes towards cycling, meaning that it is seen as a normal and valid mode of transport.

In poorer countries the car is seen as much more of a status symbol, as status symbols must be scarce to confer status upon their owners, whilst in a wealthier country of material abundance cars hold less cachet (Blumberg, 1974). This poor man's mentality may still exist in countries that have grown wealthy since the eighties (for instance Ireland). Roads congested with cars are seen as indicative of economic success.

Solutions

The decline in cycling in Dublin and Ireland may appear to be terminal but it is not. There is much room for improvement. Taking the cities of the Netherlands as a guide will do a lot to help inform future policy addressed at tackling the issue. A two pronged approach focused on policy and changing attitudes through education will achieve the most favourable results. Practical policies to pursue include; the construction of continuous and safe bicycle lanes, traffic calming such as lower speed limits and physical obstacles for cars, de-motorisation of city centres, adequate bike parking facilities, training and education, revised traffic laws and integration with public transport. These policies have proved successful in the cities to which they were applied in the Netherlands (Pucher and Bucher, 2008).

However, Ireland has a long way to go to fulfil such recommendations. For Ireland a change in thinking amongst all levels of policy makers as well as an attitudinal change amongst the public are required if we want to keep the bicycle on our roads.

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