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Green Transportation: A Must for the Future of American City Planning

As population trends soar upward, the dependency of Americans on their individually owned automobiles rises correspondingly. However, the available space for these cars remains relatively constant. Consequently, automobile congestion and carbon emission rates persist at an all-time high with no foreseeable remedy if Americans continue their dependence on their own private vehicles for travel. Contrary to what one may suspect, the solution to the automobile traffic does not lie within expanding road space, transforming the automobile, or even within privatized carpooling systems such as Uber. Instead, American city planners should look towards planning cities around more ecologically friendly transportation systems such as mass transport and cycling instead of around the current culture of the individually owned automobile. Although the process may be expensive on the front end, expanding the existing network of mass transport systems and constructing cities with layouts that encourage cycling will allow American cities to reap benefits for years to come, including: reduced carbon emissions, upward trends in economic activity, increased social cohesion, reduced automobile related fatalities, and the decongesting of American roads and highways, among many other unforeseen positive effects.

While many innovative theorists focus their efforts of addressing road congestion and carbon emission towards developing “new transportation technologies such as ride-hailing services, self-driving vehicles, and electric cars,” these efforts are no match for the benefits that public transport and cycling have to offer (Cashman 2). First of all, these new “car-dependent

transportation" technologies that many theorists rave upon are not economically feasible for the majority of the American population and have significant "economic, environmental, and social drawbacks." "Tessla's 'affordable' car" starts at "$42,000" and other electric vehicles, "such as the Nissan Leaf and Chevrolet Volt," cost "around $30,000 new" (2). Moreover, new ridesharing technologies such as "UberPOOL" advertise their services as "cheap and environmentally friendly" even though in reality a trip in San Francisco by Uber would cost around "$10" and take up to "55 minutes" while the same trip using "San Francisco Muni's J-Church light rail" would cost only "$2.25" and take only "18 minutes" (2). Considering the difference in price tags, economically savvy Americans are unlikely to eschew their individually owned automobile in favor of taking trips by Uber or buying the newly released all-electric cars. Furthermore, these new technologies will gentrify the American society, constructing difficult-to-eradicate walls between socioeconomic classes. Hence, if American cities wish for less congestion on the roads and cheaper, more economical ways to get from point A to point B, they must direct their efforts towards other forms of improving the situation such as encouraging cycling and the use of and construction of better mass transport systems.

Of course, completely abandoning the current design of cities oriented around automobile might be frightening, but the success that new city designs geared towards mass transport and cycling have offered other cities around the world might be reason enough to switch. A city previously plagued by traffic, Copenhagen has been very successful in encouraging "the number of bicycle commuters" with around "40 percent" of people "commuting by bike" and has even pledged ambitiously to become "carbon neutral by 2025" (Copenhagen 1). Among the many ways Copenhagen has encouraged such enthusiasm for bicycles, the city has widened bike lanes, created "green waves" or "traffic lights timed for the benefit of bikes," and implemented "a

series of digital traffic information signs" which inform bicyclists of the safest and least congested routes to their destinations (1). While these efforts to redesign the transportation focus of the city did require significant governmental spending in the beginning, they were well worth the money as Copenhagen is no longer inundated by automobile traffic. In Sydney, Australia, traffic gridlock "costs greater Sydney $5 billion a year in lost revenue and productivity," but efforts to increase bicycle use have created more space on the roads for drivers especially on the Harbour Bridge where "almost 400,000 daily trips are made by bicycle" (Bikes 1). The lord mayor of Sydney, Clover Moore, also states that bike culture has thrived so much so in Sydney that businesses will pay "top dollar to be close to bike routes" as much of the top talent these businesses seek to attract are looking for jobs located in places they can bike to (2). Implementing mass transportation has also been effective in reducing traffic and carbon emissions in cities around the world. Harvard professor, Edward Glaeser, states that "less than one-third of New Yorkers drive to work," depending on public transportation as their main form of transport (2). In doing so, New York City citizens are able to vaunt the top spot in the nation when it comes to the metropolitan areas that use the least gas per capita (2). Glaeser also explains that according to the Department of Energy, "New York State's energy consumption is next to the last in the country because of New York City" (2). As it turns out, the rest of the United States might have a few lessons to learn about implementing bike culture from other developed countries and cities around the world.

Implementing mass transport has also been very effective in other cities around the world as well. Even the urban, developing areas of Sub-Saharan Africa such as those in Ghana, Kenya, Gambia, Nigeria, and Uganda support methods of mass transportation such as the "tro tro, a minivan that has been reconfigured to seat about 16 people;" light rail transits; metros; and "bush

taxis" (Zachary 1). The mass transport networks developing in these African cities have been essential to their advancement and have "generated employment as well as opportunities for investors" (1). In reference to Los Angeles, the distinguished American urban policy analyst, Peter Dreier states,

> "Daily, more than 40,000 Angelenos use a bourgeoning rail system with its regional commuter rail, a subway, three urban light-rail lines, and a bus rapid transit route, Metrolink regional commuter trains run along six routes over 416 miles to connect surrounding counties to downtown Los Angeles. Four subway and light-rail lines, covering 73 miles of the most built up areas of the city, have created faster alternatives to driving between downtown and Hollywood, the San Fernando Valley, and Pasadena" (4).

Before developing the now extensive network of mass transport systems, Los Angeles was plagued by traffic caused by city planning around the idealized vision of single families living in houses with two car garages. Despite being one of the largest and most densely populated cities in the world, Los Angeles continues to address its traffic congestion through the enactment of major mass transportation systems. Each of the cities previously mentioned did undeniably allocate a great deal of economic resources towards funding their innovative city plans. However, considering the costs versus the rewards each city reaped, implementing these same measures in other American cities looks less like a risk and more like a necessity when trying to prevent the gridlock of roads within the next few years.

The benefits that implementing more expansive mass transport systems and growing the opportunities for bicycle use in cities are ever-present – even in areas that one might not expect. Aside from the obvious benefits – the reduction of traffic and carbon emissions – mass transport

systems will also spur the "development of business and residential hubs around the transit system" (Mass 3). Furthermore, downtown areas, "many of which have deteriorated with the growth of the suburbs," may experience prodigious revitalization as the development of the cities will adapt to the mass transit system's central hubs (3). Moreover, as fewer cars are on the road, "greenhouse gases, air pollution, [and] noise pollution" are all limited (2). Likewise, with more people riding mass transit instead of commuting by automobile every day, "Vision Zero," the movement to eliminate automobile related deaths, might actually be reasonable (Cashman). In regards to promoting bicycle growth in densely populated American cities, Americans will get their "daily exercise" in while also reducing the "incessant cases of road crashes on the nation's highway" (Bicycle 2). Additionally, as more people opt away from the individually owned automobile, national fuel consumption will be decreased (2). Possibly the most immediate individual benefit of using bikes instead of cars is the fact that bikes do not require one to pay for gasoline, parking fees, car taxes, insurance, or expensive maintenance work. Therefore, bikes are an accessible mean of transportation for the overwhelming majority of United States citizens (Cashman 2). Bearing in mind the widespread benefits, planning cities around the bicycle and mass transit as the main methods for commuting is a no brainer.

Another key reason American cities should adopt city plans geared toward mass transportation is the fact that these systems of transport promote social cohesion, a major factor in the overall economic success of a city. Social cohesion is the "elusive glue of civility, trust, and cooperation that is essential to a society's health" (Torrey 1). In other words, social cohesion is a unifying force within a society, and the lack thereof may result in a divided society, one that is compartmentalized and unable to conquer common goals. These goals often are economically centered as Barbara Boyle Torrey, a famous scholar, explains that the level of social cohesion is

"inextricable related to economic performance" (1). Consequently, it would be beneficial for a city not only socially but also economically to invest in methods inductive to raising the level of social cohesion. To do this, the city must first look for ways to get people from all different socioeconomic classes to intermix with each other on a daily basis. The current model of American cities, the one centered around the individually owned automobile, does not allow for such intermingling. Instead, Americans live in neighborhoods filled with similar social groups to their own, work with similar social groups, and for that reason befriend and collaborate with only similar social groups. However, promoting mass transport promotes the idea that many people commute together in a mass and thus, people of all different social groups, poor and rich alike, are intermingling every single day; accordingly, mass transport "promotes social cohesion" (Zachary 1).

This idea that mass transport systems promote social cohesion which in turn spurs economic activity is demonstrated flawlessly in the situation of the city of Medellin, Colombia. Historically, Medellin has been a city known for its violence and drug related issues which created social tension and a large gap between the upper and lower socioeconomic classes (Dávila 2). Furthermore, Medellin's location in the Andes Mountains caused the isolation of many social groups as citizens occupying the lower economic brackets could not afford cars and were therefore unable to get themselves down from their homes on the steep mountainside and travel into the city for work each day – that is until public transportation was introduced to Medellin (3). Realizing this issue, the Medellin government started the first ever cable car system in the world used for mass transport (3). Since the implementation of the cable car system which leads to a network of metros and buses, Medellin has lifted itself from poverty and now places itself among the most innovative cities in the world, all due in part to the social cohesion its mass

transportation system produced. (4). The same level of social cohesion will be manifested in the United States if mass transport systems are adopted and encouraged. People of all different socioeconomic classes will be intermingling on a daily basis and will no longer be separated on the basis of whether or not they can afford to own their own automobile. The “burden of transportation costs on the lower third of households” often limits the radius feasible for them to travel to work, similar to the fact that the lower class who lived in the mountains of Medellin could not take jobs other than jobs located where they lived (Cashman 3). However, mass transport systems will put everyone on the same playing field and make it easier for, per se, a lower-class person living on the south side of a city to commute to their job on the north side of the city every day. All in all, expanding mass transport systems in American cities to make them more accessible and beneficial to the city citizens will create an opportunity for social interaction resulting in a valuable level of social cohesion.

As population numbers continue to rise, an effective answer to the problem of diminishing space for cars on American city roads has not been reached. However, considering the benefits, mass transport and cyclist culture should indubitably be encouraged in the way American cities are developed. Not only will cities experience a decreased amount of traffic, but they will also benefit from increased social cohesion, decreased noise and air pollution, decreased carbon emissions, and an increase in economic activity associated with areas of pickup. For these reasons, adopting greener transportation will keep American cities on the path of success for many years to come. Climb aboard this train – or bicycle for that matter – to support new city planning aimed at making the future of American cities possible.

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