Inequity in Transport: The Problem with Auto Hegemony

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Abstract

It is well known that ubiquitous use of the automobile has become a threat to the environment. However, humans have also become negatively affected by the proliferation of the current auto-centered culture, particularly low-income minority groups. Those who have access to a vehicle have a great advantage in our society while those who do not suffer in many ways. The current style of American transportation planning virtually ignores the needs of those who do not have access to a personal vehicle. Since low-income minority groups are disproportionately represented in this category, traditional transportation planning could be observed as structural discrimination. In recent history, inadequate appropriation of funds towards public transportation in the United States has been mostly to blame for the lack of safe, efficient travel options of those who do not have access to a car. Medical ailments have been linked to the increased frequency with which low-income minorities live in areas with high vehicular ambient air pollution, even though these individuals are less likely to produce that pollution. As private car hegemony is globalizing, poor minority groups in developing nations are at risk of experiencing these same phenomena as more and more of their valuable agricultural land is starting to be usurped for the purposes of building road infrastructure for the automobile. Amid all the problems our society is facing, a new paradigm shift towards equitable and sustainable transportation planning is desperately needed.

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Introduction

In the United States and many other countries around the world the automobile is the primary choice of transportation. It has only recently become apparent that the "American love affair with the automobile," as several cultural critics have come to call it, contributes to social inequality. In addition to environmental damage, auto hegemony figuratively and literally severs communities and isolates economically disadvantaged people among other negative effects. The current paper will elaborate on how the prevailing auto culture in the United States has contributed to the perpetuation of social inequality. The paper will start with a brief history of how the auto culture took root in American society. Following sections discuss the inequality and discrimination of current public transportation policies and practices, the health impacts of auto hegemony on low-income minority groups, and the globalization of auto hegemony.

Automobile History

The advent of the American car culture started in 1904 with the release of the first American "horseless carriage," the Ford Model A (Coffey and Layden 36, 24). Henry Ford stated that he intended to "build a motorcar for the multitudes," and he accomplished this by creating a revolutionary production line technique (Coffey and Layden 38-9). Due to high sales, which resulted in the lowering of its price, the Ford Model T became a cultural icon and reshaped American society. People came to think of it as "the [next] great emancipator" because of the freedom of mobility it allowed (Coffey and Layden 41). From this point forward America was addicted to the personal automobile.

Inequity and Discrimination in Current Transportation Policies

Rising personal income, increased automobile availability, low fuel prices, and substantial public investment in highway infrastructure have combined to reduce the demand for public transit (Garrett and Taylor 6). According to Thomas Sanchez et al., eighty percent of all surface transportation funds are spent on highways in the U.S., while only twenty percent goes towards public transportation (11). Since the establishment of the Urban Mass Transit Administration in 1964, public transportation has received approximately fifty billion dollars,

while, since 1956, roadway projects have received over two hundred and five billion dollars (Dittmar and Chen qtd. in Bullard, "Thirteenth" 2). Without adequate funding, public transportation authorities have had to raise fares to cover their budgets (Sanchez et al. 13). This is having a substantial impact on "the poorest twenty percent of American households, those earning less than $13,908 (after taxes) per year, who spend 40.2 percent of their take home pay on transportation" (Surface Transportation Policy Project).

When trying to explain why public transportation services receive inadequate funding, an analysis of the demographics of transit ridership stirs suspicion of discrimination. John Pucher and John Renne have analyzed data compiled by the National Household Travel Survey (NHTS), which examines American travel trends. In their study of the 2001 NHTS data, they determine that low-income individuals and minorities make up sixty-three percent of the nation's transit ridership (49, 67). Pucher and Renne argue that "the poor, racial and ethnic minorities and the elderly have much lower mobility rates than the general population" (49). The survey showed that increase in mobility strongly correlates with increasing household income (Pucher and Renne 54). A higher proportion of the economically disadvantaged, which features a disproportionately high number of minorities, therefore depend on public transit.

The allocation of state transportation funds is determined by state departments of transportation and Metropolitan Planning Organizations (MPOs). Under-representation of urban populations occurs frequently as board representatives are usually selected based on geographical district boundaries that are drawn regardless of population density, usually resulting in higher suburban representation (Sanchez et al. 33). Individuals within these organizations and other politically influential stakeholders will thus ultimately determine how public funds are divided and spent on transportation (Sanchez et al. 33). Whether they are private or public representatives, people with more political power are able to sway local transportation markets more than the average person. There are no existing effective mechanisms to ensure that agencies will make an effort to "seek out and consider" the needs of low-income and minority constituents (Sanchez et al. 33 and Federal Highway Administration 23 CFR

§450.316). Until local governments establish and strictly enforce initiatives to examine the transportation priorities of transit dependents, inequalities between public and private transportation and between urban and suburban commuting will continue to disadvantage the poor.

There has been a lack of congressional and state legislative acknowledgment of the importance of public transit. Jason Henderson notes Vukan Vuchic's proposal of the "inevitability hypothesis," which "suggests that present trends in the growth of automobility are natural and inevitable" (qtd. in Henderson 294). Vuchic suggests that scholars and organizations such as the Transportation Research Board have also subscribed to this ideology. The problem is that the U.S. Congress, which is advised by such entities, does not have much interest "in making cities more transit-friendly or less automobile dependent if it means limiting parking supply, increasing fuel taxes, or taking away road space—in other words, directly contesting the spaces of automobility" (Henderson 294-5). When those in power have no incentive to improve the transportation opportunities for those who depend on public transportation, the natural consequence is that those in power ignore the needs of the poor, comprised disproportionately of racial minorities. This, again, suggests a discriminatory and racist aspect of transportation policies currently pursued in the U.S.

People who are dependent on public transit as their primary mode of transportation are what Mark Garrett and Brian Taylor call "transit dependents"(6). It is crucial that transit dependents have a well functioning public transit system because it "is vital for access to jobs, schooling, medical care, and other necessities of life" (Garrett and Taylor 6). In recent years, transit operators have felt public pressure to expand their services in order to reduce traffic congestion and pollution (Garrett and Taylor 7). This shift in public transit funds has primarily gone to serve the suburbs, which draws funds away from downtown bus services "in an attempt to appease more affluent constituencies and lure middle-class riders back from automobiles" (Garrett and Taylor 13). Indeed, municipal officials have increasingly geared their policies towards "discretionary commuters," as Mark Garrett and Brian Taylor (9) call them, or what Robert D. Bullard et al. refer to as "choice riders" (179). These titles refer to suburbanites

who typically have access to a private vehicle and do not necessarily rely on public transportation. Unfortunately, the result of this phenomenon is diminished accessibility for urban residents (Garrett and Taylor 9). As funds are drawn away from downtown transit services and funneled into suburban commuter services such as express bus services and light rail systems, fares of inner-city bus and subway systems naturally are driven up (Garrett and Taylor 7). Because the majority of labor opportunities for low-income workers are in the city, these urban residents rely most heavily on the inner-city public transit services to get to work (Qin Shen qtd. in Garrett and Taylor 9). According to Alan Pisarki, "although central cities contain only 20 percent of all workers, they still account for 69 percent of all transit use. In contrast, suburbs have half of all workers but generate only 29 percent of transit trips" (qtd. in Garrett and Taylor 9). Poor urban residents, who tend to work within the city and already spend a higher percentage of their income on transportation, are more vulnerable to price increases because of their dependence on public transportation (Garrett and Taylor 20). On the other hand, suburban commuter services have to be heavily subsidized in order to keep fares low so as to keep these services competitive with the automobile, which suburbanites have the freedom to use as they please (Garrett and Taylor 20, 22). In order to maintain social equity for low-income individuals who cannot afford a car, more funding needs to go towards inner-city transportation systems.

Another malady of auto hegemony is the phenomenon of the construction of highways through low income and minority neighborhoods. One case study of this occurrence took place in Oakland, CA. After the Loma Pleta earthquake damaged the Cypress freeway, which was originally built through the West Side, residents of that area fought the state highways agency to cease its rebuilding (Shutkin 77). Community organizations objected to the project because, they argued, it forcibly dislocated residents, destroyed homes and businesses, impaired local economic development, and generally disrupted the life of the community (Shutkin 77). The residents had to resort to civil rights laws in order to protect the vitality of their community, but they did eventually prevail (Shutkin 77). While this particular community was successful at diverting the rebuilt highway

from their area, this case reveals a trend: communities that contain economically disadvantaged racial and ethnic minorities are more likely to have highway construction in their locale than any other community.

Health Impacts of Auto Hegemony

Economically disadvantaged communities not only suffer from limited access to transportation, but they also suffer another terrible side effect of our "love affair with the automobile." Because highways are more likely to be built through these communities, these residents are more likely to suffer physical ailments and higher rates of mortality associated with vehicular air pollution and pedestrian-auto collisions.

According to Douglas Houston et al., "Vehicle traffic remains a major and often dominant source of air pollution" (566). The authors further argue recent scientific research shows a positive correlation between vehicular air pollution and a variety of adverse medical conditions (566). Such medical conditions include eye irritation, lung cancer, asthma, upper respiratory tract irritation and infection, exacerbation of and increased mortality from cardio-respiratory diseases, low birth weight, and cancer.

Studies have shown the prevalence of health disparities between different demographic groups as they relate to their neighborhood proximity to high volume traffic roadways. William Shutkin writes, "People of color, who live in cities to a far greater extent than whites, are disproportionately exposed to urban air pollution" (75). It has been stated that low-income minority groups tend to suffer more frequently from asthma and, as a result, are hospitalized and have a higher mortality rate than other demographic groups (Houston et al. 568). Houston et al. add to this discussion by noting that environmental justice research has confirmed a relationship "between a neighborhood's racial and socioeconomic composition and proximity to hazardous air pollution" in Los Angeles (568). A study done by Michelle Wilhelm and Beate Ritz shows that air pollution from vehicles not only affects the living but unborn children as well. Wilhelm and Ritz found a ten to twenty percent increase in the occurrence of low birth weight and pre-term births of infants of mothers "living close to heavily traveled roadways" (211). In a study of 5,000 people, "those who lived near a major road or highway were twice as likely to die

from cardiovascular or respiratory disease as those who did not" (Hoek et al. 1203). There has also been evidence that suggests that children who live in close proximity to heavy traffic roads face a higher risk of childhood cancer, particularly leukemia (Pearson et al. 179). Hence, there is a growing amount of empirical evidence suggesting that people who live in close proximity to high volume traffic roads are at a higher risk for a number of health complications and lower life expectancy. As property values of these typically undesirable home sites are lower, low-income minority residents are more likely to live in these areas and thus suffer the most from the traffic related air pollution to which they do not contribute.

Not only are low-income minorities more likely to suffer from vehicular air pollution, they are also more likely to be victims of pedestrian/auto collisions resulting in death. Because minorities are more likely to be poor and therefore not own a car, they currently have the highest rates of pedestrian fatalities. According to the 2000 U.S. census, African-Americans, Hispanics, and Asian Americans were more likely than whites to walk as their primary mode of transportation (Sanchez et al. 25). The results of this are represented in the difference between pedestrian fatality rates among whites and minorities. A study of Atlanta pedestrian fatality rates during1994–1998 found that whites had a significantly lower pedestrian fatality rate of 1.64 per 100,000 than Latinos (3.85) and African Americans (9.74) (Sanchez et al. 25). Citing statistics from the Centers for Disease Control and Prevention and the 2002 Surface Transportation Policy Project, Sanchez et al. conclude that "African Americans and Latinos have a pedestrian fatality rate that is almost twice as high as that of whites and they have a higher percentage of pedestrian fatalities than their percentage of the population in the United States" (25).

Even though walking has tremendous health benefits, overall the United States only allocates a small amount of funding to be put towards pedestrian-friendly environments. As noted by the Surface Transportation Policy Project, "less than one percent (0.7 percent) of federal transportation construction, operations, and maintenance funds are spent to ensure a safe walking environment" (Sanchez et al. 25-6). For those who cannot afford a car or public transportation, national transportation funding should earmark more funds for local

improvements of pedestrian facilities particularly in areas containing high concentrations of poverty.

The Globalization of Car Hegemony

While problems with auto hegemony have only recently surfaced in wealthy nations, poor nations are evidently experiencing immediate drawbacks. In describing this trend in the worldwide proliferation of the automobile, Peter Freund and George Martin explain several reasons why poor nations have "[faced] challenges in their attempts to adopt the automobile culture" (226). Adopting fellow sociologist Dr. Wolfgang Sach's terminology, Freund and Martin refer to the first world countries as the global "north," the location of the majority of industrialized nations, and third world countries as the global "south," where most of the developing nations are located (227). In the south, the car culture has only spread to a minority population consisting of the elite and middle class (Freund and Martin 229). Because only a small percentage of people in the global south are car owners, there is still diversity in transportation choice (Freund and Martin 229). Many of the southern nations are "relatively poor and debt-laden," which makes auto transport costs less socially constructive because it drains scarce public resources (Freund and Martin 229-30). However, because the elite minority has the most political influence, chances are that these costs will continue to rise as the facilities needed to maintain efficient use of the automobile will most likely continue to expand at their request. South Africa serves as a viable case study. As a result of extreme dissonance between wealth and poverty, South Africa has one of the worst traffic safety records in the world (Freund and Martin 232). The few luxury cars that are on the road are mixed in with "overcrowded trucks (used as buses), donkey carts, cows, and pedestrians to produce a deadly combination" (Donald McNeil qtd. in Freund and Martin 232). Freund and Martin observe that "black townships do not have sidewalks, adequate lighting, or pedestrian overpasses on the roads through which affluent-owned high-powered vehicles race" (Freund and Martin 232). The residual impact of Apartheid is evident in the fact that "one out of two white South Africans owns a car [while] only one of 100 blacks do" (John Griffin qtd. in Freund and Martin 232).

In many cities in China, along with Bombay, Jakarta, and Calcutta, rickshaws are starting to be viewed negatively because they are seen as "archaic" and impede the flow of auto traffic, and therefore have been banned from the streets in several cases (Freund and Martin 233). In these urban areas, this policy greatly infringes upon household incomes where many of the poor propel these non-motor vehicles to earn money (Freund and Martin 233). The authors also note that arable land is in scarce supply in the global south more so than those in the north (Freund and Martin 231). As Robert Smith observes, China has four times the population of the U.S. living on about the same amount of land area (qtd. in Freund and Martin 231). A large proportion of the country is either desert or mountains, so "its population is crammed into dense concentrations around river valleys" (Smith qtd. in Freund and Martin 231). As a result, China must feed its population, which makes up one-fifth of the world's population, on less than one-fifteenth of its arable (Smith qtd. in Freund and Martin 231). Meanwhile, other southern countries such as Egypt, Bangladesh, and Indonesia face the same situation (Lester Brown qtd. in Freund and Martin 231). For Freund and Martin, this situation in the developing world begs the question, "does it make sense for [these countries] to pave over arable land or land usable for dwelling spaces?" (231). It is evident that the same inequality that exists in the United States due to auto hegemony is spreading on to a global scale via the ever-increasing presence of the global capitalistic economy. However, if the United States can set a better example for establishing a more diversified repertoire of transportation choices, then hopefully developing countries, such as China, will follow this example rather than continuing down the more conventional but hazardous path toward auto hegemony.

Conclusion

It is clear that those who do not have access to an automobile are at a disadvantage where the private automobile is the standard of transportation, as it is now in the U.S. and in a growing number of developing nations. In these areas where there is not diversity in transportation, individuals without access to a private vehicle are left with minimal options for transportation including poorly funded public

transit, taxis, carpooling, walking, or riding a bicycle, which can all be expensive, unsafe, inconvenient, and unreliable. Increased spending on highway infrastructure strains funding for the infrastructure needed for other modes of transportation such as public transportation systems, sidewalks, and bicycle lanes. Because of this unequal allocation of funds, there are not as many locales that receive public transit service, for example. Thus, many people are left to walk or ride a bicycle for miles, vulnerable to nature's elements, to get either to or from a bus stop. It also means that there are not as many safe sidewalks and bicycle lanes. Diversity of transportation options would also have a positive effect on the environment, by cutting down on the vehicular air pollution that currently affects residents living in close proximity to highways, and also promote physical fitness.

In order to develop social equity in transportation, society must augment its investment in diverse forms of travel away from just the private vehicle. Indeed, it is now critical to pay particular attention to the development of efficient public transportation for the sake of alleviating other problems that are sure to become more acute if not confronted. Such problems include, but are not limited to, increased congestion, air pollution, and automobile accidents. The goal of transportation planners and municipalities today should be to implement more efficient and equitable transportation options suitable for the fast-growing societies of the twenty-first century.

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