A Paradox of Invention

Modern-day car commercials depict cars as the pinnacle of human ingenuity. They display, with such grandiosity, the *amazing* "improvements" that their companies have achieved since last year's model, portraying an image of luxury and elegance. This is a corporate lie. The façade may be clear to most, but the love for and necessity of cars means that they are still a pillar of culture. For nearly all of America, there's no other alternative, but the gas-powered vehicles of today do not solve the fundamental fallacy that the cars of yesteryear birthed. On the contrary, they exacerbate the problem. Paradoxically, cars are used as the solution to the issues that the car-centric culture of America creates, and, similar to the Hydra of Greek mythology, when one issue is resolved, two more seem to materialize ahead.

In America, automobiles are viewed favorably. They are marvels of modern invention, a necessity to everyone, expensive toys for some, or, perhaps, a teenager's ticket to freedom. The incessant issues, such as pollution, are certainly acknowledged, but they don't diminish the importance of the vehicles, nor do they take away from America's obsession with them. Cultures such as NASCAR, car enthusiasts, street racers, and automobile mechanics all center solely around cars. Even among those who aren't specifically interested in them, there resides a sort of "car culture".

They can be viewed as status symbols, ones that reflect the owner's personality and class. People can immediately judge others based on their choice of car, both positively and negatively. There are even stereotypes of drivers of certain brands of cars. Matt Moghaddam, an editor for a driving-centered publication, asserts that all owners of Subaru WRXs vape, anyone who drives a Buick has to be at least 55 years old, and those who rock a BMW have yet to learn the function of the turn signal.

Cars are such a pervasive part of American culture simply due to their necessity. Without the ownership of a car, adult life in nearly all of America becomes extremely difficult. Those who manage to achieve this feat often still have some form of access to a car, whether that be by using a cab, a rideshare service, or simply carpooling with family or friends. Dependence upon these vehicles in the U.S. is so ubiquitous that, even in the most remote locations of the country, roads are found within a short distance. Urbanized areas are especially shining examples of this.

Large amounts of property functions specifically in service of cars. Parking lots, garages, driveways, streets, roads, highways, mechanic shops, and car dealerships are all products born from cars. Some American cities dedicate as much as 65% of land solely to vehicles (Gardner). This is where the paradox of cars begins to present itself. As cars become more of a necessity, they become more engrained within the culture, which calls for more resources to be poured into them, including the construction of more and larger roads, which makes things more spaced out, which makes cars more necessary.

A dependence upon a specific form of transportation is not an inherently bad thing. The way cars are used, however, is fundamentally flawed, and their manufactured necessity is taking priority over more important things. There's no question that owning a motor vehicle is convenient, but it's more individually convenient than anything. In terms of efficiency, cars come up very short; the amount of physical space that cars take up on the road in comparison to the number of occupants that they can transport is a striking juxtaposition, especially when considering that most cars on the road carry only one person. Below, an image posted by Steve Hymon on a blog ran by Los Angeles County's Metropolitan Transportation Authority shows just how much congestion cars can create compared to other modes of transport.



The inefficient use of space in modern-day vehicles is already a glaring disadvantage, but couple it with a concept called "induced demand", and it's clear that the foundational mechanism that America's cities have structured their societies around is in desperate need of revision.

Induced demand is the idea that, when new roads are constructed to ease traffic, or more lanes are added to existing roads, traffic increases in near-identical proportion (Mann). A possible explanation for this is that, when people are aware that traffic will be congested, they may come up with alternative methods of getting where they need to go, or just not go at all, if the trip is non-essential. Then, when roads are expanded, people may assume that traffic will clear, and will be more open to using their car to get around, causing more traffic.

One of the most popular arguments against cars is pollution. When transportation is brought up as being in need of change, the main, overarching point is typically that gas-powered

vehicles, the ones that predominantly occupy the roads, are bad for the environment. Electric cars are often presented as the "solution" to this, and there are certainly a lot of benefits of electric vehicles. The issue with this argument, however, is that it only focuses on the symptom instead of the root cause.

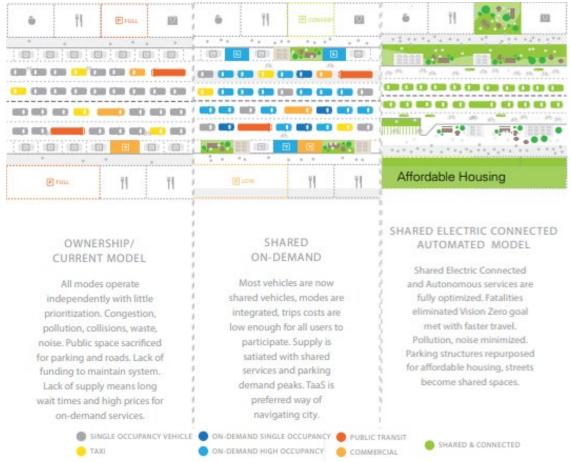
The car-centric society that America has cultivated has led to a refusal to look at the whole picture. Instead, most people see these consistent complications as nothing more than obstacles in the path of an unattainable goal: perfecting the car. But cutting off one head won't help if two more take its place. The seemingly endless attempts to fix what is fundamentally broken results in a Sisyphean loop.

The most illustrative example of this is just how dangerous cars are. Once looked at as more of a hazard than a form of transportation, this becomes clear. Cars are essentially heavy blocks of metal, most of which are able to go upwards of 100 miles per hour. Additionally, as David Roberts, a writer for Vox puts it, "[Cars are] big and heavy, which means they must be highly up-armored against collisions from other big, heavy, fast-moving vehicles. All that armor makes them even bigger and heavier. And so on." As the boulder nears its destination at the top of the hill, it, once again, slips down to the bottom.

This results in the slaughter of tens of thousands of Americans every year, with the death rate, at one point, reaching 3,000 per month in the year of 2015. That puts car deaths in the top five causes of death in America for those aged 65 and under. "If U.S. roads were a war zone, they would be the most dangerous battlefield the American military has ever encountered." Despite the many safety precautions, one of the main pillars of American society is also one of the largest contributors to the killing of its people (Humes).

Many of the issues with cars stem from cars themselves, but that doesn't mean that things aren't getting better. Electric cars are becoming more commonplace, with the goal of replacing gas-powered vehicles. Self-driving vehicles are getting closer and closer to becoming a reality for consumers, which has the possibility of reducing car-related casualties dramatically. Additionally, automated electric vehicles have the potential of shrinking roads, increasing efficiency, and reducing carbon emissions.

One proposal from the San Francisco Municipal Transportation Agency imagines a future where all cars are connected, self-driving, electric, and shared by everyone. This would reduce pollution and noise while making driving safer and more efficient.



Connected and automated vehicles would be able to communicate with each other, potentially making road signs, markings, and stop lights obsolete (provided that all cars on the road were

self-driving). People would no longer have to park their cars somewhere, then go back to it.

Instead, the cars would act like taxis, available at the beck and call of the public, stopping only when necessary.

This idea is certainly a better form of transportation than what is currently used, but it still comes with all of the downsides of cars, including the dangers posed and the wasted space. Ideally, the entire system would be thrown out, allowing cities to become denser, which would make walking, biking, and other forms of personal ground transportation more viable. This, however, is also not a perfect idea. While it works well on the surface, it is still fallible, and it doesn't take much to find issues with it.

One of the most important problems with this is that cars can't just vanish. Even with the promise of walkable cities and alternative transportation, Americans are likely not going to give their cars up at the drop of a hat, and even if they did, this sort of drastic change takes time. What would be used in place of cars while cities undergo the intricate surgery of removing roads? Additionally, during this hypothetical process, everything would remain stuck to its current location, as it's not possible to simply pick up and move buildings closer to each other. The best approach would likely be to start slowly shrinking roads and constructing car-free areas, but, in reality, there's no good answer to this.

Public transportation like buses, streetcars, and taxis could be used as options for road travel while cars are being phased out, but public transportation suffers from other connotations. Firstly, in a pandemic, using buses or streetcars is not ideal, due to the shared, enclosed space. On top of that, they typically run on a set schedule, meaning the freedom of getting in a car and leaving no longer revolves around the traveler, but the transportation.

In a truly roadless city, however, this may not be the case. Instead of having to kowtow to the schedule of a streetcar, one could theoretically simply walk or bike to their destination. Due to everything being closer together, this would be a possibility. Public transportation would not have to be relied on for most things, but subways or even streetcars (albeit, without the "street" aspect) could be used to travel longer distances.

A concern for cities becoming closer together is that the density will encroach on access to nature. As taller buildings get closer together, they may cover up more of the sky and reduce the amount of sunlight reaching the ground. With truly roadless cities, however, this may not be a huge issue. Cities could create larger pedestrian areas, like city squares, and incorporate plants and trees into the walkways as well.

Another issue that people have with leaving cars in the past is the loose ends that would be left untied. Namely, what would happen to car companies. Sadly, this is just a harsh reality of progress. As products are improved upon, sometimes, other ideas are left in the dust.

Typewriters, for example, were completely surpassed as a result of a better product taking it over. The companies that are smart would adapt, but not every company can be expected to continue to evolve forever. If they were to keep with the times, there could potentially be other forms of transportation, perhaps made on a more individual level, such as Segways, "hoverboards", or electric bikes.

In my eyes, cars don't grant freedom, but instead handcuff Americans to the steering wheel. Owning a car isn't much of a choice, it's an expectation. If an adult in America chooses to live without a car, he or she would be at an extreme disadvantage. By removing roads, cities would shrink dramatically, allowing many methods of transportation to become viable instead, such as public transportation, personal transportation, and even walking. Then, perhaps, on the

outskirts of cities, there could be car rental services. This would allow cheaper-than-flying, longdistance travel while not requiring the ownership of a car.

America has created a merciless dependence upon cars, but the vehicle is fundamentally flawed, and the roads that they utilize add bloat to cities, making other forms of transport less viable. Instead of recognizing the root cause, America continually chooses to focus on surface-level issues, such as expanding highways to ease congestion. The real solution to the problem is dramatic change, but people are so focused on their current situation that they fail to look at the big picture, and, instead, desperately cling to what is familiar. The problems that cars present are not the issue. Cars are the issue.

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