

# Assessing the Case Against the SUV

STEVE VANDERHEIDEN

Department of Political Science, University of Minnesota-Duluth, MN, USA

**ABSTRACT** *The sport utility vehicle (SUV) has come under increasing criticism for offences ranging from exacerbating environmental degradation and funding terrorism to fuelling competitive consumption and being a vehicle that Jesus would not drive. Do the charges of made against such vehicles by a burgeoning anti-SUV movement stick, or is the consumer choice of modes of personal transport benign? Is the decision to manufacture, purchase or operate an SUV (as opposed to a conventional passenger car) a legitimate public interest, or does it belong properly within a protected sphere of individual liberty? This article attempts to evaluate the case that is made specifically against the SUV, attempting to isolate any unique offences for which its guilt is alleged, and to examine those charges philosophically (along with a case for rejecting them).*

The Ford Excursion (dubbed the ‘Ford Valdez’ by the Sierra Club when it was released in 1999) weighs nearly 4 tons, more than double the weight of the average passenger car on North American roads, and so is exempt from US fuel economy reporting requirements. William Clay Ford, Jr – head of the company responsible for conceiving, manufacturing and marketing the Excursion – claimed in 1999 (as he withdrew his company from the Global Climate Coalition, a successful industry effort to defeat US ratification of the Kyoto protocol) that he expected to ‘preside over the demise of the internal combustion engine’. If the Excursion is any indication of Ford’s exit strategy, that demise may involve more of a bang than a whimper.

Against a backdrop of rising energy prices, increasing concerns about the hazards of anthropogenic climate change and global insecurity caused by militarized oil extraction, a more rational policy response might have been to follow Ford’s words rather than his deeds. Instead, despite problems following Americans’ consumption of 12 million barrels of imported petroleum per day, the US Congress continues to resist meaningful measures for reducing domestic demand for oil, either by raising corporate average fuel efficiency (CAFE) standards for new vehicles or by closing the ‘light truck loophole’ that allows SUVs to burn 33% more gasoline than passenger cars. Despite opportunistically invoking ‘energy security’ as a sales pitch for its fossil fuel

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*Correspondence Address:* Steve Vanderheiden, Department of Political Science, University of Minnesota-Duluth, 304 Cina Hall, 10 University Drive, Duluth, MN 558–12–2496, USA.  
Email: svanderh@d.umn.edu

intensive energy policy (Seelye, 2001), the Bush administration has steadfastly opposed every meaningful proposal for reducing domestic energy demand, focusing exclusively upon increasing supply. Given the US government's intransigence against sustainable energy policies, it is not surprising that a grassroots revolt would arise against the increasingly visible symbol of American automotive excess – the 'sport utility vehicle' (SUV).

But arise it has. Born of a frustration with apparent government indifference toward automobile fuel efficiency and its consequences for human health and the environment, alarm at the increasing number of increasingly large SUVs on American roads and disgust at the shortsighted and selfish consumerism and misleading marketing claims promulgated by SUV advertising campaigns, a grassroots anti-SUV movement that began in the mid-1990s is now rooted firmly in the popular culture. The SUV has become a lightning rod for critics of American patterns of consumption and inefficiency while becoming a fixture along its roads and driveways. SUV marketing campaigns associate the vehicles with cherished political values such as liberty and personal empowerment, while grassroots campaigns against the vehicles blame them for contributing to increased highway fatalities, climate change, global insecurity and even terrorism.

Thus, the debate over the merits and demerits of the SUV concerns far more than the US auto industry's most profitable class of vehicles or the status symbol of choice for the leisure class. None the less, this article will attempt to evaluate the case that is made specifically against the SUV, attempting to isolate any unique offenses for which its guilt is alleged, and to consider the charges with some care. In so doing, it will first examine a counterclaim that suggests that the anti-SUV movement is fundamentally misguided, even hypocritical: that the SUV is not a unique offender in any of the charges against it, but is (at worst) merely a marginally worse version of the ubiquitous passenger car, although the latter is not so often or severely criticised. It will also consider two of the major complaints issued against the SUV – that they are unsafe and that they are incompatible with passenger cars sharing the same roads – for which the SUV is alleged to be a unique offender, and not merely a bad car.

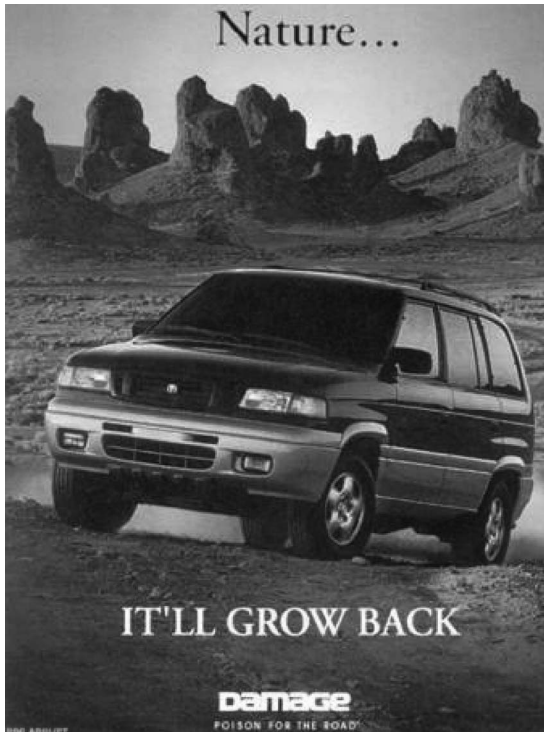
### **The Anti-SUV Movement**

The anti-SUV movement crystallised as a grassroots revolt against an object of common disapprobation in which a wide variety of people invoke an equally wide variety of grievances against what is treated as either a cause or symbol of what is ailing society. In one manifestation of this popular movement, the environmental group Friends of the Earth offers anti-SUV bumper stickers reading 'Support OPEC, Buy an SUV' and 'Cough if You Hate SUVs' (Friends of the Earth, 2005). The anti-consumerism website <stopSUVs.org> posts 'adbusting' art mocking popular SUV models (e.g. the 'Ford Extinction' or the 'Bummer B2'), regarding their *pro bono* creative work as a partial

antidote to the \$8 billion spent annually marketing SUVs to consumers. Similarly, the group Adbusters has produced several anti-SUV mock advertisements (or ‘subvertisements’), such as the spoof advertisement for the ‘Damage’ SUV, showing the fictitious vehicle parked atop a scenic vista inaccessible by roads (Adbusters, 1997) (Figure 1).

According to Adbusters founder and ‘subvertising’ advocate Kalle Lasn, these spoof advertisements mimic ‘the look and feel of the target advertisement, prompting the classic double-take’ when viewers realise that the spot’s message is not what they had expected, which ‘cuts through the hype and glitz of our mediated reality and momentarily, tantalizingly, reveals the hollow spectacle within’ (2000:131–2). Similarly, guerilla artists practicing ‘culture jamming’ techniques are responsible for such subversive billboard modifications (posted proudly on anti-SUV websites), as the alteration shown in Figure 2.

Similarly, the group Earth on Empty promotes its ‘National Anti-SUV Parking Ticket Campaign’ through mock parking tickets (to be placed upon SUVs) noting the ecological and safety effects of those vehicles in comparison with passenger cars, and admonishing their recipients that ‘failure to pay



**Figure 1.**



Figure 2.

attention to your own behaviour is hazardous to everyone' (Earth on Empty, 2005). Even the popular animated television series 'The Simpsons' joined the anti-SUV fray in 1998, featuring a mammoth vehicle called the 'Canyonero' (marketed with the jingle: 'Twelve yards long, two lanes wide/Sixty-five tons of American pride!'), which promised to help the family transcend its mundane station-wagon existence but instead brought only misery.

A group called the Evangelical Environmental Network began its anti-SUV campaign by attempting to frame the choice of transport as a moral issue that could best be resolved by asking 'what would Jesus drive?', placing media spots of its own in 2002, again in direct criticism of the choice to purchase and drive an SUV. Citing health, environmental, peace and justice arguments, the group states its purpose as an education effort to help Christians 'understand that our transportation choices are moral choices that for Christians fall under the Lordship of Christ; and take appropriate actions to address the problems associated with our transportation choices' (Evangelical Environmental Network, 2005).

Recently, the anti-SUV movement has displayed a more aggressive side, as evidenced by the 2003 acts of vandalism against four California SUV dealerships by members of the Earth Liberation Front, in which two vandals destroyed 20 Hummer H2s, spray-painting them with the words 'terrorist' and 'killer', and spray-painting 'I (heart) pollution' on another 20 Mitsubishi SUVs. For such acts, that group was branded an 'eco-terrorist' organisation, prompting Jason Vines, president of the pro-SUV Sport Utility Vehicle Owners of America, to respond defiantly: 'the vandalism will not make any company think twice about producing more SUVs and other light trucks, nor will it shake the tremendous consumer confidence in the vehicles' (Nerad, 2003).

While such vandalism hardly amounts to terrorism, surely it is hyperbole to single out the SUV to blame for terrorism that results from US dependence

upon imported oil. At worst, one might reply, the SUV is only a *bad car* (i.e. a worse-than-average offender in a large class of vehicles that together cause significant problems); a challenge to the anti-SUV movement that is taken up below. Given the galvanising effects that SUVs have on public opinion and the symbolism invested in the vehicles by their most virulent critics and ardent defenders, it comes as little surprise that both sides of this emotionally intense and often ugly debate over the SUV should attempt to brand their opponents as terrorists (the most powerful accusation available in the contemporary lexicon). In a political climate in which such over-the-top insults have become the norm and reasoned civil discourse the rare exception, the need for dispassionate examination of the case against the SUV (and the case against the anti-SUV movement) is a pressing one.

### The SUV as a Bad Car

An intriguing case against the anti-SUV movement holds that the SUV is not a unique offender in any of the various points of criticism against it, but is at worst an incrementally larger contributor to problems that ought, more appropriately, to be blamed upon the personal automobile itself. SUVs are, on average, less fuel-efficient than are passenger cars – a fact owed partially to their greater size and weight, but also to the ‘light truck loophole’ in existing CAFE standards. Because they burn more fuel to cover the same distance, SUVs are legally allowed to be marginally worse than passenger cars at emitting harmful air pollutants, contributing to climate change, and fuelling US demand for imported oil (along with the consequences that follow). Because it occupies more physical space and takes longer to gain and arrest momentum at stoplights and intersections, each SUV on public roads causes proportionately more traffic congestion than does an automobile capable of carrying a similar amount of cargo. Thus, the argument concludes, SUVs may be *quantitatively* worse than passenger cars in causing these problems, but they are not *qualitatively* worse. If all SUVs were to be replaced by cars, the previously mentioned problems would continue to exist, albeit in a slightly lower quantity.

Moreover, many of the social ills caused by the personal automobile – including urban sprawl, the decline of mass transit, the destruction of urban neighborhoods and pedestrian areas, the dispersal of families, the motorised invasion of wilderness and the general balkanisation of society into reclusive suburban enclaves – are no worse when drivers pilot street-legal versions of military behemoths such as the Hummer H1 than they would be if the same people drove fuel-efficient hybrids such as the Toyota Prius. Some (although not all) of the social problems caused by the automobile are made worse as a consequence of the higher fuel consumption of the SUV, but otherwise (or so the *bad car* argument goes) the anti-SUV movement is off target in singling out the SUV for criticism. If SUVs are guilty of the offences identified by their critics, then so also all are other personal automobiles

(and equally so, as far as the social critique goes), even if the latter contribute somewhat less to some of the problems associated with the SUV.

Can a person be blamed justifiably for a consumer choice that contributes more to a set of problems when a less harmful alternative is available? Indicting anybody's decision to purchase and drive an SUV when more fuel-efficient options are available turns upon the role of choice in ethics: people can be held morally responsible for the negative consequences of their acts only if those acts are *voluntary* (i.e. not coerced and against a background of various options), *informed* (in light of knowledge about the anticipated consequences of various options) and *avoidable* (i.e. when people elect a more harmful option when a less harmful one is available). Critics of the consumer decision to buy an SUV instead of a comparable (save their respective status values) car identify implicitly all three of these features in their moral critique. Douglas Husak, for example, argues that driving (an inherently risky activity) is wrong when 'people operate vehicles with unacceptable levels of crash incompatibility' (a feature to be examined further below) and when they 'subject others to risks of harm for wholly frivolous reasons' (2004:363). Husak estimates that these conditions condemn much (but not all) driving in the United States, given that Americans drive 4.75 trillion miles per year, one-third of these in crash-incompatible vehicles such as SUVs, and one-quarter of all trips are for frivolous purposes.

However, are such observations sufficient grounds for a unique case against the SUV? Does the above argument that condemns the SUV spare the marginally more efficient passenger car from its criticism? Is not the latter choice similarly voluntary, informed and avoidable? On one hand, Husak is right to note the much higher risks associated with driving crash-incompatible vehicles such as SUVs when very few consumers need the off-road capabilities that such vehicles offer. On the other hand, consistency requires the examination of multifarious other similar choices that involve voluntary, informed and avoidable consumer choices that lead, similarly, to ecological or other kinds of harm, relative to available alternatives, including (for most people, anyway) the purchase and regular use of any kind of personal automobile. Thus, the moral high ground sometimes claimed by anti-SUV activists is often undermined when considering the other elective variables in fuel consumption. If people are morally obligated (as assumed by this critique) to minimise their fuel consumption in their choice of modes of transport, then this obligation has implications that reach far beyond the style of vehicle that they park in the garage, including decisions to live a long automobile commuting distance away from their workplace (or drive frivolously for other purposes), to drive alone instead of carpooling, for failing to support adequate mass transit systems that reduce the need for automobile commuting or for failing to contain the urban sprawl that makes such commuting longer and more common. All these entail avoidable levels of fossil fuel consumption and the efficiency-maximising (or consumption-minimising) standard implied by

this version of the case against the SUV must similarly condemn them if it is to avoid charges of hypocrisy.

Moreover, as personal automobile use is responsible for only about a fifth of all fossil fuel combustion in the United States, people must also be held morally responsible for their 'excessive' use of home heating oil, for purchasing products manufactured a long trucking distance away from their homes or for adopting recreational or professional projects that require airplane trips. By the time the list of voluntary, informed and avoidable acts is fully compiled, nearly all Americans can be found guilty of some kind of elective waste. If the SUV is to be blamed for causing some of the problems that its critics identify, and if this blame turns upon some kind of avoidable consumer choice, then far more than the SUV ought to be included in a comprehensive critique of national consumption habits (for which the SUV has become a symbol, if not a unique offender).

Moreover, these problems may not be endemic to the SUV as such, but instead only to the low-efficiency, high-emissions models that are being produced and driven currently in the United States. In a demonstration of the potential improvements that could be incorporated into SUV design by employing existing technology, a research report by the Union of Concerned Scientists offers an SUV (called the UCS Guardian) with the same size and acceleration as the Ford Explorer, but which achieves 27.8 mpg (compared to 21.2 mpg for the Explorer) 'by using a better engine, improved tires and aerodynamics, and a stronger but lighter unibody frame' (Friedman *et al.*, 2003:2). While these technology improvements would add \$600 to the price of the \$29,200 Explorer, they would more than pay for themselves with an estimated \$2,500 fuel savings over the life of the vehicle. The UCS Guardian also adds \$160 in safety features that would save an estimated 2,200 lives each year if all SUVs incorporated them. Hence, the critique that blames the SUV for excessive fuel consumption assumes falsely that this is to be categorically rather than incrementally worse than standard cars, and is based on actual rather than possible characteristics of the style of vehicles in question.

A more advanced version (the Guardian XSE) achieves 36 mpg 'by adding an even more efficient engine, along with an efficient six-speed automatic transmission and more extensive use of high-strength steel and aluminum to reduce its weight' (*ibid*: 3). Although the initial cost of these improvements is \$2,315, they would pay for themselves in 5.4 years through fuel savings in comparison with the Explorer. Besides these available technologies for increasing the fuel-efficiency of conventionally powered SUVs, both Ford and Toyota have begun to market hybrid gas-electric SUVs capable of attaining up to 36 mpg, which is significantly more fuel-efficient than their conventionally powered counterparts. Such improvements, if adopted on a sufficient scale, may (based upon this line of criticism) significantly diminish the fuel-inefficiency case against the SUV. Dan Becker, a climate specialist for the Sierra Club, predicts that 'the auto companies have the technology to fix these problems, and if they do, acceptance of SUVs will improve' (Hakim, 2004).

None the less, the decision to purchase a low-efficiency SUV (or car) rather than a high-efficiency car when not necessary (as is the case for the vast majority of SUV purchases) entails *ceteris paribus* the voluntary choice to consume more oil (a form of avoidable excess), and thus to bring about the various consequences that follow. This is true of consumer purchases of relatively fuel-efficient SUVs, as well, because technologies deployed in passenger cars result in significantly better fuel economy than the same ones used in their larger, heavier and less aerodynamic counterparts. To transpose Kant's famous dictum, one wills the end (in this case, harm resulting from waste) by willing the means (wasteful activities), so the decision to buy an SUV rather than a comparable passenger car is a choice to pollute more rather than less. In so far as one can choose otherwise, one must be held responsible for the excessive fuel consumption (and their consequences) from any voluntary, informed and avoidable consumer decision. No matter how bad it is to cause *some* harm, it is worse to cause *more* of it, so long as this remains a possibility. Even if only at the margins, a *bad car* is worse than a slightly better one, and proportionally more responsible for those problems caused by all personal automobiles, as it is proportionally worse in relevant respects than available alternatives (making SUVs, on average, 50% worse than cars for fuel-related hazards). For this reason, the *bad car* line of argument is insufficient to exonerate the SUV altogether, but it does suggest a wider critique to be order for at least some of the alleged evils of that class of vehicles.

### **Safety**

When asked why they chose to purchase an SUV rather than a minivan or passenger car, the overwhelming majority of SUV owners cite safety as their primary consideration. Initially, this appears to be both a plausible and unobjectionable motive. Because driver and passengers sit higher than in other vehicles (except, of course, other SUVs), and because of the greater security implied by their significantly greater mass when involved in collisions with passenger cars, SUVs *feel* safer to those inside them. This perceived safety advantage of the SUV partially explains their current popularity, although evidence suggests that less socially laudable motives may be more powerful variables in consumer purchasing decisions.

Statistically, SUVs are no safer for their occupants than are cars on any of the major measures (front and side collision, rollover, etc.), and in some cases are significantly less safe (Insurance Institute for Highway Safety, 2005). SUV rollover fatality rates are three times higher than they are for cars, and the odds of being killed in an accident (per vehicle mile) are higher in SUVs than in minivans or passenger cars. In measuring the 'kill rates' of SUVs in comparison with cars, the Insurance Institute for Highway safety found the death rate in SUV crashes (including those both inside and outside the vehicles) to be 17% higher for SUVs (Bradsher, 2002:190). Particularly when considering the harm inflicted upon all people affected by multi-vehicle collisions (compared against



cars of similar size and weight, SUVs have 50% higher occupant fatality rates), the safety of the SUV is largely an illusion, created in part by the sheer mass of the vehicles and partially by marketing campaigns that imply a safety advantage for both driver and passengers (although not, of course, for others).

Such observations, however, merely highlight a gap between perception and reality, and by themselves amount to no clear indictment of either the clever advertisers that sell the vehicles to an anxious driving public or of the gullible consumers that fall for them. Although misleading, these implied promises of product safety fall far short of fraud and are hardly unique to the automobile industry. If advertisers were to be prohibited from implying that products had any desirable properties that could not be substantiated by double-blind testing procedures, the modern advertising industry would shrink dramatically in ambition and reach. In singling out the SUV in this complaint, the anti-SUV movement would again be disingenuous.

None the less, there must be some point at which the marketing of dangerously unsafe motor vehicles becomes an ethical (if not also a legal) offense, at least in so far as it is done knowingly and it encourages the dangerous behaviour itself – a topic explored by such consumer advocacy classics as Ralph Nader's *Unsafe at Any Speed* (1972). While some SUV disinformation campaigns approach this point (the tyre-failure dangers of the Ford Explorer, for example, which were covered up for years after the company knew of their hazards), these problems are similarly not unique to the SUV (as Nader's book reminds), nor can the presumably unwitting consumer be exonerated fully for harm to self or others that results from a consumer decision undertaken in spite of widely available facts suggesting its imprudence. Moreover, the SUV is only marginally less safe than a passenger car (with larger SUVs being safer for their occupants than smaller cars), and advertisers make no explicit claims to the contrary.

Despite the self-reported concern for vehicle safety among SUV buyers, ample evidence suggests that the desires to display aggression and mark status are more important factors in the purchasing decision, and therefore feature more prominently in marketing materials. SUV design is driven less by wind-tunnel aerodynamic tests or considerations about safety or efficiency than is the case with car design, but is dominated rather by aesthetic impressions appealing to what former DaimlerChrysler SUV designer-turned-critic Clotaire Rapaille calls the 'reptilian' instincts of contemporary consumers. Rapaille draws upon Jungian psychology to develop design and marketing appeals to these instincts, which are concerned with 'survival and reproduction' and which say 'If there's a crash, I want the other guy to die' (Bradsher, 2002: 95–101).

Auto-industry market research shows SUV buyers to place vehicle safety considerations fairly low (and non-practical ones much higher) in their purchasing decisions. SUV buyers tend to be 'self-oriented' (a euphemism for a kind of Hobbesian egoism) and highly image-conscious, and therefore willing to trade off function for fashion. While minivan owners want the control that

comes with vehicle safety and ease of driving and parking, SUV owners express the desire to control other drivers around them. The roof and seat height of SUVs (with their consequent rollover risks) are driven by market research that show potential buyers wanting the control and visibility that such a high perch commands. SUV drivers are also 'more restless, more sybaritic, and less social than most Americans are', and are 'less giving, less oriented toward others' (ibid: 106–7), a stereotype that contributes to the anti-SUV movement.

SUV marketing campaigns appeal intentionally to this 'reptilian' instinct, with vehicle designs that evoke savage, menacing beasts, with bulging headlights for eyes and vertical bars along prominent front grilles for teeth. According to Rapaille, who helped design the Dodge Durango, 'a strong animal has a big jaw, that's why we put on big fenders'. Those looking to the appearance of their vehicle to provide an advantage in roadway conflict are likely to find the aggressiveness of SUV designs to generate a powerful (if non-rational) appeal that is difficult to suppress. Minivans, on the other hand, 'evoke feelings of being in the womb, and of caring for others', and have the 'silhouette of a pregnant woman in a floor-length dress' (ibid: 99). Not surprisingly, then, SUV buyers in the United States tend overwhelmingly to be Republican and male, while minivan drivers tend instead to be Democrat and female (Tierney, 2005).

While this may not paint a very complimentary picture of the average SUV owner, it is hardly adequate justification for the anti-SUV movement. At worst, the SUV is merely a symptom (if also an enabler) of anti-social behavioural tendencies manifest in consumer product purchasing decisions – the case against the SUV here becomes a case against the SUV driver, or the motives behind SUV purchases. If the typical SUV driver is indeed so lacking in community spirit as the above data suggest, then the vehicle choice is merely the consequence and not the cause of a more deeply rooted social malaise, to which the anti-SUV movement would be wise to direct its ire and its constructive energies. While many diagnoses for such social ills have been offered, few of the anti-SUV restrictions suggested by critics accomplish much more than treating a symptom. Simply removing SUVs from roads and driveways cannot address the source of the antisocial tendencies at the root of this 'reptilian' instinct: you can take the Hobbesian egoist out of the SUV, but this cannot remove the Hobbesian egoism from the SUV driver.

Vehicle safety, none the less, remains one of the central complaints articulated by the anti-SUV movement. A powerful and vocal pro-SUV movement has engaged in a systematic effort to discredit these safety concerns, and one of the pitched battles between the two sides resulted in a highly publicised political controversy about the scientific evidence concerning the relationship between fuel efficiency and vehicle safety. The skirmishes between the two sides illustrate, if nothing else, the hotly contested nature of the debate, and the difficulties in maintaining standards of scientific objectivity in an atmosphere of deeply emotional associations with a consumer product (both positive and negative) where immense profits are at stake.

When the US Congress considered raising CAFE standards in 1999 (as it does nearly every year, although average fleet fuel economy has declined since they were last raised in 1985), it ordered the National Academy of Science (NAS) and the National Research Council (NRC) to study the viability of ordering increased fuel efficiency standards, as well as the safety consequences for stricter standards. The NAS panel itself was dominated by representatives from the auto industry, yet found that fleet efficiency standards could be raised to 37 mpg with existing technology alone, and that innovations in research pipelines (hybrid gas and electric vehicles, for example) could raise fleet efficiency considerably further (National Academy of Science, 2002). While this finding was significant in its own right – contradicting the industry’s long-standing claim that stricter requirements were technologically unviable – it was the report’s second finding that excited the most controversy.

Before the completed report was released to the public, pressure from the auto industry resulted in a closed-door meeting between the research panel and representatives from GM and DaimlerChrysler, after which the report was altered to include the contested conclusion that past fuel efficiency standards had led to vehicle weight reductions, and that such reductions had probably contributed to an additional 1,300–2,600 US deaths (an increase of 3–6%) in 1993. In response, a coalition of consumer and environmental groups petitioned the Academy in order to ‘strongly object’ to its decision to alter the conclusions of a report that had completed its peer-review process before adding (without further peer review) the additional conclusion demanded by the auto industry, claiming that this ‘violation of process’ undermined ‘the objectivity, integrity, independence and competence’ of the NAS and NRC, and that ‘it is unprecedented that a dissatisfied interested party would prevail upon the NAS to secure changes to a final report’ (Common Dreams, 2001).

None the less, the bowdlerised conclusion remained in place, and became the major (and in some cases, the only) part of the report’s findings that were publicised by the US mass media. The implication of that well-publicised finding was clear: stricter CAFE standards may result in lower fuel consumption, but only at the cost of vehicle safety. In so far as the proposed increases in CAFE standards require further vehicle weight reductions, they would be likely to come at the cost of increased fatalities. The auto industry gained the trump card that it needed, and opponents of the higher standards made this part of the NAS study (conveniently omitting any reference to the more significant main findings) the centrepiece of their ‘scientific’ opposition.

The reality of the NAS study is quite different from the popular reporting of its purported links between fuel efficiency, vehicle weight and safety. According to a dissent published by two of the original NAS research team, the safety finding was based entirely upon a 1997 Kahane study that considered the effects on vehicle safety of a hypothetical across-the-board weight reduction of 100 pounds in all vehicles on US roads (the amount necessary to meet the original CAFE standards if fleet efficiency improvements had come entirely from weight reduction, which they need not). Under such counterfactual

conditions, the structural integrity of the average vehicle would decrease, resulting in the reported estimates for fatalities (Greene & Keller, 2002).

In fact, however, 85% of efficiency gains during that period were unrelated to vehicle size and weight, but came instead from increasingly efficient engines. Only 15% of efficiency gains during that period came from decreasing vehicle weight, but this was primarily on the largest vehicles, not the kind of across-the-board changes that Kahane posited. Because the principle variable in multi-car collision deaths is weight disparity, death rates initially declined as a result of the initial CAFE requirements (as the biggest vehicles shed weight), and only began rising again as more efficient engines allowed the larger vehicles to gain weight, increasing weight disparities. As the authors note, 'it is the relative weight of the vehicles rather than their absolute weight that, in theory, leads to the adverse risk consequences for the occupants of the lighter vehicle'. What is more, the evidence suggests that 'proportionately reducing the mass of all vehicles would have a beneficial safety effect in vehicle collisions' (ibid: 117).

Concern for the safety of SUV drivers alone, however, provides inadequate justification for the anti-SUV movement's disdain for that class of vehicles, and for a reason based in J. S. Mill's distinction between self- and other-regarding harm, in which only the latter is held to provide adequate justification for state interference in individual liberty (Mill, 1972:78). Following Mill's distinction, if I buy and use a product that I should know to be unsafe (based on widely available data) and harm myself as a result, then only I can be blamed for my imprudence. By this analysis, I ought to be at complete liberty to take risks to my own safety and well-being, so long as I am informed of the risks and I do not harm others thereby. In so far as SUVs are unsafe only for their drivers (a false supposition, as we shall see below), the failure to satisfy Mill's criterion of other-affecting harm makes state interference (and anti-SUV criticism) unwarranted.

In so far as the safety critique is concerned only with the relative safety of SUVs for their drivers (who consent to the risks when they opt for unsafe vehicles), it cannot by itself make the case that SUVs ought to be restricted significantly on public roads. Instead, the safety of one's chosen mode of transport becomes an issue of individual risk tolerance, about which others have no valid concern. Public education campaigns warning potential buyers about rollover tendencies, limits on advertising, warning labels on the vehicles themselves, mandatory safety regulations and even prohibitions on the sale of excessively risky models may be justified, but this falls short of what some critics have called for. These kinds of regulations are educational in nature and have as their primary aim ensuring the voluntary assumption of risk by consumers: 'buyer beware' is their appropriate message.

More stringent restrictions upon the operation of SUVs could be justified only by harm resulting to people who do not assume voluntarily the risks of riding in a rollover-prone vehicle with higher 'kill rates' (including passengers, pedestrians and drivers of other vehicles). While harm to passengers, pedestrians and bicyclists remains a serious public health consequence of the

automobile – in the United States alone 10,108 passengers, 4,749 pedestrians and 622 bicyclists were killed in automobile accidents in 2003 (along with 23,258 drivers), while another 857,000 passengers, 70,000 pedestrians and 46,000 bicyclists were injured that year (NHTSA 2004) – such figures weigh against private automobile use for its other-regarding effects, not a unique prohibition on SUVs. Meaton and Morrice, for example, argue that ‘a total ban on private automobile use is justifiable’ in light of Mill’s harm principle (1996:50), although the authors acknowledge the need to develop better public transport prior to such a ban. Moreover, heightened risks of injury to pedestrians may make SUVs worse offenders than passenger cars, as a study by Lefler and Gabler (2004) found that ‘pedestrians struck by large SUVs are twice as likely to die as pedestrians struck by cars’ and are also significantly more likely to suffer serious head and chest injuries, but this only makes them bad cars rather than uniquely dangerous modes of transport. Although such figures suggest a critique based upon avoidable risk to others, another sort of heightened risk of harm to others makes the most compelling case against the SUV, and to it we now turn.

### **Incompatibility**

Adhering to Mill’s harm principle allows state restrictions against those acts and choices that harm others but not those which affect only those undertaking the action itself, and from this distinction one can identify significant safety concerns with the design of the typical SUV. The height, weight and stiffness of SUVs in comparison with passenger cars pose a serious crash-incompatibility problem, with both vehicles sharing the same roads. After decades of innovations in motor vehicle safety design and equipment (including airbags, crumple zones, antilock brakes, etc.), the statistical odds of sustaining significant injury or death per vehicle mile driven had decreased significantly by the 1980s (prior to the mass-marketing of the SUV). Nearly all these safety improvements had been incorporated into cars, although SUV manufacturers still lag far behind in incorporating basic motor vehicle safety features into their most popular models.

The result has been a peculiar set of trends with regard to vehicle safety. As the combination of oil price shocks and increased pressure from Japanese imports began to reduce the average size and weight of vehicles on American roads, collision fatality statistics continued to decline well into the 1980s. Despite the prevalence of smaller and lighter cars (which one would expect to fare worse in collisions), advances in safety equipment and design none the less continued the downward trend in collision fatalities per vehicle mile. With the increasing number of SUVs sharing the roads with passenger cars in the 1990s, and essentially negating decades of vehicle safety improvements, collision fatalities began to rise once again as vehicle weight differentials began to increase. More significant than the weight of either one of the vehicles involved in a multi-car accident, the evidence shows, is the weight differential between

the two moving objects. According to recent crash test research, when an SUV hits a car from the side the car's occupant is 29 times more likely to die than the SUV driver or passenger. When a car hits an SUV in the side, occupants of both vehicles have an even chance of being killed. In a head-on collision between a car and an SUV, the car's occupants are 13 times more likely to be killed than those in the SUV (NHTSA, 1998).

Thus, the primary safety problem with the SUV is not the increased rollover risk inherent in vehicles with such high centres of gravity (although this remains a serious risk for their drivers and passengers), but rather their basic incompatibility with passenger cars. The weight and stiffness differential, along with the height of bumpers on SUVs, create a safety hazard for those riding in passenger cars. This safety hazard, in turn, creates a collective action problem. It is one thing that SUV drivers (and their passengers) stand a statistically higher chance of being killed in rollovers or other design-related single-vehicle accidents (arguably, they assume these risks voluntarily when they choose to purchase a vehicle that is known to be less safe than available alternatives), but quite another that these drivers dramatically raise the fatality rates of others with whom they are supposed to share the road.

These regrettable facts suggest a *compatibility dilemma* for consumers: each may desire individually to purchase and operate a vehicle that is reasonably safe for both its own occupants and for those in other vehicles, but (in the absence of regulations limiting significant height and weight incompatibility between street-legal vehicles) are none the less rationally inclined to make vehicle choices that imperil both themselves and others. If all automobile drivers could be satisfied with uniformly sized and weighted vehicles (with bumpers set at a uniform height), then the risks inherent in multi-car collisions would be evenly distributed among all drivers. Because cars are better designed to withstand front and side collisions than are SUVs and similarly carry a lower rollover risk because of their lower centres of gravity, maximum safety could be achieved by a prohibition against oversized and overweight vehicles sharing roads with cars. In so far as people drive personal automobiles, this game theory quadrant (where all choose cars over SUVs) represents the best possible world (or the collectively rational outcome, although one in conflict with individual rationality), at least as far as personal vehicle safety is concerned.

Enter the SUV. Suddenly, consumers have an option which, in order to preserve the logic of the dilemma, we might counterfactually suppose makes its driver and passengers slightly safer in multi-vehicle collisions but at the cost of dramatically increasing the kill rate for the occupants of cars with which it collides (a true assumption). Suppose, for example, that the lack of defence (that is, the absence of the kind of safety equipment that is found on passenger cars) is compensated for by a powerful offence (that is, much greater force in collisions), so that a vehicle that is less safe when colliding with another of its own kind becomes safer when striking a lower, lighter, and smaller vehicle.

Would it be irrational to trade off large increases in fatality risks for others (i.e. for those outside my vehicle that would be placed at greater risk by my decision to drive an SUV) in order to slightly reduce my own (and that of my passengers) chances of being killed in a multi-car accident? In the strict economic sense of rationality, the decision to purchase and drive an SUV is not irrational, given these premises. Especially in light of the possibility that the roads may eventually become clogged with ever-larger and more menacing models of such vehicles, the Hobbesian egoist must choose to avoid having his odds of being killed in a collision rise by a factor of 30. The worst outcome for each is represented by the quadrant in which they drive a car while everyone else drives an SUV (or, in what would be worse, they drive no automobile and suffer the polluted environment and lack of alternative transport options resulting from a personal automobile-dominated culture). To enlist an appropriate term from game theory, nobody wants to be that 'sucker'.

Supposing the SUV driver to have a slight advantage over one in a passenger car when involved in a front or side collision with another passenger car (again, a false assumption), the best outcome for each individual (although one incompatible with similar interests being advanced by others) would be to drive the only SUV in a world that is otherwise populated by car drivers. In such a world (realising part of the fantasy constructed for consumers by SUV marketing campaigns), our solitary SUV driver would not only enjoy a safety advantage over all other drivers in the event of a collision, but would also have the advantage of an unobstructed view over all other vehicles on the road, surely becoming the envy of the entire current SUV target market. This quadrant, though impossible to realise in a collective action dilemma, would none the less be the optimal individual outcome, and is the individually rational choice.

Because of this set of individual incentives, the predicted collective outcome of the incompatibility dilemma becomes the fourth quadrant, in which each driver – from the combination of appetites and aversions noted above – drives an SUV. As all vehicles would again be of comparable height, weight and stiffness, the comparative advantage in multi-car collisions would be negated and the higher rollover risks of SUVs and their lack of the advanced safety equipment currently employed on cars make overall vehicle fatality rates higher than they would have been in the first quadrant. In addition to losing all the advantages promised by the SUV, leaving behind the cars-only world also results in significantly higher fuel consumption, with its consequently increased health, environmental, climate and national security problems. While not the worst case individually (being the 'sucker' driving the car in a world of SUVs remains a worse outcome for each), the individually rational incentives tend towards the worst collective outcome.

Conventionally, such collective action problems require a coercive regulatory solution, as their structure as a dilemma depends upon the basic conflict between individual and collective rationality. In the case of the SUV,

incompatibility problems could be solved only by regulations mandating uniform bumper height, mandatory safety equipment on all vehicles and minimising the weight disparity between cars and SUVs. Consumer groups have been pressing for such regulations for years, and some SUV manufacturers are now starting to make preliminary gestures in the direction of acknowledging and reducing these problems. Only time will tell whether or not these promises are sincere and will translate into genuine improvements, but the game theory analysis would not predict justified optimism about the prospects for non-regulatory reform. A legal prohibition against posing unnecessary risks of harm to others may be justified by Mill's principle (eliminating the dilemma for consumers), but moral norms in the absence of binding regulations merely heighten that dilemma by adding on to one of its horns.

In fact, there is no incompatibility dilemma, at least as described above. Because the SUV does not, in fact, enjoy a safety advantage in collisions with passenger cars (SUV occupants are no *less* likely to be killed in collisions with passenger cars than they would be if they had instead been driving another car, even while the passenger car occupants are significantly *more* likely to suffer fatal injuries), there exists no rational incentive for the initial choice to leave behind the cars-only world. Only after the appearance of other SUVs on the road do any advantages obtain for SUV owners, and these (e.g. better visibility over other tall vehicles) do not include safety. With respect to safety, no person is made better off by the purchase of an SUV, and some are made worse off. Unlike paradigm cases of collective action dilemmas, this one is solved easily: people can be prohibited from the outset from purchasing SUVs, and thus would never be inclined rationally toward the collectively irrational outcome. Such a solution, of course, is available only in the hypothetical world of game theory, and is obviously unavailable in the real world of selfish but irrational consumers. The status of SUV drivers as free riders, or as defectors from a cooperative scheme where higher 'kill rates' for other drivers manifest as a consequence of that defection, may justify that element of the anti-SUV movement which emphasises the harm caused to others resulting from the increasing presence of SUVs on roads and highways shared with smaller cars.

## **Conclusion**

In the final analysis, how does the case against the SUV appear after an examination of both its strengths and weaknesses? There appears to be a case, after all, but a slightly different one than is sometimes emphasised by the contemporary anti-SUV movement. Some of the alleged offences (e.g. contributions to urban sprawl, etc.) are not unique to the SUV, and ought properly to be assigned to personal automobiles in general. Others (those for which the SUV is a *bad car*) are similarly not unique to the SUV, although SUVs are a proportionally worse offender on these counts. Some of these



points of criticism (although not all of them) could be mitigated by incorporating fuel-efficient vehicle designs, and so this critique ought properly to be directed at actual SUVs, and not necessarily to possible ones (like the UCS Guardian). The most serious critique concerns the set of problems that results from the incompatibility between the sheer force differential (along with non-uniform bumper height) in collisions between vehicles of such disparate height, weight and stiffness. In theory, these problems could similarly be mitigated (although not removed altogether) by employing weight and safety improvements into SUV design, although they aptly capture the reality of current decisions to purchase SUVs rather than alternatives which do not present the incompatibility difficulties noted above.

Such analyses, however, rely upon a line of anti-consumerist criticism described by Michael Maniates as the 'individuation of responsibility'. As a consequence of attributing responsibility for environmental problems to individuals only (through their consumer choices), Maniates argues, 'there is little room to ponder institutions, the nature and exercise of political power, or ways of collectively changing the distribution of power and influence in society' (2002:45). The case against the SUV is not always or only about a particular class of vehicles (with its physical properties), the demographics most likely to own and drive them, or the attitudes and behaviours with which they are often associated. As Tim Luke notes of automobiles in general, they 'are one of the key axes in the broader struggles over what should be consumed when, by whom, how much, and where' (2001:312). Moreover, they have become a visible symbol of what is perceived widely as a root cause of increasing social, economic and ecological conflicts, and so act as a surrogate for the wider critique that anti-SUV claims often imply. Particularly when juxtaposed against unspoiled nature in typical SUV marketing campaigns (wherein the vehicles allow their owners to either escape urban stress or test their primal prowess against hostile wilderness), the contrast between the promise and the product of the SUV strikes many as an embodiment of crass consumerism, along with its consequences for environment and society. As Shane Gunster suggests, 'the irony of using pristine images of a hyper-pure nature to motivate the use of a product that consumes excessive amounts of natural resources and emits high levels of pollutants lies at the core of the growing public backlash against the SUV' (2004:4).

America's love (and hate) for the SUV may heretofore have been driven less by facts than by emotion, and has less to do with the actual vehicles than with the symbols and imagery with which they are invested and associated. None the less, a valid case may be made against the SUV at the level of individual decisions to produce, market, purchase and drive them, even if the critique issuing from the anti-SUV movement largely eschews this level of analysis in favour of broader (if less pointed) social critique. It seems unlikely that these battles between proponents and opponents will end any time soon, at least as long as these vehicles remain popular and continue to cause the range of problems with which they are rightly associated.

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