include *The Dialectics of Shopping* (Chicago 2001), *The Internet: An Ethnographic Approach* (with D. Slater, Berg 2000), *A Theory of Shopping* (Polity 1998) and *Capitalism: An Ethnographic Approach* (Berg 1997).

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Driven Societies

Daniel Miller

The Humanity of the Car

When I used to accompany my daughter to her school bus I often made up stories to amuse her as we walked. One was a description of the earth and its inhabitants as told by an alien examining us from a space ship above London. This alien had observed that the earth is inhabited by strange creatures called cars mainly with four wheels although some are great beasts with twelve wheels and some little creatures with only two. These creatures are served by a host of slaves who walk on legs and spend their whole lives serving them. The slaves constantly ensure that the cars are fed their liquid foods whenever they are thirsty and are cured if they have accidents: but the slaves also help in the reproduction and disposal of cars. The slaves are deposited in boxes set up almost everywhere a car wants to go and are always ready to be taken away as soon as the car makes up its mind to go somewhere else. Cars were never seen to go anywhere without at least one slave. The slaves build and maintain long and complex networks of clear space so that cars have little trouble travelling from place to place. Indeed the earth's creatures seems constantly pampered by their fawning army of slaves.

My point is that I can't think of any other object for which such a story could sound half so convincing. We may not be enthralled to cars, but the relationship of much of humanity to the world became increasingly mediated in the course of the last century by a single machine – the car. To such an extent that it is the car and its associated infrastructure rather more than the human that seems to dominate the landscape seen from the sky. Certainly there are many environmentalists who would be entirely happy with this perspectival conceit.

For them, but also in both colloquial and journalistic accounts, one does have a sense of the car as the sign of our alienation, in particular, from something which by opposition is seen as nature. The car is the villain that has separated us from the world and threatens to take over as we come to serve it more than it serves us.

Yet what this book will demonstrate is just how simplistic a concept such as 'alienation' appears to be when set against a relationship to cars which is not just contradictory but convoluted in the extreme. In this introduction I want to defend an approach which will remain critical but by starting from the opposite extreme. Perhaps for the first time this is a book that seeks to reveal and consider the evident humanity of the car. This should not be taken as some mark of adulation or defence of the car. To take seriously the humanity of the car must imply a perspective that examines the car as a vehicle for class, oppression, racism and violence, all evident products of our humanity. The car's humanity lies not just in what people are able to achieve through it, nor yet in its role as a tool of destruction, but in the degree to which it has become an integral part of the cultural environment within which we see ourselves as human. This includes both senses of the word – humanity as an expression signifying the totality of all people and humanity as a term that touches the specific and inalienable individuality of any particular person. The car today is associated with the aggregate of vast systems of transport and roadways that make the car's environment our environment, and yet at the same time there are the highly personal and intimate relationships which individuals have found through their possession and use of cars.

The title 'car cultures' is in turn intended to evoke the diverse, unexpected, sometimes tragic, contradictory humanity of cars; the taken-for-granted mundane that hides the extraordinary found in this material expression of cultural life. Indeed for all their freedom of imagination and resources the vast amount of television advertising which attempts to aestheticize the car within wondrous terrains of visual imagination tend to look bland and tedious against the fascination of what the observers who contribute to this book can document as the car's use in objectifying personal and social systems of value.

To speak of the humanity of cars is merely to foreground the proper difficulty of confining that concept to any simple definition. My foot could as easily be analysed as a technical construction of bone and flesh that provides me with means of mobility, as it could be seen as integral to my humanity. Quite often it rests on the pedal of a car, which in turn could be viewed as a mechanical achievement of metal

and plastic that in turn gives me new means of mobility. But it is not so much of an extension beyond my foot, either physically or conceptually, for us to consider its humanity. Both foot and car are the basis of extensive entailments; both evoke the agency that mobilizes them, and the networks of relationships that walking and driving permit. Both have metaphorical and idiomatic reach. The foot is hopefully more permanent, the car more amenable to personalization and social appropriation (that is to say I suspect a whole lot more people think of their cars than of their feet as 'a kind of' person). But both fit that felicitous term 'second-nature' the habituated extension of ourselves that feels like nature in requiring no conscious mediation in their daily employment. Their humanity lies above all in the degree to which so many of us are socialized to take them for granted, so that we think our world through a sense of the self in which driving, roads, and traffic are simply integral to who we are and what we presume to do each day.

Nevertheless the mere idea of the car having humanity is not something that is easily accepted; indeed many readers may be revolted at the suggestion. For this reason Chapter Two by Diana Young, on the Pitjantjatjara of Australia, provides the ideal starting point for the wider intentions of this volume. It seems from the evidence she presents that it would be just as unnatural for these people to deny this manifest humanity to the car as it would seem unnatural for most people in Britain to acknowledge such a thing. In a very short period this Aboriginal society has assimilated the car into their material culture, so that today it is hard to hold a sacred ceremony without the car screening this from intrusive viewers, or to mark one's sacred sites without the car as the means to visit them. They follow and interpret the tracks made by cars in the landscape and they navigate cars through their sense of cardinal directions in ways that non-Aboriginal people are quite incapable of doing. In short the use of the car to facilitate one's phenomenological and cosmological relationship to the environment does not detract from that relationship which remains just as fundamental to Aboriginal life. The car has become more a means to resist alienation than a sign of alienation. Its materiality is no more of a problem than the materiality of the landscape itself which an extensive literature has documented to be foundational to Aboriginal societies.

This is why in Young's chapter, as also in Chapter Seven by Jojada Verrips and Birgit Meyer, a core problem is the car as a living and a dead being. The humanity of the car is expressed in the detailed issues raised by making the corpse of a car in some ways both analogous and symbolic of the human, and especially of a previous owner. The

problem being that the dead carcass of the car, unlike other objects, is not so easily swallowed up by the soft sands of the Australian desert. In a similar fashion Verrips and Meyer reveal how many people's lives in Ghana are spent in the struggle to bring cars back to life, because a dead car is a threat to their ability to earn a 'living'. It is not surprising that there is a resonance with Christian concepts of miraculous resurrections such that a car mechanic needs spiritual as much as technical proficiency to keep a car on the road.

In Chapter Three, Mike Michael rests much of his argument on the problems that face us when we fail to acknowledge the integrity of such human–machine relationships. When our resolute dualism that separates off the humanity of people by contrasting it with the object nature of the inanimate prevents us from appreciating the hybridity of discourse and practice. The central point that emerges from his discussion of road rage is that the problems that arise from current discourses about such behaviour are exacerbated to the degree to which we oppose ourselves to the car and refuse to acknowledge its role in the formation and manifestation of such behaviour. Accounts of road rage are purified into two separate components – human behaviour and the technical effects of cars. By contrast a sense of hybridity allows us both to acknowledge and come to a more profound understanding of such genres as road rage. Road rage as discourse and practice can only be confronted from the depth of our now inseparable relationship with the machine in which we are socialized and through which we carry out our daily lives.

Those two chapters also constitute a helpful introduction to this volume in that they respectively represent two literatures within which it makes sense to treat the car from this perspective; a perspective which transcends an opposition of subjects and objects. Young is writing from the tradition of anthropological studies of material culture, in which the refusal of this dualism has been a foundational component of the discipline at least since the time of Mauss's (1966) influential work *The Gift*, where the basis of human sociality was seen as founded in the exchange of the humanity objectified in the objects given as gifts but also through his studies of technology and the cultural construction of the environment (Mauss 1979). This is a tradition that was fostered more recently by the work of Bourdieu and other theories of practice, and in the specific sub-discipline of material culture studies as exemplified in the *Journal of Material Culture*.

By contrast Michael is writing from within a strictly sociological trajectory which until recently had less interest in the specific issue of

materiality, but which in the last few years has emerged into this particular light through the influence of science studies and most particularly the work of Latour. Latour's (e.g. 1993 and 1999) enormously influential critique of the dualism of science and nature has been extended through topics such as actor network theory, and work on monsters and hybrids to more generally challenge the distinction between persons and objects or between society and materiality. As a result although Young's paper is based on the classic anthropological techniques of ethnography and empathy with Aboriginal cosmology and social relations, while Michael's is an extended analysis of discourse and ideology that could in turn be described as classic sociological methodology, the final conclusions of both papers with respect to developing a new perspective on the car are very similar. Neither permits what may appear to be a common-sense separation of the car from a social or human context. Instead both offer an acknowledgement of a world of practice and discourse in which we can talk in terms of car cultures.

After establishing the humanity of the car as a starting point I will now address three approaches to studying car cultures. The first summarizes the dominant genres in which the car used to be presented to us in history and social science and considers the limitations of those genres. The second is a recent literature that is characterized as focusing on the problem of externalities, and the benefits and lacunae in that approach. Finally the chapters of this volume are considered as a series of studies of entailments, which complement and extend previous approaches to the study of cars.

Speeding Towards the Wrong Conclusions

In surveying the extant literature on the car within the social sciences and humanities (as against the more technical concerns of literatures such as transport studies which will not be addressed in this volume), I will adopt a critical tone. There certainly exist exemplary studies of the car (Brilliant 1989; Moorehouse 1991; Sachs 1984, to name but a few) but in a survey of the literature there soon emerges a sense of a dominant genre. This comprises two main tendencies. The first is a presentation of the history of car production and design which is understood largely in terms of the roles of major personalities and events. The second element is a presentation of the consequences of the car mainly in terms of aggregate statistics or universalizing traits.

These seem to have developed largely in the absence of any sub-discipline concerned with the car per se, so that the car appears most often as a case-study within the history of industrial production, design history and environmentalist critiques. By contrast, the mainstream disciplines that might have addressed what has been introduced here as the humanity of the car – that is, anthropology or sociology – have neglected the topic to a quite extraordinary degree, especially when compared to other examples of material culture such as food, clothing and the house. It would be very hard to exaggerate the disparity between the voluminous literature on those three topics and the lack of any comparable consideration of the car. There would be dozens of books equivalent to this volume already available for any one of those other objects.

The dominant genre tends to emphasize core events and persons. Most books start with the 'birth' of the car, the choice of which varies considerably from the steam-powered vehicle tried out in Britain in 1801 or the French combustion engine mounted on a coach in 1886 by Daimler (Wolf 1996: 67). But the key figure in the history of car production is always Henry Ford. We are informed of various crucial dates between 1 October 1908 when the first Model T went on the market for 825 dollars (Nadis and MacKenzie 1993: 3) and 1927 when the last of 15 million Model Ts rolled off the assembly line at a mere 290 dollars (Fink 1975: 67). Ford is seen as responsible for the US dominance in car production and ownership such that by 1930 there was 1 car for every 1.3 households (Nadis and MacKenzie 1993), although as O'Connell (1998) points out another factor was that the US had longer distances and lesser coverage by railways than for example the UK.

Given the generally anti-car tone of most recent writings, apart from being told how undemocratic Ford was (and the irony of the evidence that he was better known in the Soviet Union than Stalin in 1927 (Fink 1975: 71)), the other figure that is regarded as of equivalent influence in Europe is Hitler, who is credited with developing the modern autobahn system in Germany and promoting a Volkeswagen in emulation of the Model T in the US, though obviously at a later date. For the middle period of the century attention tends to turn to the history of car design and major figures such as Sloane or Harley Earle who influenced the development of companies such as Ford and General Motors (e.g. Gartman 1994) and shaped what became the dominant genre of car styling. Relatively little consideration is given to more recent events, such as the rise of the Japanese car industry, outside of the more technical and business literature where this is the focus of many studies.

Most of the recent texts move from these events in the history of car production to a flood of anti-car statistics for the present. For example, we learn that in the UK 'the initial production of every car involves 25 tonnes of waste (Graves Brown 97 25), that 11 million cars are retired annually in the US, and 240 million tyres junked each year (Nadis and MacKenzie 1993), creating 2 million tonnes of toxic waste. That in 1990, 420,000 people were killed and 9 million were injured globally as a result of car use (Whitelegg 1997) and that between 1960 and 1994 around 5 million people lost their lives in road accidents (for other examples see Davis 1992/3, Holtz Kay 1997, Whitelock 1971, Wolf 1996). These literatures on the history of car as a symbol of production and the current evidence for the car as a symbol of destruction along with a technical literature on areas such as transport systems, dwarf other writings about the car.

Occasionally the rather relentless tone of these trajectories is relieved by asides. These take two forms. One demonstrates the degree to which car-associated problems may have arisen prior to the car. We may think of our road system as a system for cars, but much of it existed prior to the existence of the car. For example there are several authors who note the huge increase in the extent and number of roadways in US cities at the turn of the century and the effects of horses on congestion. McShane (1994: 49) cites a gruesome practice of lighting fires under horses stomachs to get them to pull heavy loads, and Flink (1975: 34) records that 'In New York City alone at the turn of the century, horses deposited an estimated 2.5 million pounds of manure and 60,000 gallons of urine on the streets every day. Traffic was often clogged by the carcasses of overworked dray horses who dropped in their tracks during summer heat waves or were destroyed after stumbling on slippery pavements and breaking their legs. On the average, New York City removed 15,000 dead horses from its streets each year'. The other asides take the form of alternative histories of the car, for example (Schiffer 1994: 1) noting that 28 per cent of the 4,192 American automobiles produced in 1900 were electric.

More satisfactory and more heterogenous is the range of social histories of the car, although these too tend to be limited as a genre. Many start with the general condemnation of the car as initially an elite vehicle that exacerbated social distinction, a time when the archetypal driver seems to have been Toad of Toad Hall. In popular culture 'they were commonly revered as symbols of the good life aspired to by all, and turned up in Cole Porter songs, Fitzgerald novels and Hollywood movies'. (Gartman 1994: 60). Up to 1908 most car stories

were about elites and appeared in the society pages (McShane 1994: 128). In some of this work one starts quoting literature that represents an elegy to a pre-car age, as in E.M. Forster's *Howards End,* but then moves swiftly to the contemporary sense of the car as symbol of destruction, quoting the sex and violence of J.G. Ballard's *Crash* (e.g. Graves-Brown 1997). We seem to suffer from what Sachs (1984: 173) calls the ageing of Desire which turns into the modern movement of disenchantment with the car. Earlier works such as Perkin (1976), and more recently O'Connell (1998), provide more sober histories that relate to wider issues such as class and changing patterns of work and leisure. In general this seems less true of fiction and entirely untrue of the cinema, where cars seem to have enjoyed a far more taken-for-granted centrality to the depiction of modern life, and genres such car chases, anthropomorphized cars, and cars as central to teenage dating movies are all standard fare. Popular culture does not seem to have undergone the same kind of reversal of attitude to the car that one finds in academic perspectives.

Even within social history there tends to be an emphasis on the consequences of the car rather than an empathetic account of car consumption in particular cultural contexts. There are exceptions such as Sachs's (1984) insightful history of the car in Germany. There are also particular areas of car use that are well served, such as an association with holidays where the popularity of the car receives much more empathetic and in-depth treatment for topics such as picnics and vacations (e.g. Lofgren 1999; O'Connell 1998; Sachs 1984: 150–160, and Urry 2000: 60–2). This is, however, rare since otherwise empathetic accounts of driving tend to be lacking from the historical texts.

The particular exception that perhaps best shows the narrowness of much of the rest of the literature is Brilliant (1989). She shrewdly picks on a key moment in the development of car cultures which is Southern California in the 1920s. She suggests the breadth that such histories ought to have, ranging from the car's relationships to popular cultures such as the movies, the context of its development in the relationship between class and new forms of mobility, the stance taken to the car by groups ranging from the law to the churches. As a result she can draw important conclusions. While at one level this is one of the most dynamic and formative periods and places where practices such as hitchhiking and joyriding are being given their 'modern' form, what emerges is how quickly these become established genres with normative behaviours and discourses associated with them. She extrapolates to contemporary Los Angeles where, despite what appears like car madness

to the critics, for most people what can be observed is simply the struggle to make the intensive use and reliance upon the car livable with and mundane.

The most empathetic literature is perhaps not surprisingly that devoted to the car enthusiast, including Moorehouse's excellent study (1991) of hot-rod enthusiasts or O'Dell (1997) working with Swedish car aficionados; but there is an obvious problem in extrapolating from these studies to the more general and mundane contemporary relationship with cars which remains woefully unexplored. Overall then this is a literature in which the sense of the experience of the driver and the way the car fits into daily family life is hard to extricate from the statistics about car destruction or the key figures of car production. Gartman (1994), for example, provides a scholarly study of the development of car design, but while often invoking the agency of buyers always reduces this to assumptions about the possible impact of class conflict. Yet a history, especially a social history of the car that does not include the driver, is a fetishized history that makes the critique of the car appear abstract and distant from the humanity in which it is involved, even when the statistics are about death on the roads and pollution. The object and the subject are set radically apart, and in much of the recent literature they appear mainly as antagonists where humanity is always the victim. This has the problematic effect of taking even the violence of the driver outside of our sense of humanity, a point illustrated in this volume by Michael in Chapter Three. This is also why Sachs (1984) comes across as a more effective critic of the car than most, since the attack comes at the end of sensitive contexualizing of the car's social history. As Simon Maxwell in Chapter Nine of this volume makes clear, most ordinary drivers, even though they are fully aware of the power of dominant anti-car discourses, still express a much more ambivalent and nuanced discourse of the car that allows them also to acknowledge the benefits that clearly accrue to them from car ownership. As a result they confront their knowledge of the dangers and destructive consequences of the car not as an abstract discourse but as the contradictions of their lives.

Although there exists a developing literature on the social history of car consumption it is still very small beer compared to the role of the car in considerations of production. It is not just that business history is dominated by terms such as Fordism which take their point of reference from the car, but current studies of business and management make the car the archetypal object of business itself. It is this that makes so astonishing the degree to which recent textbooks on consumption

will have chapters on homes, magazines and fashion but make virtually no mention of the car. It is likely that this division corresponds to wider distinctions that are associated with gender, but this seems insufficient to account for the extremes of this difference in attention to the car.

As a result of the paucity of a scholarly literature on car consumption, the critical accounts that dominate the treatment of cars in recent years are replete with sweeping generalizations as to the implications of the car for a more general 'modernity'. It seems that the absence of empathetic observation leaves room for all sorts of conclusions to be drawn that might with better knowledge and more sustained examination appear problematic. Rather than trying to summarize this literature I will try to exemplify it by taking just two of the most obvious examples. The literature that takes the car as a symbol or as the token for modernity tends to assume that contemporary car use is associated with an increased sense of mobility and speed. For example we learn that 'the subjective experience of automobility is invariably described in terms of pleasure, excitement, mastery and similar positive feelings' (Freund and Martin 1993: 97). Similar assumptions are often found in their crudest form in the psychological literature where we are informed for instance that 'at around 100mph, things begin to change. This is because the brain cannot cope with some of the rapidly changing signals coming from the eyes' (Marsh and Collett 1986) – which must be something of a surprise to the well-established and skilled sport of motor-racing.

The main problem with speed may be the rushing of academics to unwarranted conclusions. For example it may well be that the average person in Western Europe travelled 5 miles a day in 1950 and 28 miles a day today (*Guardian* 2/2/2000 G2, p7). But does it follow that we have a greater experience of mobility? Wolf (1996) notes 'If we incorporate all of those changes into the estimates, we would have to conclude that there was actually very little increase in mobility. The workers go to and from work five times a week (previously six), while the students continue to go to and from school and university. The average householder goes shopping three or four times a week. At the weekend, the average citizen makes one or two trips to the countryside or to visit friends and relatives and during the week, may go out again, for instance to the cinema. This was how it was in 1929, in 1950, and it is not essentially different in 1995'. Air travel has enormously increased the distances we go on holiday but most people are still taking a single holiday a year. As Sachs (1984: 109) notes, at the same moment that

the car increases mobility and renders distance less problematic it is likely to affect also our sense of what distance has to offer and to threaten the mystique that arises precisely from the problem of its overcoming.

There is a similar problem with assumptions about modernity and speed. Again the statistics are quite clear about how much faster we tend to go in cars and other transport systems. But travelling at 80mph in a contemporary sealed car with good suspension simply doesn't feel like going particularly fast, which is one of the reasons it becomes so dangerous. Travelling at 500mph in a plane on a long-haul flight feels slow to the point of leaden – one needs to walk to the toilet just to retain some element of mobility. Contrast this with the social histories of travelling in an open car at 30mph when going out for a spin in the 1930s – that very likely felt like authentic speeding. That was the time when modernist intellectuals celebrated the experience of speed per se and commerce manifested that relationship to speed in popular genres such as streamlining. Thrift (1996: 264–6) suggests that the key period when the subjective sense of time was altered by a heightened sense of the possibility of speed comes still earlier, in the nineteenth century. Is buying a high-performance car but never actually using that high-performance an experience of speed? Equally for commuters stuck in traffic jams the simple association of the car with speed may seem more like a sick joke . . . as if . . . If one wanted a serious study of the meaning of speed one would do better turning to Weiss's (1996) analysis of the Haya of North West Tanzania. Here at least both speed and slowness are understood as core factors in people's moral and cosmological understanding of a range of processes from cooking to kinship. With that background we come to understand why, for example, coins and notes are nicknamed after cars and trucks as both cars and money become associated with what are perceived as the dangers of speed and the sense of 'heat' and disease that have become associated with it.

There are many similar examples of rushed conclusions when it comes to the experience of cars and its relationship to modernity. Should we assume for example the car is a 'cause' of the growth of suburbia when the desire for this compromise between town and countryside is clear from Victorian times? One of the most ironic consequences of the critical literature is in its treatment of gender. One would have expected some opposition to the gendered construction of the car as masculine. Yet in its desire to demonize the car this literature constantly asserts a relationship between the car with masculinity and violence that verges on the essentialist. In this volume the

main example of transgressive and dangerous driving comes in Pauline Garvey's Chapter Six, on Norwegian women, while Simon Maxwell in Chapter Nine shows that what is absent from the critical literature is any sense of the centrality of the car to the mundane tasks of women. There is little empathetic treatment of the increasing association of the car with being caring parents, whether it is using the motion of the car to finally get an infant to sleep, or the sense at one stage in parenting that all one is doing is chauffeuring the kids to various friends' and activities.

Finally, the current literature has almost no grasp of the global reach of the car today except in matters of production and destruction. There is no sense that the car might be a different cultural form or experience among different groups. I have limited my survey to works in English, and cannot say if this is more generally the case, but at least in the English literature there seems no precedent for this volume which starts by refusing to privilege any particular region or group. Indeed even within the metropolitan areas, apart from some works on gender (e.g. Scharff 1991) there is little sense of the relativism required to understand the diversity of populations represented within those regions; commentaries in this volume such as Paul Gilroy's Chapter Four show that this needs to be our starting point and not simply a curious aside to a universalizing story of modernity.

Externalities

So far three varieties within the dominant literature on the car have been considered: the conventions of car history as a story of production and destruction, car social history, and the car as a trope in generalizations about modernity. In recent years these have been joined by a powerful new literature that has had a huge impact in developing a more effective critique of the car. This most recent literature is dominated by an approach I want to characterize as a concern with externalities. Although the word comes from economics it actually characterizes a much wider perspective on the car that is not particularly concerned with economic matters or the market. Within economics the clearest representation of externalities as a means of analysing the car comes from Porter (1999). His starting point is precisely the way the car fails to conform to more conventional economic treatments, because almost all the major costs involved take the form of externalities: 'almost all our automobile problems arise from the car's generation of external costs, when we get into our cars, we are prepared to pay the private costs of driving. But we ignore the external costs which, when added to the private costs, make the social cost of driving extremely high' (p.3). Porter bravely struggles to re-incorporate the car as an object of economic enquiry through costing each of these externalities. For example he tries to calculate the cost of global warming or highway safety, traffic, land use and auto disposal, though thankfully gives up when confronted by topics such as illegitimate babies conceived in cars (p.187).

Such an approach to the car fits easily within the growth of modern markets and processes such as auditing which have tended to follow a market model. This has recently been theorized by Callon (1998) who argues that for markets more generally the problem is determining what should be brought within the frame of calculation and what should remain within the outside world of externalities. What evidently and properly frustrates so many writers is the evidence that car culture has developed in such a way that drivers simply don't have to face the 'actual' costs of driving. Instead there is an almost complete break between what the critics see as private pleasure and public vice. This serves to exacerbate an already existing split between a transport literature that focuses almost entirely on the consequences of the car for the provision of infrastructure, where the main concern is to compare the car with alternative systems of transport such as the railways, and a design-and-style-focused literature that is concerned with the car as an object rather than with the consequences of its use.[1]

Within the critical literature on the car the term 'externalities' need not remain within the confines of economic or market analysis, as it has become the basis for a much wider perspective. In other words we need not constrict the term to its 'proper' use in economics, but rather see it as the perspective that has come to dominate most recent writings on the car. This is very evident in Davis (1992/3) whose problem, as he views it, is that what comes to be regarded as the advice of apparently neutral academics such as sociologists or safety experts reinforces an ideology that sees safety as an issue for its potential victims, while he wants to return the onus to the car and its drivers. For example, he argues that seat belts – by securing the safety of drivers in a crash – may make cars more dangerous for bicyclists and pedestrians. The problem lies in the perception and balance of risk. What such writing seeks to do is to bring back externalities and make them accountable, socially and not just economically. Many of the critiques of the car comprise histories which chart how externalities became external (e.g. Holtz Kay 1997).

By contrast Johnston in his book *Driving America: your car, your government, your choice* (1997) brings 25 years' experience as a lobbyist for the car manufacturers to bear on his topic. He seeks to demonstrate that the market can handle and cure most of the problems that the critics raise. Indeed for him consequences such as a rise in car accidents inevitably follow from all forms of government regulation. So here the car becomes the protected frame and the task is to prevent external agents and most especially governments from entering into that frame. While the critics see the cause of externalities as the legacy of a powerful car lobby that has sought to prevent the car being burdened with its own consequences, he sees the critics as a powerful elite grinding down the wishes and pleasures of the mass population.

Surely the 'classic' analysis of externalities has already become the paper 'The well-travelled yoghurt pot: lessons for new freight transport policies and regional production' (Boge 1995) which meticulously disaggregated every component of a pot of strawberry yoghurt made in Germany, from the metal of its lid to the source of the glue and the wheatpowder and other ingredients. For each of these separate elements the paper calculates the transport that had been involved in creating the final yoghurt pot. The point was precisely that the whole arena of transport had become an externality to the purchase of mundane goods such as yoghurt, so this article very effectively reintroduces the 'true costs' of transport and its effects on the environment as an audit of yoghurt production. Much of the literature on externalities has now become an attempt to generate a larger audit of the car in terms not so much of financial costs but of environmental, social and ecological 'costs'.

A major advantage of this approach via externalities is that it raises consciousness as to the political context of car development, which in turn helps us see the importance of particular forms of political intervention. The history of the car has always depended upon an important articulation between a kind of micro-politics of civil society and the state. Sachs makes this very clear for Germany. He notes that in 1912 there arose a debate as to whether pedestrians – who, when confused by the new cars and unsure what to do, propel themselves in front of a vehicle – are to be blamed for their own death, or whether the responsibility is the driver's, or whether simply the conditions make such events inevitable, and in which case should the pedestrian be forced to concede the right of way to cars (Sachs 1984: 30–1). But civil society comes to be fully complemented by the state, as when Hitler confirms the cessation of space to the car with a vast programme of highway construction. For Hitler the car promised greater access and

thus greater unity as a means to construct an ideal of 'One People, One Reich, One Fuhrer' (ibid. 53). But before conclusions are reached too quickly it is the car again that is central to a post-war development in Germany of social democracy and mass participation in the 1970s. What can be concluded is that the consciousness of the car as a problem of responsibilities and progress almost always involves a state whose laws and road-building programmes establish both infrastructure and many of the terms within which any car consciousness or discourse can operate.

So it is not surprising that political literature perhaps best explores the academic consequences of this situation, because to a striking degree these debates about the car cut to the heart of core questions about citizenship and contemporary civil society. As Rajan (1996) notes, the problem is that the car has become much more of a right than a responsibility: 'to drive and operate automobiles has become almost the inalienable right of every individual to achieve goals and purposes efficaciously across a space specifically engineered for this purpose' (6–7). What is required, he argues, is a 'civil society of automobility' (p.16). The political debate based on externalities recognizes what Urry (2000: 59, see also 190–3) complains that sociology has failed to recognize: 'The car's significance is that it reconfigures civil society involving distinct ways of dwelling, travelling and socialising in, and through an automobilised time-space.' One of the most instructive works is Dunn (1998), because at one level his is a straightforward critique of the mass of critiques of the car. Dunn pillories what he sees as the simplistic and unrealistic rhetoric of the attack, but his conclusions follow from this debate about externalities. He returns to a politics in which he insists it is possible to put the onus back on to Detroit to make cars safer and less polluting rather than depriving the drivers of their cars when they have no serious alternatives.

It is hard to exaggerate the importance of this literature on externalities. What is achieved is an opening-up from any simple focus on the car as merely a relationship with its individual owner, forcing us to raise our sights and imaginations to bring in all that the car implicates: aggregate effects, landscapes of roadways, patterns of work and patterns of leisure. In short a concern with externalities goes a long way in taking us from the car per se to the consideration of car culture. It is also crucial for future consideration of the car. At a time when companies are developing the 'intelligent' car, and governments the 'intelligent' road, the relationship of responsibility between commerce, the state and the private driver is only going to become more problematic and make the issue of civil society more acute. I therefore do not want to

detract from its contribution. But nevertheless much of what is important in the present volume lies precisely in the manner in which most of the chapters here take a quite different and complementary route to the same issue of relating cars to car culture and thereby highlight much that is missing in those approaches that focus largely on this problem of externalities. There are three main advantages to this approach over that of externalities, which result from the literature on externalities tending first to reductionism, secondly to ignoring the need for a scholarly account of car consumption, and thirdly to a failure to problematize the basic question of what the car is.

The first limitation to the study of externalities comes from the degree to which it is influenced by the source of this model in economics. The positivism which is characteristic of the discipline of economics tends to result in the inclusion of externalities only to the degree to which they are measurable. The study of car safety, for example, tried to remain for some time under the umbrella of what was called Smeed's law (a Professor of Transport Studies at UCL) which claimed that the relationship between motorization and fatalities was irrespective of time and place (e.g. Whitelock 1971:xi, Davis 1992/3: 38). Cultural distinctions of all kinds tend to be downplayed. As a result, as Whitelock (1971) notes, the critique is effective in determining the impact of drinking on driving but rather less good on deciding what lies behind one of the principle causes of accidents, inappropriate overtaking on country roads. This is because such overtaking involves much more subtle questions about the nature of driving that cannot easily be reduced to a measurable variable such as the level of consumption of alcohol.

The extremes of this approach could be seen within work by Marxist economists such as Baran and Sweezy (1968: 139–41, quoted in Slater 1997: 136) who try to separate the car as a purely rational object of use, as against the high costs of making it part of commodity culture associated with advertising, style and other examples of what they see as unnecessary accoutrements. The effect of this approach – to strip down the car to measurable elements of function – is to make culture itself an externality, as though rationality is something founded only in function in its narrowest sense. Obviously in a book called *Car Cultures* the externalities that may matter are a whole swathe of social and cultural entailments that the current literature is not well equipped to either study or consider. What is explored in this book is an intimate relationship between cars and people that so far has paradoxically remained an externality within a literature that sees itself as dedicated to incorporating all other externalities.

This is particularly a problem when the literature shows that so much depends upon complex issues of moral and political discourse and a wider sense of risk. What Chapters Four, Five and Six in this volume (by Paul Gilroy, Tom O'Dell and Pauline Garvey respectively) strive for is something missing in the prior literature. All three chapters commit themselves to relate the car to its wider context in political economy – both commerce and the state – but in such a manner that this sheds light upon, rather than being opposed to, the more personal and involved relationship between values of particular groups of drivers or passengers and their cars. The problem for the study of car cultures, as of culture more generally, is to retain the link between the micro-history of ethnography of experience and an appreciation of the way these are shot through with the effects and constraints of acts of commerce and the state.

The third way in which the study of entailments differs from that of externalities is the different attitude to the basic question of what a car is. Ironically the one thing the study of externalities fails to do is to problematize the car itself. It almost inevitably assumes we know what a car is and that the problem is only to acknowledge all those consequences that have become disconnected from the car as their point of origin. In this book, by contrast, there are many examples in which we start either from some particular aspect of the car such as its audio system in Michael Bull's Chapter Eight or some larger association of car use such as gender in Gertrude Stotz's Chapter Ten and then gradually work our way back towards some new sense of what the car seems to be when viewed from that perspective. In this volume, then, the car is the conclusion of our work, not its premise. If the car is understood to be as much a product of its particular cultural context as a force then it follows that, prior to an analysis of that larger cultural environment, we cannot presume as to what a car might be.

What is a Car? Starting from the Upholstery

To make this last point clearer a case study is presented here in which the nature of the car itself emerges out of a process of academic enquiry that started with an investigation into car upholstery, and tries to end with insights into normative cultural values. In this case the study took place in Trinidad. (What follows is an abbreviated account of Miller 1994: 236–45.) Since in most respects I don't particularly like cars or pay them much regard, I never chose or intended to study them. I came to the topic of the anthropology of the car because I was completely

overwhelmed by the presence of car upholstery. When I chose to undertake fieldwork in the town of Chaguanas in Central Trinidad in 1988, I didn't even know that car upholstery existed. I was somewhat perplexed to find that the part of the town in which I lived was completely dominated by this profession. Out of 176 commercial establishments in the area 38 were solely concerned with cars. Although this includes garages and car-part specialists these are dwarfed by three stores devoted to car upholstery, whose owners have also become wealthy enough to own much of the commercial property in the area. Apart from domestic upholstery at Christmas the trade is largely car upholstery, and these three merely dominate a large number of smaller car-upholstery firms in the area, making this probably the single leading commercial concern of the town.

In the recession period when I started fieldwork, upholstery was dominated by repairs to vehicles such as taxis. During the previous oil boom most new cars had had their first outing to these upholsterers, who might change everything from car seat to trunk (boot) with designs such as fake snake skin or a black leatherette streaked bluish and silver, marketed under the title of 'New York by night'. The dashboard could be upholstered, cushions added, and the whole complemented by a variety of paraphernalia such as perfumes, religious icons and stickers. Cars could also be feminized, for example, with heart-shaped satin cushions with projecting pink frills and central flower designs. The degree of such personalization was satirized by a journalist who recorded his removal of the accretions to his new second-hand car (*Trinidad Express* 20 Oct 1988): 'The tiger-skin covers came off on day one, as did the red plastic steering wheel cover; as did the little duckie. The white JPS emblems made it to day two, but no further; nor did the "I love my Mazda" sticker. Presently slated for retirement are: the dashboard heart that lights up in red with the words "love caressing"; the pair of little green bordello cabin lights; the red hyphen lights above the front number plate; the fog lights inscribed Denji; and at least one of the three antennae.'

The commercial centrality of car upholstery in turn forced me to acknowledge the objective evidence that, notwithstanding the relatively short time most people in Trinidad had had access to cars, cars were far more integral to identity and daily life than I had been familiar with in Britain. Some of this relationship was economic: for example, the importance of 'pulling bull', whereby drivers whose cars are not registered as taxis nevertheless use their cars for taxi work employing a hand gesture to tell potential passengers of their role. Approximately a

third of all lifts I had in cars in Chaguanas during my fieldwork came from such private cars. This was in addition to the high degree of ownership of actual taxis. But much of this intimacy with cars could not easily be related to any economic effects. I soon learnt that individuals were located more often through the car parked in front of a house than by the house number. The local press constantly spread scandal and innuendo through reference to car ownership as in 'The leader has a nickname which resembles that of a popular large local fruit, and he drives a taxi which is neither too dark or too light' (*The Bomb* 21 December 1990), or it will talk of an AIDS victim 'whose husband drives a Mazda'. The retailers I studied, irrespective of what they were selling, routinely decided their expectations of a particular customer entering their shop on the basis of the customer's car, and so I would be told that a Laurel driver bought this but a Cressida driver would not buy that. The identification of persons by their associated cars is then not the exception but the norm of daily social discourse.

The situation was not as extreme as in Bermuda where Manning (1974) reports parties or even funeral notices being given on the basis of a person's car number plate because these were better known than their names, but it would also be true for Trinidad that gossip depends a great deal upon where a particular car has been seen and it is commonplace to infer things about the owner. Most people recognize a large number of such number plates. Car parts were also central to the sexual innuendo that is found in conversation and also calypsos, such as where a mistress is referred to as a 'spare tyre' and girls who pick their men by the bodies of their cars rather than that of their drivers as 'gasbrains'.

I also had to get used to an unwillingness to walk, as evidenced in the queue of cars in front of the school gates as each waits to put down or pick up at the exact entrance, and the tendency to have conversations from car to car often to the dismay of those parked behind in the traffic. Not surprisingly this was also reflected in car care. Anecdotes were common about neighbours who wash the car at least once a day, twice if it has rained, and who pay particular attention to the area within the treads of the tyres, and the sheer tension when a car door is slammed. Clearly then to understand this centrality of the car I would need to follow its further entailments in both social and material domains.

My next observation was that while the upholsterers are essentially concerned with car interiors, in the same high street are found other shops which are devoted entirely to car exteriors, such as the tinting of window glass and the adding of stripes to the exterior or wheel hubs – a key fashion item that at the time was shifting from metallic to

white. I then surmised that the interior and exterior activities seemed focused upon two distinct groups of customers. While a car with fake tiger skin and pink plush interior might also have flashing lights on the exterior, in general retailers distinguished between a 'cool' look emanating from stripes and tinting and the 'flash' look embodied in some of the more outrageous upholstery. In turn, as so many dualisms in Trinidad, these are presented first in terms of ethnic stereotypes. A conversation described the 'Indian with gold on his fingers and hair greased back who wants crushed velvet upholstery but can only afford short pile acrylic but spends ages brushing it the right way' but also the black dude with his mistress projecting loud music from a car with tinted glass and stripes on the exterior.

Based on this initial separation of inward-looking and outward-directed car transformations I could link car upholstery with the extensive use of upholstery in the area of home furnishing. Such upholstery is generally evocative of interiorization as a value expressed in the living room, which I had anyway intended to study. The use of common elements such as the colour maroon and a similar employment of plastic-covered seats helped link the two sites. Their association was extended further when I interviewed the other upholstery industry in the area which are the funeral parlours, where coffins and the more expensive and luxurious caskets are almost invariably lined in deep buttoned upholstery. This led to the conclusion that the car was expressing a contradiction. On the one hand some treatments of upholstery turned the car to the values associated with the interior and the family (continued aesthetically even after death), while on the other hand an emphasis on display turned the car in the opposite direction towards a concern with individualism and mobility associated with the world outside the home.

As I followed these leads more widely I found the same dualism apparent in many other fields, which led ultimately to a representation of Trinidadian culture in terms of an opposition between two basic principles. On the one hand what was termed 'transience' tended to an orientation to the present and was focused on the public arena, where things are brought out into the open. These values were most fully expressed in the festival of Carnival. By contrast there coexisted another set of values termed 'transcendence' that was concerned with pasts and futures and also with interiors such as domestic life and the family. This set of values was most fully expressed in the festival of Christmas.

In turn I argued that many parameters of social life that tend to be seen in dualistic terms – including class, gender and ethnicity – may

be derived from this foundational contrast between transience and transcendence. This had evident implications for the analysis of the car. To return to the problem of the dominance of car upholstery: the majority of people in this town are of South Asian origin and the male Indians are the dominant car-owning group. I argued that the car had become a key expression of their emulation of a sense of freedom which is associated with the lifestyle of African males, but constrained by modes of family life and attitudes to possessions associated with Indians. For example much of the fanaticism of car care seemed aggressively aimed at other members of the family who might feel they had a 'traditional' right as family members to use the car. The car is a substantial possession which usually 'delivers' on its promise of greater autonomy and freedom, but this does not necessarily mean that the driver abandons one set of values for another. The transference of domestic upholstery to the car seemed to be directed at retaining values asserted in the world of the domestic interior while enjoying experiences which in Trinidad are often seen as in direct opposition to these values.

While another analysis might have interpreted the car thereby as an outer expression of a core ethnic division, I saw the ethnic division as itself a manifestation of a foundational conflict in values that I had come to understand through the analysis of car upholstery. This conflict could also be found manifested in the way stereotypes of gender and class were being developed. This seems to me to indicate an advantage to the ethnography of material culture. Instead of assuming some social parameter such as class or gender and reducing one's observations to reflections of those, one works in the opposite direction. It is by finding out what a car is that one finds out what normative culture has become and how social stereotypes are thereby generated. I started with the unexpected observation that the town where I chose to live was dominated by the car-upholstery industry and end in understanding that this is because the cultural values of contemporary Trinidad are objectified precisely in car upholstery. The car itself then becomes understood not as a starting point but as an object whose presence can be comprehended as part of the movement from the study of car upholstery to generalizations about Trinidadian values. Through the study of entailments we come to a conclusion about what cars in particular contexts have come to be.

Entailments

The study of Trinidadian car upholstery illustrates how the study of entailments develops into the study of car culture. Indeed in this case

my claims to any understanding of culture itself, as the play of normative values upon individual practice, arose through the problem of understanding the car. This in turn gave me my sense of what the car in Trinidad had become. But there are other chapters in this book that better exemplify the other ways in which the study of entailments complements the study of externalities. The first of these is the need to find a new way of connecting the larger aggregate effects of the car and the involvement of wider forces such as the state and the market with the more personalized and intimate relationship between cars and their users. This is something the approach to externalities conspicuously fails to do. Chapters Four, Five and Six in this volume help bring out the larger relationship to the state, to the political economy and to historical process that go well beyond the links made within my Trinidadian example.

For Gilroy in Chapter Four, the intense and intimate attachment between a particular group identity that US blacks developed with and through the car, and which he shows to be richly seamed in music and other aspects of black popular culture, can only be understood in terms of the larger history in which it was the market and wider social exclusion that made the car such an object of desire. A dialectic of overcoming that negates this initial separation is the fertile ground for this subsequent cultural efflorescence. More problematic is the extent to which the subsequent car culture acts or fails to act as a defetishism of the relationship between a history of oppressive labour in car production. This may resonate with a deeper and largely ignored ambivalence about the relationship to the car. What Gilroy excavates is the sense that, if one can see the repressed behind what seems at one level to be so overwhelmingly expressive a relationship between people and cars, then this could open out a more profound sense of the black route through US history. This history brings back into view, but through a critical lens, the centrality of consumer culture that is constantly reiterated in black popular culture. As such it exposes the limitations of more conventional history and narrower conceptions of the 'politicized' that fail to comprehend the implications of consumption for core alignments and misalignments as here between race and class. As has also transpired in other chapters, Gilroy highlights the centrality of consumption, and particularly car consumption, to the emergent consensus as to what areas of life we are prepared to acknowledge as politicized.

O'Dell's Chapter Five study follows well from that of Gilroy since in many respects his chapter documents the way these tensions within

US identity have become exported partly by virtue of the way the rest of the world has come to regard the car itself as a core symbol of American culture. In this case we find the car thereby becoming a prime element in the development of the Swedish sense of itself within the movement to modernity. On the one hand it could be the vanguard of a modernity that Sweden in general was keen to emulate and develop, but only if it could be an acceptable Swedish inflection. This contradiction is fully exploited in the 1950s by young greasers (*raggare*) who brought out precisely the sexuality, freedom and danger that their parents wanted to strip away from the American version of modernity. So in one sense the *raggare* seem to require what for them was the greater authenticity of the 'really' American car. But as O'Dell traces in detail, the way this relationship was played out within the larger compass of generational and class conflict in Sweden, it becomes clear that in their own way the *raggare* had become just as localized and specific to their own agendas and agency as the forces that tried to repress them. O'Dell's analysis is reminiscent of one of the founding papers in the modern study of consumption where Hebdige (1981) showed how motorbikes and motorscooters could occupy a similar position as both general signs of modernity but in their case objectifying rivalrous versions of the proper route to the appropriation of that modernity.

Garvey's Chapter Six emphasizes the still more paternalistic regime represented by the Norwegian state. This in turn clarifies the role of the state in determining the subsequent form taken by the relationship between a segment of the population and the car. The Norwegian state in a mix of Puritanism and paternalism tended to regard the development of the car as something to be feared and highly controlled, for which individual users would have to apply for a permit. In effect they thereby bracketed the car with other substances such as alcohol, which is still regarded with deep suspicion, and where an act such as drink-driving is regarded with particular horror. Seen from the opposite perspective of an ethnographic engagement with working-class women, Garvey observes the degree to which such women seem in turn to regard the car in much the same way as they regard alcohol. They are both ideal vehicles for transforming their behaviour in what locally is experienced as quite a radical 'flip' from a highly normative order to what would locally be regarded as highly transgressive disorder. As a result a particular genre of dangerous or 'deviant' driving becomes a clear equivalent to 'drunkenness' in the repertoire of their forms of practice.

In these three chapters, then, the problem of articulation between car culture and the wider political economy is constructed through a sensitivity to issues of power, particularly as expressed in forms of autonomy and cultural construction that as Gilroy indicates even where they may not effect any empowerment are certainly expressive of the sense of disempowerment. The car as working-class culture is either potentially re-thought back to the place of the working class in car production or, as for many of the women involved, it is swept into projects of sexual and other forms of freedom. If, however, these three chapters achieve something that was missing in the prevailing literature in terms of such an articulation, they in turn bring out the need to not just understand but find a way to express the intensity of the subsequent relationship to the car. It is this highly visceral relationship between bodies of people and bodies of cars that forces us to acknowledge the humanity of the car in the first place. And this is not something that emerges sufficiently either from the current literature or from a case such as the car upholstery in Trinidad.

It is the car enthusiasts who most clearly and fully express this relationship, as can be seen in the work of Moorehouse (1991) and O'Dell (1997). These are the people who seem to cultivate their cars to the degree that one feels the transformation of the car body is a vicarious expression of their sense of bodies more generally. This is brought out well in a recent journalistic account of cars in weekend car meets in contemporary Britain, and one car in particular that began life as a Ford: 'the wheels were snug to their pink rims, which flowed silkily into the wings, the doors, the side skirts, which skimmed the ground. The lines were fluid; everything about the car was smoothed and rounded, scooped in, curved out. The wing mirrors hugged and flexed to their doors. No sharp angles, no nips and tucks. No superfluous chroming or plastic.' Inside 'The poles were painted lime green, and beneath them, where the back seat should have been, were two of the biggest built-in car speakers I had ever seen . . . The bass started shaking my loose change. And this was over the sound of an engine, which was revving and booming like Concorde with a cough.' (Sawyer 1999: 31–2).

Behind this more extreme relationship Sawyer highlights the more mundane but perhaps more central role of the car at the stage of such teenagers' first aspirations, thereby linking the car enthusiasts of O'Dell's chapter to the more general relationship found among US blacks or Norwegian women in the other two chapters: 'a car is the only one of your dreams you're likely to see come true . . . advertisers understand

that you may not ever run a company or own a mansion or have rails of couture clobber or go to Bali for your holidays – but, for a few hundred quid you, too, can buy a car' (ibid: 26). The car in general does not disappoint but is the means to realize that which it has promised, as she recalls: 'There's not much that can beat that feeling, even now, of music, and motor and people yapping nonsense and knowing that there's stuff to come, that the evening's not even started, that you and this fantastic machine are getting closer, being drawn in, towards the lights and the dark and the possibilities . . . Eventually driving like that leads to stopping. Stopping in some lay-by and leaving the tape on and getting into the back seat and pushing the front seats up against the window and grappling with zips and tongues and twisting clothes and limbs because there's nowhere, really, for you to go, because your parents are in and the clubs are all shut and there's only the car that can give you the space to discover what you are and who you like and who you are and what you like.' (ibid: 29)

What remains missing is the way this initial more celebratory relationship remains intimate and intense even when it also becomes that much more mundane and banal, as for middle-class and middle-aged men or housewives. For this reason perhaps the core to a new car literature ought to be in the experience of traffic. Yet this is perhaps the biggest of the lacunae. Traffic is central to the literature on externalities, but it is always as a simple trope of alienation, never an expression of the tightness of our relationship to cars. It almost comes as a relief to read Parker (1999: 31) who perhaps comes closest to the single most common experience of car use for most people today. As he notes, 'London drivers fear the morning peak, and the evening peak, and the school run rush hour, and the West End theatre rush hour. They fear the Saturday afternoon traffic and Sunday night traffic. And they fear the prospect of leaving a good London parking spot, when a car fills the space they have left, they feel troubled and adrift, regretting their recklessness . . . They fear the thousands of streets whose parked cars make it just too narrow for two cars to pass, and where they must play complex, draining games of oscillating generosity and aggression . . . They have a great fear that they are losing a race. The race is with an imaginary car that set out from the same place at the same time, but then did not get stuck behind the 31 bus, did not miss the lights, did not make that unforgivable lane error on Commercial Road. This car is way ahead.'

Two of the chapters in this book are particularly concerned both to convey and to analyse the intensity of ordinary relationships with the

car that extend beyond the high-pitched charge of youth. Chapter Seven by Verrips and Meyer is particularly important in taking us away from a Euro-American history and also from an assumption that this intensity can only come through the act of car consumption. In their discussion they give us a sense of the humanity of the car as integral to the people who possess cars that is just as powerful and effective as in Chapters Two and Three by Young and Michael. What is portrayed is a kind of eternal struggle in which the individual can only gain his or her own life through his or her struggle to keep alive this machine which not surprisingly is conceptualized in relation to various spirits and forces that mediate between human and other forms of agency. But in their case it is not the experience of driving but that of repairing the car that is central to this relationship. It is not just that we are taken down from the world of Detroit's 'Fordist' systems to a tiny workshop in the backstreets of Ghana. It is also, as the authors conclude, that the very act of maintenance is here not separated out from the rest of life as the proper task of professionals or even workers: its integrity to daily life where almost everyone has some view or experience of car maintenance, produces something of that sense of auto-citizenship that the political discussion of externalities is trying to resurrect, though here in quite a different context than that literature could ever envisage.

Chapter Eight, the one most clearly directed towards the intimacy of our relationship with cars, is Michael Bull's discussion of the audio world of cars. This seems to follow from what Parker expresses as the ordinary sense of frustration and failure that drivers experience. Bull shows that this produces an extraordinary ability to cut oneself off from the world while at the same time, for safety reasons, one is aware of every millimetre that separates the car as one's extended self from others. In this account which (as that of Parker's) I find unnervingly close to my own experience, the car has become far and away the/my primary place for loud and utterly absorbing music. Bull's contribution is particularly important because it focuses upon that aspect of the car that is most absent from academic accounts though vital to popular culture, which is the experience of driving. Indeed by picking on the very particularity of the effect of the sound system he explores an avenue that would be productive for all aspects of car use. It is the paradox by which we can negotiate a few centimetres of rushing space with hardly a glance and yet people pick their noses at traffic jams as though the windows of the car were a barrier rather than a view onto their interior space. Bull's paper shows how sound has effectively

colonized this niche provided by a kind of ambivalence about consciousness, so that one can as it were both find oneself and lose oneself in the intensity of music and voice in the car in a manner that makes this more of a home space than the actual house. The sound as much as the car creates a particular mode of space and experience, that can be constructed even within that relentless and enforced sense of alienation that Parker describes as traffic.

From the re-articulation of micro- and macro-perspectives found in Chapters Four to Six and the sense of the intimate relationship between people and machine found in Chapters Seven and Eight, we are in a better position to see the way an approach to entailments complements and extends the approach to externalities. But the intention is not to attempt to replace one with the other but to conjoin the benefits of each, and there are a number of ways in which this can be achieved. One of the positive developments in the recent writings about cars has been a preparedness to explore a wider range of entailments each of which seems to spin off its own history and sometimes eccentric but promising perspective on wider issues. These can make for fascinating reading; for example, Jennings (1990) and Wachs and Crawford (1992) include articles on subjects such as the history of garage architecture, how trucking became central to US vernacular culture, the forms of roadside advertising and the ideological significance of route 66 from Chicago to Los Angeles which among other things influenced Steinbeck's *Grapes of Wrath* as the route for the dustbowl exodus. Through such studies one can glimpse the range of social and material entailments of the car that might be explored by a more adventurous and imaginative academic pursuit, though they also suggest other areas such as the experience of parking that have remained neglected.

The point that may also emerge from the range of such studies is that we cannot presume how the stance to the car should be divided up. In the literature on externalities we can see clearly divisions between the treatment of the car as object, the private experience of driving and the public concern with the consequences of the car. But from the point of view of entailments the situation is more complex. What counts as public and what as private is too bound up in larger histories of ideology discussed in Chapters Four to Six and too unclear in particular ethnographic encounters as reported in other chapters within this book. What the study of entailments suggests is that we need to transcend oppositions between say transport studies and design studies, and allow a focus upon the car to transport us intellectually between otherwise separate academic destinations.

As things stand we might expect to come across an empathetic account of a driver, but it is very rare to find one based on the study of transport infrastructures. The same Parker (1999: 14–17) who writes so eloquently about traffic also makes an attempt to do just this with a rather inspired example of entailments in his story of a traffic signal engineer dealing with the notorious Hanger Lane gyratory system, where a major London orbital meets a major London radial used by around 8,000 vehicles an hour. The tale of how this engineer found a spare seven seconds in the sequencing of the traffic lights that could set the traffic moving again becomes positively heroic. Parker also manages a couple of pages on the history of painting road lines (ibid: 19–20) and speculates on the potentials of city gridlock.

To fully re-engage the literature about externalities with that on entailments however, we need to return our studies to the debates about ethics and futures which generated so much of the current literature on the car and keeps it so committed. In his Chapter Nine, Maxwell attempts to do this by returning these debates to the drivers. Since these debates are so vocal and disseminated so widely in the media, they become in turn the backdrop to the reflexivity of the drivers themselves, which is precisely what the critics of the car intend. But what Maxwell reveals is a further consequence of this reflexivity in a context where – as has been argued throughout this introduction – the critical literature has cut itself so far off from the experience and concerns of drivers that it becomes as much a source of alienation as the car itself. The various voices that emerge from his chapter are spending at least as much time trying to reconcile themselves to the critical discourse on the car and the guilt they are expected to feel from their use of the car, as they are to their driving of the car. This is because for them even where the discourse achieves a much greater consciousness of externalities, these would still have to be brought within concerns that cannot be separated off as simply environmental issues. As I have argued elsewhere with respect to ethical consumption (Miller forthcoming), we see here a conflict between an ethics which is concerned with aggregate effects of personal action on the world at large and a morality that sees caring in terms of more immediate concerns such as one's partner and children. Thus the problem becomes one of whether we make a special car journey with adverse environmental effects because otherwise we feel we are exposing our children to discomfort or even danger. Without empathy the critique of the car comes across as the cold adversary rather than the warm friend of a humanity that defines itself as involved in an ordinary struggle between contradictory moral strategies.

It is women, in particular, who tend to be faced with these contradictions as yet another burden of the daily calculations of moral action. Indeed the topic of gender is one of the most productive for making explicit many complex issues of car culture. These contradictions are illuminated by historical work on the topic, which shows how the clear gender divisions in car use might be viewed as much as an unusual foray by males into an otherwise female-dominated world of consumption as a struggle by females to prevent their exclusion from an arena of consumption associated with male technological issues (see Scharff 1991 and McShane 1994: 159–71) – the struggle for control of the back seat complements any struggle over driving. What tends to be missing is a more empathetic account of the centrality of car use in women's lives. There is nothing equivalent to DeVault's (1991) sensitive work on the juggling involved in the provision of meals that would look at how a car journey must often also be a strategy about how to fit a visit to the bank between picking up one child from school and depositing another at his or her friend's (though see Rosenbloom 1992, and Wachs 1992). Yet these are precisely the kinds of dilemma that underlie the discussions reported by Maxwell.

For this reason it seems fitting to end the volume with a chapter by Gertrude Stotz that takes the issue of gender as central, not in a narrow form, but one in which gender is fully implicated in other issues such as racism and the larger relationship of power between colonial culture and the colonized. There is an intended symmetry here created by starting the volume with Young and ending with Stotz. In order to establish the manner in which this book acts as a breach with the conventional literature Young's Chapter Two breaks apart a Western discourse that would make us oppose the supposed authenticity of Australian Aboriginal people to the supposed inauthenticity of the car. The humanity of the car is first established in the degree to which it clearly becomes an authentic instrument of Aboriginal culture. But once that humanity is acknowledged then it is equally important that all the faults and frailties of that humanity are also attributed to car culture, which is what becomes evident in Stotz's Chapter Ten.

Chapters Ten and Two differ not only because they relate to two quite different Aboriginal groups, not only because Two is dealing with private vehicles which are much easier to assimilate than the communal Toyota that is the subject of Ten, but also because the authors of the two chapters intended to be complementary. While Young demonstrates in Two the integrity of the Aboriginal car, Stotz highlights in Ten the contradiction that it brings out in a situation riven by conflicts

of racism, gender and, more generally, power. If anything the Toyota compounds the internal power conflicts of the Warlpiri with the asymmetries of gender relations assumed by the surrounding whites, such that the arrival of the car becomes a kind of Trojan horse containing gender conflict within its body.

Stotz in Chapter Ten then highlights and completes the intention of this volume to turn the study of cars into one of car cultures. This involves an initial acknowledgement of the humanity of a machine that has become integral to cultural life for so many people, an acknowledgement that includes rather than excludes all those contradictions that make an attempt to understand the car inevitably part of that larger struggle to understand our humanity. The volume thereby represents a third force in the literature on the car. This literature emerged with a history of events and persons broadened into a more general set of regional social histories. More recently there emerged a concern for externalities that is all those consequences of the car that had been removed from the frame of enquiry. With this volume the approach is to re-enter diverse historical and social contexts which problematize any assumptions that we know what the car is, except by developing a greater sense of what it has become and what cultural practices, values and moralities have become associated with it.

Obviously this volume makes no claims to be comprehensive; the regional coverage is evidently partial, as are the topics covered, with no chapter on car sales and purchase, for example. There is room for many related volumes on, for example, two-wheeled vehicles, or trucks in diverse regional and social settings. But it is the ambition of this volume to make such absences the more glaring. This can be only an initial account, and the various claims made in these chapters are thereby limited in turn. For example, I began writing this introduction with the clear ideal that if one could account for the massive discrepancy between the extensive treatment of other aspects of material culture such as food, clothes and houses and the paucity of any comparable studies of the car this might itself provide insights into the nature of car culture. I end defeated – I have very little idea why this discrepancy exists to the degree to which it does – but as with all the contributors to this volume at the very least we hope to generate a sense of what has thereby been missing.

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Note

1. Thanks to Elizabeth Shove for this observation.