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The car as a material possession; exploring the link between materialism and car use

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Abstract

A significant proportion of household energy requirements is for transport. For this and other reasons social scientist are increasingly interested in understanding why people use cars and how they can be persuaded to use more sustainable forms of transport. This research tends to focus on the instrumental costs and benefits of car ownership and use. The role of social-symbolic aspects has received relatively little attention. However, the car is often recognised an important symbol of success and this may form an important barrier for change. This paper, examines the relationship between materialistic values and perceptions, attitudes and behaviours in relation to the car. People who hold stronger materialistic values tend to place more importance on material possessions as symbols of success and wellbeing. This paper presents data from several qualitative studies. The data show that, in line with existing research on materialism, people who express stronger materialistic values are more motivated to own and use a car, particularly an expensive car, they attached more value to cars and they are less likely to want to reduce their car use. These findings support the idea that the social-symbolic value of cars may constitute a barrier for change and this therefore needs to be addressed in interventions which aim to address car possession and use.

Keywords: Materialism, car use, possession, symbolic, mode choice

Introduction

A significant proportion of household energy requirements is for transport. According to Reinders, Vringer and Blok (2003) 18% of total energy requirements of European households is for transport, 13% of which is for fuel. For this reason and for other environmental and social reasons (e.g., air pollution, congestion, traffic safety) a great deal of research has been conducted to examine why most people prefer using a car over other modes of transport for their daily travel and how they can be persuaded to use their cars less or even abandon them all together. The majority of this research focuses on examining the rational, instrumental benefits of the car as compared to public transport, walking or cycling. This research tends to show that people indicate they use a car, rather than another mode of transport (particularly public transport) because they believe it is more reliable, accessible, safe, fast and cheap. Similarly, such practical convenience based aspects are often mentioned as barriers for reducing car use. The negative aspects of cars, mentioned in this type of research are usually related to stress, physical health and the environment (e.g., Bamberg and Schmidt 2001; Fujii, Gärling and Kitamura 2001; Hunecke, Bloebaum, Matthies and Hoeger 2001; Joireman, Van Lange, Van Vugt, Wood, Leest and Lambert 2001; Matthies, Kuhn and Kloeckner 2002; Nilsson and Küller 2000; Verplanken, Aarts, Van Knippenberg and Van Knippenberg 1994).

An important aspect related to car use, that is relatively understudied is the symbolic value of cars (see Gatersleben, 2008 for an overview). Although people may not necessarily refer to such aspects when asked to justify their mode choices, several scholars have argued that such aspects can play an important role (e.g., Diekstra and Kroon 2003; Flink 1975; Goodwin 1995; Marsh and Collett 1986; Sachs 1984). Steg,

Vlek, and Slotegraaf (2001) specifically examined the relative importance of instrumental, affective and symbolic aspects in relation to car possession and use. In their research emotional aspects refer to the emotions evoked by travelling, such as feeling stressed, excited, pleasant, or bored. Symbolic aspects are related to people's desire to express their social identity and status (Schlenker 1982). Steg et al. (2001) showed that when people are asked to rate the attractive and unattractive aspects of a car on a rating scale, rational instrumental aspects were the most prominent positive aspects. However, when a more subtle card sorting procedure was adopted to unravel the attractive aspects of car ownership and use, symbolic-affective aspects featured most prominently. Respondents gave highest ratings of attractiveness to vignettes which described car related scenario's featuring affective-symbolic aspects (e.g., feeling proud of the car). In addition to this relatively rare quantitative evidence there is also evidence from qualitative studies that symbolic aspects play a role. For instance, in interview studies some car users talk about their cars using terms such as prestige (e.g., Hiscock et al. 2002) and status (e.g., Mann and Abraham 2006).

The idea that people may derive a sense of status from material possessions has been studied in the field of economic psychology for years. This research has shown that material possessions can play an important social symbolic role in people's lives (e.g., Belk 1991; Dittmar 1992; Richins and Dawson 1994; Kasser 2002). Dittmar (1992) suggests that material possessions can have important symbolic meaning for people and that they are often used to express social and personal identity. Social psychological research has shown that people have a psychological need to gain other peoples' approval. One way to ensure the approval of others is to manipulate and adapt ones' outward actions, through the process of 'self presentation' or 'impression management' (Schlenker 1982). Material possessions can be especially

useful for manipulating the impression that we make on others because they are highly visible and are commonly recognised as stereotypical symbols of socio-economic groups. Therefore, they can be instant symbols of identity, social standing, attitudes and beliefs (Dittmar 1994). The private car in particular can have strong symbolic appeal, because, through years of persistent media advertisement, it is commonly understood and accepted as a symbol that denotes social status, confidence, power, and competence (Hiscock et al 2002; Stokes and Hallett 1992; Marsh and Collett 1986; Stradling, Meadows and Beatty 1999).

Research that examines the social psychology of material possessions often focuses on the concept of materialism. Materialism can be defined as 'the importance a consumer attaches to worldly possessions' (Belk 1985) or 'the importance a person places on possessions and their acquisition as a necessary or desirable form of conduct to reach desired end states including happiness' (Richins and Dawson 1992). The extent to which people value material wealth and possessions varies. Those who have a stronger materialistic value orientation place more value on becoming wealthy, owning possessions and conveying status with possessions than those who do not.

According to Kasser (2002) people can develop materialistic value orientations when they experience uncertainty and, at the same time, are exposed to models of materialism. In support of this, research has shown that people who are more materialistic are more likely to have materialistic parents (Kasser, 2002). They are also more likely to have experienced broken or unsupportive families (Rindfleish et al. 1997). Experimental studies have supported these findings by showing that promoting insecurity and low self-esteem can result into materialism (Kasser, 2002) and that material objects are often used to cope with self-esteem issues (Kasser 2002, Solber 2004). Banjeree and Dittmar (2009) showed that the rejection of peers can

create insecurity that promotes materialism, but this is mediated by perceived pressure to conform to peer culture (Banjeree and Dittmar, 2009).

Marked differences have been found in the types of possessions valued by those rating high and low in materialism, and in the reasons behind their attached value. Richins (1994) found that high materialists were more likely to value more expensive possessions, assets, and appearance and transport related possessions, and less likely to value possessions which had "interpersonal associations" or were recreational. In one of her studies 25% of the respondents high in materialism indicated that their most valued possession was transport related (e.g., a car) whereas 12% of those low in materialism mentioned transport related possessions as their most valued possession. Moreover, high materialists were more likely to report "financial worth" as the reason for valuing these possessions (Richins 1994).

The present paper examines the link between materialism and attitudes towards cars, car related behaviours and willingness to change car use. The paper draws on data from a variety of studies among adults and young people. If a car is an important and recognised symbol of status and success we would expect that those who score high in materialism are more likely to want to own or buy a car, attach more value to cars and are less willing to reduce their car use or replace their car.

Survey on values and household energy behaviours

In 2001 a study was conducted among English households on values and energy use. The survey was distributed among households in two areas in England, one urban and one rural area. Respondents were offered a chance to win a £70 voucher for participating in the study if they returned the completed questionnaire in the free post

envelop provided. A total of 2,000 surveys were sent out and 266 were returned (a 13% response rate). Just over half the respondents came from the rural area (54%). About two-thirds of the respondents were female (64%), about half of them were 16-55 years old.

The survey asked respondents a range of questions related to household energy use and the environment. These included questions about their house, their community, possession, and pro-environmental behaviours. A few questions, in the survey are of interest here. Respondents were asked to complete the materialism scale by Richins (2004), which includes items such as 'I like to own things that impress people' and 'I admire people who own expensive homes, cars and clothes' (1 = totally disagree, 5 = totally agree), as well questions on generosity (I enjoy sharing things with other people) and possessiveness (I'd be happier if I could afford to buy more things). The mean score was calculated for each respondent across the 15 items of this scale. The scale had a high internal consistency (alpha = .80). Another question of interest here was posed to the respondents at the start of the survey. Here they were asked to describe their lifestyle in a few words and then they asked to 'please name three possessions that you own, that are an important part of your lifestyle'. The respondents were also asked 'if you could drive any car in the world for just one day, what would it be? (make, model etc)'. At the end of the survey respondents were asked how many cars or vans they owned.

Most households (50%) owned just one car and very few did not have a car (8%); around a third (32%) had two cars and 10% had more than three cars. The number of cars present in a household was not related to scores of materialism. When asked to indicate what the most important possession was for their lifestyle, just over half of the respondents mentioned a car (51%). Those who did mention a car had a

marginally higher score on the materialism scale (M = 2.52) than those who did not (M = 2.41; t = 1.76 (263), p = .08). When asked which car they would drive for a day 80% of the respondents mentioned a very specific car. The types of cars they mentioned fell into four categories: 18% mentioned a normal car (not necessarily expensive or their current car), 28% mentioned an expensive car (e.g., BMW, Mercedes), 13% mentioned an unusual (e.g., taxi) or vintage car and 21% mentioned an expensive racing car (e.g., Porche, Ferrari, Aston Martin, Formula 1). However, 20% indicated they would not be interested; ‘ I have little interest in cars’, ‘not interested’, ‘I hate driving’, ‘couldn’t care less’. Those who said they were not interested had on average similar scores on the materialism scale to those who mentioned a normal car (M = 2.33) or an unusual or vintage car (M = 2.51). But they had significant lower scores on the materialism scale (M = 2.20) than those who mentioned an expensive car (M = 2.60) or those who mentioned an (even more expensive) sports car (M = 12.60; F = 3.26 (242), p < .01).

On the basis of this study it can be concluded that materialism is not related to car ownership. It is weakly related to the relative importance people attached to their car for their lifestyle. However, those who have more materialistic values are significantly more likely to value more expensive cars than those who hold weaker materialistic values.

Pilot study on affective-symbolic experiences with cars

A small scale pilot study was conducted to examine symbolic-affective aspects in relation to different types of cars and how perceptions of such aspects vary between respondents depending on their materialistic value orientation.

The survey was distributed among undergraduate and postgraduate psychology students during a lecture. All 52 students in two groups completed the questionnaire and returned it to their lecturer. The student's age ranged from 20 to 52, but most (78%) were under 25. There were significantly more female students (78%) than male students. Just under a third of these students owned a car (28%). The findings of this study should be treated as exploratory due to the small and non-representative sample.

At the start of the questionnaire respondents were shown a photograph of either a sports car or a large four wheel drive. They were first asked whether they liked the car. Then they were asked to imagine driving the car shown on the photograph and to report how they think they would feel if they did so on a list of 18 affective-symbolic aspects (e.g., adventurous vs. boring, powerful vs. weak, superior vs. inferior, successful vs. a failure, self-indulgent vs. modest, proud vs. embarrassed; scales ranged from -3, +3). They were also asked to complete the materialism scale by Belk (1985). One variable was created by calculating the mean score for each respondent across the 23 items of the materialism scale (alpha = .74).

Factor analysis (PCA with Oblimin rotation) was conducted on the affective-symbolic items. This analysis revealed two factors explaining 61% of the variance. Two new variables were created by calculating, for each respondent, the mean score across all items with factor loadings of .50 of higher on each of these two scales. The first scale captures the extent to which they respondents said they would experience a sense of status (e.g., special, influential, competent, powerful, proud, superior, successful, sophisticated; alpha = .92). The second scale captures the extent to which the respondents indicated that they would experience a sense of irresponsibility (irresponsible, self-indulgent, tolerant, big headed; alpha = .78)). On average the

respondents felt that the sports car was more status enhancing ($M = 0.68$) than the four wheel drive ($M = -.06$; $t = 3.78(49)$, $p < .01$). Those who scored higher on materialism were more likely to indicate they liked the cars ($r = .26$) and they were more likely to say that they would derive a sense of status from driving either car ($r = .23$). The strongest correlation was found for feeling powerful ($r = .32$, $p < .01$). There was no difference in these expected experiences between the two types of cars. Also no relationship was found between reported materialism and the extent to which the driving the cars would elicit a sense of irresponsibility.

Taken together these finding suggest that people who have stronger materialistic value orientations are more likely to perceive these expensive cars as symbols of status and success. They were more likely to believe that driving the expensive cars would make them feel powerful, competent, proud, etc, as compared to those who have weaker materialistic values. The study was only conducted among a small sample of mostly younger people, many of whom do not own a car. A further study examining a wider range of cars among a wider sample of car users and non-car users would need to be conducted to confirm these findings.

Surveys among young people and consumerism

In 2007 a survey was conducted among young nature conservation volunteers (16-25) and non-volunteers to explore the relationship between values and consumer behaviours among these two groups (see Gatersleben, Meadows, Abrahamse and Jackson 2008). A paper version of the survey was distributed among young volunteers and 38 completed questionnaires were returned. An on-line version of the questionnaire was completed by 16 university students and 45 questionnaires were completed by randomly approached young people at the leisure centre. The age of the

respondents varied between 16 and 25, on average they were 20 years old. There was an equal number of male and female respondents.

The questionnaires asked a range of questions about the respondents' daily activities, their values, attitudes and behaviours. This included a modified version of the materialism scale developed by Belk (1985). This version was specifically developed to measure materialism among young people (Kasser, 2002). The scale used in this study asked questions about possessiveness and non-generosity. One scale was created on the basis of the questions (alpha = 87). In addition the respondents were asked how they would spend one million pounds if they won it in the lottery. To this the respondents gave a variety of answers that could be grouped into eight categories: a house (mentioned by 61%), luxuries for themselves (e.g., holiday and clothes, mentioned by 61%), a car (32%), give (some of) it away to family or friends (27%), give (some of) it to charity (28%), or use it to pay off debts or invest for the future (27%), for education or to set up a business (14%), or to make their (or their parents) house more energy efficient (3%).

T-tests revealed that scores of materialism were not related to car ownership. However those young people who mentioned buying a car with their lottery winnings had significantly higher scores on the materialism scale ($M = 3.20$) than those who did not mention buying a car ($M = 2.86$; $t = 4.36$ (334), $p < .001$).

The findings show that the car is more likely to be perceived an important possession to own by young people who have stronger materialistic value orientations. This finding supports the hypothesis that cars are not only valued and purchased for instrumental or functional reasons. For some people the value of a car goes beyond practical issues.

Survey among participants of study on sustainable living

In 2008 a survey was distributed among participants of a year longitudinal study on sustainable living. The survey explored the values that underlie pro-environmental intentions and behaviours (see Gatersleben, White, Abrahamse, Jackson and Uzzell 2009).

Participants for the study were recruited from a sample of UK households who own a store card of a major DIY chain in the UK. From the initial responses (around 3,000), 100 households were carefully selected to form a sample representative of English households. Questionnaires were send to all household members 16 and over in each of the participating households. The completed surveys were collected by an interviewer who visited the households to conduct an energy audit. A £500 grant was given to each participating household as well as an information pack and a pack containing eco-products. A total of 194 respondents from 99 households completed the questionnaires. Respondent's age ranged from 16 years to 73 years, with an average age of 43 years; 51% of respondents were female, and 49% male.

The survey asked a range of questions on daily activities, pro-environmental behaviours, participation in the project and on values and attitudes. Amongst other respondents were asked how many cars are present in their household and how important a car is to them personally (1 = not at all, 5 = very important). They were also asked to what extent they intended to adopt a range of behaviours over the 12 months of the project in order to save energy (1 = I will definitely not try, 5 = I will definitely try), this included six questions on changes in transport behaviours: drive less, cycle more, use more public transport, avoid travelling by plane, make weekend trips closer to home, and change to a more efficient car. The respondents were asked

to indicate for the same behaviours how difficult they believed it would be to adopt them (1 = very difficult, 5 = very easy). Respondents were asked to complete the 15 item materialism scale developed by Richins (2004). One new variable was created representing the relative importance respondents attach to materialistic aspects in life, by calculating the average score for each respondent across the items (alpha = .88).

Car ownership was not related to materialism. However, those who reported stronger materialistic values were more likely to attach importance to their car ($r = .23$, $p < .001$). Moreover, those who reported stronger materialism indicated they would be less likely to try to drive less in the future ($r = -.23$, $p < .001$), to use more public transport ($r = -.20$, $p < .01$), to avoid using a plane to go on holiday ($r = -.22$, $p < .01$) and to take holidays closer to home ($r = -.25$, $p < .001$). They were not more or less likely to cycle more or to buy a more efficient car.

The relative importance people attach to material objects can play a role in their willingness to change behaviours in relation to these objects. This study suggests that people who have stronger materialistic values, attach more importance to their car and are less likely to be willing to change their car use. To what extent this 'unwillingness' to change car use is directly related to the symbolic value people place on a car needs to be studied in further research. But this study suggests that such as symbolic value may, for some people, form an important barrier for change.

Conclusion and discussion

The use of a private motor car is one of the most energy consuming activities of modern western households. Changing the possession and use of a private car can therefore have significant beneficial impact on energy use and climate change. This

paper explored the role of materialistic values on attitudes and behaviours in relation to private cars. The paper showed that people who place more importance on acquiring and owning material possessions do not necessarily own more cars. However, they value their cars more, they attached more value to expensive cars and they are more likely to believe that driving such cars would give them a positive affective-symbolic experience (e.g., make them feel proud and powerful). Finally those who attach more value to material possessions are less willing to reduce their car use.

The findings support the hypothesis that some people attach symbolic value to a car as suggested by many scholars (e.g., Diekstra and Kroon 2003; Flink 1975; Goodwin 1995; Marsh and Collett 1986; Sachs 1984). It also supports previous research which shows that materialism is related to the value attached to transport possessions (Richins 1994). Previous research has shown that most people agree on the instrumental practical value of cars. This paper suggests that for some people the symbolic value of cars is also important. It is important to better understand why people value their car as this can create important barriers for change. If people believe they can derive a sense of status from owning and driving a particular type of car, such a car can become part of their social identity. Existing research has shown that possessions play an important role for some people in maintaining and expressing their social identity (Dittmar 1994; Belk 1988; Dittmar 1992; Richins and Dawson 1994; Kasser 2002). Attempts to change people's 'relationship' with their cars can then be perceived as threats to their identity and result into strong resistance to change (Breakwell 1986).

The paper shows that materialism is not related to the car ownership. However, the studies did not examine what kinds of cars people owned. It was shown

that those with stronger materialistic values would like to drive larger cars. It is therefore, possible that those who hold stronger materialistic values own more expensive cars with larger engines. This will need to be studied in further research as the engine size of a car has important environmental consequences. The study also did not examine whether materialism is related to car use. However, there is no reason to suggest that this would be the case. On the basis of existing literature and the findings of this paper there is no reason to suggest that people who value their car more or value different types of cars, drive these cars more frequently. But further research will need to explore this in more detail.

The private car can have strong symbolic appeal. Years of persistent media advertisement has led to a common understanding and acceptance of the car as a symbol of status and success (Hiscock et al 2002; Stokes and Hallett 1992; Marsh and Collett 1986; Stradling, Meadows and Beatty 1999). Any attempt to change car use will have to take these pressured into consideration and address them. Many people nowadays acknowledge the environmental and social costs related to private cars use. However, few people are actually taking action and try to reduce their car use. There are many rational, instrumental and practical reasons for this. Using a private car is often easier and more convenient. However, there are also other less practical or rational reasons for driving a car or not changing car use, such as habits and attachment and, as examined here, the symbolic value of cars. For some people the car is much more than a means of transport. These people may continue driving, even if practical and convenience based benefits of car use were to change. It is important to take this into account when trying to persuade people to reduce their car use. The symbolic value of goods is forever changing and fashion plays an important role in consumer behaviour. Structural transport solutions such as new roads, railways or bus

routes may address practical aspects of transport, but they do not address the symbolic aspects. As long as a car is perceived as an important symbol of success such practical solutions are unlikely to result into major solutions to transport problems related to excessive use of private cars.

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