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Who is the typical bicyclist?

Birgitta Gatersleben
University of Surrey
Department of Psychology
Guildford, Surrey, GU2 7XH
b.gatersleben@surrey.ac.uk

Hebba Haddad
Centre for Transport & Society
University of the West of England
Bristol BS16 1QY
UK
Hebba.Haddad@uwe.ac.uk

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Abstract

Promoting bicycling is important for individual and environmental health. However, very few people use a bicycle on a regular basis. This paper explores what views cyclists and non-cyclists in England may hold about the typical bicyclist and how such views are related to bicycle behaviour and intentions. A survey was conducted amongst 244 cyclists and non-cyclists in England. On the basis of a range of statements on behaviour, motivation and characteristics of the typical bicyclist, four different bicyclist stereotypes could be distinguished: responsible, lifestyle, commuter and day-to-day. These views differed between bicyclists and non-bicyclists. Moreover, independent of past bicycling, reported intentions to use a bicycle in the future were positively related to perceptions of the typical bicyclist as a commuter or day-to-day bicyclist. These findings have implications for the promotion of bicycling which may benefit from promoting bicycling as a common day-to-day activity rather than something that is only relevant for a few.

Introduction

Bicycling is a healthy and sustainable form of transport (Lumsdon and Tolley, 2001; Cavill and Davis, 2007). Regular bicycling can provide an important form of exercise, which is often lacking in modern lifestyles (Department for Health, 2004). Although bicycling may carry health risks these risks tend to outweigh the health benefits (British Medical Association, 1992). Moreover, the use of bicycles instead of motorised forms of transport for short journeys can play an important role in tackling climate change (Komanoff, Roelofs, Orcutt and Ketcham, 1993). Unfortunately, bicycling is not considered an alternative by many, especially in countries such as the UK, where few safe cycle routes exist (Gatersleben and Appleton, 2007). Between 1985 and 1997 journeys made by bicycle in the UK fell by 36%. In 2000 only 2% of all UK journeys were by bicycle. Although 90% of the bicycle journeys were no more than 5 miles long, only 2% of the journeys of less than 5 miles were made by bicycle (DTLR, 2001). At least from a distance perspective there appears to be potential for increasing bicycling uptake.

When people are asked why they do not use a bicycle they usually refer to traffic safety, heavy traffic, inconsiderate drivers, pollution, bad weather, distance and travel time, gradient, not being fit enough and social pressure (e.g., Bannister, 1988; Davies et. al., 2001; Gatersleben and Appleton, 2007; Kingham, Dickinson and Copsey, 2001; McClintock and Cleary, 1996; Newby, 1993; Wardman, Hatfield and Page, 1997). Bicyclists as well as non bicyclists believe cycling is good for individual health and the environment), but those who bicycle often also refer to benefits such as low cost, flexibility, enjoyment, fitness and relative speed (Davies et. al., 2001; Gatersleben and Appleton, 2007; Hopkinson and Wardman, 1996; Pooley and Turnbull, 2000).

One of the factors that has received relatively little attention in research on bicycling is the role social variables such as social norms, social identity and stereotypes. Gatersleben and Appleton (2007) examined cycling attitudes and perceptions of people in different stages of change (see Prochaska, and DiClemente, 1984). They found that people who have never contemplated bicycling were particularly different from infrequent or frequent cyclists in that they had the least positive attitude towards bicycling and they were most likely to think that they would feel strange on a bicycle and that others would find it strange if they used a bicycle. It was suggested that information campaigns on bicycling should attempt to improve the image of bicycling. To date most of such campaigns focus on the health and environmental benefits. However, such campaigns do not necessarily result in the increased uptake of bicycling (Davies et al, 2001). One of the potential barriers may be the views some people hold of the typical bicyclist. If people hold negative stereotypes of the typical cyclist or if they hold views which describe very uncommon characteristics and behaviours, they may be less likely to take up bicycling or to be influenced by cycling information campaigns.

Stereotypes are oversimplified schema of traits about a group of people (Katz and Braley, 1933). Stereotypes are often studies in relation to differences between groups. According to the social identity theory (Tajfel and Turner, 1979, 1986) people tend to see the ingroup (to which they feel they belong) in a more positive light than the out-group (to which they do not belong). There is some work which supports such views in relation to bicycling. Davies et al (1997) propose that images of bicycling and bicyclists in the UK are mainly negative. Basford, Reid, Lester, Thomson and Tolmie (2002) report that drivers tend to class bicyclists as the ‘out group’ – with significantly different characteristics from other road users. In their study drivers often placed bicyclists at the bottom of the road user hierarchy. They also found that

drivers associate negative traits to bicyclists: e.g. irresponsible, unpredictable or erratic, arrogant and inconvenient. Drivers were more likely to say that drivers normally abide by the rules of the road than bicyclists were which highlights the notion of out-group perception.

Stereotypes can be useful shortcuts in understanding the world but they can also distort perceptions and influence motivations. For instance, existing research has shown that people are inclined to attend more to stereotype-consistent information and reject or ignore information that is inconsistent with their stereotypes (Rojahen and Pettigrew, 1991; Fyock and Stangor, 1994). Wright et al (1992) found that people are more likely to want to buy a sports car if they believe a typical driver of a sports car has certain positive characteristics, such as sexy, young and outgoing. On the other hand, Sadalla and Krull (1995) suggest that when people hold negative stereotypes of people who engage in energy conservations this may act as a barrier to such behaviour. In their study stereotypes of individuals who act pro-environmentally were widely shared and generally negative. Although other research, does not find support for negative stereotypes related to environmental behaviours (e.g., Moreira, Da Costa, Da Silva and Araújo, 2004). The link between attitudes towards a behaviour and the stereotypical views people hold towards the people who perform these behaviours has been found in a range of behaviours including recycling behaviour (Mannetti, Pierro and Levi, 2004), consumer behaviour (Wright, Claiborne and Sirgy, 1992), and risky behaviour (e.g. Gibbons and Gerrard, 1995).

The present study examines what views people in England hold in relation to the typical bicyclist and it studies whether these views are related to bicycle intentions and behaviours. To explore the stereotypes that may exist of a typical bicyclist, respondents were asked to what extent they feel a range of behaviours, motivations and personality and demographic characteristics belonged to a typical bicyclist. The study examines whether the respondents' views of these aspects reflect a limited number of underlying dimensions or categories or typical bicyclists: i.e., stereotypes. It explores whether the views differ between those who use a bicycle and those who do not and if so, where these differences may lie. On the basis of existing literature we would expect that people who use a bicycle are likely to have more positive views of the typical bicyclist than people who do not use a bicycle. Finally, the study will examine to what extent perceptions of each of the possible stereotypes that may emerge are related to intentions to take up bicycling in the future, independent of past bicycling behaviour.

The findings of this study may reveal important insights useful for future bicycling campaigns by providing more detailed insights into the views that exist of typical cyclists. It aims to provide an indication as to the aspects such campaigns may want to address in order to promote bicycling.

Method

Participants and procedure

A total of 244 people completed the questionnaire. About half of them indicated they had used a bicycle in the 2 months before completing the questionnaire. There was an almost equal number of males and females. The mean age of the respondents was 38 (age range 18 to 69, SD = 13.18). Respondents lived in a range of locations in the UK: 36% lived in the South East: 29% lived in the North: 8% lived in Greater London and around a quarter lived in other areas of the country. There was a broad spectrum of income groups and this was fairly normally distributed in the sample. Around 68% of the respondents indicated their most frequent journey was a

commute suggesting that the majority of respondents were employed. About a quarter of the respondents had children and about 20% lived alone. One -third of the respondents had no degree, about a third had a degree and one-third indicated they had a postgraduate diploma or higher. This indicates that respondents were fairly highly educated and therefore not representative of the UK population. This is perhaps not surprising due to the recruitment strategy that was adopted (see below).

Most people (71%) said they owned or had access to a car. Very few people (6%) said that they were a member of a cycling club or organisation. Almost half of the sample, 46%, used a car as their main mode of transport, 24% used a bicycle, 15% walked, 7% used the train and 5% used the bus. The remaining 3% used a combination of the modes or did not answer the question.

Procedure

The questionnaire was distributed among employees of two organisations in two towns in the UK, one in the North and the other in the South East. These potential participants all had to commute to their organisation and it was felt that they would therefore be a suitable group to approach for questions on transport related issues. As the purpose of the study was to compare views of cyclists and non-cyclists specific attention was also paid to recruiting sufficient numbers both groups. The use of a bicycle for commuting is generally low in Britain (in 2001 about 2% of all journeys in Britain were by bicycle, DTLR, 2001). Therefore additional questionnaires were distributed among members of cycling organisations and groups in order to increase the sample of regular cyclists.

Two version of the questionnaire were developed: an on-line version (completed by 61% of the respondents) and a paper version (completed by 39%). The paper questionnaire was distributed among staff of two organisations in the North of the UK. The on-line questionnaire was mainly completed by people living in the South East of the UK, where a link to the questionnaire was emailed to university staff and students. In addition the link was advertised on an on-line cycling notice board. The questionnaire took around 20 minutes to complete. All respondents participated voluntarily and no incentives were given.

Measures

Bicycling behaviour. At the start of the questionnaire respondents were asked whether they had bicycled in the last 2 months (yes/no). If they indicated that they had bicycled in the last two months they were asked to indicate on a 7-point scale how often they had bicycled for functional reasons and for leisure reasons (1 = never, 4 = about half the days, 7 = daily). If they had not bicycled in the last two months they were asked whether they had bicycled in the past (yes/no) and if so how long ago it was that they had last cycled (open ended).

Cycling stereotypes. Respondents were asked to indicate on 7-point scales (1 = no, definitely not, 7 = yes, definitely) to what extent they felt 52 attributes were characteristic of the typical cyclist they normally see on the road. The list with attributes was developed on the basis of the research by Davies et al, (1997), Basford et al. (2002) and an exploratory 20 minute qualitative interview study with three bicyclists and three non-bicyclists (see Haddad, 2005). Twenty-six attributes referred to bicycle behaviour (e.g. abides by the rules of the road, cycles on the pavement, wears lycra, wears a helmet, is courteous); eight questions referred to motivations (e.g., bicycles to keep fit, to enjoy the scenery, to raise money for charity); another eight statements related to the background characteristics (e.g., is young, well

educated, good looking, vegetarian) and ten questions, were adopted from the Big 5 personality inventory (see Goldberg, 1992; e.g. being an extrovert, lazy, assertive).

Intention. In the final sections of the questionnaire respondents were asked three questions which aimed to measure their intention to bicycle in the future: 'My intention to use a bicycle is' (1 = very weak to 7 = very strong), 'I intend to bicycle in the next two weeks' and 'I intend to use a bicycle in the future' (1 = strongly disagree, to 7 = strongly agree). The three items formed a reliable scale which was used for further analyses (M = 4.54, stddev = 2.07, alpha = .89).

Demographic variables. At the end of the questionnaire respondents were asked to report their age and gender, their postcode, the type of household they lived in (single, couple, couple with children, shared), their highest completed level of education and their income level.

Results

Bicycling. Just under 50% of the respondents indicated they had bicycled in the last two months (48%), 52% indicated they had not bicycled in the two months before the questionnaire was distributed. On average, those who had bicycled had done so more frequently for functional purposes (M = 3.48, stddev = 2.12) than for leisure reasons (M = 2.29, stddev = 1.31; $t = 5.23$ (111), $p < .001$). Out of those who had not bicycled in the past two months only 8% (n = 10) indicated they had never done so at all. Those who had bicycled in the past had done so between 3 months and 40 years ago: 23% had bicycled less than a year ago, 27% between one and two years ago, 25% between two and ten years ago and 25% had bicycled more than ten years ago. On the basis of these findings three groups were created for further analyses: those who had bicycled in the two months before completing the questionnaire (47%), those who had not bicycled in those two months but had done so no more than two years previously (39%) and those who had last used a bicycle more than 2 years ago (24%).

Stereotypes. To explore whether the respondents' views of the typical bicyclist reflect a limited number of underlying stereotypes a Principle Components Analysis was conducted. Direct Oblimin rotation was performed on the solution as we did not expect the underlying factors to be completely independent (different stereotypes may share characteristics). The analysis was conducted using 51 judged attributes of the typical bicyclist (see Table 1; one variable 'cycles in the Tour De France' was deleted as virtually no respondent agreed with this). The initial solution resulted in 15 factors explaining 66% of the variance in total. However, a Scree plot showed that the first four factors explained most of the variance. The factor analysis was therefore repeated with four factors only. Table 1 shows the findings of this analysis. To interpret the findings those variables with factor loadings of .35 or more were examined. The first factor appears to capture the extent to which respondents view the typical bicyclist as a responsible bicyclist. Responsible bicyclists are more likely to be courteous to other road users, abide by the rules of the road, be responsible, wear reflectors, use lights, stop at traffic lights and they are more likely to be a considerate and kind person. They are less likely to bicycle on the pavement, to use a BMX (trick bike), to listen to music or smoke on a bicycle or to bicycle because they cannot afford a car. The second factor captures the extent to which the typical bicyclist is perceived as a lifestyle bicyclist, someone who liked bicycling, who uses the bicycle for a range of trips and may spend a significant proportion of their time and money on bicycling. This type of bicyclist is more likely to own bicycle equipment such as mirrors, Lycra's, clip on shoes and a helmet. They are more likely to bicycle in the countryside and in mountainous terrain and to enjoy various aspects of cycling (the scenery, the

adrenaline rush). They bicycle to keep fit, for charities and for environmental reasons and they are more likely to be a member of a bicycle club. The third factor captures the extent to which the typical bicyclist is perceived as a commuter. A young professional (more likely to be male) who is more likely to be assertive, good looking and well educated and who commutes to work on the bike in all kinds of weather. The final factor captures the day-to-day bicyclist, someone who uses the bicycle for every day life activities such as shopping, who does not own special equipment, who tends to wear normal clothes on the bicycle, who is kind, considerate, and less likely to be male. These bicyclists, as the 'responsible bicyclists', are also perceived to display more considerate and responsible bicycle behaviour.

- Insert Table 1 about here -

For each respondent mean scores were calculated for all items with factor loadings of .35 or higher on each of the factors. The bottom row of Table 1 shows that the internal consistency of each of these scale was sufficiently high. The new scales captured the extent to which respondents perceived the typical bicyclist as a responsible bicyclist (M = 4.79, stddev = .85=), as a lifestyle bicyclist (M = 4.20, stddev = .64), as a commuter bicyclist (M = = 3.44, stddev = .75) and as a day-to-day bicyclist (M = 3.99, stddev = .71).

Because the sample in this study is not representative of the UK population it seemed useful to examine whether there were any differences between demographic groups in the perceptions of the stereotypes. T-test revealed no significant differences between men and women or between respondents living in the North or the South of the country. Analyses of variance revealed no differences between respondents depending on their level of education or their household composition. Finally, we found no significant correlation between the respondents' age and the extent to which they perceived the typical bicyclist as a responsible, lifestyle, commuter or day-to-day cyclist.

Bicycling behaviour and stereotypes. Four one-way Anova's were conducted to examine whether there is a difference between people who have used a bicycle in the past two months, between two months and two years ago or more than two years ago. Table 2 shows that differences were found on each of the four variables. The differences appear to be mainly between those who had used a bicycle in the two months prior to completing the questionnaire and those who had bicycled longer ago. Those who had used a bicycle in the previous two months were more likely to perceive the typical bicyclist as responsible and as someone who uses their bicycle for day-to-day life. Those who had used a bicycle in the past two years were more likely think that the typical bicyclists is a commuter than those who had last used a bicycle more than two years ago. Respondents who had used a bicycle in the past two years, but not recently were significantly more likely to perceive the typical bicyclist as a lifestyle cyclist than those who had used the bicycle recently.

- Table 2 -

Correlations were computed to examine whether perceptions of stereotypes were related to the frequency of bicycling for those who indicated they had recently used a bicycle. No significant correlations were found for general bicycle use. However, respondents who indicated they cycled more frequently (in the last two months) for functional reasons were slightly more likely to indicate that they perceived the typical cyclists as a day-to-day cyclist ($r = 19$, $p < .05$) and slightly less

likely to indicate that the typical cyclist is a lifestyle cyclist ($r = -.20$, $p < .05$). The more respondents cycled for leisure purposes the more likely they were to agree that the typical cyclist was a lifestyle cyclist ($r = .28$, $p < .01$).

Stereotypes and cycling intentions. A regression analysis was conducted to examine whether perceptions of stereotypes are related to intentions to use a bicycle in the future. To control for the effect of past cycling and to check for interaction effects between perceptions of stereotypes and past cycling a dummy variable (0 = did not bicycle in the past two months, 1 = bicycled in the past two months). Interaction terms were created by multiplying this dummy variable with mean-centred scores (z-scores) for each of the four stereotypes.

Table 3 shows that there is a strong relationship between past cycling behaviour and intentions to cycle. Independent of this relationship respondents are more likely to say that they intent to cycle in the future if they are more likely to see the typical cyclist as a day-to-day cyclist and a commuter cyclist (Table 4).

- Table 4 -

Conclusion and discussion

This paper examined how people perceive a typical bicyclist and how such perceptions relate to bicycling behaviours and intentions. The study suggested that respondents in this study tended to perceived four types of bicyclists on the English roads: responsible bicyclists (who use a bicycle safely and responsibly), lifestyle bicyclists (keen bicyclists who spend time and money on bicycling), commuters (professionals who use the bike to commute to work) and day-to-day bicyclists (kind, normal people who use their bike for day-to-day activities). As the sample in this study was not representative of the UK population the findings of this study should be interpreted with care and be perceived as initial explorations of the bicyclist stereotypes that may exist in England. Moreover, these findings may be different for other nations and in other areas. Bicycling is relatively uncommon in England where few safe cycle routes exist. Although the findings may necessarily reflect the views of a representative sample of English residents we did not find any differences in these views between demographic groups. This may suggest that a more representative sample where lower income and lower educated groups are better represented may not necessarily result into very different findings. However, this needs to be tested in further research.

The stereotypes that were distinguished share some similarities with those found in previous work on bicyclist types (e.g. Davies et al, 1997; Jensen, 1999; Davies et al 2001.). Although not the same, there do appear some consistencies with the three types distinguished by Jensen (1999). Cyclists of the heart show similarities with the lifestyle stereotype; bicyclists of necessity and bicyclist of convenience shows similarities with the commuter and day-to-day stereotype. There is some parallel with Davies et al. (1999) who also distinguished lifestyle (off-road, leisure) and mainstay/practical bicyclists (commuters). The 'responsible cyclists' has not been distinguished in previous work. However, Basford's research suggests that from a driver's perspective, the ideal bicyclist is a responsible one. This study therefore suggests that in the view of the respondents this type of bicyclist does exist on English roads; although bicyclists believe one can encounter this type more often than non-cyclists do (Basford et al, 2003).

The perceptions of the stereotypes appeared to vary between respondents depending on how much they used a bicycle and for what reason. Respondents who had used a bicycle recently were more likely to perceive the typical bicyclist as

responsible, a commuter and a day-to-day bicyclist and they were less likely to perceive the typical bicyclist as a lifestyles bicyclist then respondents who had not used a bicycle recently. To an extent this is in line with the social identity theory (Tajfel and Turner, 1979), which states that individuals view members of their own group (the ingroup) more positively than members of different groups (the outgroup). This also gives support to previous research which has shown drivers to have a negative view regarding cyclists (Basford et al, 2003). With this in mind, responsible cycling behaviour is something that has been deemed important by the UK government, stating that cyclists must recognise the influence of 'poor cycling behaviour on perceptions of cycling amongst other road users and amongst potential cyclists' (The National Cycle Strategy, 1996, 6.3.2). But most people in this study perceived bicyclists as responsible, very few did not, also little differences in this respect between those who cycled and those who did not. The distinctive characteristic appeared to be related to whether or not people use the bike for normal day to day life, commuting, shopping.

The findings of this study suggest that there are other distinctive factors which should be taken into account. Those who had recently used a bicycle were more likely to believe that the typical bicyclist uses a bicycle for normal day to day activities such as shopping and commuting. Whereas those who had not used a bicycle for a while (or ever) were more likely to perceive the typical bicyclist as someone who really enjoys bicycling and who spend lots of their and money on bicycling. In addition it was found that those who are use a bicycle more for functional purposes were more likely to believe the typical bicyclist uses their bike for functional purposes (commuting and shopping). On the other hand the more often respondents used their bicycle for leisure purposes the more likely they were to say that they perceive the typical bicyclist as a lifestyle bicyclist. It is not clear why this may be so, but perhaps people who use a bicycle more regularly (for a particular purpose) are more likely to get into contact with other others who use their bicycles (for that purpose) or perhaps they are simply more aware of the presence of other bicyclists. However, the findings do raise an important question as to whose view is the correct one. Perhaps the views of the bicyclists are realistic and the views of non-bicyclists are pessimistic. Alternatively the views of bicyclists could be optimistic and those of non-cyclists realistic. Or the views of bicyclists are optimistic and the views of non-bicyclists are pessimistic. Under the social identity theory the last is probably most likely as both ingroup and outgroup mechanisms may play a role which may help distort perceptions. Unfortunately, the findings in this study do not allow us to draw any final conclusions on this issue. Further research, perhaps adopting and comparing with views of independent researchers or observers may help shed more light on this.

Independent of whose views are correct what this study does suggest is that campaigns which aim to promote bicycle use may want to consider these differences. In order to tackle health problems such as obesity and in order to tackle environmental problems such as climate change it would be very beneficial if people could be encouraged to replace every day journeys by motorised transport means with journeys by bike and on foot. However, if bicycling is perceived as an activity exclusive to a few keen people and not as something that can be incorporated into daily life this can be a major barrier. This idea is supported by the finding in this study that intentions to use a bicycle in the future were related to perceptions of the typical bicyclist as a day-today bicyclist. The more people perceived the typical bicyclist as someone who uses their bike for normal day-to-day activities, the more likely they were to indicate they would take up bicycling in the future (independent of whether they used a bicycle at present).

These findings support findings in other areas. For instance, Sadalla and Krull (1995) found that the stereotypical image of environmentally friendly behaviours is a negative one and that this imagine is related to intentions to recycle. Mannetti et al (2004) also found that identity similarity was related to intentions to recycle. If non-cyclists have negative stereotypes of the typical cyclist and perceive themselves as very different from the typical cyclist, this is likely to influence their attitudes towards policy measures which aim to improve cycle facilities and may amplify discussions around unfairness for instance in relation to payment of road tax. The issue of road tax often features in the focus group discussions on bicycling held by Basford et al (2003). Moreover, it can have important implications for information strategies in relation to the promotion of cycling. If people believe bicyclists are not like them, any information about cycling may be ignored or rejected as non-bicyclists may not believe it is relevant for them. Further research would need to explore this relationship between stereotypical views and the impact of information interventions in more detail.

In marketing, social identities are often used to promote products. Recent research has shown that they may also play a role in the promotion of sustainable behaviours such as recycling (Mannetti, Pierro and Levi, 2004). The study here suggests that they should also be taken into account when promoting cycling. The findings here suggest that it may be important to promote bicycling as a day-to-day activity and to perhaps use images of bicycle use by normal people, for normal day-to-day activities.

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Table 1. Four stereotypes underlying perceptions of the behavioural, motivational, demographic and personality characteristics of the typical bicyclist: results of a factor analysis.

		responsible	keen	commute	shop
Behaviour	Cycles on the pavement	**-.53**	.16	-.02	-.14
	Has mirrors	-.03	**.36**	-.08	.07
	cycles in the countryside	.22	**.43**	-.12	-.03
	Wears Lycra	.03	**.54**	.02	**-.45**
	Is courteous to other road users	**.56**	.04	.24	**.43**
	Has a mountain bike	-.25	-.10	.24	.11
	Has expensive equipment	-.02	**.58**	.23	**-.33**
	Commutes to work	-.01	-.15	**.37**	-.03
	Wears regular clothing on the bike	.02	**.44**	-.10	**-.46**
	Goes shopping on the bike	.02	.02	.12	**.56**
	Abides by the rules of the road	**.60**	.20	.2	.33
	Wears reflectors	**.44**	.15	.07	.04
	Uses bike as mode of transport	.09	.01	**.34**	.17
	Has a shopping basket	-.11	-.03	-.07	**.45**
	Cycles on a BMX	**-.40**	.21	-.04	.12
	Wears clip in shoes	.13	**.53**	.12	-.22
	Listens to music when cycling	**-.56**	.01	.10	.02
	Cycles in mountains	.04	**.52**	.19	.02
	Is a responsible cyclist	**.66**	.19	.29	**.42**
	Uses bike lights when dark	**.62**	.23	.23	.34
	Smokes when cycling	**-.64**	-.04	-.12	.08
	Wears helmet	**.31**	**.48**	-.03	-.24
	Cycles as fast as possible	-.02	**.36**	**.32**	-.31
	Stops at red lights	**.59**	.20	.08	**.36**
	Cycles in all weather	.29	.22	**.37**	.01
Motivation	To keep or get fit	.13	**.57**	.24	-.03
	Cant afford a car	**-.44**	-.17	.14	.16
	To get an adrenaline rush	-.07	**.69**	.15	-.10
	To enjoy the scenery	.13	**.58**	-.01	.32
	To get or keep slim	.04	**.54**	.14	.13
	For environmental reasons	.23	**.37**	.20	**.35**
	For charities	-.02	**.52**	-.03	.14
	For fun	.14	**.55**	.04	.15
Demographic	Has children	-.10	.08	**.38**	.10
	Is environmentally friendly	.29	.23	**.39**	**.37**
	Is male	-.01	-.01	**.44**	**-.49**
	Is member of a cycle club	.08	**.59**	-.02	-.20
	Is young	-.25	-.19	**.43**	-.18
	Is well-educated	.11	-.01	**.57**	-.05
	Is good looking	-.03	.11	**.36**	.00
	Is a veggetarian	-.14	**.31**	.26	.01
Personality	Assertive	.01	.18	**.42**	-.20
	Lazy	**-.32**	.11	-.01	.04
	Considerate and kind	**.49**	-.06	.30	**.45**
	Full of energy	.22	.08	**.48**	-.09
	Tends to be tense	-.26	**.31**	.16	-.28
	Has active imagination	.05	.09	**.64**	**.43**
	Does things efficiently	.21	.22	**.53**	.16
	Likes to co-operate with others	**.32**	.09	**.51**	**.50**
	Likes to reflect and play	-.00	.13	**.51**	.41
	Worries a lot	**-.35**	.21	.20	-.10
	Alpha	.83	.83	.72	.75

Table 2. Differences in perceptions of the typical bicyclist between respondents who last used a bicycle less than two months, between two months and two years or more than two years prior to completing the questionnaire; results of an ANOVA.

	Cycled in previous two months N = 114	Cycled no more than 2 years ago N = 72	Cycled more than two years ago N = 58	F
Responsible	4.93_a	4.74	4.54_b	5.45(2,241), $p < .01$
Keen	3.32_a	3.59_b	3.49	3.50(2,241), $p < .05$
Commuter	4.30_a	4.37_a	4.08_b	4.42(2,241), $p < .01$
Day-to-day	4.22_a	3.90_b	3.79_b	11.28(2,241), $p < .001$

Note. Different means within one row with different subscripts are statistically significantly different ($p < .05$; Tukey test of contrast).

Table 4. Explaining intentions to use a bicycle from past cycling behaviour and perceptions of the typical bicyclist; results of a regression analysis.

		B	Std. Error	Beta	t	Sig.
	(Constant)	3.25	.13		25.24	.00
Main effects	Past cycling (dummy)	2.84	.19	.69	15.06	.00
	Responsible	.07	.16	.03	.45	.65
	Lifestyle	.13	.13	.06	.94	.35
	Commute	.25	.13	.12	1.98	.04
	Daily	.43	.17	.21	2.50	.01
Interactions	Responsible	.14	.24	.05	.59	.56
	Lifestyle	.04	.20	.01	.21	.84
	Commute	-.23	.19	-.08	-1.22	.22
	Daily	-.39	.25	-.13	-1.56	.12

Note. $R = .77$, adj $R^2 = .57$ ($F = 36.00$ (9,230), $p < .001$)