Can an experience with no car use change a future mode choice behaviour?

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Background:
In today's world we are socialised to use the car. Our parents did so, and we do it. When we grow up and reach the age when the driving licence can be obtained, it is usual to do so. Then to get a car. At least this is how it used to be in the last decades. Nowadays, this trend might slowly change. Young people are not getting driver's licenses so much anymore. In fact, no one is. According to a new study by Michael Sivak and Brandon Schoettle at the University of Michigan Transportation Research Institute, the percentage of people with a driver's license decreased between 2011 and 2014, across all age groups. For people aged 16 to 44, that percentage has been decreasing steadily since 1983 (Sivak & Schoettle, 2012).

So to say, our world is telling us from the very beginning that it is a normal thing to use a car. That it is a first choice. And only if something goes wrong (no money, car is broken, alcohol use), we think of other possibilities. i.e., we have developed a habit. We don't think about our decisions and their consequences; we do not think or consider which mode of transport we choose, but we more or less “instinctively” use the car. As it is very well known from psychology, habitual behaviour is rather complicated to change. Often, it is not rational and sometimes based on prejudices. One of the problems when changing habitual behaviour is the so called “problem of starting point” or “endless circle”. This means, that the human needs a positive experience, something that he or she can experience in order to adopt certain behaviour or a change. We need to see and to feel that such behaviour is good and enjoyable, but we will experience this only if we adopt or change certain behaviour-our. So as we can see, we need something as a starting point, but our behaviour so far does not provide such a starting point – a vicious circle. In this research work we focus on breaking this circle. Once this is done, we assume that choice of walking as a transport mode will rise.

Aim:
Main aim of this work is to experimentally verify how the induced experience of not using a car for some time will change car use in the future. The point is that in an experimental setting, and with incentives, we encourage people not to use the car for one month. This will enable them to get an experience of not using car but other modes of transport. Thereby, they will have to change their daily routines (e.g. shopping near house instead of in a shopping mall in the suburb). The main strength of this approach is that unlike in other studies, we won’t work with “what people think they WOULD do in a certain situation”, but we experimentally let people experience it and then see if this experience changes their real future behaviour. Literature supports the usefulness of such an approach.

Method:
Experimental design, 10 families (different families as couples without and with children, low/high income, education, with an older family member, living in the city/ country side) in the experimental group. The requirement is that the family so far used their own car on a regular basis. To recruit families, a convenience sampling method was used. At the beginning of the experiment, each family member (over the age of 10) completed the WHO – Quality of life questionnaire (WHOQOL-100) and a questionnaire containing items regarding the attractiveness and functions of car use (as perceived
by the member) and other transportation modes such as walking, cycling or public transportation (Steg, 2005). Then, families were interviewed about their attitudes towards car use and asked to keep a “travel diary” and a log-book/Google Maps application with daily entries on approximate distance travelled via different modes of transport. For the first week, they were asked to travel “as usual”, and next, the one-month period without car use began. After this month, the families were interviewed again about their experiences and asked to fill out the questionnaires again (WHOQOL-100, attractiveness of car use and other transportation modes). A final interview and questionnaire collection was planned 3 months after the experimental period’s end (e.g, March-April 2018) to assess the habitual change in car use.

Results:

Most families in our study used their car for taking their children to/from school, shopping and leisure time activities, incl. trips and visiting relatives; not all of them used a car to get to work. For most of the families, “planning and organizing” was the most difficult on the experience with life without a car. When asked about the changes in everyday-life, six of the families reported “more planning ahead”, probably with more cooperation (not just within the family itself, but also with the grandparents, friends and neighbors) in coordinating the different activities. The other four families focused more on the changes in their routine trips. Overall, it seems that providing a starting point – the experience of living without a car – can be beneficial largely for people who have already been thinking of cutting back on car use, but did not find the right incentive before. These seem to exhibit the potential of a long-term change; even if they do not give up car use completely, they may maintain some of the newly developed habits (which, in turn, take longer to form and may seem difficult in the beginning, so having the right incentive may help overcome this phase). Living without a car may also be easier for single adults (if they don't have too many activities outside of work) or families with older children, especially if there is good public transport connection and/or good infrastructure for cyclists to the city centre, the workplace and the children's school. Based on our results, the choice of walking as a transport mode did not rise with living without a car, but the participants reported increased use of public transport and, in some cases, cycling as well. This might be partly due to the “ceiling effect” and scaled used (the participants indicated high frequency of walking in the beginning of the experiment already, although they were probably thinking of shorter trips during the day), and partly due to the weather during the study period (fall-winter, with the participants mentioning bad weather as one of the main reasons to use “covered” and “warm” transportation modes).