

Positive Incentives to Reduce Private Car Use: A Theory-Based Critical Analysis

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Abstract : Research has shown a substantial increase in the participation of Conventionally Fuelled Vehicles (CFVs) in the urban transport modal split. The reasons for this unsustainable reality are multiple, from economic interventions to individual behaviour. The development and delivery of positive incentives for the adoption of more environmental-friendly modes of transport is an emerging strategy to help in tackling the problem of excessive use of conventionally fuelled vehicles. The efficiency of this approach, like other information-based schemes, can benefit from the knowledge of their potential impacts in theoretical constructs of multiple behaviour change theories. The goal of this research is to critically analyse theories of behaviour that are relevant to transport research and the impacts of positive incentives on the theoretical determinants of behaviour, strengthening the current body of evidence about the benefits of this approach. The main method to investigate this will involve a literature review on two main topics: the current theories of behaviour that have empirical support in transport research and the past or ongoing positive incentives programs that had an impact on car use reduction. The reviewed programs of positive incentives were the following: The TravelSmart®; Spitsmijden®; Incentives for Singapore Commuters® (INSINC); COMMUTEGREENER®; MOVESMARTER®; STREETLIFE®; SUPERHUB®; SUNSET® and the EMPOWER® project. The theories analysed were the theory of Planned Behaviour (TPB); The Norm Activation Theory (NAM); Social Learning Theory (SLT); The Theory of Interpersonal Behaviour (TIB); The Goal-Setting Theory (GST) and The Value-Belief-Norm Theory (VBN). After the revisions of the theoretical constructs of each of the theories and their influence on car use, it can be concluded that positive incentives schemes impact on behaviour change in the following manners: -Changing individual's attitudes through informational incentives; -Increasing feelings of moral obligations to reduce the use of CFVs; -Increase the perceived social pressure to engage in more sustainable mobility behaviours through the use of comparison mechanisms in social media, for example; -Increase the perceived control of behaviour through informational incentives and training incentives; -Increasing personal norms with reinforcing information; -Providing tools for self-monitoring and self-evaluation; -Providing real experiences in alternative modes to the car; -Making the observation of others' car use reduction possible; -Informing about consequences of behaviour and emphasizing the individual's responsibility with society and the environment; -Increasing the perception of the consequences of car use to an individual's valued objects; -Increasing the perceived ability to reduce threats to environment; -Help establishing goals to reduce car use; -iving personalized feedback on the goal; -Increase feelings of commitment to the goal; -Reducing the perceived complexity of the use of alternatives to the car. It is notable that the emerging technique of delivering positive incentives are systematically connected to causal determinants of travel behaviour. The preliminary results of the reviewed programs evidence how positive incentives might strengthen these determinants and help in the process of behaviour change.

Keywords : positive incentives, private car use reduction, sustainable behaviour, voluntary travel behaviour change

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