Absent-Minded Driver's Paradox: An Experiment

by

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This paper searches for experimental evidence to the absent-minded driver's paradox posed by Piccione and Rubinstein (GEB, 1997a, P&R hereafter,). Absent-mindedness is defined as a form of imperfect recall where a player is not able to recall if he/she has visited a decision node before and thus, is not able "distinguish between two histories on the same path" (P&R, p. 5). P&R describe a situation involving an absent-minded driver whose dilemma is to determine the best way to get home safely. He is aware of his absent-mindedness and knows that he is not able to distinguish between the two exits he will pass on his way home. The first exit takes him home but the second takes him to a bad neighborhood. If he misses the two exists he can not return and has to spend the night in a motel. P&R claim that the driver's absent-mindedness leads to a time inconsistent behavior as the driver's strategy before starting the trip differs from his action once he reaches an exit. This sort of time inconsistency does not emerge in games with perfect recall. P&R findings do not go without controversy. For instance, Aumann, Hart and Perry (GEB, 1997) claim that absent-mindedness entails no time inconsistency or paradox, they show that one should do what one planned to do. While stimulating theoretical papers have been produced on the topic of absent-mindedness and imperfect recall, to the best of our knowledge, only Huck and Muller (IGTR, 2002), have attempted to use experimental procedures to test models with imperfect recall. However, the authors do not test P&R model directly but instead test an alternative version to the absent-minded driver problem proposed by Gilboa (GEB, 1997), arguing that, "using standard methods of experimental economics, it is impossible to induce (or control for) absent-mindedness of subjects. Thus, even the simple absent-minded driver game introduced by Piccione and Rubinstein (1997a), cannot be directly tested" (p.9). We dispute this claim and offer paper in which we test the paradox of the absent-minded driver, as proposed P&R, in the laboratory using standard methods of experimental economics.

Keywords: imperfect recall, the absent-minded driver's paradox, experiments. JEL classification numbers: C72, C92.