Naivete-Based Discrimination*

Paul Heidhues          Botond Kőszegi  
ESMT            Central European University

March 4, 2015

Abstract

We initiate the study of naivete-based discrimination, the practice of conditioning offers on 
external information about a consumer’s naivete. We identify a broad class of situations in 
which such discrimination typically lowers social welfare. In our primary example, a credit mar-
ket with time-inconsistent borrowers, improving lenders’ information about borrowers’ short-run 
taste for immediate gratification (β) or naivete about this taste (β̂) always lowers welfare. To 
take advantage of non-sophisticated borrowers’ underestimation of their willingness to pay in-
terest on a loan, firms raise lending above optimal. Information about consumers leads firms to 
(inefficiently) differentiate the amount of lending according to naivete, while (also inefficiently) 
raising total lending. Because the overlending distortion is the same whether or not firms ob-
serve beliefs, information about a consumer’s beliefs has at most distributional implications, 
but information about naivete given beliefs always strictly decreases total welfare, while inform-
ation about tastes is neither necessary nor sufficient to decrease welfare. We show that the 
logic of our results extends to other markets, such as bank accounts or mobile phones, where 
consumer naivete may play a role and the distortion from exploiting naivete falls on both types 
of consumers. We also point out important settings outside this class, and identify the effect of 
information about naivete in those cases.

Keywords: sophistication, naivete, first-degree price discrimination, third-degree price dis-

*We thank Dan Benjamin, Fabian Herweg, Michael Grubb, and Takeshi Murooka, as well as numerous seminar 
and conference audiences for helpful comments. Financial support from the European Research Council (Starting 
Grant #313341) is also gratefully acknowledged. Part of the research on this project was carried out while Heidhues 
visited the Institute for Advanced Studies at CEU, whose hospitality he gratefully acknowledges.