Drinking Beer in consonant and dissonant Environments: 
an experimental Investigation of Consumers' guessing Abilities

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Following the theoretical work of Nelson (1970), Darby and Karni (1973), Grolleau and Gasmi (2005),
we conducted a natural field experiment (as defined by List, 2008), focused on beer consumption. The project
is mainly constructed around beverages endowed with beliefs attributes, and especially a pleasure belief
related to alcohol consumption, and its economic valuation.

We designed our field experiment on the basis of our previous research (Sutan, Willinger, 2006), in
which we demonstrated that when attention is scarce, available information is better used if experimental
subjects are in a dissonant environment rather than in a consonant one. In fact, due to cognitive natural
scanning constraints (Dehaene, 2003), the attention is more rapidly focused on a valuable (in terms of money
or pleasure) attribute in dissonant contexts, whereas in a consonant environment, a huge amount of available
information never transforms into useful information. This was important to experiment as the natural
implication could be an increased consumption of low quality beer in consonant environments (as for example
"typical" beer bars).

140 subjects took part in our experiment in December 2008. We compared 2 consumption contexts (a
dissonant and a consonant one) that were designed under the form of 2 experimental bars. One of the bars
was beer-consonant, and the other beer-dissonant (consonance and dissonance material elements – music,
decors, images... were defined on the basis of a context-test conducted in May 2008 with 168 subjects). In
each bar, subjects were proposed to choose between beer, soda or coffee. They were served 3 cups of their
favorite drink, and when this was beer, 2 cups were containing for instance an alcoholized beer and one non-
alcoholized beer, in various orders. They were asked at the exit to choose the most alcoholized, the best
quality and the most aromatic beer and to valuate their willingness to pay and to order again this beer, as well
as their perception about the bar environment, the incentive being to leave with some bottles of their favorite
drink.

The results show that a) the beer was the most ordered beverage, and b) the number of beer drinkers
was higher in the dissonant bar. Moreover, subjects managed c) to guess better about the beer pleasure
attribute in the dissonant bar and d) to correctly estimate the market price and the context information.

Keywords: guessing abilities, dissonant environments, experimental economics, beer perception, pleasure
attributes

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