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Diners at a Mei Zhou Dong Po restaurant in Beijing

'Most Popular' Status Affects What People Eat, Study Finds

A menu's most popular dishes are ordered 13 percent more often when they are identified as such

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DURHAM, N.C. -- A new study finds that diners are at least 13 percent more likely to order a dish if they know it is among a restaurant's most popular.

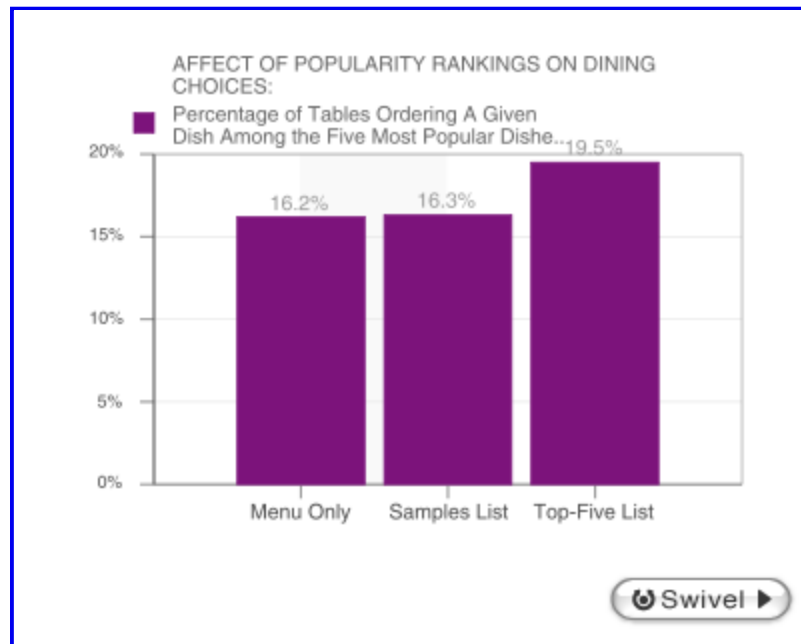
Duke University economist Hanming Fang, one of the study's authors, attributes the finding to what he calls "the Google effect." He says diners are more likely to choose dishes they know other customers ordered, much like web surfers are more inclined to click on search results that Google has ranked as most popular.

"In general, I think we are facing informational overload," said Fang, an associate professor of economics at Duke and a faculty research fellow at the National Bureau of Economic Research. "What we saw in our study -- and what Google is tapping into -- is that people want to sort through large amounts of information by learning from others who faced similar choices.

"That's what popularity rankings allow you to do," he said.

The study, "Observational Learning: Evidence from a Randomized Natural Field Experiment," is scheduled to be published in the June 2009 issue of the *American Economic Review*. Fang's co-authors are Hongbin Cai and Yuyu Chen, both of Peking University.

Dining Data



The study was conducted over two weeks during October 2006 at the Mei Zhou Dong Po restaurants in Beijing. The chain has 13 locations across the city and offers sit-down dining with about 60 menu items for a mid-level price. For the first week, the researchers gathered data on customer food choices without intervening. Then, during the second week, they randomly placed placards on some tables, in addition to the restaurant's usual menu. Half of the placards named the top-five most popular dishes from the previous week; the other half listed five sample dishes that were not identified as being popular.

“We find that, depending on the specifications, the demand for the top-five dishes is increased by an average of about 13 to 20 percent when the top-five popularity rankings are revealed to the customers,” the researchers wrote. “In contrast, being merely mentioned as some sample dishes does not significantly boost their demand.”

The increase of 13 percent for the five most popular dishes was based on a direct comparison between tables that only had menus and tables that had menus and a placard with the popularity ranking. The increase of 20 percent for the popular dishes was calculated by statistically controlling for the position of tables within a restaurant, which the researchers posited might give diners a better or worse view of what people were eating at other tables.

Fang and his colleagues argue that the increase in demand for dishes identified as popular was due to new diners learning from previous diners via the rankings on the placard. They say this effect, called “observational learning,” is not due to simple suggestion because that would have produced an increase in demand for items listed as sample dishes. Nor do they think the result is driven by a conformist mentality among diners.

“Our experimental design couldn't completely distinguish conformity from this observational learning effect,” Fang said. “But if conformity is at work -- conformity to whom? These popularity



The Mei Zhou Dong Po menus present about 60 dishes (top). In an experiment, some tables were given placards ranking the five most popular dishes (bottom left), while other tables were given placards

rankings are based on decisions made by people who ate at the restaurant a week earlier. The diners in our study probably don't know them, so any conformity effect is likely to be weak."

with five sample dishes.

The paper noted the study was aided by the Chinese custom of a table sharing dishes that are ordered and paid for by a single host. This allowed the researchers to treat each table and bill as a single decision unit, without having to guess which person ordered what.

Another key factor, said Fang, was credibility -- the popularity rankings given to diners in the study were in fact accurate.

"Whether this kind of popularity ranking would be useful or not really depends on how they are trusted by the users," Fang said. "This could very easily be abused, and once its informational value is diluted it's very hard to combat."

Fang said applications for observational learning are not limited to retail settings. He gave the hypothetical example of a government trying to encourage farmers to use a new fertilizer.

"You do an infomercial about the fertilizer based on what others have done in another village," he said. "This way, observational learning might make adoption of the fertilizer possible, while other methods might not work."

May I Recommend the Dong Po Pork Ribs?

The Dong Po pork rib dish, cooked in the Szechuan style, was among the five most popular dishes at two Mei Zhou Dong Po locations. In the week before the experiment, it was ordered by about 21 percent of all tables in both locations. Then, in one location, the researchers mentioned the dish on placards merely as one of five sample dishes, and its demand hardly changed at all. In the other location, however, the researchers explicitly identified it on a placard as being one of the five most popular dishes; about 26 percent of the tables with this information ordered this dish, an increase of about 20 percent in popularity.