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Inviting Consumers To Downsize Fast-Food Portions Significantly Reduces Calorie Consumption

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ABSTRACT Policies that mandate calorie labeling in fast-food and chain restaurants have had little or no observable impact on calorie consumption to date. In three field experiments, we tested an alternative approach: activating consumers' self-control by having servers ask customers if they wanted to downsize portions of three starchy side dishes at a Chinese fast-food restaurant. We consistently found that 14–33 percent of customers accepted the downsizing offer, and they did so whether or not they were given a nominal twenty-five-cent discount. Overall, those who accepted smaller portions did not compensate by ordering more calories in their entrées, and the total calories served to them were, on average, reduced by more than 200. We also found that accepting the downsizing offer did not change the amount of uneaten food left at the end of the meal, so the calorie savings during purchasing translated into calorie savings during consumption. Labeling the calorie content of food during one of the experiments had no measurable impact on ordering behavior. If anything, the downsizing offer was less effective in changing customers' ordering patterns with the calorie labeling present. These findings highlight the potential importance of portion-control interventions that specifically activate consumers' self-control.

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Obesity, which is primarily caused by overeating, has become a major public health issue.^{1,2} An intervention already in effect in some communities and to be required nationally in 2012 is mandatory calorie labeling on chain and fast-food restaurant menus. This policy is designed to provide information in the hope that consumers will use it to make healthier food choices. Such information-based interventions, however, often fall short of changing behavior.³ Reports from restaurants in areas such as New York City, where calorie labeling is already in place, show that this initiative is having little⁴ to no effect on actual purchases.^{5–7}

In this article we describe the results of three related field experiments that tested an alternative strategy. Instead of simply posting calorie

information, this intervention directly presented customers with an opportunity to exercise self-control by reducing portion sizes and thereby reducing calorie intake. Much evidence suggests that people overconsume because they eat “mindlessly.”⁸ For example, people tend to eat most of the food put before them and feel satiated only when their plates are empty, regardless of how much food is actually served.^{9,10}

This approach to food is ubiquitous in the United States, where the prevailing cultural norm dictates that meals are over only when plates are clean. Such habits are one reason why Americans regularly consume larger portions than are nutritionally necessary.^{11,12} Moreover, when consumers both are reliant on visual cues such as the amount of food left on plates and are served oversize “value” portions in restau-

rants,¹³ they are likely to have trouble determining when they should stop eating.

The goal of our research was to test, in an actual fast-food restaurant, the extent to which a simple change in the ordering process activated the self-control necessary to restrict portion sizes and, ultimately, decrease calorie consumption.

Activating Self-Control

Insights from the behavioral sciences suggest that environments can be structured to activate self-control and facilitate healthy and prudent behavior. One study in an educational context, for instance, found that although students did not request early assignment deadlines on their own, they readily accepted them when offered.¹⁴ However, surprisingly few policy interventions have put this insight to use.

In our field experiments, we tested whether this concept could be applied in a specific fast-food setting, so that diners would restrict themselves to portions that were more nutritionally appropriate but no less satisfying than the over-size “value” servings. Because many people recognize that they overeat,¹⁵ we wondered whether consumers would be willing to restrict their portion sizes when explicitly asked if they wanted to.

Our goal was to test whether the invitation to “downsize” a meal component would be embraced by consumers and, importantly, whether the approach would be more effective at reducing calorie consumption than a purely information-based approach—in this case, calorie labeling. If downsizing were more effective, further testing could be conducted in additional settings to examine the broad applicability of the approach. The findings could ultimately inform new policies to implement simple strategies involving smaller portion sizes—strategies that would make it easier for consumers to control their intake of calories and, by extension, their weight.

The Experiments

In a pilot study conducted as a prelude to this investigation, we found that diners generally perceived restaurant portions to be too large. Moreover, although they did not ask for smaller portions on their own, they described themselves as willing to take smaller portions if offered the opportunity to do so. A more detailed account of the pilot study is available in online Appendix Exhibit 1.¹⁶

We performed three related field experiments at a single fast-food restaurant to determine whether these reported sentiments could be

translated into a strategy to alter calorie consumption. All of the experiments addressed three important elements of eating behavior.

First, do people spontaneously request smaller portions—that is, even if smaller portions are not specifically noted as an option on a menu or signage? Second, do people accept explicit spoken offers to take smaller portions in order to reduce calories? Third, does taking a smaller portion of one meal component lead to indulgence in other meal components, so that the calorie “savings” from downsizing are immediately lost?

Each experiment addressed an additional question. In experiment 1, we explored whether offering a nominal (twenty-five-cent) discount for downsizing would result in more customers’ accepting the offer than offering no discount. In experiment 2, we examined whether offering an opportunity to accept a smaller portion would be more effective than providing calorie labels in encouraging moderation. In experiment 3, we investigated whether downsizing appealed only to customers who would otherwise have thrown away uneaten food, thereby affecting calories ordered but not calories consumed.

Study Data And Methods

Our field experiments were conducted at an actual retail food establishment: a Chinese fast-food restaurant on the campus of Duke University and its adjacent Medical Center. Each experiment examined the choices of regular consumers who were unaware of being observed. Because of differences in time of year when the three experiments were conducted, participants ranged from primarily university and medical center staff and visitors (experiment 1) to a mix of college students, staff, and visitors (experiments 2 and 3).

Information on food that was ordered and served came from cash register receipts provided by the restaurant, not from less-reliable customer self-reports. Every receipt showed which dishes were ordered and their portion sizes, which allowed us to calculate the calories for each meal.

The ordering process followed the restaurant’s standard procedure and was performed by its staff. The only addition to the procedure was to make the downsizing offer during a specified portion of each experiment. Upon reaching the service representative, each customer was first asked to choose one of four side dishes (mixed vegetables, steamed rice, fried rice, or chow mein). Next, the customer was asked to select one or more entrées from the 16–20 stir-fry choices available.

All of the entrée menu items were displayed under a glass enclosure (or “sneeze shield”), and the name of each menu item appeared on a label on the glass above its container. During experiment 2, and from that point forward, the restaurant added calorie amounts to the labels above the choices. At no point during the ordering and service processes were customers given reason to believe they were being observed.

DOWNIZING INTERVENTIONS The downsizing interventions involved the side dishes only. In all three experiments, customers who ordered one of the three high-calorie (400 or more calories) and high-starch side dishes were invited to take a half portion of their side dish. The offer was not made on the steamed-vegetable side dish, already very low in calories and starch, which historically accounted for only 4 percent of orders.

It should be noted that half portions were not indicated as an option on the restaurant’s menu displays—although, as in most food-service establishments, staff members were always willing to provide them on request. Customers who were orally invited to downsize were informed that accepting it would cut their consumption by approximately 200 calories.

Because side dishes were chosen first, this tactic allowed us to observe potential effects of the downsizing offer intervention on subsequent entrée choices. That is, we could see whether choosing a downsized side dish would lead consumers to compensate by ordering higher-calorie entrées, perhaps based on the belief that the smaller side dish gave them license to do so.

The restaurant’s standard side-dish portions for a single meal were ten ounces in volume, which is more than three times the volume of refined (not whole) grains recommended per day in the Department of Agriculture’s 2010 dietary guidelines.¹⁷ If the offer to downsize was declined, the standard side-dish portion of two five-ounce scoops was served; if the offer was accepted, half the standard portion, or one five-ounce scoop, was served.

Customers proceeded to order their entrées as usual. Cashiers entered each customer’s order into the register and saved the itemized receipts, which were collected later by a research assistant. The restaurant supplied the calorie information for each menu item, which was used to determine the calorie count of each order.

In all three experiments, data were collected during lunch hours only on Monday through Thursday—the times of highest customer traffic.

DATA COLLECTION In each experiment, data collection followed a three-phase sequence: an initial baseline period with no downsizing offer, a downsizing offer period, and a second baseline period without the downsizing offer. Keeping

the ordering process the same as usual during both baseline periods allowed us to determine how many customers spontaneously requested smaller portions, and to calculate calories ordered in the absence of an explicit offer to downsize the side order. The specific schedule differed somewhat for each experiment (see Appendix Exhibit 2).¹⁶

In experiment 1, the three periods—baseline, offer, and baseline—each lasted two days. These were followed by a second offer period, also lasting two days. The second baseline period enabled us to determine whether the intervention in the first offer period produced a lasting change in the number of spontaneous requests to downsize, perhaps because customers had learned that requesting smaller portions was an option. The second offer period allowed us to determine whether modifying the original offer—which did not include a discount for downsizing—by adding a nominal twenty-five-cent downsizing discount, would affect the offer acceptance rate.

In experiment 2, there were two consecutive sets of alternating (baseline, offer, baseline) data collection periods, each lasting three weeks. During the first set, calorie labeling was not present. During the second set, calorie labeling had been put in place by adding calorie amounts to the menu item labels on the “sneeze shield” over the containers. We allowed a two-week break between data collection with and without the calorie labeling to avoid capturing any highly transitory initial impacts of the calorie labels that would make interpretation of the downsizing intervention data more difficult. The downsizing offer always included the nominal twenty-five-cent discount during experiment 2.

In experiment 3, the data collection sequence was expanded as follows: three baseline days, four downsizing offer days, two baseline days, three downsizing offer days, and finally two baseline days. Again, the downsizing offer always included the nominal twenty-five-cent discount.

The calorie labels that had been put in place in experiment 2 remained in place as part of the restaurant’s policy. However, there was an add-on component during all baseline and offer periods during experiment 3. Customers who ate their food in the restaurant or immediately outside were approached by one of our research assistants after purchasing their meals. Each person was invited to bring his or her leftovers to a separate location to participate in a sham customer satisfaction survey, and offered \$10 for doing so.

While participating customers answered the survey questions, the contents of their food containers were weighed to determine the amount of

uneaten food. The containers were then discarded. This allowed us to test the possibility that although the downsizing offer intervention typically led to the serving of less food, it might not have led to the consumption of fewer calories.

LIMITATIONS The three experiments were conducted at a single university campus location that draws customers who may be more educated than the general population, particularly when classes are in session (as they were during experiment 2). We therefore took measures that allowed us to capitalize on, rather than be hindered by, any seasonal shifts in consumer demographics at the restaurant.

By collecting baseline and downsize offer data during each experiment, we were able to assess the effects of the downsizing offer in three slightly different subject groups, enhancing the generalizability of our observations. We also chose to conduct our experiments at a fast-food restaurant that, although located on a university campus, draws customers from a nearby medical center, which serves a moderate-size and socioeconomically diverse city.

Another limitation is that the decision to keep participants as unaware as possible of being observed—to avoid changing the shopping environment and influencing their behavior—prevented us from gathering customer-level data such as body mass index and education level. Therefore, we could not determine which personal characteristics were associated with being more or less likely to accept the downsizing offer and reduce meal calories. Collection of customer-level data could prove a useful addition in future studies.

Finally, we were unable to include beverages in our assessments of calories ordered and consumed. The study site's register receipts record beverage size but not type, such as diet or regular cola, and cannot track subsequent refills.

Statistical Analysis

In each of the experiments, we examined three main outcomes: the percentage of consumers who took a half portion of the side dish when it was and was not explicitly offered; the average number of calories received in the side dish, the entrée(s), and both sources combined, both when the downsizing offer was explicitly made and when it was not; and the calories ordered and therefore received by those accepting and rejecting the explicit offer to downsize.

As previously noted, we examined the same three elements with and without a discount for downsizing using data from experiment 1, and with and without calorie labeling present using the data from experiment 2. The data gained by

weighing patrons' leftover food during experiment 3 made it possible to determine calories consumed and left over in addition to calories ordered and served.

For all data analyses, chi-square tests were used to compare the choice percentages, and analysis of variance (experiment 2) or *t*-tests (experiments 1, 2, and 3) were used to compare calorie and weight averages. The statistical significance cutoff level was $p < 0.05$ (see Appendix Exhibits 3 and 4).¹⁶

When analyzing all of the data collected, data from the pre- and postdownsizing offer periods were pooled because they were never significantly different from each other. For the same reason, data from the no-discount and discount-added offer periods in experiment 1 were pooled. Hereafter, references to data from baseline and offer periods reflect this pooling (see the Appendix).¹⁶

Study Results

EXPERIMENT 1: WOULD YOU LIKE TO DOWNSIZE THAT MEAL? Only 1 percent of customers spontaneously requested downsizing of a high-calorie, high-starch side dish in the baseline periods, when no explicit downsizing offer was made. Thirty-three percent of customers accepted the downsizing offer. As noted above, there was no significant difference in acceptance rates with and without the nominal discount. Customers who downsized did not compensate by choosing higher-calorie entrées (Exhibit 1), nor did they proceed to order lower-calorie entrees. Therefore, downsizing led to the purchase of significantly (approximately 100) fewer mean overall calories (Exhibit 2). (See Appendix Exhibit 5 for unpooled calorie means.)¹⁶

EXPERIMENT 2: DOWNSIZING OFFERS VERSUS CALORIE LABELING Consistent with the results of experiment 1, spontaneous downsizing was rare. Only one person spontaneously requested a smaller side-order portion before calorie labels were introduced, and none did so afterward. At the same time, a substantial proportion of customers continued to downsize when invited to do so. Importantly, significantly more customers (21 percent) accepted the downsize offer before calorie labeling was provided than after (14 percent). In other words, calorie labeling did not increase acceptance of the offer. If anything, the offer may have been less effective in changing customers' ordering patterns with the calorie labeling present.

Exhibit 1 shows that downsizing side dishes did not lead to entrée indulgence. In both the offer periods—before calories were labeled and after calories were labeled—accepters ordered

EXHIBIT 1
Average Calories Served Per Customer For Those Who Accepted And Rejected An Offer To Downsize A Fast-Food Portion

Item	Number of calories or ounces without calorie labels			Number of calories or ounces with calorie labels		
	Accept	Reject	Difference	Accept	Reject	Difference
EXPERIMENT 1 (CALORIES)						
Side dish	255	464	209****	— ^a	— ^a	— ^a
Entrée	538	505	-33	— ^a	— ^a	— ^a
Total	793	969	176****	— ^a	— ^a	— ^a
EXPERIMENT 2 (CALORIES)						
Side dish	238	490	252****	243	488	245****
Entrée	490	512	22	557	560	3
Total	728	1,002	274****	800	1,048	248****
EXPERIMENT 3						
All participants, calories (N = 408)						
Side dish	— ^a	— ^a	— ^a	244	474	230****
Entrée	— ^a	— ^a	— ^a	456	505	49
Total	— ^a	— ^a	— ^a	700	979	279****
Participants whose food was weighed, calories (n = 127)						
Side dish	— ^a	— ^a	— ^a	248	474	226****
Entrée	— ^a	— ^a	— ^a	405	509	104**
Total	— ^a	— ^a	— ^a	653	983	330****
Weight of leftovers (ounces)	— ^a	— ^a	— ^a	1.6	1.8	0.2

SOURCE Authors' analysis. **NOTES** For experiment 1, n = 164 participants. For experiment 2, n = 399 participants. For standard errors, see Appendix Exhibit 3 (Note 16 in text). ^aNot applicable. **p < 0.05 ****p < 0.001

EXHIBIT 2
Average Calories Served Per Fast-Food Customer, Baseline And Downsize Portions

Item	Number of calories or ounces without calorie labels			Number of calories or ounces with calorie labels		
	Baseline	Downsize	Difference	Baseline	Downsize	Difference
EXPERIMENT 1 (CALORIES)						
Side dish	480	396	84****	— ^a	— ^a	— ^a
Entrée	530	516	14	— ^a	— ^a	— ^a
Total	1,011	912	99****	— ^a	— ^a	— ^a
EXPERIMENT 2 (CALORIES)						
Side dish	484	437	47****	478	456	22**
Entrée	536	508	28	555	560	-5
Total	1,020	944	76****	1,033	1,016	17
EXPERIMENT 3						
All participants, calories (N = 846)						
Side dish	— ^a	— ^a	— ^a	471	436	35****
Entrée	— ^a	— ^a	— ^a	479	497	-17
Total	— ^a	— ^a	— ^a	950	932	18
Participants whose food was weighed, calories (n = 263)						
Side dish	— ^a	— ^a	— ^a	462	419	43****
Entrée	— ^a	— ^a	— ^a	465	483	-18
Total	— ^a	— ^a	— ^a	927	902	25
Weight of leftovers (ounces)	— ^a	— ^a	— ^a	2.1	1.7	0.4

SOURCE Authors' analysis. **NOTES** For experiment 1, n = 283 participants. For experiment 2, n = 992 participants. For standard errors, see Appendix Exhibit 3 (Note 16 in text). ^aNot applicable. **p < 0.05 ****p < 0.001

significantly fewer side-dish calories than rejecters, but they ordered a similar number of entrée calories. (See Appendix Exhibit 6 for unpooled calorie means.)¹⁶

Exhibit 2 shows that both before and after calorie labeling, customers in the offer period ordered fewer side-dish calories than customers in the comparable baseline periods. Only in the prelabel period, however, was this difference seen for total meal calories. Furthermore, we note that the addition of calorie labels to the displays did not in itself lead to a reduction of calories ordered. In fact, Exhibit 2 shows that the trend was the opposite: Slightly (but not significantly) more calories were ordered in the baseline period after calorie labeling was put in place than in the baseline period preceding its placement.

EXPERIMENT 3: EATING LESS OR LEAVING FEWER LEFTOVERS? Once again, fewer than 1 percent of customers spontaneously downsized when not explicitly asked if they wanted to, but a significantly greater proportion (18 percent) did so when asked if they wanted to by their server. In a similar vein, downsizers once again did not compensate by ordering high-calorie entrées and, therefore, purchased significantly fewer overall mean calories than rejecters (Exhibit 1). Likewise, fewer side-dish calories were served per customer during the downsizing intervention than during the baseline period (see Exhibit 2).

Thirty percent of customers agreed to participate in the sham customer satisfaction survey and had their leftovers weighed. Among this subset, the same pattern of results emerged regarding number of calories ordered as was seen with the full set of customers (Exhibits 1 and 2). Importantly, downsizing rejecters (who started out with more food on their plates) did not have significantly more leftovers than downsizing accepters (Exhibit 1). Moreover, the postmeal survey revealed that the majority of accepters took the half-portion because they wanted to cut calories (see Appendix Exhibit 7).¹⁶

Finally, comparing leftovers across baseline and downsize periods, customers in the baseline period (who were served more food on average) did not leave significantly more leftovers than those in the downsize period.

In sum, the weighed leftover component of experiment 3 indicated that acceptance of the downsizing offer led to lower calorie consumption, not just fewer calories purchased, and had no impact on the amount of food left uneaten.

Discussion

In three experiments, we consistently found that a significant percentage of customers at a fast-

food restaurant accepted an offer to reduce calorie intake by taking a smaller portion of their chosen side dish, and they did so whether or not given a nominal (twenty-five-cent) discount. Rates of acceptance of the downsizing offer ranged from 14 percent to 33 percent across our experiments. Overall, those who accepted smaller portions did not compensate by ordering more calories in their entrées, and the total calories served to them were, on average, reduced by more than 200. We also found that accepting the downsizing offer did not change the amount of uneaten food left at the end of the meal, so the calorie savings during purchasing translated into calorie savings during consumption.

Only a few customers in any particular baseline period spontaneously requested a smaller portion. This suggests that for a downsizing strategy to be effective when smaller portions are not explicitly noted as an option on a fast-food establishment's menu or signage, the invitation to downsize must be extended by servers. Compared to baseline periods when the downsizing offer was not made, significantly fewer side-dish calories were served, and generally this led to fewer calories' being served across all non-beverage components of the meal.

In experiment 2, the addition of calorie labels alone did not lead to a reduction in calories purchased. However, when the downsizing offer was made with the calorie labels in place, the offer was somewhat less effective. Caution must be exercised when interpreting the observed interaction between the downsizing offer and addition of calorie labeling, however, because it was only marginally significant ($p < 0.10$). Nonetheless, the findings suggest that the two interventions may not have additive effects.

WHY DID THE DOWNSIZING INTERVENTION WORK? Individuals sometimes create circumstances for themselves that limit temptation,¹⁸ even if they do not result in cost savings. Smokers, for example, often prefer to buy cigarettes a pack at a time rather than by the carton, despite a bulk discount.¹⁹ Yet overeating, smoking, and other negative consequences of self-control failure persist. And they persist despite conspicuous nutrition and warning labels—information designed to motivate people to act in their own long-term best interest.

Policies directed at behavior change have traditionally taken two main approaches to encouraging self-control. The first has been to provide sufficient information to guide wise decision making and is based on the assumption that merely providing it will make consumers practice self-control. This theory is embodied by mandatory calorie labels. As shown in this study and

others, however, this approach has at best a modest impact on behavior, and possibly no effect at all.

The second approach has been to circumvent the need for self-control by making safer or healthier defaults available, or simply banning unhealthy products altogether.²⁰ Although sometimes effective, such tactics are not always practically or politically feasible.

In our experiments, we proposed and tested an intermediate approach designed to trigger and, we hope, establish a habit of self-control over time. We activated self-control in a fast-food restaurant with a simple, quick intervention that invited consumers to take a smaller portion.

The option to ask for less food was always available in our experiments, and yet we found almost no spontaneous downsizing—despite the fact that many of the participants in our pilot study believed that restaurant portion sizes were too big and found smaller portions appealing. Why, then, did we find almost no evidence of spontaneous, proactive self-control?

A likely reason is that ordering in restaurants is largely under the purview of automatic behavior—guided by what behavioral scientists call a script—and asking for a smaller portion deviates from the familiar and automatic routine that fast-food ordering has become.²¹ Stopping people while they order can disrupt the expected flow and activate self-control in an environment where it may otherwise be unlikely to be activated or is absent from consumers' minds.²²

We believe that our explicit invitation to take less food may also have been particularly effective because it targeted starchy side dishes that are not focal to the meal and may be particularly subject to mindless eating.⁸ Hefty portions of these inexpensive but calorie-dense side dishes may be served to increase consumers' perceptions of value. However, oversize side dishes contribute to overconsumption because people tend to consume most, if not all, of even excessively large portions.^{8,23}

Although we believe the current findings are promising, we note that the experiments were relatively short-lasting. Therefore, it is necessary to explore the long-term effects of downsizing interventions. Will they become stronger over time, as they become more familiar and consumers notice other people ordering smaller portions? Or will they lose both novelty and effectiveness? Moreover, will any immediate calorie savings be compensated for later on? Although our postmeal survey suggested that people were happy with the offer and did not indulge later in the day as a result of downsizing, we could not verify the accuracy of self-reports.

RECOMMENDATIONS Considering the past suc-

cess of “supersizing” meals as a means of changing people's immediate and long-term eating behavior, our findings offer hope that “downsizing” could be effective in driving a return to more moderate ordering and consumption in food-service settings.

We also believe that this type of intervention could easily generalize beyond Chinese-style fast food. Many fast-food and chain restaurants serve abundant portions of side dishes such as french fries that can add hundreds of calories to popular bundled meals. For example, a Big Mac “value meal” with a large order of french fries and a large cola drink provides 1,350 calories, of which only 540 come from the Big Mac.²⁴ Consumers might be willing to downsize the french fries or the drink, or both, to reduce the calories from approximately 800 to 600, realizing substantial calorie savings without having to change or sacrifice the focal Big Mac.

Knowing that there is consumer demand for smaller portions may encourage restaurateurs to take action themselves, especially if they want to avoid policies that force downsizing (for example, policies that dictate default serving sizes more in accordance with the 2010 dietary guidelines). For the policy community, encouraging voluntary adoption of downsizing, in a manner consistent with the guidelines and other nutrition guidance developed for policy applications, may prove to be an appealing alternative to imposing costly and controversial policies intended to drive behavior in the same direction.

When thinking about implementing downsizing approaches, policy makers must consider both retailers and consumers. On the retail side, downsizing offers need to be simple to implement and need to incorporate appealing options. On the consumer side, it would be preferable to create a lasting understanding of portion control that goes beyond any one particular food establishment.

To do that, one approach might be to coin a term for downsizing that efficiently communicates the consumer's demand for portion control. This term would ideally tap into an element of social contagion so that when people order this way, others may overhear them and adopt similar behaviors. With time, it could become part of the “script” that people use across meal-ordering opportunities.

Moreover, such a term could suggest and reinforce the more appropriate norm. For example, while the term *downsize* is somewhat negative and emphasizes reduced amounts, the term *rightsize* is more positive and emphasizes the optimal quantity.

Conclusion

Consistent with our results, we propose that consumer welfare could be improved at restaurants, especially fast-food establishments, simply by extending the opportunity to accept a smaller portion. Such downsizing or rightsizing offers—which our findings suggest might not have to be tied to discounts to be acceptable—could be both cost saving for restaurants and healthier for consumers.

It has been noted that consumers often say they want healthy options such as salad and fruit

to be added to menus, but they do not actually purchase them, and their presence on a menu may even push people toward more indulgent options.^{25,26} Our experiments suggest an alternative path for retailers and policy makers seeking to encourage people to make healthier food choices when eating out. That path is activating self-control with an invitation to reduce portion sizes—something consumers both say they want in surveys and, as our findings indicate, might execute. ■

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Janet Schwartz is an assistant professor of marketing at Tulane University.

In this month's *Health Affairs*, Janet Schwartz and coauthors write about several experiments to encourage restaurant-goers to consume fewer calories. The most successful involved asking customers if they wanted to "downsize" starchy side dishes at a Chinese fast-food restaurant, which led up to one-third to agree and reduce their calorie intake by 200, on average. The authors write that the results underline the importance of interventions that activate consumers' self-control.

Schwartz is an assistant professor of marketing at Tulane University's Freeman School of Business. Her research focuses on how marketplace environments can be designed to facilitate better health outcomes, as well as on health care delivery as a consumer experience.

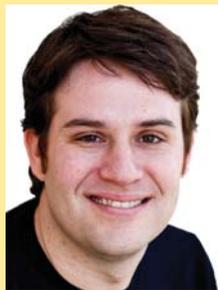
Schwartz received master's and doctoral degrees in cognitive psychology from Rutgers University, and she has held postdoctoral positions at the Center for Health and Wellbeing at Princeton University's Woodrow Wilson School of Public Affairs and at Duke University's Fuqua School of Business.



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Jason Riis is an assistant professor of business administration in the marketing unit at Harvard Business School. His research examines health-related consumer behavior and patient behavior, using the methods and theories of experimental psychology and behavioral economics. His current endeavors include several projects that examine healthy eating interventions in restaurants, cafeterias, and supermarkets.

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Brian Elbel is an assistant professor of medicine and health policy at the School of Medicine and the Wagner Graduate School of Public Service, New York University. He studies consumers' and patients' decision making as it

relates to health and health care, largely from the perspective of behavioral economics. Among his specific research interests is the impact of public policies mandating calorie labeling in restaurants.

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Dan Ariely has been the James B. Duke Professor of Psychology and Behavioral Economics at Duke University since 2008. He also has appointments at Duke's Fuqua School of Business, Center for Cognitive Neuroscience, Department of Economics, and School of Medicine. From 1998 to 2008 he was the Alfred P. Sloan Professor of Behavioral Economics at the Massachusetts Institute of Technology's Sloan School of Management and Media Laboratory.

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