



# Do customers return excessive change in a restaurant? A field experiment on dishonesty<sup>☆</sup>



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## ABSTRACT

The article reports the results of a field experiment used to study dishonest behavior in a natural setting. Customers in a restaurant in tables of one or two diners who paid with cash received excessive change of either 10 or 40 Shekels (about \$3 or \$12). A majority of customers (128 out of 192) did not return the excessive change. Repeated customers returned the excessive change much more often than one-time customers. Women returned the extra change much more often than men, especially among repeated customers. Interestingly, a table with a woman and a man behaves similarly to one or two males and not to a female table. Surprisingly, tables with two diners were not significantly more likely to return the excessive change. Customers receiving 10 extra Shekels were much less likely to return them than those who received 40 extra Shekels, but it is hard to know to what extent this comes from intentional behavior versus lower likelihood to observe the extra change when it is lower. We also found evidence for variation in dishonesty as a function of the time during the day.

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## 1. Introduction

Dishonesty and cheating are common behaviors (Mazar and Ariely, 2006) that affect various economic activities. For example, insurance companies report that their customers add annually 24 billion dollars fraudulently to claims of property loss. Retailers lose in an average year 16 billion dollars due to customers who buy clothes, wear them, and return the used clothes for a full refund (Ariely, 2008). Theft and cheating in the workplace are estimated at 600 billion dollars annually (Mazar et al., 2008). The importance of cheating and dishonest behavior led to research on different aspects of cheating<sup>1</sup> and on cheating in various contexts, such as academic cheating (Jackson et al., 2002), cheating in personal relationships (DePaulo and Kashy, 1998), cheating in economic contexts (Gneezy, 2005), and cheating by advisors (Angelova and Regner, 2013).

Most of the literature involves lab experiments, and we wanted to add some field evidence to it, by conducting a field experiment in a restaurant. Customers who paid with cash received excessive change, and we examined whether customers behaved honestly and returned the excessive change to the waiter, and how this depends on various factors. One factor was

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<sup>1</sup> For example, Gino et al. (2013) show that people cheat more often when others benefit from their cheating.

whether 10 or 40 extra Shekels were given (about \$3 or \$12). We wanted to see whether we will obtain results similar to Gneezy (2005), where higher stakes on both sides – of the cheater and the cheated – increased deception.

Earlier literature suggests that gender differences exist in cheating behavior. Ward and Beck (1990) and Jackson et al. (2002) found that men are more dishonest than women. Tibbetts (1999), dealing with intentions to cheat on an exam, found that men have more cheating intentions than women. Tibbetts argued that women have a stronger tendency to feel shame from actions that deviate from the norm and are more influenced by moral limitations and beliefs, whereas men have less self-control, leading them to disobey rules more frequently. Erat and Gneezy (2012) showed that men are more likely than women to tell lies that are selfish, and to tell lies that benefit both the cheater and the other person. Women, on the other hand, are more likely to tell lies that hurt them but benefit the other person. Fosgaard et al. (2013) find that increasing awareness of cheating as an option significantly increases the probability that women cheat; men are not affected because they already are aware that cheating is an option even without the increased awareness. In addition, they report that when the experiment gives the subject the impression that his peers have cheated, men cheat significantly more, but women do not. Bucciol et al. (2013), in a study of bus passengers in Italy, find that men are more likely to travel without a ticket. To examine gender differences in our experiment, we documented the gender of the diners and limited our sample to tables with one or two diners. We hypothesized that female tables will return the excessive change more often than male tables.

DePaulo and Kashy (1998) examined everyday lies and report that people lie less to those who are closer to them, to those whom they meet more frequently, and to those that they know for a longer period. To examine the issue of closeness, we recorded for every customer whether he is a repeated customer or not, and whether he holds a membership card of the restaurant. A repeated customer gets to know the waiters and therefore is closer to them, and is also likely to return in the future to the restaurant compared to one-time customers. Therefore, we hypothesized that repeated customers and restaurant members will return the excessive change more often than others.

When people disobey social moral norms they feel bad and ashamed (Wirtz and Kum, 2004). It is clear that an audience who can detect and punish immoral behavior can deter such behavior. Moreover, because people care about how others perceive them, they behave in certain ways to improve their social image (Leary and Kowalski, 1990). Assuming that honesty is a valuable trait, we hypothesized that people would have more incentive to behave honestly and return the extra change given to them when they dine with someone else compared to the case that they dine alone.

## 2. Method

To explore the conditions that affect the decision whether to behave honestly in a real-life situation and under natural conditions of a field experiment (with subjects not being aware that this is part of an experiment), we obtained the approval of the owners and management of a large restaurant in the center of Israel to conduct the experiment at the restaurant. The restaurant offers mainly meat dishes and specializes in burgers. The restaurant can accommodate about 150–200 diners at a time. Most main dishes cost about 50–70 Shekels (\$13–18), which is similar or a little above comparable restaurants in Israel. In weekdays between 12 and 5 pm there are discounted business meals. Typical customers are middle-class people (mainly businessmen, young couples and families), aged 20–40. Over a period of several months (between March and September 2011), waiters were asked to report to one of the authors (who worked at that time as a manager in the restaurant) about cases of a table with one or two adult customers who paid the bill in cash. In these cases, subject to the need to have a balanced sample in terms of the diners composition (one or two diners and their gender), the change that was returned to the table was higher than the correct one. In half of the cases 10 extra Shekels (about \$3) were returned, and in the other half 40 extra Shekels were returned. In total, 192 observations of excessive change and how the customers behaved were recorded. The research was conducted in various days of the week and operating hours of the restaurant, from lunch until late night. The tables from which observations were collected were located in the same area, to ensure that light, temperature, music and atmosphere are similar across observations and do not create unnecessary noise in the data. As part of the regular procedures in the restaurant, waiters stay not far from a table that received the bill, so that customers who want to leave are not delayed. This allowed the waiters to observe whether the diners shared the bill, a variable that was collected for the data analysis. It also allowed customers who wanted to return the excessive change to do so easily.

After the customers left the restaurant, the waiters reported to one of the authors (in a separate room that is not visible to the restaurant's customers) about several variables: the customers' satisfaction from the meal (asking them about it is part of the regular procedure in the restaurant), who paid and whether the bill was divided between the customers, the tip left by the customers, and whether they returned the excessive change. We also knew, based on feedback from the customer,<sup>2</sup> the waiter and the manager, whether the customer is visiting the restaurant for the first time or is a repeated customer.

In addition, some more data were collected. The author who served as a manager in the restaurant knew about incidents related to the meal, such as dishes that were delayed, dissatisfaction of the customers from the service, appraisal from the customers, etc. This together with the feedback collected from the waiters was combined to create a variable of customer satisfaction on a 1–3 scale (3 being high satisfaction). The level of occupancy of the restaurant was also ranked on a 1–3 scale (3 being high occupancy).

<sup>2</sup> The regular procedure in the restaurant involved asking the customers whether they knew the restaurant and/or the menu and if they dined in it previously.

**Table 1**  
Summary statistics and explanations of the main variables.

Variable	Explanation	Full sample		Partial sample	
		Mean	SD	Mean	SD
Return	1 if excessive change was returned, 0 otherwise	0.33	0.473	0.34	0.476
High-change	1 if 40 Shekels extra change, 0 if 10 Shekels	0.50	0.501	0.50	0.502
Repeated	1 if a repeated customer, 0 otherwise	0.51	0.501	0.51	0.502
Member	1 if the customer is a restaurant club member, 0 otherwise	0.06	0.233	0.06	0.243
Weekend	1 if weekend, 0 otherwise	0.19	0.391	0.21	0.406
Summer	1 if July–August, 0 otherwise	0.53	0.500	0.58	0.495
Occupancy	Restaurant occupancy on a 1–3 scale (3 = high)	1.87	0.751	1.90	0.762
Booth	1 if a booth table, 0 otherwise	0.38	0.487	0.37	0.484
Lunch	1 if the order is made between 12:00 and 16:59 h, 0 otherwise	0.40	0.490	0.39	0.489
Evening	1 if the order is made between 17:00 and 21:59 h, 0 otherwise	0.26	0.440	0.22	0.415
Night	1 if the order is made between 22:00 and 03:00 h, 0 otherwise	0.34	0.476	0.39	0.490
Minutes	Duration of stay in the restaurant (in minutes)	48.69	13.780	47.80	13.850
Male-waiter	1 if the server is male, 0 otherwise	0.31	0.463	0.31	0.465
Business	1 if the customer had a business meal, 0 otherwise	0.61	0.489	0.63	0.486
Alcohol	1 if the customer consumed alcohol, 0 otherwise	0.11	0.319	0.13	0.332
Bill-per-person	Bill in Shekels divided by the number of diners	64.25	20.54	63.10	21.021
Sharing	1 if the bill was paid by more than one person, 0 otherwise	0.34	0.474	0.34	0.474
Man-payer	1 if the bill was paid by a man, 0 otherwise	0.37	0.484	0.33	0.470
Woman-payer	1 if the bill was paid by a woman, 0 otherwise	0.29	0.456	0.34	0.474
Men-pay	1 if the bill was paid by two men, 0 otherwise	0.15	0.359	0.18	0.386
Women-pay	1 if the bill was paid by two women, 0 otherwise	0.13	0.337	0.16	0.364
Mixed-pay	1 if the bill was paid by a man and a woman, 0 otherwise	0.06	0.233		
Satisfaction	Satisfaction level on a 1–3 scale (3 = high)	2.84	0.480	2.85	0.465
Tip-percent	Tip in percentage of the bill	13.34	9.868	13.58	10.746

*Comments:* The full sample includes all 192 observations. The partial sample includes 160 observations and is obtained by excluding from the full sample observations of two-diner mixed tables (a man and a woman).

The receipts were used to record additional information: whether the customers have the restaurant's membership card (which suggests that the customers dine there relatively frequently), the time when the order was made, which meal was ordered and whether it included alcoholic beverages, and the amount of the bill. In addition, we documented the date and day of the week, the time of the customers' exit from the restaurant (which was then used with the time when the order was made to compute the duration of the customers' visit), and the gender of the main server that provided service to the table.

The sample was chosen to create a balanced sample between the main variables of interest (amount of excessive change – 10 or 40 Shekels, repeated versus one-time customers, one versus two diners, gender). The 97 observations of two-diners tables are divided roughly equally between two women, two men, and a woman with a man.

### 3. Analysis and results

**Table 1** presents the summary statistics and the explanations of the main variables. Only 64 customers out of 192 (33%) returned the excessive change. Satisfaction was high in most cases (89%), and in the other cases the complaints were handled by the servers or the management. The bill per person ranged between 7 and 127 Shekels. In the 32 tables with a woman and a man, both shared the bill in 11 tables, the man paid in 19 tables, and the woman paid in 2 tables.

The dependent variable we are interested in is the binary variable Return, i.e., whether the customer returned the extra change that was received. Before turning to the more complex regressions, **Table 2** presents an overview of the main results by considering the average level of returning the excessive change in different groups. We found, in line with our hypothesis, that repeated customers return the extra change much more often than one-time customers and that diners who have the restaurant club membership return much more often than non-members. The hypothesis that two diners will return the change more often than one diner is not supported. We see the importance of gender, with female tables returning the extra change much more often than male tables. Interestingly, the behavior of mixed tables is much closer to male than to female tables. The last part of the table shows that only 15.6% of the people who got 10 extra Shekels returned it, whereas 51% of those who received 40 extra Shekels returned it. However, it is hard to know whether this is the result of people feeling much worse about keeping 40 Shekels or of people noticing the extra change much more often when it is 40 Shekels.<sup>3</sup>

<sup>3</sup> In general, we believe that most customers noticed the extra change. We considered the possibility of trying to detect this, but realized that even a person who stands close-by will not necessarily really know if the customer observed the extra change or not, and that any suspicion that a customer may have if he feels that someone watches him when he collects the change can ruin the entire experiment, and therefore we decided to proceed as we did. We think that most people who pay cash know how much change to expect. They have a lot of time to compute this. After they get the bill, they put money for payment, call the waiter or wait for him to come, and then wait for him to come back with the change (the waiters go to the cashier to bring the change). The time this process takes is a sufficient time to compute the expected change. Moreover, the customers leave their tip after receiving the change, so

**Table 2**  
Probability of returning the excessive change.

Group	Probability of returning the excessive change	Number of observations	<i>p</i> -value of <i>t</i> -test
One-time customers	13.7%	95	<0.0001
Repeated customers	52.6%	97	
Non-member diners	31.5%	181	0.064
Member diners	63.6%	11	
One-diner tables	31.6%	95	0.612
Two-diner tables	35.1%	97	
One female diner	44.7%	47	Chi-square test <i>p</i> -value: 0.006
One male diner	18.8%	48	
Two female diners	53.1%	32	
Two male diners	24.2%	33	
A female and a male diners	28.1%	32	
10-Shekels extra change	15.6%	96	<0.0001
40-Shekels extra change	51.0%	96	

*Comments:* The *p*-value of the *t*-test refers to the two-tailed test for difference in means between the two groups, allowing for unequal variance.

Next, we turn to some regressions to provide a more comprehensive analysis of the data. For convenience, the variable Return was multiplied by 100 to serve as the dependent variable. This yields coefficients that do not suffer from leading zeros and makes the interpretation of the coefficients more straightforward – they now represent the percentage increase in the probability of returning the excessive change due to an increase of one unit in the independent variable.

Regression (1) in Table 3 shows again the large and statistically significant effect of the extra change amount: customers who received 40 extra Shekels have a probability higher by 17.8% (one-time customers) or 51.4% (repeated customers) to return it than customers who received 10 extra Shekels.<sup>4</sup> Our hypothesis that repeated customers will behave more honestly is strongly supported by the data. A repeated customer returns the excessive change with a probability higher by 23.2% (in the 10-Shekels treatment) or 56.8% (in the 40-Shekels treatment), results that are also highly statistically significant. A table with one woman is more likely to return the excessive change by 28.9% and with two women by 39.7% compared to a single man.

Regression (2) considers the composition of those who paid the bill instead of the diners' composition. Because of the high correlation between the two we cannot put both in the same regression. The variables that are common to both regressions have similar coefficients and statistical significance in both regressions. With respect to the gender composition, which is treated differently in the two regressions, we can see small differences.

To isolate the effect of the presence of others on the decision whether to return the excessive change, two regressions were run. The first includes all the variables that appear in both regressions (1) and (2) and in addition a dummy variable of two-diners (equal to 1 in two-diners tables and 0 otherwise). The coefficient of Two-diners is 3.2 (*p*-value of 0.601). The coefficient is in the predicted direction (two diners resulting in more social pressure and more returning) but is not statistically significant. In the second regression instead of Two-diners the variable Sharing is included (it equals one if two diners shared the bill). The coefficient of Sharing is –2.0 and the *p*-value is 0.767. That is, two diners or two payers do not seem to behave differently from one diner and payer. The other results are qualitatively similar to the regressions in Table 3 and therefore are not presented.

The gender issue also deserves a closer look. To be able to make a clear distinction between male and female tables, we exclude the observations of mixed tables for this analysis, resulting in a sample of 160 tables. In regression (3) in Table 4 we see once again the positive and statistically significant effect on returning of gender, receiving the higher excessive change, repeated customers, and the interaction of High-change and Repeated. In regression (4) we attempted to gain more insights about gender differences by including also some interactions between Male-table and other variables. In particular, we were interested to know if one of the main effects (repeated customers and high excessive change) has an interesting interaction with gender, and whether the gender of the server and the presence of others do. The results provided some surprises. Much of the large impact of female diners on returning disappeared. The interaction of Male-Table with Repeated now captures most of the gender difference, suggesting that the gender difference in returning the excessive change is not very large for one-time customers. However, the positive effect of being a repeated customer on the willingness to return the excessive change is much higher for women than for men, so in the entire sample we see a very large gender difference.

A deeper look into gender differences appears in Table 5, which presents separate regressions for male and female tables (again omitting mixed tables). In the female sample High-change becomes not statistically significant and in the male sample

typically they do not take all the change but rather take some change back and leave some as the tip. The process of doing so can also show them that too much change has been returned. All that said, it is certainly possible that some customers did not notice the extra change and therefore did not return it, and neglecting to observe the extra change is more likely in the 10 Shekels treatment.

<sup>4</sup> The number 51.4% is obtained by adding to 17.8% the interaction term High-change × Repeated, which equals 33.6%. Notice that these percentages are absolute differences in probability: a 51.4% increased probability means for example 10% versus 61.4%, not 10% versus 15.14%.

**Table 3**  
Linear probability model regressions – full sample.

Variable	Regression			
	(1)		(2)	
	Coefficient	p-value	Coefficient	p-value
High-change	17.8	0.026	17.4	0.032
Repeated	23.2	0.003	23.4	0.003
High-change × Repeated	33.6	0.003	33.0	0.004
Member	15.0	0.250	13.4	0.305
Weekend	10.8	0.176	10.4	0.197
Summer	1.0	0.880	1.1	0.859
Occupancy	1.9	0.629	1.8	0.651
Booth	−3.0	0.618	−1.9	0.752
Evening	3.5	0.678	4.3	0.613
Night	−0.2	0.978	0.6	0.945
Minutes	−0.3	0.234	−0.2	0.450
Male-waiter	−7.0	0.257	−7.4	0.233
Business	0.4	0.958	−0.1	0.990
Alcohol	−1.7	0.852	−2.0	0.826
Bill-per-person	0.2	0.223	0.2	0.270
Satisfaction	−9.4	0.112	−9.2	0.122
Tip-percent	−0.1	0.831	−0.1	0.748
Men-diners	4.1	0.646		
Mixed-diners	12.0	0.210		
Woman-diner	28.9	0.001		
Women-diners	39.7	0.000		
Men-payers			−1.7	0.849
Mixed-payers			0.3	0.980
Woman-payer			27.5	0.000
Women-payers			28.4	0.003
N	192		192	
R <sup>2</sup>	0.447		0.437	

*Comments:* The dependent variable is  $100 \times \text{Return}$ , which equals 100 if the customer returned the excessive change and 0 otherwise. In regression (1) the benchmark is a sole male diner, and four dummy variables capture the other alternatives: Woman-diner (sole female diner), Men-diners (two male diners), Women-diners (two female diners), and Mixed-diners (a woman and a man). In regression (2) a similar analysis applies to the identity of payers, the benchmark being a sole male payer.

**Table 4**  
Linear probability model regressions – excluding mixed tables.

Variable	Regression			
	(3)		(4)	
	Coefficient	p-value	Coefficient	p-value
High-change	19.0	0.035	23.2	0.031
Repeated	24.9	0.006	37.6	0.001
High-change × Repeated	28.1	0.029	30.1	0.019
Member	22.7	0.113	26.8	0.062
Weekend	5.8	0.501	2.5	0.776
Summer	4.7	0.501	0.8	0.911
Occupancy	1.4	0.754	1.0	0.830
Booth	−5.3	0.449	−7.6	0.275
Evening	4.3	0.676	3.3	0.742
Night	1.4	0.874	1.3	0.883
Minutes	−0.3	0.287	−0.3	0.229
Male-waiter	−10.3	0.137	−13.6	0.152
Business	0.6	0.942	−1.8	0.827
Alcohol	−3.5	0.724	−1.6	0.867
Bill-per-person	0.3	0.169	0.2	0.223
Satisfaction	−10.4	0.137	−12.1	0.084
Tip-percent	−0.1	0.760	−0.2	0.514
Male-table	−32.7	0.000	−11.2	0.411
Two-diners	6.8	0.325	13.3	0.186
Two-diners × Male-table			−10.7	0.431
Male-waiter × Male-table			10.3	0.440
Repeated × Male-table			−29.2	0.023
High-change × Male-table			−10.1	0.407
N	160		160	
R <sup>2</sup>	0.431		0.460	

*Comments:* The dependent variable is  $100 \times \text{Return}$ , which equals 100 if the customer returned the excessive change and 0 otherwise.

**Table 5**  
Linear probability model regressions – by gender.

Variable	Regression			
	(5)		(6)	
	Sample			
	Tables with one or two females		Tables with one or two males	
	Coefficient	<i>p</i> -value	Coefficient	<i>p</i> -value
High-change	16.8	0.180	16.6	0.203
Repeated	32.0	0.015	14.5	0.281
High-change × Repeated	43.5	0.022	17.8	0.325
Member	27.9	0.351	17.8	0.288
Weekend	−7.7	0.576	17.3	0.159
Summer	7.5	0.473	−5.9	0.589
Occupancy	−1.5	0.825	−1.3	0.849
Booth	−1.3	0.893	−13.9	0.178
Evening	−26.6	0.072	35.7	0.020
Night	−1.0	0.938	−1.1	0.930
Minutes	−0.8	0.046	0.2	0.675
Male-waiter	−19.1	0.050	5.0	0.622
Business	−17.9	0.142	7.8	0.531
Alcohol	−2.7	0.853	−4.0	0.777
Bill-per-person	0.6	0.028	−0.2	0.523
Satisfaction	−19.8	0.094	−3.1	0.725
Tip-percent	−0.2	0.637	0.0	0.991
Two-diners	14.6	0.209	4.7	0.623
<i>N</i>	79		81	
<i>R</i> <sup>2</sup>	0.581		0.368	

Comments: The dependent variable is  $100 \times \text{Return}$ , which equals 100 if the customer returned the excessive change and 0 otherwise.

this happens to the variables High-change, Repeated, and their interaction. However, once the interaction term is dropped from the regression (results that are not reported in the table), High-change and Repeated become statistically significant (with *p*-values of 0.000 and 0.000 in the female sample, 0.006 and 0.026 in the male sample, respectively).

In regression (5), which includes only female tables with one or two diners, we find a large negative effect of Evening (coefficient of −26.6, *p*-value 0.072), which is surprising because it is in the opposite direction to our hypothesis of better mood in the evening resulting in more returning. Interestingly, in the male sample we see the opposite pattern, of a large positive coefficient of Evening (35.7), this time also being statistically significant (*p*-value 0.020).<sup>5</sup> It is not entirely clear what causes this gender difference, but one conjecture is that women having lunch may often be housewives who are in a better mood than women dining in the evening after a tough day at work, whereas men who have lunch do so during work break, and dining in the evening is for them a more leisurely activity resulting in a better mood. Interesting, whatever is the reason for the large effect of the evening hours, it does not carry over to the night hours, neither for men nor for women. Maybe at night people are in a better mood compared to lunch but are also more tired and their better mood is offset by lower self-control (which is required to overcome the temptation to keep the extra change).

In the female sample we see a negative effect of minutes, in contrast to our prediction that a longer stay will result in increased closeness between the customer and the waiter and therefore more returning. Male-waiter has a large negative effect in the female sample; women behave more honestly toward waitresses than toward waiters. Interestingly, the two variables that we thought might capture the customer's income and her propensity to spend money affect females in the predicted direction, i.e., a lower propensity to spend is associated with less returning of the excessive change. Business, meaning discounted business meals, which could signal lower propensity to spend, indeed has a negative coefficient. It is large in absolute value (−17.9) but not statistically significant. Bill-per-person represents higher propensity to spend and as we hypothesized is positively related to returning the extra change.

Turning to regression (6), reporting results from the male sample, we see that some of the variables affect behavior in the opposite direction for the two genders (e.g., Weekend, Summer, and Business), but are not statistically significant. The small positive effect of Male-waiter is interesting: while women seem to favor female waitresses, men seem to treat waiters and waitresses almost the same. Finally, notice that women's behavior seems to be more predictable in this experiment: with a balanced sample between men and women as well as other major characteristics (amount of extra change, one versus two diners, and repeated versus one-time customers), and with the exact same set of explanatory variables, the regression of female tables has *R*<sup>2</sup> of 0.581 while the same regression for male tables has *R*<sup>2</sup> of only 0.368.

<sup>5</sup> Another regression that includes male and female tables (but not mixed ones), to which Male-table and its interaction with Evening were added, gives a coefficient of 42.1 and *p*-value of 0.007 for the interaction term, supporting the conclusion that the effect of Evening is different for women and men.

#### 4. Conclusion

We used a field experiment to study dishonest behavior in a natural setting. Customers in a restaurant who paid with cash received excessive change and we analyzed the different factors that affect whether the customers returned the excessive change. A majority of customers (128 out of 192) did not return the excessive change. Several factors appeared to have a large effect on the decision whether to return the excessive change. Repeated customers returned the excessive change much more often than one-time customers. This is consistent with our hypothesis and can be explained by two reasons. First, repeated customers already know some of the restaurant's staff and may feel worse than one-time customers about keeping excessive change at the cost of the waiter or the restaurant. Second, repeated customers are much more likely to visit the restaurant in the future, and may care more about the possibility that the waiter will find out that he gave too much change and will be angry with the customer for not behaving honestly.

Also in line with our hypothesis, we found that women are much more likely to return the extra change than men. Interestingly, however, considering different potential interactions we found that for one-time customers the gender difference is not large; it becomes much more significant for repeated customers, however. It seems that women feel more need than men to behave honestly when they know the server or expect to see him again in the future, but not so much otherwise.

Interestingly, a table with a woman and a man behaves much more similar to two men (or one man) than to two women (or one woman). This is true regardless of what we focus on, the gender of the diners or the gender of the payers.<sup>6</sup> This seems to suggest that in mixed tables not only the man affects the decision whether to return the extra change more than the woman, but also that the man does not try to impress the woman by behaving honestly, but rather acts in the same way that he would if he were alone or with another man. Presumably, many of the mixed tables involve partners in a romantic relationship (either married or not). The observation that the man affects the decision more is consistent with the finding that men tend to be more involved with economic decisions of the family than women (Hopper, 1995). Two reasons may explain why the men do not try to impress the women in mixed tables by behaving honestly. One is that some of those tables may involve couples who are in an advanced stage in their relationship. When people know each other well, their behavior is less affected by the need for social approval and the desire to impress (Boyes et al., 2004). A second reason is that it may be considered normal for men to take advantage of opportunities like keeping excessive change, and returning it may be perceived by many as a feminine behavior. Consequently, even if the man wants to impress his female partner, he will not choose to return the extra change because this will not create the impression he wants.

Some results surprised us. We thought that tables of two diners will create social pressure to behave honestly and will return the excessive change more often than tables with one diner. The analysis shows no statistically significant effect of the number of diners. Possibly those who do not feel internally the need to behave honestly and return the excessive change, also do not think that others believe this is the right thing to do, and therefore they do not try to impress others by behaving honestly and returning the extra change.

We also found that customers who received 40 extra Shekels returned it much more often than those who received 10 extra Shekels. A limitation of the study is that it is hard to know from this result if it happens because those who received 40 extra Shekels wanted more to be honest, or because those who received 10 extra Shekels often did not notice it. Interestingly, we also found a large and statistically significant interaction effect between the High-change variable and whether the customer is a repeated customer. That is, the difference in behavior between the 10 and 40 Shekels treatments is much more pronounced for repeated customers.

We recorded and analyzed the time of the customer's visit. Compared to the early afternoon (12:00–17:00 h), evening dining (17:00–22:00 h) resulted in considerably more honesty among men, but less honesty among women. Then at night (after 22:00 h) behavior was similar to the early afternoon. This pattern puzzled us and we are not sure we have a good explanation for it. It certainly is an interesting direction for future research – how does honesty change over the day, and whether there are gender differences in this change.

It is interesting to point out that tipping in restaurants is the norm in Israel (Azar, 2010), and that all 192 tables in the experiment tipped. This means that in 128 tables the customers did not want to give away money that was given to them by mistake (the extra change), but were willing to give away their money for tips, where tipping is not mandatory from a legal perspective. Two reasons can explain this different behavior regarding the tip versus the excessive change. First, the tip would certainly be observed by the waiter, whereas the customer assumes that the waiter did not notice giving too much change and therefore is not very likely to find out about it. Second, there is a strong social norm to tip, but apparently not a strong norm to return money you received by mistake. The existence of a strong norm can affect to what extent the customer feels guilty about a selfish act (not tipping or not returning excessive change) and consequently also affect behavior.<sup>7</sup>

<sup>6</sup> See Adams and Ferreira (2009) for a study on the impact of women on company boards.

<sup>7</sup> See Battigalli et al. (2013) for a theory on the relationship between guilt and deception.

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