

Please note: Like many, this article reports two experiments. For the purposes of your summary, emphasize similarities in the procedures and results of the two experiments. You might attend to details of differences when proposing your new research.

Journal of Applied Social Psychology, 1993, 23 (8), pp.678-685. Copyright 1993 by V. H. Winston & Son, Inc. All rights reserved.

Effect of Server Posture on Restaurant Tipping¹

MICHAEL LYNN¹ AND KIRBY MYNIER
University of Houston

The effect of server posture (standing vs. squatting) on the size of tip left by restaurant customers was examined in two naturalistic experiments. In these studies, squatting down next to the tables increased servers' tips from those tables. Both the practical implications of this effect and its similarity to other nonverbal effects on tipping are discussed.

Restaurant tipping is a widespread form of social behavior with enormous economic implications for tip recipients. There are approximately 1.3 million restaurant servers in the United States (*Statistical Abstracts*, 1990) and these servers rely on tips as a major source of income (Schmidt, 1985). Knowledge about the factors that influence the size of consumers' tips would help these people develop more effective and efficient ways of increasing that income. Social psychologists can and have contributed to such knowledge.

Social psychological research has found that people tip more the larger their bills (Freeman, Walker, Borden, & Latane, 1975; Lynn, 1988; Lynn & Latane, 1984) and the more favorably they evaluate the service they receive (Lynn & Grassman, 1990). This suggests that servers can increase their incomes by selling more food and drink and by providing more attentive, courteous, and speedy service.

In addition to these general strategic suggestions, social psychological research suggests several specific tactical actions servers can take to increase their tip incomes. Experimental studies have found that waitresses receive larger tips when they: a) introduce themselves by name (Garrity & Degelman, 1990); b) give customers large smiles (Tidd & Lockard, 1978); c) touch customers on the hand or shoulder (Crusco & Wetzell, 1984; Stephen & Zweigenhaft, 1986); and d) wear flowers in their hair (Stillman & Henlsey, 1980). These research findings are of particular value to servers because they involve nonobvious, concrete, and easy-to-implement ways of increasing tips.

The present paper examines the effectiveness of another tactic servers may employ to increase their tips. Specifically, it tests the effects on tipping of server posture during initial contact with the customer. Servers typically stand up when waiting on tables. However, occasionally some servers will squat down next to a table when interacting with customers at that table. Squatting down next to a table increases the congruence between the server's and customers' postures, brings the server's eye level down to the customers' eye levels (which facilitates eye contact), and brings the server's face closer to the customers' faces. Research on nonverbal communication has found that postural congruence, more eye contact, and greater proximity are associated with rapport and liking (Argyle, 1988; Bull, 1987; LaFrance & May, 1981). Furthermore, research on tipping has found that consumers tip friendly servers more than less friendly servers (Adelman, 1985; Lynn & Grassman, 1990). Thus, it seems likely that squatting down will increase a server's tips because it makes the server seem friendlier.

Study 1

Method

A Caucasian waiter at a Mexican restaurant in Houston, Texas, collected data about 270 of his customers (tables) from March 7 to April 27, 1991. When a customer was seated at his station, the waiter flipped a coin to randomly determine whether he would squat down or stand during his initial interaction with that customer. The waiter's initial approach to tables generally involved welcoming the guest, suggesting and taking drink orders, giving a concise description of the daily specials, and telling the guest his name. The only time the experimenter would squat down (in the experimental condition) was during this initial visit to the table. Every effort was made to treat the customers similarly in all other aspects of their dining experience. Each customer's experimental condition, bill size, and tip amount was recorded for later analysis.

Results

Effects of Server Posture

The effects of server posture on bill size and tipping were assessed with *t* tests. Server posture did not affect bill size ($t(268) = .80$, n.s.), but it did affect tipping. The waiter received an average tip of \$5.18 when he remained standing throughout the service encounter and received an average tip of \$6.40 when he squatted down during his first visit to the table ($t(268) = 3.10$, $p < .003$). This posture effect on tipping was even more significant when tipping was measured as bill-adjusted, residual tip amounts ($M = -.49$ vs. $.43$, $t(268) = 7.52$, $p < .0001$) and when tips were measured as a percentage of bill size ($M = 14.9\%$ vs. 17.5% , $t(268) = 7.41$, $p < .0001$). Thus, squatting down during the initial visit to a table had a positive effect on several different measures of tipping.

Interaction With Bill Size

The interaction of server posture with bill size was assessed in a hierarchical regression of tip amount on bill size, server posture, and their product. This analysis produced a significant posture by bill-size interaction ($F(1,266) = 19.07$, $p < .0001$). When the server remained standing during the service encounter, the least-squares equation predicting tip amount from bill size was: $\text{tip} = .38 + .13 \times \text{bill}$ ($R^2 = .92$). When the server squatted down, this equation was: $\text{tip} = .37 + .16 \times \text{bill}$ ($R^2 = .90$). Thus, squatting down increased tips more the larger the customer's bill size.

Discussion

The waiter in Study 1 received larger tips when he squatted down during his initial visit to a table than when he remained standing during this visit. This finding demonstrates that squatting down can increase a server's income. However, there are at least three limitations to this finding. First, the server in this study believed that squatting down would increase his tip income. Although the server tried to treat the customers in different conditions similarly, it is possible that his expectations caused him to unconsciously favor customers in the experimental condition resulting in a self-fulfilling prophecy (Rosenthal, 1976). Second, the server recorded no additional information about his customers. Thus, it was not possible to determine if squatting down interacts with other variables such as patronage frequency, group size, or payment method. Finally, only one server at one restaurant was employed in this study. This

raises questions about whether the results of the study generalize to other servers and restaurants.

Study 2

A second study was conducted to address the limitations of Study 1's results. This second study differed from the first in several ways. First, the server in this study was told that squatting down could have positive, negative, or mixed effects on tipping. In a post-study interview, this server said she doubted that squatting down affected her tips, so the prestudy information she was given appeared to be successful at preventing any experimenter expectations. Second, the server in this study collected additional information about her customers so that potential interactions with server posture could be examined. Finally, the server in this study was an Asian female working at a Chinese restaurant as compared to the Caucasian male working at a Mexican restaurant in Study 1. Thus, it was possible to assess the generalizability of the server-posture effect across two very different servers and restaurants.

Method

Source of Data

An Asian-American waitress at a small family-owned Chinese restaurant in Houston, Texas, collected data about all of her customers (tables) during dinner shifts for a 2-week period between July 3 and July 20, 1992. Customers who dined at the restaurant two or more times during this period were included in the study only once. A total of 148 observations were obtained for analysis.

Procedure

As customers entered the restaurant, they were greeted by a hostess who seated them at a table and gave them menus. When the server conducting this study was assigned a table, she flipped a coin to randomly determine whether she would stand or squat during her initial visit to the table. When visiting a table for the first time, the waitress would greet her customers, introduce herself by name, ask how the customers were doing, and take the customers' drink orders. These tasks were performed either in a standing or squatting position depending on the outcome of the coin toss. From that point on, the service encounter proceeded normally with the server maintaining a standing position. The server recorded information about each of her customers after they left the restaurant.

Variables

The following variables were recorded for each dining party the waitress served.

Date: The date of each data collection was recorded and used to classify the relevant service encounters as weekday or weekend encounters.

Posture: The outcome of the coin toss used to assign customers to the experimental and control conditions was recorded.

Patronage frequency: The customers were categorized as either regular or nonregular patrons of the restaurant.

Sex of patron: The sex of the customer who paid the bill was recorded. This variable was dropped from analysis because only 10 women were observed paying the bill.

Dining party size: The number of people (excluding infants and small children) in the dining party was recorded.

Service: The waitress rated her own service as below average, average, or above average. This variable was also dropped from analysis because only eight dining parties were recorded as receiving nonaverage service.

Payment method: The method used to pay the tip was recorded as cash or credit.

Bill: The bill size from each table was recorded.

Tip: The tip amount left by each table was recorded.

Results

Effects of Server Posture

The effects of server posture on bill size and tipping were assessed with t tests. Server posture did not affect bill size ($t(146) = .46$, n.s.) but it did affect tipping. The waitress received an average tip of \$2.56 when she remained standing throughout the service encounter and received an average tip of \$3.28 when she squatted down during her first visit to a table ($t(146) = 2.85$, $p < .005$). This posture effect on tipping was even more significant when tipping was measured as bill-adjusted, residual tip amounts ($M = -.29$ vs. $.33$, $t(146) = 4.71$, $p < .0001$) and when tips were measured as a percentage of bill size ($M = 12\%$ vs. 15% , $t(146) = 4.81$, $p < .0001$). Thus, squatting down during the initial visit to a table had a positive effect on several different measures of tipping.

Interactions With Other Variables

The interactions of server posture with bill size, group size, patronage frequency, payment method and weekday versus weekend were assessed in separate multiple regression analyses using tip amount as the dependent measure. The analyses involving group size, patronage frequency, payment method, and weekday versus weekend also used bill size as a covariate. These analyses produced a significant interaction between server posture and weekday versus weekend ($F(1, 143) = 5.65$, $p < .02$); the posture manipulation had a larger effect on weekdays ($x = .45$ vs. $-.47$, $F(1, 74) = 24.62$, $p < .0001$) than on weekends ($x = .15$ vs. $-.11$, $F(1, 68) = 2.43$, $p < .13$). None of the other interactions were significant (all $F_s < 1.00$). These analyses also produced significant main effects for bill size ($F(1, 144) = 386.83$, $p < .0001$) and payment method ($F(1, 143) = 20.57$, $p < .0001$); the restaurant's patrons tipped more when their bills were larger and when they paid the tip with credit rather than cash. The main effects of group size, patronage frequency and weekday versus weekend were not significant (all $F_s < 1.02$).

Discussion

The waitress in this study received larger tips when she squatted down during her initial visit to a table than when she remained standing. This result replicates the server posture effect observed in Study 1 and demonstrates that the effect is generalizable across different servers and restaurants. Moreover, this replication rules out self-fulfilling prophecies as an explanation for the server posture effect because the waitress in this study did not believe that the posture manipulation had any effect on tipping.

This study produced a significant interaction between server posture and weekend versus weekday service encounter. Squatting down had a larger effect when it occurred on a weekday than when it occurred on a weekend. It is not clear why this interaction was obtained. Perhaps restaurant customers are more interested in the friendliness of servers on weekdays than they are on weekends.

In Study 1, squatting down next to a table increased tips more the larger the table's bill size. This server posture by bill size interaction was not observed in Study 2. However, bill size varied much less in Study 2 than in Study 1 ($SD= 11.20$ vs. 20.51 ; $F(269,147)= 3.35$, $p<.001$), so the failure to replicate this interaction may be due to a restriction of variance in bill size.

General Discussion

The results of Studies 1 and 2 indicate that restaurant patrons leave larger tips when their servers squat down next to the table than when their servers maintain an erect posture throughout the service encounter. This effect generalizes across different servers and restaurants, though it appears to be stronger on weekdays and for tables with larger bills. These findings are of value to the 1.3 million waiters and waitress in this country because they suggest a nonobvious, concrete, and easy to implement way these servers can increase their tip incomes.

Studies 1 and 2 demonstrate that server posture has a causal effect on tip size, but they do not indicate what psychological processes underlie this effect.¹ Having a server squat down may physiologically arouse customers and this arousal may facilitate tipping. Alternatively, having a server squat down may elevate customers' moods and this positive affect may increase tipping. However, a more plausible possibility is that servers seem friendlier when they squat down and this enhanced friendliness leads customers to tip the server more. This latter explanation is the more plausible because squatting down increases the postural congruence between server and customer, facilitates eye contact between server and customer, and brings the server's face closer to that of the customer. Research has found that postural congruence, more eye contact, and greater proximity are all associated with rapport and liking (Argyle, 1988; Bull, 1987; LaFrance & May, 1981) and that consumers tip friendly servers more than less friendly servers (Adelman, 1985; Lynn & Grassman, 1990).

The perceived friendliness explanation for the server posture effect on tipping also provides a parsimonious explanation for previous findings that servers receive larger tips when they touch their customers (Crusco & Wetzel, 1984; Stephen & Zweigenhaft, 1986) and give their customers large smiles (Tidd & Lockard, 1978). Squatting down, touching and smiling all nonverbally communicate liking and rapport (Argyle, 1988; Bull, 1987; LaFrance & May, 1981) and all increase tipping. Thus, these studies may be viewed as conceptual replications of one another. Together, they provide persuasive evidence that tipping is affected by nonverbal cues that the server likes and feels close to his or her customers. Other researchers may want to test directly the mediating role of perceived friendliness in producing these nonverbal behavior effects on tipping, but the existing evidence is compelling enough to recommend that servers learn the nonverbal cues to liking and then direct these cues at their customers. Doing this should increase servers' tip incomes.

References

- Adelman, S. (1985, June/July). How your customers decide what to tip. *NRA News*, pp.43-44.
- Argyle, M. (1988). *Bodily communication*. New York: Methuen and Company.
- Bull, P. E. (1987). *Posture and gesture*. New York: Pergamon Press.
- Crusco, A. H., & Wetzel, C. G. (1984). The Midas Touch: The effects of interpersonal touch on restaurant tipping. *Personality and Social Psychology Bulletin*, 10, 512-517.
- Freeman, S., Walker, M. R., Borden, R., & Latane, B. (1975). Diffusion of responsibility and restaurant tipping:

- Cheaper by the bunch. *Personality and Social Psychology Bulletin*, 1, 594-597.
- Garrity, K., & Degelman, D. (1990). Effect of server introduction on restaurant tipping. *Journal of Applied Social Psychology*, 20, 168-172.
- LaFrance, M., & Mayo, C. (1978). *Moving bodies: Non-verbal communication in social relationships*. Monterey, CA: Brooks/ Cole.
- Lynn, M. (1988). The effect of alcohol consumption on restaurant tipping. *Personality and Social Psychology Bulletin*, 14, 87-91.
- Lynn, M., & Grassman, A. (1990). Restaurant tipping: An examination of three "rational explanations." *Journal of Economic Psychology*, 11, 169-181.
- Lynn, M., & Latane, B. (1984). The psychology of restaurant tipping. *Journal of Applied Social Psychology*, 14, 551-563.
- Rosenthal, R. (1976). *Experimenter effects in behavioral research*. New York: Irvington Publishers, Inc.
- Schmidt, D. G. (1985). Tips: The mainstay of many hotel workers's pay. *Monthly Labor Review*, 108, 50-61.
- Statistical abstracts of the United States*. (1990). Department of Commerce, p. 391.
- Stephen, R., & Zweigenhaft, R. L. (1986). The effect on tipping of a waitress touching male and female customers. *The Journal of Social Psychology*, 126, 141-142.
- Stillman, J. W., & Hensley, W. E. (1980). She wore a flower in her hair: The effect of ornamentation on non-verbal communication. *Journal of Applied Communication Research*, 1, 31-39.
- Tidd, K. L., & Lockard, J. S. (1978). Monetary significance of the affiliative smile: A case for reciprocal altruism. *Bulletin of the Psychonomic Society*, 11, 344-346.

Journal of Psychological Inquiry, 1998, Vol. 3, 11-13

Restaurant Server Posture Related to Add-On Sales

Ginger A. VanVolkinburg
Missouri Southern State College¹

Research has reported that the size of a restaurant bill affected tip size and that nonverbal communication, involving body posture and eye contact, helped to establish rapport and personal credibility. Using a naturalistic setting, this study examined the relationship between restaurant server posture (standing or squatting) and the amount of sales. This study used servers in a moderately priced, national franchise restaurant. Results showed that servers who squatted next to the table had higher sales and spent more time interacting with the customers. These results suggest how servers might increase the size of the bill and thus increase tip income.

Servers depend on tips for a major source of income (Lynn & Mynier, 1993). Research has shown that customers tip more depending on the size of their bill (Lynn & Grassman, 1990; Harris, 1995). This finding implied that servers could boost the amount of their income by selling higher priced beverages and appetizers that would increase the bill. Bodvarsson and Gibson (1994) also reported that gratuities depended on bill size and that bill size and the amount of service were related. Larger orders of beverages and food required greater amounts of service. Thus, implementing unobtrusive ways to increase the size of the bill should benefit servers by increasing the size of their tips.

This study examined strategies to increase the size of customers' bills for the purpose of boosting tips. Specifically, the effects of server posture on the number of specialty drinks and appetizers the customer bought were observed during the initial visit to the table. Servers usually stand next to the table when interacting with customers. Some servers, however, squat at the table. Research has shown that servers who squat at a table earn more in tips than those who stand (Lynn & Mynier, 1993). This posture brings the server's face closer to and in alignment with the customer's face. Leathers (1992) found a strong connection between body proximity and personal liking. Some investigators (e.g., Hargie, 1986a, cited by Knapp & Hall, 1992) consider body proximity, smiles, and eye contact as non-verbal reinforcers. By squatting next to customers, the server was virtually sitting next to them, establishing good rapport, and assuming a position of postural congruence. Research on body communication has found that postural congruence is linked to good rapport, and good rapport promotes more communication, giving the receiver the feeling of being liked (Argyle, 1975).

In addition to body posture, eye contact is essential for servers to sell successfully (Brown & Still, 1994). Research has shown that nonverbal cues, such as body orientation and eye contact increase personal credibility, a key to selling any product successfully (Leathers, 1992). Although previous research has shown that bill size affects tip size, no research to date has specifically reported about factors that might affect the size of the bill.

The purpose of this study was to determine whether a server's posture would affect the amount of add-on sales (drinks and appetizers) and thus increase bill size and the amount of the tip. Using naturalistic observation, the server's initial visit to a table was observed for

posture, duration of time spent at the table during the initial visit, and the amount of items sold to the customers by the server. The hypothesis was that the servers who squatted would have higher sales and remain at the table for a longer period of time during the initial visit than servers who stood.

Method

Participants

Fifty-four patrons, seated at 21 tables in a moderately-priced, national franchise restaurant in the Midwest were participants in the study. Servers were informed about the study because the observer was also employed as a server at this restaurant and knew the servers personally. Servers were told that the study involved observing squatting and standing behaviors, but the hypothesis was not revealed to them prior to the observations. Four servers consented to participate. Two typically squatted at tables, and two typically did not. The servers who squatted waited on 11 tables, and the servers who stood waited on 10 tables.

Material and Procedure

A watch with a second hand was used to time the initial visit to the table. Alcoholic and non-alcoholic specialty drinks, as well as appetizers were an important part of the menu and advertised throughout the restaurant. Data were collected during high-volume evening hours.

An "all-occurrences" sampling method was used. A server, who had previously agreed to be observed, was selected each day of observation, and the observer sat near that server's work area. The observer ordered a drink and did homework to remain inconspicuous to customers; she also made notes discreetly. In addition, that data were collected during high volume hours allowed the observer to be less noticeable to servers. Servers were also coded to preserve anonymity and were not told when they were being observed to avoid demand characteristics.

During the server's initial visit to the table, the observer recorded the server's choice of squatting or standing and the length of time the server was at the table. Squatting behavior was defined as bending at the knees until the server's face was on the same level or below the seated customers' faces. Standing was defined as being in an erect position and looking down at the customer. Timing started when the server picked up the ticket left at the table by the host and ended when the server walked away from the table. The observer recorded all drinks and appetizers served at the table, as well as the prices of the items. This procedure was repeated for each table in the server's work areas. During a total of 10 hours of observation, each server was observed for 2.5 hrs.

Results

The affects of server posture on the amount of add-on sales were assessed with t-tests. Although differences in the total cost of drinks and appetizers per table as a function of server posture were not significant, $t(21) = 1.2, p > .05$, there were two outliers, with an extreme value in each condition. When these two extremely high scores were omitted and the data analyzed again, there was a significant difference between the amount of sales as a function of server position, $t(19) = 2.5, p < .05$. The customers of servers who squatted spent more in dollars on add-on items ($M = 5.60, SD = 2.53$) than those of customers who stood ($M = 2.80, SD = 2.51$).

In addition, there was a significant difference in the amount of time servers spent at the table on the initial visit, $t(19) = 2.71, p < .05$. The servers who squatted spent more time in seconds at the table ($M = 64, SD = 28$) than the servers who stood ($M = 34, SD = 19$).

The correlation between the amount of time spent at the table and add-on sales was calculated for each server posture. There was no significant relationship between time spent at the table and add-on sales for those who squatted at the table, $r(9) = -0.06$, $p > .05$). There was, however, a significant relationship for time spent at the table and add-on sales for those who stood, $r(8) = 0.65$, $p < .05$)

Discussion

The results supported the hypothesis that a server's choice of squatting or standing is related to the amount of add-on sales. These findings were consistent with a similar study conducted on server posture and tips (Lynn & Mynier, 1993), which concluded that squatting at the table did have an effect on the amount of tips the server received. The results were also consistent with previous studies about body communication and nonverbal cues as selling techniques (Argyle, 1975; Brown & Still, 1994; Leathers, 1992).

One reason for the present findings may be, as Argyle (1975) has pointed out, that assuming a position of postural congruence promoted more talking. This interpretation could also explain why servers in this study who squatted spent more time at the table than those who stood. Another interpretation is that spending more time with customers, and not squatting, leads to greater sales. However, there was no correlation between time spent at the table and add-on sales for the servers who squatted. On the other hand, the amount of time spent at the table may be a relevant variable for servers who stand. Collectively, the data suggest that those who stand may need to engage in more verbal behaviors, whereas those who squat may be successful with nonverbal contact.

A limitation in the present study was the confounding between posture and a selection factor among servers. Servers in the squat and stand conditions were determined by their usual way of serving. Although servers appeared to be similar on variables such as attractiveness and neatness, those who squatted appeared to be more outgoing and talkative than those servers who stood. This difference may account for the higher add-on sales. Using the same servers, randomly assigned to a posture condition, would eliminate the confounding problem.

Another limitation in the study was the servers' knowledge about the study and the observer's presence. Although the servers did not know who was being observed at any particular time, the observer's presence was enough to inform them that they could be under scrutiny. Observing naive servers would eliminate such a limitation.

The findings from this study might motivate servers to look more closely at the nonverbal behaviors they use when serving tables and at the options they have to increase sales and personal income. Larger orders result from using various unobtrusive, easily implemented nonverbal methods. Such methods may prove to be effortless and effective for increasing servers' income.

References

- Argyle, M. (1975). *Bodily communications*. London: Methuen & Co.
- Bodvarsson, O. B., & Gibson, W. A. (1994). Gratuities and customer appraisal of service: Evidence from Minnesota restaurants. *Journal of Socio-Economics*, 23, 287-303.
- Brown, B., & Still, B. (1994). *The little brown book of restaurant success*. Washington, DC: Customer First.

- Harris, M. B. (1995). Waiters, customers, and service: Some tips about tipping. *Journal of Applied Social Psychology, 25*, 725-744.
- Knapp, M. L., & Hall, J. A. (1992). *Nonverbal communication in human interaction*. Fort Worth, TX: Harcourt.
- Leathers, D. G. (1992). *Successful nonverbal communication*. New York: MacMillan.
- Lynn, M., & Grassman, A. (1990). Restaurant tipping: An examination of three "rational" explanations. *Journal of Economic Psychology, 11*, 169-181.
- Lynn, M., & Mynier, K. (1993). Effect of server posture on restaurant tipping. *Journal of Applied Psychology, 23*, 678-685.

ⁱGwen Murdock and Brian Babbit from Missouri Southern State College were the faculty sponsors for this research project.