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Tipping in Restaurants and Around the Globe: An Interdisciplinary Review

Abstract

[Excerpt] Tipping is an interesting economic behavior because it is an expense that consumers are free to avoid. Although called for by social norms, tips are not legally required. Furthermore, since tips are not given until after services have been rendered, they are not necessary to get good service in establishments that are infrequently patronized. For this reason, many economists regard tipping as mysterious or seemingly irrational behavior. The present chapter explores this behavior and its implications for economic theory and public policy. The chapter is divided into four sections. The first two sections provide more detail about the phenomenon of tipping by summarizing and discussing the results of empirical research on the determinants and predictors of restaurant tipping and of national differences in tipping customs respectively. Then, economic theories about tipping are reviewed in light of the previously summarized empirical literature. Finally, the public welfare and policy issues raised by tipping are discussed.

Keywords

tipping, restaurant, social norms, consumer behavior, national differences

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Tipping in Restaurants and Around the Globe: An Interdisciplinary Review

Michael Lynn

Introduction

On an average day, approximately ten percent of the U.S. population eats at sit-down/family restaurants. In an average month, approximately 58% do so (Media Dynamics, 2001). After completing their meals, almost all of these restaurant diners leave a voluntary gift of money (or tip) for the server who waited on them (Speer, 1997). These tips, which amount to approximately \$21 billion a year, are an important source of income for the nation's two million waiters and waitresses (Lynn, 2003b). In fact, tips sometimes represent 100 percent of waiters and waitresses take home pay, because tax withholding eats up all of their hourly wages (Mason, 2002).

Of course, tipping is not confined to restaurant servers or to the United States. In the U.S., consumers also tip barbers, bartenders, beauticians, bellhops, casino croupiers, chambermaids, concierges, delivery persons, doormen, golf caddies, limousine drivers, maitre-d's, masseuses, parking attendants, pool attendants, porters, restaurant musicians, washroom attendants, shoeshine boys, taxicab drivers, and tour guides among others (Star, 1988). Although not as common as in the U.S., tipping is also practiced in most countries around the world (Putzi, 2002). In fact, national differences in tipping are a source of uncertainty for many international travelers and local tipping practices are a topic covered in most travel guides.

Tipping is an interesting economic behavior, not only because it is widespread and practically important, but also because it is an expense that consumers are free to avoid. Although called for by social norms, tips are not legally required. Furthermore, since tips

are not given until after services have been rendered, they are not necessary to get good service in establishments that are infrequently patronized. For this reason, many economists regard tipping as “mysterious” or “seemingly irrational” behavior (e.g., Ben-Zion and Karni, 1977; Frank, 1987; Landsburg, 1993). The present chapter explores this behavior and its implications for economic theory and public policy.

The chapter is divided into four sections. The first two sections provide more detail about the phenomenon of tipping by summarizing and discussing the results of empirical research on the determinants and predictors of restaurant tipping and of national differences in tipping customs respectively. Then, economic theories about tipping are reviewed in light of the previously summarized empirical literature. Finally, the public welfare and policy issues raised by tipping are discussed.

Determinants and Predictors of Restaurant Tipping

Restaurant tips in the United States vary substantially across dining occasions, dining parties, servers, and restaurants. Numerous studies attempting to explain this variability in restaurant tipping have appeared in the psychology and hospitality management literatures and a few such studies are beginning to appear in the economics literature (e.g., Bodvarsson and Gibson, 1994; Bodvarsson, Luksetich and Mcdermott, 2003; Conlin, Lynn and O’Donahue, 2003; Lynn and McCall, 2000a; McCrohan and Pearl, 1991). This research has generally relied upon one or more of the following three methodologies:

(1) researchers have stood outside of restaurants and conducted exit surveys of departing patrons about their just completed service encounters and tipping

behaviors,

(2) researchers have created panels of consumers who agreed to keep diaries of their restaurant dining experiences and tipping behavior, and

(3) researchers have recruited restaurant servers to record information about their own behavior, their customers' characteristics, and the tips those customers leave.

Among the variables whose effects on restaurant tipping have been studied using these methodologies are bill size, payment method, dining party size, service quality, server friendliness, server sex, customer sex, customer patronage frequency, customer ethnicity, and various interactions between these variables. The results of this research are briefly reviewed in the paragraphs below.

Bill Size

Social norms in the United States call for tipping restaurant servers 15 to 20 percent of the bill, so it should not be surprising that dollar tip amounts are positively related to bill size. What may be surprising is how strong this relationship is. In a quantitative review of 36 studies involving 5, 016 dining parties from over 40 restaurants, Lynn and McCall (2000b) found that 69 percent of the average within-restaurant variability in dollar tip amounts can be explained by bill size alone. This suggests that bill size is twice as powerful as all other factors combined in determining dollar tip amounts within restaurants.

Of course, the effects of bill size are not invariant. Research suggests that bill size predicts dollar tip amounts better when the tipper is a regular patron of the restaurant (Lynn and Grassman, 1990), the tipper has higher income and education (Lynn and

Thomas-Haysbert, 2003), and the tipper is Asian or White as opposed to Black or Hispanic (Lynn and Thomas-Haysbert, 2003). It is possible that these variables moderate the relationship between dollar tip amount and bill size because they reflect differences in awareness of the restaurant tipping norm. Supporting this possibility, one study found that Blacks are half as likely as Whites to know that the customary restaurant tip is 15 to 20 percent of the bill and additional, unreported analyses of that study's data indicated that awareness of the norm increases with income and education (Lynn, 2004b).

While dollar tips increase with bill size, percentage tips decrease with bill size (Green, Myerson and Schneider, 2003). This effect -- known as the "magnitude effect in tipping" -- is due to a positive intercept in the relationship between dollar tips and bill sizes rather than to a marginal decrease in the positive relationship between these two variables (Lynn and Sturman, 2003). The positive intercept has been attributed to:

(1) a tendency to leave a minimum tip when bill size is very small (Lynn and Bond, 1992),

(2) a tendency to add a constant amount for the mere presence of the server to the standard percentage tip (Green, et al, 2003),

(3)) a tendency for some people to be "flat dollar tippers" while others are "percentage tippers" (Lynn and Sturman, 2003), and

(4) a tendency to round-up tip amounts (Azar, 2004a).

Of these explanations, however, only the "flat dollar tipper" explanation has received any empirical support. National surveys indicate that about 20 percent of restaurant tippers leave a flat dollar amount rather than a percentage of the bill (Paul, 2001; Speer, 1997) and a computer simulation by Lynn and Sturman (2003) demonstrated that this fact is

sufficient to produce the magnitude effect in tipping.

Payment Method

Restaurant patrons paying with credit cards generally leave larger bill-adjusted or percentage tips than do those paying with cash (Feinberg, 1986; Garrity and Degelman, 1990; Lynn and Latane, 1984, Lynn and Mynier, 1993). These credit card effects on tipping could be due to:

- (1) the reduced psychological cost of delayed payments,
- (2) pre-existing differences between cash and credit-card customers, and/or
- (3) conditioned responses to credit-card stimuli (Feinberg, 1986).

Consistent with the latter of these explanations, McCall and Belmont (1996) found that people tipped more when the bill was presented on tip trays embossed with credit card insignia than when it was presented on plain tip trays and that this effect occurred even when people paid the bill with cash.

Dining Party Size

Large dining parties leave smaller percentage tips than do small dining parties (Freeman, Walker, Borden and Latane, 1975; Lynn and Latane, 1984; May, 1980). This effect has been attributed to:

- (1) a diffusion of the shared responsibility that each group member has for the server (Freeman, et al, 1975),
- (2) an equitable adjustment for the smaller per-person effort involved in waiting on larger tables (Snyder, 1976),

(3) a cost-reducing adjustment for the larger bill sizes acquired by larger tables (Elman, 1976), and

(4) a statistical artifact produced by a positive intercept in the relationship between dollar tips and bill sizes (Lynn and Bond, 1992).

Of these explanations, only the statistical artifact explanation has been empirically supported (see Lynn and Bond, 1992).

Service Quality

Dining parties that rate the service highly leave larger tips than those who rate the service less highly (Lynn and McCall, 2000a). Furthermore, this relationship remains statistically significant even after controlling for customers' food ratings, customer patronage frequency, and many other variables (Conlin, et al, 2003). The robustness of the effect after controlling for many potential confounds suggests that it is causal – i.e., that receiving better service causes people to leave larger tips. Despite its reliability and robustness, however, the service-tipping relationship is weak (see Bodvarsson and Gibson, 1999; Bodvarsson, Luksetich and McDermott, 2003; Lynn, 2000c, 2004c). Customer service ratings account for only 1 to 5 percent of the within-restaurant variability between dining parties in tip percentages (Lynn and McCall, 2000a). Similarly weak relationships between service and tipping have been observed at the server and restaurant levels of analysis (Lynn, 2003b).

Several studies have examined potential moderators of the service-tipping relationship. A quantitative review of those studies testing the service by patronage frequency interaction found that the effects of service on tipping do not vary with the

tipper's frequency of restaurant patronage (see Lynn and McCall, 2000a). However, studies testing other interactions have found that the effect of service on tipping is moderated by customer ethnicity (Lynn and Thomas-Haysbert, 2003) and day of the week (Conlin, et. al., 2003). Changes in service ratings are associated with larger changes in tip percentages among Asians and Hispanics than among Blacks and Whites. Changes in service ratings also have a bigger effect on weekday tip percentages than on weekend tip percentages. This latter effect may be attributable to the greater control over service delivery that servers have on weekdays (which are comparatively slow) than on weekends. Supporting this logic, Seligman, Finegan, Hazelwood and Wilkinson (1985) found that pizza delivery drivers received larger tips for faster deliveries, but only when the tipper believed the driver was personally responsible for the delivery time.

Server Friendliness

Although service ratings are only weakly related to tip percentages, server friendliness is a moderately strong predictor of tipping. Studies have typically found that servers' verbal and non-verbal signals of friendliness increase tip percentages by 20 to 40 percent or more (Lynn, 1996, 2003b). For example, servers receive larger percentage tips when they:

- (1) introduce themselves by name (Garrity and Degelman, 1990),
- (2) repeat customers' words when taking food orders (vanBaaren, et al, 2003).
- (3) touch customers lightly on the arm, hand or shoulder (Crusco and Wetzel, 1984; Hornik, 1992; Lynn, Le and Sherwyn, 1998; Stephen and Zweigenhaft, 1986),

- (4) give customers big, open mouthed smiles (Tidd and Lockard, 1978),
- (5) squatt-down next to the table during interactions with customers (Davis, et al, 1998; Lynn and Mynier, 1993),
- (6) entertain customers with games or jokes (Guegen, 2002; Rind and Strohmetz, 2001b),
- (7) draw smiley faces or other pictures on the back of checks (Guegen and Legohere, 2000; Rind and Bordia, 1996),
- (8) write “Thank You” or other messages on the backs of checks (Rind and Bordia, 1995; Rind and Strohmetz, 1998), and
- (9) call customer by their names when returning credit card slips to be signed (Rodrigue, 1999).

All of these studies involved random assignment of dining-parties to the different treatments, so they provide fairly strong evidence that tipping is affected by servers’ rapport with customers.

Server and Customer Sex

Men sometimes leave larger tips than do women (e.g., Crusco and Wetzel, 1984; Lynn and Latane, 1984) and waitresses sometimes receive larger tips than do waiters (e.g., Davis, et al, 1998), but these sex effects on tipping are not always found (Lynn and Graves, 1996; Lynn and Simons, 2000). It appears that the effect of customer sex on tipping depends on server sex and vice versa. In an unpublished quantitative review of the tipping literature, Lynn and McCall (2000b) found that men tipped more than women in studies where the server was female while women tipped more than men in studies

where the server was male. Furthermore, Conlin, Lynn and O'Donohue (2003) found a significant interaction between server and customer sex such that women tipped more than men when the server was male but not when the server was female. These findings suggest that tipping is affected by the dynamics of sexual attraction.

Customer Patronage Frequency

The regular patrons of a restaurant base their tips on bill size more than do new or infrequent patrons (Lynn and Grassman, 1990; Lynn and McCall, 2000b), perhaps because they are more familiar with the 15 to 20 percent restaurant tipping norm. They also tend to leave larger average tips than do infrequent patrons (Lynn and McCall, 2000a). This latter effect remains significant even after controlling for customers' ratings of the food and service (Conlin, et. al., 2003; Lynn and Grassman, 1990), so regular customers do not tip more merely because they perceive the food and service more positively than do infrequent customers. Instead, regular patrons may tip more because they are more likely to identify with servers or because they value servers' approval more than do infrequent patrons.

Customer Ethnicity

Black restaurant patrons are more likely than White patrons to tip a flat amount rather than a percentage of the bill. Blacks also leave smaller average restaurant tip percentages than do Whites. This latter effect remains sizable and statistically significant after controlling for education, income and perceptions of service quality, so Black-White differences in tipping are not due solely to socio-economic differences or to

discrimination in service delivery (Lynn and Thomas-Haysbert, 2003; Lynn, 2004). Instead, they may be due to ethnic differences in familiarity with the restaurant tipping norm. Consistent with this possibility, Lynn (2003) found that Whites were twice as likely as Blacks (71% vs 37%) to know that the customary restaurant tip in the United States is 15 to 20 percent of the bill amount.

Miscellaneous

Among the other variables positively related to bill-adjusted tip amounts in at least some studies are:

- (1) alcohol consumption (Conlin, et al, 2003; Lynn, 1988; Sanchez, 2002),
 - (2) sunny weather or forecasts of sunny weather (Cunningham, 1979; Crusco and Wetzel, 1984; Rind and Strohmetz, 2001a),
 - (3) metropolitan area size (Lynn and Thomas-Haysbert, 2003; McCrohan and Pearl, 1983, 1991),
 - (4) customer income (Lynn and Thomas-Haysbert, 2003; McCrohan and Pearl, 1983)
 - (5) customer youth (Conlin, et al., 2003; Lynn and Thomas-Haysbert, 2003; McCrohan and Pearl, 1983),
 - (6) customer ratings of food quality (Lynn and McCall, 2000a),
 - (7) server personality – i.e., self-monitoring (Lynn and Simons, 2000),
 - (8) server physical attractiveness (Hornik, 1992; Lynn and Simons, 2000; May 1980),
- and
- (9) server adornment – i.e., wearing flowers in hair (Stillman and Hensley, 1980).

Predictors of National Differences in Tipping Norms

Tipping varies across nations in terms of who it is customary to tip and how much it is customary to tip them. A handful of studies in the psychology and hospitality management literatures have attempted to measure these national differences in tipping norms and to examine their relationships with other variables. The most commonly studied measure of national tipping norms is the number of different service providers (out of a list of 33) that it is customary to tip in a nation. I shall refer to this measure as the national prevalence of tipping. Two other measures of national tipping norms are the amounts -- in percentages of the bill or fare -- that it is customary to tip restaurant servers and taxicab drivers. I shall refer to these measures as national restaurant and taxicab tip-rates respectively. All of these measures of national tipping norms are based on content analyses of international tipping guidebooks.

Research on the predictors of these measures has generally focused on national character – i.e., national values, motives and personality traits. This focus rests on the assumption that tipping norms are primarily determined by consumers. Consumer acceptance of these norms is theorized to vary with the value that consumers place on the consequences or functions of tipping. Thus, researchers have examined the relationships between national tipping norms and national character traits relevant to those consequences and functions. The results of this research are briefly reviewed in the paragraphs below.

Achievement, Materialism and Status

The national prevalence of tipping, the national restaurant tip-rate, and the national taxicab tip-rate all increase with Hofstede's (1983) measure of national commitment to traditionally masculine values such as achievement, materialism and status over traditionally feminine values such as caring and relationships (Lynn and Lynn, 2004; Lynn, Zinkhan and Harris, 1993). The national prevalence of tipping also increases with related measures such as national need for achievement, national value placed on recognition/status, and national extraversion (Lynn, 1997, 2000a, 2000b). These findings are consistent with the idea that tipping functions as a reward for server performance and as a form of consumer status display (Shamir, 1984).

Anxiety and Uncertainty Avoidance

The national prevalence of tipping and the national restaurant tip-rate, but not the national taxicab tip-rate, increase with Hofstede's (1983) measure of national desire to avoid uncertainty (Lynn and Lynn, 2004; Lynn, Zinkhan and Harris, 1993). The national prevalence of tipping also increases with a national personality trait, called "neuroticism," that is associated with heightened anxiety and nervousness (Lynn, 1994; 2000b). These findings are consistent with the idea that tipping functions as a guarantee of good and friendly service (Lynn and Lynn, 2004). That uncertainty avoidance is unrelated to national taxicab tip-rates may mean that people are less concerned about variability in the behavior of taxicab drivers than they are about variability in the behavior of waiters and other service providers.

Power

The national prevalence of tipping increases with McClelland's (1961) measure of national need for power (Lynn, 2000a). This finding supports the idea that tipping is valued as a source of consumer power over servers (Hemenway, 1993). On the other hand, national tipping customs are unrelated to Hofstede's (1983) measure of national acceptance of hierarchical power structures in analyses that statistically control for other national values (Lynn and Lynn, 2004; Lynn, Zinkhan and Harris, 1993). These latter findings suggest that the power implications of tipping are not an impediment to its appeal among egalitarian-minded people. Perhaps, the power over servers that tipping confers on consumers is seen by most people as benign or legitimate.

Individualism versus Collectivism

National taxicab tip-rates increase with Hofstede's (1983) measure of national emphasis on individual -- as opposed to group -- identity and motivation (Lynn and Lynn, 2004). However, national prevalence of tipping and national restaurant tip-rates are unrelated to national individualism after controlling for Hofstede's other values (Lynn and Lynn, 2004; Lynn, Zinkhan and Harris, 1993). These inconsistent findings are difficult to explain, but the failure to find that communalistic nations tip more service providers or larger amounts than do individualistic nations is meaningful. It suggests that the communalistic benefits that tipping provides are not an important determinant of the development and spread of tipping norms (Levmore, 2000).

Psychoticism

The national prevalence of tipping decreases with the average psychoticism score

within nations (Lynn, 2000b). Psychotic people tend to be aggressive, anti-social and un-empathetic, so this finding supports the idea that tipping norms are supported as a way to benefit or help servers.

Tax Burden

The national prevalence of tipping decreases with the percentage of the national GDP collected in taxes (Schwartz and Cohen, 1999). This relationship has been attributed to the lower disposable income associated with heavier tax burdens. However, this explanation assumes that higher national spending power leads to a greater prevalence of tipping and my own unpublished analysis indicates that the reverse is true. In a sample of 32 nations, I found that the national prevalence of tipping was negatively correlated with national purchasing power parity ($r = -.49, p < .004$).

Another potential explanation for the negative relationship between national tax burdens and tipping customs is that national attitude toward taxes affects both the tax burden and the support for norms, like tipping, that facilitate tax evasion. However, an unpublished analysis I conducted does not support this explanation. I found that national attitudes toward tax evasion via under-reporting of income was unrelated to both the national tax burden ($r = -.16, n = 17, p = .55$) and the national prevalence of tipping ($r = -.05, n = 16, p = .85$). Thus, additional explanations for the relationship between national tax burdens and tipping norms are needed.

Economic Theories of Tipping

The empirical literature on tipping reviewed above is dominated by psychologists.

Only recently have economists begun to collect and analyze data on this phenomenon. However, tipping has intrigued economists for some time and has been the subject of several economic models, theories and speculations. Most of these models, theories and speculations address one of two questions – (1) Why do rational individuals leave tips? and (2) How has the custom of tipping evolved? Economists’ answers to these questions are critically reviewed in the paragraphs that follow.

Individual Motives for Tipping

Tipping is a voluntary activity. Although guided by social norms, compliance with those norms is not compulsory. This raises a question about why rational people leave tips. Economists have generated six different answers to this question. According to them, people tip in order to:

- (1) buy future service from servers they will encounter again,
- (2) increase servers’ incomes,
- (3) feel positive feelings like pride or avoid negative feelings like guilt,
- (4) receive social approval/status or avoid social disapproval,
- (5) build an honest character, and
- (6) support the rule of tipping.

Each of these explanations is critically evaluated in the paragraphs below.

Future Service

The hypothesized motive for tipping most consistent with traditional economic theory is that people tip in order to buy future service. This explanation retains the

assumption of rational economic man who derives utility only from economic goods and services. The strong version of this explanation is that frequent patrons can ensure good future service by leaving tip amounts that are contingent on service quality (Ben-Zion and Karni, 1977; Lynn and Grassman, 1990). Servers who are aware of this contingency and want to improve their tip incomes will then be motivated to deliver good service. This reasoning is similar to that underlying the tit-for-tat strategy in iterated prisoner's dilemma games (Axelrod, 1984) and it suggests that the relationship between service and tipping should be stronger for regular than for non-regular customers. However, as mentioned earlier, tests of the service quality by patronage frequency interaction have failed to support this expectation. At the very least, these null results suggest that tippers are poor game theorists.

A weak form of the future service explanation is that frequent patrons can ensure good future service by tipping generously, because servers will be happier to wait on those known to be good tippers (Bodvarsson and Gibson, 1994; Frank, 1988; Sisk and Gallick, 1985). This explanation preserves the traditional models of rational consumers, but assumes that servers have irrational desires to repay customers for past generosity by supplying good current service. This version of the future service explanation does have the advantage of predicting only a positive effect of patronage frequency rather than a service quality by patronage frequency interaction. As previously mentioned, researchers have found substantial evidence that regular customers do tip more than non-regular customers, so this weak version is more consistent with the empirical literature than is the strong version. However, regular patrons may tip more than non-regular patrons for many reasons other than the desire for future service. Furthermore, a national survey asking

respondents for the best explanation of why they do or do not tip found that only 3 percent of respondents indicated that they tip for future service (Market Facts, 1996). Thus, this explanation for tipping needs additional testing.

Helping Servers

The traditional economic theory of consumer behavior cannot explain consumers' motives for tipping in restaurants that are infrequently patronized (Ben-Zion and Karni, 1977). To explain tipping in this situation, several economists have expanded their assumptions about consumers' utility functions. One frequently considered idea is that consumers derive utility from increasing servers' incomes (Azar, 2004b; Frank, 1988; Schotter, 1979). In other words, people tip out of feelings of empathy for servers. This idea is consistent with the previously reviewed findings that:

(1) tips increase with patronage frequency (because familiarity increases empathy),
(2) tips increase with server friendliness (because friendliness increases empathy), and
(3) the number of tipped service professions decreases with national psychoticism (because psychoticism decreases empathy). It is also consistent with the results of a national survey in which 30 percent of respondents indicated that the main reason they tip is "because I feel people depend on the money to make a living" (Market Facts, 1996).

Feelings of Pride and Guilt

Consumers' utility functions have also been broadened to include feelings of pride and guilt, which are theorized to accompany conformity and non-conformity with internalized tipping norms (Azar, 2004a, 2004b; Bodvarsson and Gibson, 1997; Conlin,

et al, 2003; Ruffle, 1999). This idea is consistent with the previously reviewed findings that dollar tips increase with bill size and that percentage tips increase with service quality, because the restaurant tipping norm identifies these variables as important determinants of the appropriate tip amount. However, compliance with tipping norms is not evidence that those norms are internalized or that feelings of pride or guilt motivate compliance with those norms. Thus, more direct assessments of the relationships between tips and anticipated feelings of pride or guilt are needed to evaluate this explanation for tipping.

Social Approval and Status

Allowing consumers' utility functions to include social approval and status has also been suggested as a way to explain tipping (Azar, 2004a, 2004b; Conlin, et al. 2003; Ruffle, 1999). Although sometimes lumped together with feelings of pride and guilt by economists trying to explain tipping, the desire for social approval is distinct because it varies with the visibility of the tip and the characteristics of observers in a way that feelings of pride and guilt do not (see Azar, 2004a; Bodvarsson and Gibson, 1997). In fact, the previously reviewed findings that tips increase with patronage frequency, server friendliness, server physical attractiveness, and differences between the customers' and servers' sexes provide support for the social approval explanation of tipping, because all these variables should increase the tippers' concern with the servers' approval. Also supporting this motivation for tipping are the previously reviewed effects on tipping customs of national values and personality traits associated with status seeking, because these national level effects are difficult to explain if they do not stem from corresponding

individual level relationships. However, more direct assessments of the relationship between desire for social approval and tipping are needed to further test this explanation.

Character Building Exercise

The most novel explanation for tipping advanced by an economist is that tipping is done as a character building exercise. According to Robert Frank (1988), the motive behind tipping is "... to maintain and strengthen the predisposition to behave honestly." He also suggests that cultivating an honest character is a choice that people make because others detect and reward those with an honest character. Although no empirical tests of this motivation for tipping currently exist, the novelty and creativity of the idea seem to argue against its validity. If the desire to cultivate an honest character truly motivates tipping, then it should have been apparent to others thinking and writing about tipping.

Support the Rule of Tipping

A final economic explanation for why individuals leave tips is based on game theory. Essentially, the argument is that one person's tipping or stiffing behavior causes others to behave likewise. Furthermore, an equilibrium in which everyone tips is preferable to an equilibrium in which no one tips because tipping improves service quality. Under these conditions, tipping is motivated by the desire to ensure a preferred equilibrium (Bodvarsson and Gibson, 1997; Schotter, 1979). As Bodvarsson and Gibson (1997) write: "The act of tipping ... is irrational, but supporting the rule of tipping by leaving tips is rational." Unfortunately, this explanation of tipping is founded on an untenable assumption – namely that an individual's behavior can influence the behavior

of enough other people to affect the societal equilibrium. People can and do stiff servers without bringing down the whole custom of tipping (see Paul, 2001), so “supporting the rule of tipping by leaving tips” is not rational from a self-interested perspective. Also undermining this explanation is the previously reviewed finding that the prevalence of tipping does not increase with national collectivism, because collectivists should be more inclined than individualists to contribute to public goods.

Social Functions of Tipping

Tipping is guided by social norms that specify who and how much to tip. This raises a question about why tipping norms exist. This question is related, but not identical, to the question about why individual consumers tip. Some of the benefits that motivate individuals to leave tips may also induce societies to adopt tipping norms. For example, the desire for status probably affects individual tipping decisions and national tipping customs (see Lynn, 1997). However, norms that induce many people to tip may provide benefits that no individual act of tipping can provide. In fact, economists’ explanations for tipping norms have focused on this latter type of benefit. The specific benefits mentioned by economists are numerous but can be traced to just five basic consequences of tipping –

- (1) tipping reduces the costs of monitoring and motivating server effort,
- (2) tipping provides a non-litigious means of addressing problems that arise from failures in service delivery (this is a version of the preceding consequence, but is distinct enough to warrant separate discussion),
- (3) tipping attracts good waiters to the restaurant industry,

(4) tipping facilitates tax evasion, and

(5) tipping increases profits through price discrimination.

Each of these consequences of tipping is discussed below.

Efficient Incentive

The most common economic explanation for the custom of tipping is that it functions as an efficient means of monitoring and rewarding server effort (see Ben-Zion and Karni, 1977; Bodvarsson and Gibson, 1997; Conlin, et al, 2003; Hemenway, 1993; Jacob and Page, 1980; Schotter, 1979). The highly customized and intangible nature of services means that customers are in a much better position than managers to evaluate and reward server effort, so these tasks are given to consumers via the norm of tipping. This reasoning suggests that tipping reduces transaction costs, motivates servers to work hard, and enables restaurants to provide more customized levels of service (see economic models of Ben-Zion and Karni, 1977 and Schotter, 1979). The previously reviewed evidence that restaurant tips are positively related to service quality means that tipping has some elements of an efficient contract (Conlin, et al, 2003). However, the fact that the service-tipping relationship is weaker on weekends than on weekdays and weaker for some ethnic groups than others means that tipping is not fully efficient (Conlin, et al, 2003). More importantly, the average service-tipping relationship is smaller than the correlation of .3 that Cohen (1992) argued is “visible to the naked eye of a careful observer.” This means that the relationship is too weak to be noticed by restaurant servers, so it seems doubtful that tipping can provide the hypothesized incentive for server effort (Lynn, 2001; Lynn and McCall, 2000).

Enforcement Mechanism

Sisk and Gallick (1985) do not believe that tips are “used to reward marginal increments in service.” Rather they argue that tipping is an enforcement device that protects customers against pressures to eat and leave quickly and that protects restaurants from unscrupulous complaints about the service. The custom of tipping accomplishes this by allowing customers to withhold payment for inadequate service while still requiring those customers to pay for the meal (see Schotter, 1979 for a similar argument). Thus, tipping acts like a guarantee and provides two benefits – it motivates servers to provide adequate service (Sisk and Gallick, 1985) and it reduces the need for costly arguments and litigation when the service is inadequate (Schotter, 1979). This explanation for tipping is supported by the previously reviewed relationships of tipping customs with national uncertainty avoidance and neuroticism, because neurotic and uncertainty-avoidant people should value guarantees of good treatment more than others (Lynn, 2000b; Lynn and Lynn, 2004).

Selection Device

Andrew Schotter (1979, 2000) argues that tipping is a selection device that separates good from bad waiters. He defines good waiters as those who can wait on many customers per work shift and poor waiters as those who can wait on only a few customers per work shift. Given this definition, the prospect of low tip income will keep poor waiters from deciding to work for tips. Thus, Schotter claims that tipping disproportionately attracts good waiters to the restaurant industry and helps to solve the

problem of adverse selection in employment that restaurant managers face. This explanation for tipping could easily be broadened to include more traditional definitions of good and poor waiters as long as customers give good servers more tips than they give to poor servers. As previously mentioned, however, individual differences in servers' performance are only weakly related to their average tip percentages, so such a broadening of the explanation is not supported by the available data. Note that this weak empirical relationship is not inconsistent with Schotter's original explanation, because he assumes that good waiters earn larger dollar (not percentage) tips than do poor servers. That assumption has yet to be empirically tested.

Tax Evasion

Bodvarsson and Gibson (1997) argued that tipping is supported in part because it facilitates tax evasion. Tipping allows servers to pay lower income taxes because under-reporting of tip income is more difficult for the government to catch than is under-reporting of standard wages. In fact, a study by the Internal Revenue Service found that under-reporting of tip income exceeds under-reporting of income from all other legal sources (IRS, 1990). In addition, tipping allows customers to pay lower sales taxes because (by lowering restaurants' labor costs) it reduces the prices restaurants charge for meals. Together, these tax evasion opportunities benefit customers, servers, and restaurateurs by reducing the costs of supplying services (Bodvarsson and Gibson, 1997; Schwartz and Cohen, 1999). However, the previously reviewed finding that tipping is more prevalent in countries with lower tax burdens casts doubt on the idea that tipping exists as a means of evading taxes. The motivation to evade taxes should be greater the higher those taxes, so if tipping customs are

actively supported because they are a means of evading taxes, then tipping should be more (not less) prevalent the greater a nation's tax burden.

Price Discrimination

Finally, Zvi Schwartz (1997) developed a demand-supply model of tipping in segmented markets and showed that tipping increases firm profits under many (but not all) conditions. Basically, he argued that tipping is a form of price discrimination that allows restaurants to charge high prices for the food without losing business from price sensitive customers as long as those customers are willing and able to reduce the total cost of eating out by leaving smaller tips. Unfortunately, no empirical data that could be used to test this model is currently available.

Public Policy Issues Concerning Tipping

Tipping is a private exchange between a customer and a service provider. Nevertheless, it raises important public policy issues. Among the tipping related questions that public policy makers must address are the following: (1) Should tipping be banned or not?, (2) How can under-reporting of cash tip income be detected and/or reduced?, and (3) Should mandated minimum wages be lower for tipped jobs than for non-tipped jobs? Each of these questions is discussed in the paragraphs below.

Ban on Tipping

Tipping is widespread, but is not universally loved. For over a hundred years, people in the United States have disliked the practice and tried to stop it (Azar, 2004a). In the

early 1900's for example, Arkansas, Mississippi, Iowa, South Carolina, Tennessee, and Washington State all passed laws prohibiting tipping (Segrave, 1998). Although currently legal throughout the United States, one national survey indicates that 24 percent of U.S. adults still think the practice is unfair to consumers (Roper, 2002) and another indicates that 34 percent of U.S. adults wish they were not expected to tip (Mills and Riehle, 1987). Dissatisfaction with tipping also extends beyond the borders of the United States. Europeans have largely replaced tipping with automatic service charges (Segrave, 1998) and the practice of tipping is actually illegal in Argentina and Vietnam (Magellan's, 2003). This negative sentiment raises a question about whether tipping increases or decreases social welfare and, therefore, should be permitted or banned.

As described in the previous section, economists have argued that the institution of tipping provides numerous social benefits, such as increasing service quality, increasing profits, reducing transaction costs, reducing litigation, and reducing tax burdens. Economists have also argued that tipping must provide some individual benefits to consumers apart from avoidance of the guilt and social disapproval brought on by non-compliance with tipping norms (Azar, 2004b; Schlicht, 1998). Otherwise, they argue, self-interest would lead to slight under-tipping, which would eventually erode the tipping norm itself. Social scientists in other disciplines have identified a number of candidates for those individual benefits – including a reduction of consumer anxiety about servers' envy of their customers (Foster, 1972; Lynn, 1994), a reduction of consumer guilt about the inequality between servers and customers (Shamir, 1984), an increase in the consumer's social recognition and status (Lynn, 1997; Paules, 1991), an increase in the consumer's self-perceived freedom (Shamir, 1984), and an increase in the consumer's

psychological rewards from helping servers (Shamir, 1984).

Balanced against the hypothesized benefits of tipping described above are several potential negative consequences of this custom. Tipping is thought to demean servers (Hemenway, 1993; Segrave, 1998) and it does increase the income-uncertainty and role-conflict experienced by servers (Butler and Skipper, 1980; Shamir, 1983). Tipping also encourages servers to: (a) rush customers in order to turn tables quickly, (b) give customers food and drink items free of charge, (c) spend little time or effort on groups considered poor tippers, and (d) evade taxes by under-reporting their tip incomes. More importantly, tipping norms put unwelcome social pressure on consumers to part with money they would rather keep (Crespi, 1947; Segrave, 1998).

Given the prevalence of tipping, it is tempting to assume that the benefits of this custom must outweigh its costs, but that assumption is not justified. Many of the hypothesized collective benefits of tipping have not been empirically demonstrated. In fact, the principle benefit attributed to tipping – that it increases service quality – is doubtful because tip amounts are only weakly related to service quality (Lynn and McCall, 2000a). Of course, the previously reviewed relationships between tipping customs and national values and personality traits suggests that some of the hypothesized psychological benefits actually do contribute to the evolution and maintenance of tipping norms (see Lynn, 2000a, 2000b; Lynn and Lynn, 2004). However, it is possible that these benefits accrue to only a small subset of consumers and that most tippers unhappily follow the lead of this subset only to avoid social embarrassment. Thus, it is unclear if benefits of tipping outweigh its costs; more theoretical and empirical work is needed to answer that question.

Undeclared Tip Income

The Internal Revenue Service (I.R.S.) estimates that 50 percent of tip income is unreported, which results in the loss of tax revenue and a lowering of the perceived fairness of the income tax system (IRS, 1990). In order to identify cheaters, tax auditors need accurate estimates of servers' actual tip incomes (McCrohan and Pearl, 1992). Two approaches to this task have been analyzed in the economics literature and are briefly discussed below.

The approach to estimating tip income currently used by the I.R.S. is to adjust the charge tip rate in a restaurant by some amount and to apply that rate to a restaurant's and its server's cash sales. This approach, known as the McQuatters formula, has been upheld by the courts (Newman, 1988). However, MacNaughton and Veall (2001) have demonstrated that use of this formula can make the marginal tax rate on credit card tips exceed 100 percent and they argue that this may undermine the formula's acceptability to the public. Furthermore, Newman (1988) suggests that estimating tip income on a restaurant by restaurant basis is cumbersome and that alternative approaches should be sought.

In the mid 1980's, McCrohan and Pearl (1991) worked on such an alternative approach to predicting tip income. They used data from diaries kept by consumer panels to predict tipping rates from restaurant-level variables such as geographic location, metropolitan area size, restaurant practices, and restaurant type. They found that *“effective tipping rates were highest in Middle Atlantic and New England States and Lowest in North and South Central States; highest in large metropolitan areas; highest in*

restaurants that accept credit cards and lowest in those that do not accept credit cards, accept reservations, or serve alcoholic beverages; and highest (of major restaurant categories) in full menu and hotel restaurants and lowest in pizza restaurants” (p. 230).

Their regression models represent one alternative approach to estimating tip income that tax authorities could use in auditing restaurants and servers (Newman, 1988). Coming up with still more means of predicting tip income or of increasing tip reporting is one potentially fruitful direction for future economic research.

Tipped Minimum Wages

Tips represent taxable income in the United States and elsewhere. As a governmentally recognized part of income, tips raise a question about how much they should be counted toward legally mandated minimum wages. Not surprisingly, low income workers tend to oppose the crediting of tips against minimum wage requirements (see MacKenzie and Snyder, 2001). However, this is a complex issue whose merits rest on more than workers’ preferences. For example, Wessels (1997) theorized that “the labor market for tipped restaurant servers is monopsonistic” and that the employment of these servers first increases and then decreases with rises in the tipped minimum wage. The basic idea is that tipping constrains how many servers a restaurant can hire because more servers per customer mean fewer tips and fewer tips must be offset with higher wages. Increasing the tipped minimum wage allows restaurants to improve service by hiring more servers even though it reduces servers’ tip incomes because the higher wages compensate for the reduced tips. Of course, the benefits to restaurants of hiring more servers are marginally declining, so at some point further increasing the tipped minimum

wage merely increases the costs of labor and reduces employment. Wessels tested this model with two different data sets and found strong support for it. Thus, a lowering of the tipped minimum wage by allowing tip credits can reduce employment over at least some range of minimum wages. This counter-intuitive finding illustrates the complexity of the issues concerning tip credits and tipped minimum wages and, in so doing, illustrates the need for more theoretical and empirical work on these issues.

Conclusion

In conclusion, tipping is a widespread and practically important economic behavior. Moreover, it is a behavior that is difficult for neoclassical theory to explain. At the individual level of analysis, people leave tips even when they are infrequent patrons of a service establishment and are unlikely to encounter the same service worker again. Furthermore, individuals' decisions about how much to tip are affected by a host of variables unrelated to service levels. Thus, explanations for this behavior must go beyond the neoclassical idea that people base tips on service quality to ensure good service in the future. Adequately explaining individuals' tipping decisions requires a more behavioral approach – one that broadens the traditional consumer utility function to include desires to avoid guilt, obtain social approval, obtain status, treat others equitably, and help others as well as one that recognizes cognitive capacity, knowledge, mood, and other cold, cognitive processes as having a causal impact on economic decision making and behavior.

At an aggregate level of analysis, tipping norms vary across nations and appear to be affected by national variables unrelated to transaction costs or the supply and demand

for services. Thus, explanations for tipping norms must go beyond the idea that they are efficient means of monitoring and rewarding server performance. Adequately explaining tipping norms requires a behavioral perspective that encompasses national character and values as well as social learning and conformity.

Scholars in hospitality management and psychology have made numerous contributions to our understanding of tipping behavior and a few economists have begun to explore this topic. However, more economists should study tipping because it promises to shed light on the content of consumers' utility functions, the role of social norms in the economy, and the evolution of economic institutions. Furthermore, economists should study tipping because it has an impact on important public policy issues of concern to economists. Rational or not, most economists leave tips; it is time they begin to study them as well.

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