

## Neuroticism and the Prevalence of Tipping: A Cross-country Study

Michael Lynn  
University of Houston

Tipping is a widespread custom in which service patrons voluntarily give money, above and beyond the price of the service, to the workers who have served them. This study found that the greater a nation's level of neuroticism the larger the number of service professions that it is customary to tip in that country. This finding provides some support for an anthropological theory that tipping evolved as an institutionalized means of reducing service workers' envy of their customers.

In many countries around the world, it is customary for people to leave voluntary gifts of money (or tips) to the members of some service professions after those service workers have performed their jobs. This unique and pervasive behavior has interested scholars in anthropology, economics, marketing, psychology and sociology (see Lynn, Zinkhan & Harris, 1993, for a review). One of these scholars, the anthropologist George Foster (1972), has suggested that tipping evolved as an institutionalized means of reducing service workers' envy of their customers. Envy is a feeling of displeasure and ill-will at the superior fortune of others. Being served is generally more pleasurable and desirable than is rendering service. Thus, service workers are likely to envy their customers. Since service workers have some control over the well-being of their customers, it is in the customers' interest to share their good fortune with servers and thereby avoid the servers' envy. Tipping is a means whereby customers can do this. In support of this theory, Foster (1972) noted that the word "tip" in many different languages translates to "drink money" or its equivalent. He argued that this linguistic evidence indicates that tipping originated

as an attempt by patrons of eating and drinking establishments to share their fares with the waiters and waitresses who served them.

In this paper, research on the personality trait of neuroticism is used to provide additional evidence relevant to Foster's (1972) theory about the origin and function of tipping customs. Research correlating neuroticism with embarrassability, shame, self-consciousness, and anxiety suggest that highly neurotic people "believe that they are of sufficient stimulus value to be subject to others' close scrutiny" (Christensen, Danko & Johnson, 1993, p. 349). People who believe that others are scrutinizing them are more likely to feel that their good fortune will be noticed and envied than are people who do not believe themselves to be the object of others' scrutiny. Thus, highly neurotic people should be particularly concerned about being the targets of envy. If tipping did evolve as a means of reducing service workers' envy of their customers, then this practice should be more prevalent in countries whose populations are high in neuroticism than in countries whose populations are low in neuroticism. A study testing this relationship between cross-country differences in neuroticism and the prevalence of tipping is presented below.

#### Method

A measure of cross-country differences in neuroticism was obtained from Lynn and Hampson (1975). These authors used theoretically relevant demographic and epidemiological data from 18 industrialized countries to identify national levels of neuroticism and extraversion. The neuroticism scores published by these authors were used as the predictor variable in this study.

A measure of cross-country differences in the prevalence of tipping was borrowed from Lynn *et al.* (1993). These authors used Nancy Star's (1988) International Guide for Tipping as a source of information and added up the number of 33 different service professions that are customarily tipped in each of 30 countries. The number of service professions tipped in each of the 18 countries for which

neuroticism scores could also be obtained was used to operationalize the prevalence of tipping in this study.

## Results

The relationship between national levels of neuroticism and the number of service professions tipped within nations is shown in Fig. 1. Across all 18 countries, these variables were uncorrelated ( $r = 0.16$ , NS). However, the data appeared to contain several outliers, so Rousseeuw and Leroy's (1987) software program "PROGRESS" was used to analyze the data. This program performs a robust regression analysis using Rousseeuw's (1984) least median of squares method and calculates standardized residuals from the robust regression line in order to identify significant outliers. This analysis identified 5 countries (the United Kingdom, Ireland, Canada, the United States, and Japan) whose residuals were over 2.5 standard deviations from the robust regression line. Removing these significant outliers from the data produced a large, positive, and statistically significant correlation between national neuroticism scores and the number of tipped service professions within nations ( $r = 0.86$ ,  $P < 0.0002$ ).

Of the 5 significant outliers in this data, 4 had greater numbers of tipped service professions than would be expected from their neuroticism scores. These 4 countries (the United Kingdom, Ireland, Canada, and the United States) share a common cultural and political heritage, so it appears that some part of that shared heritage has had a positive effect on the prevalence of tipping in those countries. Interestingly, there was a perfect, positive, rank-order correlation between neuroticism and the prevalence of tipping among these 4 countries, so the unmodeled factor responsible for these countries' status as outliers does not appear to moderate the relationship between neuroticism and the

prevalence of tipping.

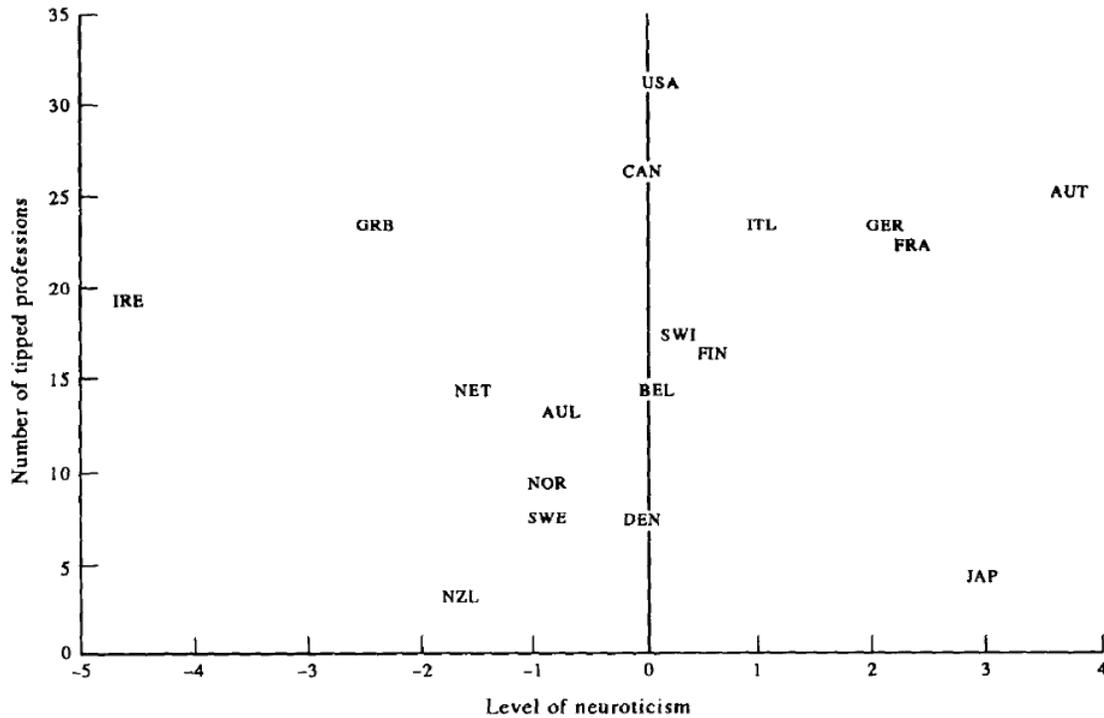


Fig. 1. The relationship between neuroticism and tipping within nations. The country abbreviations are: AUL, Australia; AUT, Austria; BEL, Belgium; CAN, Canada; DEN, Denmark; FIN, Finland; GRB, United Kingdom; IRE, Ireland; ITA, Italy; JAP, Japan; NET, Netherlands; NOR, Norway; NZL, New Zealand; SWE, Sweden; SWI, Switzerland; and USA, United States.

One of the significant outliers in this data (Japan) had a smaller number of tipped service professions than would be expected from its neuroticism score. Japan has also emerged as a negative outlier in other analyses of cross-country differences in the prevalence of tipping (see Lynn et al. 1993). Lynn et al. (1993) attributed the extraordinarily low prevalence of tipping in Japan to the extreme emphasis that the Japanese place on repaying favors and debts. The need to repay favors is so strong in Japan that the Japanese try to avoid becoming enmeshed in the complications of reciprocation with strangers (Benedict, 1946). Tipping entails just such complications, so it is very rare in Japan despite levels of neuroticism that are associated with greater numbers of tipped professions in other countries.

## Conclusion

When significant outliers were omitted from the data, tipping was found to be more prevalent the higher a country's level of neuroticism. Although the sample was small and the data was correlational, this finding provides some support for Foster's (1972) theory that tipping evolved as a way of reducing service workers' envy of their customers.

## References

- Benedict, R. (1946). *The chrysanthemum and the sword*. Boston: Houghton Mifflin.
- Christensen, B. J., Danko, G. P. & Johnson, R. C. (1993). Neuroticism and the belief that one is being scrutinized and evaluated by others. *Personality and Individual Differences*, 15, 349-350.
- Foster, G. M. (1972). The anatomy of envy: A study of symbolic behavior. *Current Anthropology*, 13, 165-186.
- Lynn, M., Zinkhan, G. M. & Harris, J. (1993). Consumer tipping: A cross-country study. *Journal of Consumer Research*, 20, 478-488.
- Lynn, R. & Hampson, S. L. (1975). National differences in extraversion and neuroticism. *British Journal of Social and Clinical Psychology*, 14, 223-240.
- Rousseeuw, P. (1984). Least median of squares regression. *Journal of the American Statistical Association*, 79, 871-880.
- Rousseeuw, P. & Leroy, A. (1987). *Robust regression and outlier detection*. New York: Wiley.
- Star, N. (1988). *The international guide to tipping*. New York: Berkeley Books.