

Salt Passage Research: The State of the Art

By Murdock Pencil

Murdock Pencil, Professor of Social Darwinism at the Old School for Social Science Research, is the pseudonym of Michael Paconowsky, of the Institute for Communication Research at Stanford University. In the following selection, Paconowsky parodies social science research.

Conclusive evidence on the effects of the utterance "Please pass the salt" is found to be sadly lacking.

Strongly rooted in the English speech community is the belief that the utterance, "Please pass the salt," is efficacious in causing salt to move from one end of a table to the source of the utterance. In his *Canterbury Tales*, Chaucer notes:

Shee I askked
The salde to passe.
Ne surprised was I
Tha shee didde (4. p. 318).¹

Similarly, Dickens writes:

Old Heep did not become disgruntled at my obstinance. "Please pass the salt, Davey," he repeated coldly. I vacillated for a moment longer. Then I passed the salt, just as he knew I would (5. p. 278).

The question of whether the movement of salt is causally dependent on the utterance of the phrase, "Please pass the salt," has occupied the attention of numerous philosophers (3, 9, 20). Empirical resolution of the validity of this belief, however, was not undertaken until the classic work of Hovland, Lumsdaine, and Sheffield (8) on the American soldier. Since then, numerous social scientists have explored the antecedent conditions that give rise to this apparent regularity. In this article, we will summarize those efforts that shed some light on the complex phenomenon known as salt passage.

Many social observers have noticed the apparent regularity with which salt travels from one end of the table to the source of the utterance "Please pass the salt." Hovland, Lumsdaine, and Sheffield (8), however, were the first to demonstrate empirically that the salt passage phenomenon was mediated by the presence of other people at the table. In a comparison of "others present" with "no others present" conditions, they found that when there were other people present at the table, there was a greater likelihood that the utterance, "Please pass the salt," would result in salt movement toward the source of the utterance. When there were *no other people* at the table, the utterance, "Please pass the salt," had no apparent effect. To test the possibility of a time delay involved in the "no others present" condition, Hovland, *et al.* arranged for 112 Army recruits, each sitting alone at one end of a table with salt at the other end, to repeat the utterance, "Please pass the salt," every five minutes for 12 hours. The average distance the salt traveled was .5 inch, which the experimenters explained was due to measurement error. The result of these two studies was, therefore, to demonstrate the importance of the presence of other people in the salt passage phenomenon.

Once the presence of other people was established as a necessary condition for salt passage as a consistent response to the utterance, "Please pass the salt," researchers began focusing

on source and receiver characteristics that would affect salt passing behavior. Osgood and Tannenbaum (16) predicted greater compliance with salt passage utterances by high credible sources than by low credible sources. Newcomb (14) predicted greater compliance with sources who were perceived to have similar, rather than dissimilar, attitudes. Rokeach (17) predicted greater compliance for low dogmatic, rather than high dogmatic, people. McClelland (12) predicted greater compliance for high N achievers than low N achievers. Surprisingly, no significant differences were found along any of these dimensions. Differences due to race were found, however, in the original Hovland, *et al.* study (8). Black soldiers were more likely to pass the salt to white soldiers, while white soldiers were less likely to pass the salt to black soldiers.²

Because source and receiver characteristics seemed to have little effect on the extent of salt passage, research attention turned its focus to the effects of message variables as the causal mechanism underlying this phenomenon.

Janis and Feshbach (10) found that other utterances were just as effective as “Please pass the salt” in achieving salt passage compliance. No significant differences in the extent of compliance were found due to the utterances, “Please pass the salt,” “Would you mind passing the salt?” “Could I have the salt down here, buddy?” and “Salt!” Janis and Feshbach noted that in every successful utterance, the word “salt” was found. They concluded that the frequency of the sound waves associated with the phonemes in “salt” was in fact the causal mechanism underlying the salt passage phenomenon.

Zimbardo (21) subjected this hypothesis to an explicit test. He had students from an introductory psychology class sit at a table near a salt shaker while a confederate would say either “Salt!” or “Assault!” He hypothesized that compliance would be as great in the “Salt!” as in the “Assault!” condition. Zimbardo found, however, that the utterance “Assault!” was met with more calls for clarification than the utterance “Salt!” and the utterance “Assault!” had to be repeated more frequently before the salt would move.³

The search for the source of regularity in salt passing behavior was extended to situational variables.

Asch (1) tested the effects of pressure to conform on salt passage. In an experiment, a subject was seated at a table with seven confederates. The subject and six of the confederates had salt shakers in front of them, one confederate did not. The confederate without the salt shaker said, “Please pass the salt.” Asch found that, when one confederate passed the salt, the subject was more likely not to pass the salt; but when all the confederates passed the salt, the subject was more likely to conform to peer pressure and also pass the salt. Asch concluded that conformity was an essential aspect of salt passage.

Festinger (6) tested the effects of substance uncertainty on salt passage. Subjects were placed at a table where salt was loosely piled on a napkin, while sugar was placed in a salt shaker. When a confederate said, “Please pass the salt,” the overwhelming number of subjects passed the sugar. From this study, Festinger concluded that the salt shaker, not the salt itself, was the crucial factor in salt passage.

Bem (2) extended Festinger’s study by placing two shakers on the table, both clearly marked with the word “SALT.” One shaker had salt in it; the other, however, was filled with pepper. Bem reasoned that, if the salt *shaker* were the crucial factor, both the pepper and salt should be passed about an equal number of times. Surprisingly, Bem found that when prompted with the utterance, “Please pass the salt,” people more frequently passed the shaker with salt in it than passed the shaker with pepper in it. Bem concluded that, in salt passage, there is an interaction effect between substance in the shaker and the shaker itself.

Festinger (7) tested the effects of payment on subject evaluation of salt passage. In a “high reward” condition, subjects were given \$20 for passing the salt. In a “low reward” condition, subjects were given \$1 for passing the salt. Subjects’ evaluations of how much they liked salt passing were then obtained. No significant differences in salt passage liking were found between the two groups. Subjects paid \$20, however, expressed more interest in participating in another session of the experiment than did their \$1 counterparts. Festinger concluded that subjects in the \$1 condition were probably more trustworthy than subjects in the \$20 condition.

Milgram (13) tested the effects of threats on salt passage. In a “no threat” condition, subjects were not forewarned about any consequences of passing salt to a confederate. In a “high threat” condition, subjects were told that if they passed the salt, they would be struck by lightning. Subjects were seated in metal chairs attached to lightning rods. Thunder in the distance was simulated. Significant differences were found in salt passage compliance between “no threat” and “high threat” groups. Interestingly, in the “high threat” group, there was differential response to the threat of lightning. For golfers and persons who had previously undergone electroshock therapy, there was less reluctance to exposure to possible lightning bolts. Milgram concluded that, for most people, salt passage is contingent on a supportive environment.

In a descriptive study Schramm (18) reported that the utterance, “Please pass the salt,” was more efficacious in England, Canada, and the United States, than it was in Argentina, Pakistan, and Korea.

Schramm noted the high correlation between the countries where “Please pass the salt” was effective and the degree of exposure of the populace to mass media. He concluded that salt passage is related to an index of the number of color television sets, tape cassettes, and Moog synthesizers in a country. Schramm, however, made no claims about the causal ordering of the variables.

Orne (15) studied the motivations to comply among salt passers. After exposing subjects to the treatments of typical salt passage studies, he asked them for their motivations in salt passage. Options were

- a. I passed the salt because I thought I would be rewarded.
- b. I passed the salt to reduce cognitive dissonance.
- c. I passed the salt because the behavior was consistent with previously made public commitments to salt passing.
- d. I passed the salt because that’s what I thought I was supposed to do.

Over 90 percent of all subjects chose response d, strong evidence of the presence of high demand characteristics in the situation. Responses a, b, and c were more popular among students with social science backgrounds. Orne cautioned, nonetheless, that the high demand characteristics of these situations may call into question the findings of previous research.

Why does salt move from one end of a table to another when someone says, “Please pass the salt?”

Through the efforts of social science researchers, we are able to offer some educated guesses as to the causes of salt passage. Unfortunately, we do not yet have a complete understanding of this complex phenomenon. Findings tend to be inconclusive or inconsistent. Clearly, more research is needed.

Future research must be more systematic. Three directions especially warrant pursuit. First, although research to date has uncovered no personality correlates of salt passage compliance, this is probably due to the few numbers of personality traits that have been examined. There are still numerous personality traits left to investigate: Machiavellianism, authoritarianism, social desirability, tendency to embarrass easily, and so on. Possible interaction effects between source and receiver personality characteristics suggest that there are years of necessary research yet to be done in this area.

Second, future research needs to be concerned with the effects of demographic variables. The importance of race differences found by Hovland, *et al.* and Triandis cannot be overlooked. (The fact that the Triandis findings conflict with the findings of Hovland, *et al.* should not discourage us, but sensitize us to the complexity of the phenomenon under investigation.) Crucial demographic variables—like sex, age, preferred side of bed for arising in the morning, religion, and others—have yet to be examined.

Third, future research needs to be concerned with the effects of situational variables on salt passage. Kelley's "presence of steak" variable and Milgram's "high threat" variable are suggestive. Effects of information-rich environments, overcrowding, presence of armed conflict, and so on would seem to mediate the salt passage phenomenon.

Finally, given the complexity of salt passage, social scientists must be willing to abandon their traditional two-variables approach. More sophisticated methodologies are needed. Consideration must be given to using variables from all three research areas to construct elaborated non-recursive path models permitting both correlated and uncorrelated error terms. Until our methods match the complexity of our phenomena, we are apt to be left with more questions than answers.

In summary, then, we find that at present social science has not found firm evidence to support the validity of the folk belief that the utterance, "Please pass the salt," is causally linked to the movement of salt from one end of a table to another. Salt passage is a complex phenomenon and systematic research on the impact of personality traits, demographics, and situational variables must be assessed. The question of why the utterance, "Please pass the salt," should be associated with salt passage continues to be a source of puzzlement and intrigue for social scientists.

References

1. Asch, R. "Conformity as the Cause of Everything." *Journal of Unique Social Findings* 13, 1952, pp. 62–69.
2. Berm, R. *Beliefs, Attitudes, Values, Mores, Ethics, Existential Concerns, World Views, Notions of Reincarnation and Human Affairs*. Belmont, Cal.: Wadsworth, 1969.
3. Berkeley, R. *It's All in Your Head*. London: Oxford University Press, 1730.
4. Chaucer, R. "The Salt Merchant's Tale." In R. Chaucer (Ed.), *The Canterbury Tales*. London: Cambridge University Press, 1384.
5. Dickens, R. *David Saltmine*. London: Oxford University Press, 1857.
6. Festinger, R. "Let's Take the Salt out of the Salt Shaker and See What Happens." *Journal for Predictions Contrary to Common Sense* 10, 1956, pp. 1–20.
7. Festinger, R. "Let's Give Some Subjects \$20 and Some Subjects \$1 and See What Happens." *Journal for Predictions Contrary to Common Sense* 18, 1964, pp. 1–20.
8. Hovland, R., R. Lumsdaine, and R. Sheffield, "Praise the Lord and Pass the Salt." *Proceedings of the Academy of Wartime Chaplains* 5, 1949, pp. 13–23.

9. Hume, R. "A Refutation of Berkeley: An Empirical Approach to Salt Passing." *Philosophical Discourse* 278, 1770, pp. 284–296.
10. Janis, R. and R. Feshbach. "Vocal Utterances and Salt Passage: The Importance of the Phonemes in 'Salt'." *Linguistika* 18, 1954, pp. 112–118.
11. Kelley, R. "Attributions Based on Perceived Environmental Cues in Situations of Uncertainty: The Effects of Steak Presence on Salt Passage." *Journal of Pepper and Salt Psychology* 32, 1968, pp. 1–5.
12. McClelland, R. "Brown-nosing and Salt-passing." *Journal for Managerial and Applied Psychology* 18, 1961, pp. 353–362.
13. Milgram, R. "An Electrician's Wiring Guide to Social Science Experiments." *Popular Mechanics* 23, 1969, pp. 74–87.
14. Newcomb, R. "The ABS Model: When S Is Salt." *Journal for Emeritus Ideas* 12, 1958, pp. 10–18.
15. Orne, R. "Salt on Demand: Levels of Moral Reasoning in Salt Passing Behavior." Forthcoming unpublished manuscript.
16. Osgood, R. and R. Tannenbaum. "Taking Requests with a Grain of Salt: Effects of Source Credibility on Salt Passage." *Morton Salt Newsletter* 42, 1953, pp. 2–3.
17. Rokeach, R. *A Whole Earth Catalog of Personality Correlates for the Social Sciences*. New York: It's Academic Press, 1960.
18. Schramm, R. *Process and Effects of Mass Media Extend to Everything*. Frankfurt, Germany: Gutenberg Press, 1970.
19. Triandis, R. "Salt and Pepper: Racial Differences in Salt Passing Behavior." *Journal of Social Findings for Improved Social Relations* 110, 1973, pp. 16–61.
20. Whitehead, R. "A Refutation of Berkeley and Hume: The Need for a Process Perspective of Salt Passage." *Journal of Static Philosophy* 1, 1920, pp. 318–350.
21. Zimbardo, R. "Salt by Any Other Name Is Not Quite So Salty." *Reader's Digest* 38, 1964, pp. 86–114.

¹. I asked her to pass the salt.
I was not surprised that she did.

². However, in a replication of the original Hovland, *et al.* study, Triandis (19) uncovered the opposite tendency due to race. That is, Triandis found that white soldiers were more likely to pass the salt to black soldiers, while black soldiers were more likely to tell the white soldiers to get the salt themselves.

³. In a replication and extension of the Zimbardo experiment, Kelley (11) found that if the confederate had a steak in front of him. "Assault!" was just as effective as "Salt!" in causing salt passage. Kelley concluded that receivers make attributions as to the meaning of utterances based on environmental cues that they perceive.