

WAINER, H., AND BROWN, L. M. (2004), “TWO STATISTICAL PARADOXES IN THE INTERPRETATION OF GROUP DIFFERENCES: ILLUSTRATED WITH MEDICAL SCHOOL ADMISSION AND LICENSING DATA,” *THE AMERICAN STATISTICIAN*, 58, 117–123: COMMENT BY LESSER

I enjoyed the article by Wainer and Brown (2004), and would like to offer a comment on its claim that the format of its Figure 1 graph was first developed by Jeon, Chung, and Bae (1987). With respect to this particular graphical representation of Simpson’s paradox, it would be appropriate to acknowledge the work of Tan (1986). Tan, in turn, applied a construction from Hoehn (1984).

Readers may also be interested in knowing that there are several other representations of Simpson’s paradox in the statistics and mathematics education literature, such as the circle graph (e.g., Paik 1985) and the platform scale (e.g., Wardrop 1995; Falk and Bar-Hillel 1980), and each representation has its own strengths and powers to illuminate. The aforementioned representations (and several more) of Simpson’s paradox were discussed by Lesser (2001).

Lawrence M. Lesser

Mathematical Sciences

University of Texas, El Paso

REFERENCES

- Falk, R., and Bar-Hillel, M. (1980), “Magic Possibilities of the Weighted Average,” *Mathematics Magazine*, 53, 106–107.
- Hoehn, L. (1984), “A Geometrical Interpretation of the Weighted Mean,” *College Mathematics Journal*, 15, 135–139.
- Jeon, J. W., Chung, H. Y., and Bae, J. S. (1987), “Chances of Simpson’s Paradox,” *Journal of the Korean Statistical Society*, 16, 117–125.

Lesser, L. M. (2001), “Representations of Reversal: An Exploration of Simpson’s Paradox,” in *The Roles of Representation in School Mathematics*, eds. Albert A. Cuoco and Frances R. Curcio, Reston, VA: National Council of Teachers of Mathematics, pp. 129–145.

Paik, M. (1985), “A Graphic Representation of a Three-Way Contingency Table: Simpson’s Paradox and Correlation,” *The American Statistician*, 39, 53–54.

Tan, A. (1986), “A Geometric Interpretation of Simpson’s Paradox,” *College Mathematics Journal*, 17, 340–341.

Wardrop, R. L. (1995), “Simpson’s Paradox and the Hot Hand in Basketball,” *The American Statistician*, 49, 24–28.