

EM9314: The Toronto Star, February 15, 1993, page B1

## Do lefties live as long as righties? Debate rages on

By Dan Hurley  
SPECIAL TO THE STAR

On the one hand, a new study insists left-handed people live just as long as right-handed people.

On the other hand, the author of a 1991 study, which found lefties die nine years sooner on average than righties, will present another study this week to back up his original claim.

About the only thing both sides agree on is that there tend to be a lot more left-handed children than left-handed seniors. Explaining the disappearing lefties is the subject of scientific debate. The ultimate answer is likely to be of great interest to left-handed people, including U.S. president Bill Clinton, ex-president George Bush and former presidential candidate Ross Perot.

The lead author of the pro-leftie study, published in the *American Journal of Public Health*, says lefties do not die younger than righties.

The only reason there are fewer lefties a-

mong the aged, Dr. Marcel Salive of the National Institute on Aging in Bethesda, Md., says, is because social pressures once forced natural lefties to become righties, leaving fewer lefties at death than at birth.

Not true, says Stanley Coren, professor of psychology at the University of British Columbia in Vancouver.

Coren's study of 10,000 people in Vancouver found there was no change in the percentages of lefties among young and old during a 12-year period. That proves that changes in social pressures can't explain the dwindling presence of lefties among the elderly, he says.

Instead, Coren cites studies showing lefties are more prone to serious injuries and death due to accidents as evidence they are more likely to die earlier.

"It is beginning to look as though the accident link, which would cause a decrease in the longevity of left-handers, is being confirmed," Coren says.

Salive's study, however, showed no difference in death rates among 3,774 Boston right-

handed and left-handed adults aged 65 and older. During a six-year period, 32.2 per cent of the righties died, compared with 33.8 per cent of the lefties, a difference researchers said probably was due to chance.

Salive also studied U.S. death rates using Census Bureau figures, and concluded that although lefties on average died 14 years sooner than righties, the difference was due to the larger number of lefties among the young than among the old, which tilted their average death rate toward a younger age.

He also found that the percentage of deaths due to injuries in lefties was more than twice that of righties, but he again attributed the difference to the lefties' younger age on average. Younger people tend to have higher rates of injuries than older people, he says.

About 13 per cent of people in their 20s are lefties, compared with only about 1 per cent of people in their 90s, Salive's study noted.

MEDICAL TRIBUNE NEWS SERVICE.

**REFERENCE:** Salive, M.E., Guralnik, J.M. and R.J. Glynn: Left-handedness and mortality. *Amer. J. Public Health* **83**(#2): 265-267 (1993) [DC Library call number: PER RA421.A41]

- 1 The article EM9314 reprinted above involves *measuring*; briefly describe the response variate and the focal (explanatory) variate to be measured to answer the Question: *Do lefties live as long as righties?*
  - Would each of these variates be considered to be *continuous* or *discrete*? Explain briefly.
- 2 What does the article EM9314 indicate about the measuring *instrument* used to obtain the values for each variate?
  - In addition to the measuring *instruments*, name the other components of a measuring process generically; then, to the extent possible from the limited information provided, identify these components for the two measuring processes in the context of the article EM9314.
- 3 Discuss concisely factors relevant to:
  - the inaccuracy,      • the imprecision,      of the two measuring processes.
  - What discussion of such factors is there in the article EM9314? Comment briefly.
- 4 Compare and contrast how a value, for righties and for lefties, for a population attribute of the response variate 'age at death', was obtained in the investigation by:
  - Dr. Salive of 3,774 Bostonians;
  - Dr. Salive using Census Bureau figures;
  - Prof. Coren of 10,000 people in Vancouver.

Explain briefly which investigation you consider would have provided an answer with *less* severe limitations.
- 5 Suggest reason(s) why the investigations mentioned in the article EM9314, by Dr. Salive and Prof. Coren, obtained *different* answers to the Question: *Do lefties live as long as righties?*

The article EM9314 reprinted above is also used in Statistical Highlight #36.