Statistics for life: what are the statistical ideas that matter most and why?

Contribution to panel discussion

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55th Session of the ISI, Sydney 5-12 April 2005

The professional statistician

Systematic thinking   Listen

Mathematics   Adapt

Both cerebral hemispheres

Hard to define a good statistician - but we can distinguish a strong one from a weak one when we see them, can we not?

The many types of statistician

1.   The official statistician

Describe society as truthfully as possible

$\Rightarrow$ Subject-matter knowledge important in addition to quantitative skills

$\Rightarrow$ Independent of the politicians of the day

The many types of statistician

2.   The statistician in the pharmaceutical industry

      Plays a role in the regulatory process

      Legal clarity *vs.* statistical principles

      Minimum qualifications?

The many types of statistician

3.   The biostatistician in imaginative research

Participant in broad research teams contributing quantitative skills.

Classical statisticians not alone in this capacity

- can we and should we police this area?

The many types of statistician

4.   The mathematical statistician/probabilist

        Mathematical skills and innovation

                but also   relevance

Statistics as an open or closed community?

Situation problematic: much junk is called statistics

Can we police this?

The constructive way

Interaction with other serious operators in quantitative inference

Conclusion

The constructive way

Policing will not work