

Die Waarde van Statistiek

Kwinkslae oor statistiek is omtrent net so algemeen as spitsvondighede teen die werk van dermatoloë— en ewe veel op onkunde gegrond. Selfs die mees objektiewe navorsers is geneig om hierdie toordery met syfers wantrouig te aanskou, want skynbaar is enigiets bewysbaar wanneer daar met statistiek gespeel word. Die rede vir hierdie wanbegrip is te soek in 'n fundamentele benaderingsfout wat ongelukkig baie algemeen voorkom. Afgesien van blote glipse met die insameling van gegewens en die verwerking van die syfers, is die verkeerde ontwerp van die statistiese analise 'n belangrike en gereelde mistasting.

'n Voorbeeld sal help om die benaderingsfout te demonstreer. 'n Aspirant-motoris wat nog nooit 'n motor besit het nie, mag navraag doen oor die globale koste van eienskap en verneem dat, argumentshalwe, dit 10 sent/km kos om 'n motor aan te hou. Daarvolgens sal hy sy swaarverdiende geldjies gaan tel en besluit of hy gereed is om motoris te word. Die 10 sent/km is natuurlik bereken op die gemiddelde aantal myle wat per persoon gery word, met al die ander uitgawes wat bykomstig is. Wanneer ons nuwe motoreienaar nou 'n naweekrit (as hy die brandstof kan bekom) van 300 km beplan, sal hy, volgens sy inligting, onder die indruk wees dat dit hom R30 gaan kos. Dit is natuurlik nie so nie, want die kosteberekening sluit ook registrasie, assuransie en waardevermindering in, en laasgenoemde is veel minder van afgelegde kilometers afhanklik as van chronologiese ouderdom. Aangesien dit net brandstof en olieverbui en 'n bietjie slytasie is wat kostefaktore gedurende die naweekrit gaan wees, is die 10 sent/km onrealisties.

Wat het hier met die statistiek verkeerd gegaan? Dat dit 'n berekenbare bedrag per kilometer kos om 'n motor te besit en te gebruik, is onteenseglik waar, maar hierdie syfer is bereken ten einde globale koste te kan bepaal, soos byvoorbeeld die finansiële vermoë van ons aspirant-motoris om wel 'n motoreienaar te word. Nou maak hy die fout om dié oorsig-syfer te probeer toepas op één onderafdeling van die probleem en onmiddellik stort sy statistiek in duie.

Dieselfde foute kom in die geneeskunde voor. Dit is goed en belangrik dat ons statistieke moet verkry oor die verspreiding van sekere siektes in gegewe gebiede, want dit stel die owerhede in staat om voorbehoedende programme te beplan en te evalueer. Net so is dit nodig om te weet wat die mortaliteit van 'n sekere siekte is, sodat terapie aan die verwagte syfer getoets kan word. Dit voorkom dat onnodige nuwe behandelings toegepas word of dat ouderwetse metodes nutteloos aangewend word. Maar soos iedere geneesheer weet, is die mortaliteitstatistiek van dieselfde siekte wat in die handboeke aangegee word as 10%, vir die oorledene of sy familie 100%. Nie een van die twee statistiese syfers van 10% of 100% is verkeerd nie. Dit is net die benadering wat anders is, en met die opstel van die syfers moet hierdie benadering in gedagte gehou word.

Dit is van die uiterste belang dat navorsers, wanneer hulle van statistiese analise gebruik maak, sekerheid verkry oor die gebruik van die gegewens, want dit sal die berekening beïnvloed. Om een stel syfers op 'n totaal ander omstandigheid af te dwing, gee aanleiding tot die foute wat die kwinkslae oor bikinis en dies meer tot gevolg het.

Bouncing, Swinging or Drooping?

The Women's Lib movement has brought in its wake a strange paradox, and it has posed a question to medical science which we cannot as yet answer with any reasonable confidence, and perhaps we will never be sure. Does the breast lose its firm, rounded shape faster if unsupported by a brassiere? The question is asked daily in doctors' consulting rooms all over the world, and the questioners are mainly women. Now and again a slightly embarrassed male admirer of the female form may slip in the odd inquiry in the club dressing room, but on the whole it is the female of the species who wants to know. Why do they ask?

They would not ask if they were not worried about a loss of firm and shapely appearance, and therein lies the paradox. The militant Women's Libber has discarded her bra (and even on occasion ceremoniously burnt it) in order to escape the male domination which supposedly required the wearing of a garment designed to maintain the attractive shape of the breast—attractive to the male. If she can no longer accept this imposition by those who expect her to wear a bra in order to please them, why be worried about the ultimate result of the removal of support? One may even take the paradoxical question a bit further and wonder why the *avant garde* woman thinks that the bra-less state will be less eye-catching and less pleasing to her male observers?

But medically we cannot answer their question. Will the mass of a fairly large, supported breast be sufficient to stretch the skin and to result in a droop? The first inclination is to say yes, but there are so many imponderables which have to be kept

in mind, and there are so many exceptions that may be cited, that such a ready answer would be extremely risky. We are not even sure whether breastfeeding really makes any difference to the eventual shape in comparison with the non-lactating breast; in fact there is a strong body of opinion that lactation actually improves the firmness of the breast.

There are various other considerations, such as the action of the platysma muscle which is associated with the facial musculature as far as voluntary control is concerned, ethnic variations which predispose certain races to less or more resistance to tissue stretching, and a host of other incompletely understood factors.

Apart from the aesthetic consideration, is there reason to think that a drooping breast is a disadvantage as far as lactating ability is concerned, and is such an organ more or less prone to pathological conditions? Again we do not have a definitive answer. Statistical research will be extremely difficult, for there are so many parameters to be taken into consideration, that the sample will have to comprise thousands, if not millions, of women, before a reliable picture will emerge. The modern young women who have never worn brassieres, or at most only occasionally, will have to be examined in another 20 or 30 years, but by then fashion may have changed its mind again and the researcher may find himself doing a survey that no longer has any validity.

In the meantime our answer to the patients who worriedly or shyly inquire, will have to be that we don't know and that the reason why they ask is equally obscure.
