Quetelet on the Science of Man

Statistics

- The Adolphe Quetelet

- [Adolphe Quetelet (Belgian astronomer, sociologist, and statistician) -- Britannica Online Encyclopedia](#)

- Pictures

- [Adolphe Quetelet - Wikipedia, the free encyclopedia](#)

- Popular Science Monthly/Volume 1/May 1872/Quetelet on the Science of Man - Wikisource

- "it is society which prepares the crime, the criminal being only the instrument which executes it."

- From various other sources, Buckle brought together other pieces of evidence, especially one which is now quoted by all who discuss the subject, the regularity from year to year of letters posted, whose writers forget to direct them

- Each particular class of human actions may be estimated, and, to a great extent, even predicted, as a regular product of a definite social body under definite conditions

- To quote another luminous instance of this regularity of action, M. Quetelet gives a table of the ages of marriage in Belgium ("Phys. Soc," i., p. 275).

- Normal marriages, those between men under 45 with women under 30, as well as of the less usual unions where the women are between 30 and 45, show the sort of general regularity which one would expect from mere consideration of the circumstances

- The astonishing: feature of the table is the regularity of the unusual marriages

- Disregarding decimals, and calculating the approximate whole numbers in their proportion to 10,000 marriages, the table shows, in each of five five year periods from 1841 to 1865, 6 men aged from 30 to 45 who married women aged 60 or more, and 1 to 2 men aged 30 or less who married women aged 60 or more.

- M. Quetelet may well speak of this as the most curious and suggestive statistical document he has met with.

- M. Quetelet's argument from the same evidence differs remarkably from this. His expedient for accounting for the regularity of social events, without throwing over the notion of arbitrary action, is to admit the existence of free will, but to confine its effects within very narrow bounds

- General social laws, which can accordingly be predicted like other results regulated by natural laws

- it is evident that the statistics of social regularity have driven the popular notion of free will into the narrow space included between Quetelet's restriction and Buckle's abolition of it

Example

- The mode of life affects its length in Germany, only 24 doctors reach the age of 70 as against 32 military men and 42 theologians

Example

- In France, in 1828-'31, the constant percentage of accused persons was about as follows: could not read or write, 61; imperfectly, 27; well, 12.

- The comparison of this group of numbers with those taken lately in England shows a great change of proportion, evidently resulting from the wider diffusion of education; but the limitation of crime to the less educated classes is even more striking: cannot read or write, 36; imperfectly, 61; well, 3.

Example

- How the hours of the day influence people who hang themselves

- The maximum of such cases, 135, occurred between six and eight in the morning
- The number decreased slightly till noon; and then suddenly dropped to the minimum; there being 123 cases between ten and twelve o'clock, against only 32 between twelve and two o'clock.
- The number rose in the afternoon to 104 cases between four and six, dropping to an average of about 70 through the night, the second minimum, 45, being between two and four o'clock in the morning.
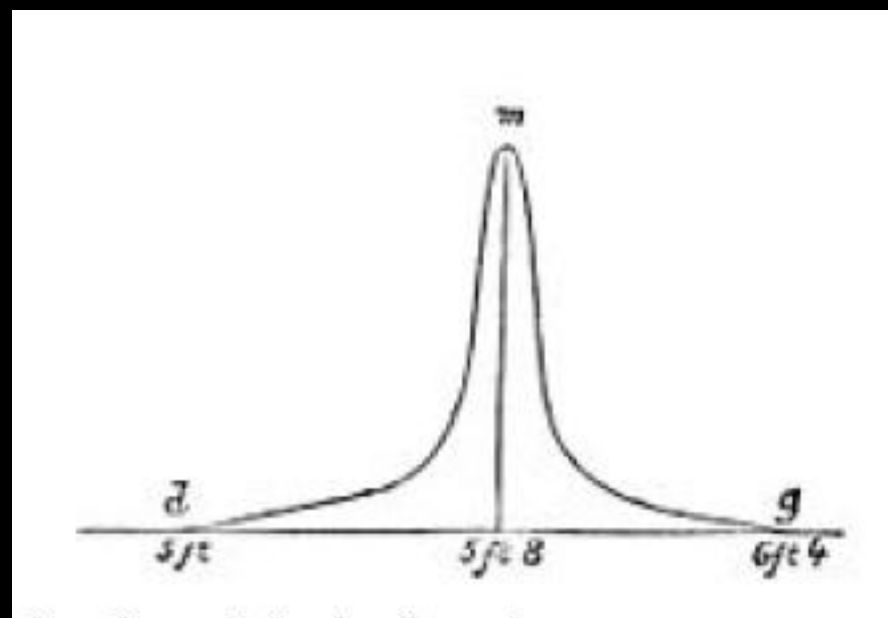
- Here it is impossible to mistake the influences of the periods of the day.
- We can fancy we see the poor wretches rising in the morning to a life of which the misery is beyond bearing, or can only be borne till evening closes in; while the temporary relief of the midnight sleep and the mid-day meal are marked in holding back the longing to self destruction.

- Madness varies with the season

- The maximum being in summer, and the minimum in winter (p. 187);

- Men have been urged by their teachers of morality to give to the poor, worthy or unworthy; the state of public opinion being well exemplified by the narrowing of the word "charity" from its original sense to denote the distribution of doles.

- Yet, when the statistics of pauperism were collected and studied, it was shown that indiscriminate alms giving is an action rather evil than good, its tendency being not only to maintain, but actually to produce, idle and miserable paupers.

- Yet the evil of indiscriminate alms giving is diminishing under the influence of sounder knowledge of social laws, and genuine charity is more and more directed by careful study of the means by which wealth may be spent for the distinct benefit of society.

Example 1

Height, inches		60	61	62	63	64	65	66	67	68
No. of men in 1,000		1	1	2	20	48	75	117	134	157

Height, inches		69	70	71	72	73	74	75	76
No. of men in 1,000		140	121	80	57	26	13	5	2

Example 2

Round chest, inches		28	29	30	31	32	33	34	35
No. of men in 1,000		1	3	11	36	67	119	160	204

Round chest, inches		36	37	38	39	40	41	42
No. of men in 1,000		166	119	68	28	13	4	1

Problem 1

- **Explain terminology**
  - Mean
  - Variance
- **Determine the mean and variance of numbers in example 1 and 2**

Problem 2

- data.txt
- Draw a histogram to summary the distribution of numbers in data.txt
- Describe the distribution

Problem 3

- **data2.txt**

- Draw a histogram to summary the distribution of numbers in data.txt

- Describe the distribution