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Not always loaded with gold

Appetites enabling greed are as many as the tastes of mankind. Aside from money, significant forms of greedy "more," include an unslakable appetite for power, recognition, time, or mind altering substances. Some targets of greed may seem obscure since the avaricious devil can reside in the details, whence he appears under the guise of commonplace happenstance rather than loaded with bags of gold.

Consider "busy" Dr Silas Marner, a time miser who comes to the clinic late and leaves early. Is he a sinner in his greedy accumulation of personal time? His reimbursement may not be different from other staff members but what he gives in return is different when his patients are up and out of the clinic with their minimal medical needs unmet. Nor does his greed of time hesitate at short changing the institution. The clock watching doctor may show up with an armful of personal work and telephone calls to deal with on clinic time. Greedy Dr Marner may have switched his menu but not his insatiable appetite.

The greedy patient resides on the other side of the healing relationship, identified by a demand for service, not bits and pieces but all, "and now." His motivation has little to do with hypochondriasis and much to do with maximising every opportunity for personal gain, no matter the cost to others.

Alfie of movie fame is a stunning example of a service miser. The Alfies of our world have an insouciant manner of riding an ambulance to casualty to demand a sleeping pill or immediate treatment of chapped lips. They know their rights and use them for relentless demands, "Doc, what I need is a shot, pill, renewed prescription, admission to the hospital, excuse from work, or a pension." Failure to comply with these ill disguised orders carries with it the threat of trouble. In the United States trouble is voiced as threats of malpractice, physical violence to staff, or, as one patient put it, "Doc, check me in now or I will throw myself through a store window. Then you will have to spend the rest of the night picking glass out of me." From soliciting a passing nurse for a fresh fluff of the pillows to fiddling the system for a disability pension these greedy patients sin, along with greedy doctors.

Apollo, ancient God of medicine, hear our plea. Save us, all too miserable patients and doctors, from our sins.

1 Crawshaw R. They all laughed when I spoke of greedy doctors. *West J Med* 1985;142:267.

2 Chaucer G. In: Kermon F, Hollander J, eds. *Oxford anthology of English literature*. London: Oxford University Press, 1973:145.

3 Fourth Lateran Council (1215). In: Herbermann CG, Pace EA, Pallen CB, Shana TJ, Wynne JJ, eds. *Catholic encyclopedia* (9). New York: Robert Appleton Co, 1910:18.

Greed is frequently thought of as excessive acquisitiveness for money. Chaucer underlined medical greed by describing the Doctor of Phisik as, "lovede gold in special."² The medieval church was more explicit, placing the medical profession in a class with usurers. The judgment proved more economic than theological, based, as it was, on greedy priests, bishops, and cardinals—scholars at the recognised cutting edge of medical information, with lucrative, independent incomes from flourishing private practices. The Vatican found such entrepreneurial clerics difficult to control (read medical autonomy); consequently Pope Innocent III insisted that the Fourth Lateran Council should condemn the practice of surgery by ordained members of the church.³

Practitioners' greed for money in our world is pretty much held in check by government control of reimbursement, tightly reined in Britain, medium tightly in Germany, and with a loose but tightening rein in the United States. Since human nature's fixation on "ever increasing more" is fashioned out of the infant's discovery that there are more than one pair of breasts in the world, no one should be surprised at some doctors and patients greedily developing new ways for excessive self aggrandisement.

Circaseptennial rhythm in ear growth

Jos Verhulst, Patrick Onghena

Recently, Heathcote reported enduring growth in the ears of male patients (on average 0.22 mm a year in patients aged 30 or over).¹ Our previous work had made us aware of the existence of a circaseptennial (about seven years) rhythm in certain developmental aspects of the human skull.² We therefore decided to examine the data of Heathcote for a possible seven year periodicity in ear growth.

Methods and results

For every age we calculated the mean ear length from Heathcote's raw data. We produced an uninterrupted sequence of yearly ear length values from the age of 30 to 83 (data were missing at certain ages above the age of

83). A total of 201 measurements were available for this span of 54 years. For each age, n , we then calculated a smoothed ear length as the mean of the mean lengths for ages $(n - 1)$, n , and $(n + 1)$. This procedure resulted in mean smoothed ear lengths for ages 31 to 82. We calculated ear growth at age n in two steps. Firstly, we calculated the change in ear length at age n as the mean smoothed ear length at age n minus the mean smoothed ear length at age $(n - 1)$. Secondly, we calculated a smoothed ear growth at age n as the mean of the mean growth rates at ages $(n - 1)$, n , and $(n + 1)$. These smoothing procedures reduced the large impact of scatter resulting from the small sample. We thus obtained smoothed growth rates for ages 33 to 81 (table 1).

Correspondence to:
Dr J Verhulst, Karel
Oomsstraat 57, B-2018
Antwerp, Belgium.

Email:
jozef.verhulst@ping.be

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Table 1—Smoothed ear growth rates for ages 33 to 81 (calculated from raw data of Heathcote¹). To show circaseptennial periodicity, data are arranged in seven phases

Phase	Age (years)	Rate (mm/year)	Age (years)	Rate (mm/year)	Age (years)	Rate (mm/year)	Age (years)	Rate (mm/year)	Age (years)	Rate (mm/year)	Age (years)	Rate (mm/year)	Age (years)	Rate (mm/year)	Mean rate for phase (mm/year)
I	33	0.73	40	0.63	47	-0.91	54	0.8	61	0.64	68	0.69	75	0.48	0.44
II	34	0.65	41	0.46	48	0.82	55	1.45	62	0.62	69	0.32	76	1.19	0.79
III	35	1.54	42	1.85	49	1.64	56	0.63	63	0.87	70	-1.45	77	1.96	1.01
IV	36	1.06	43	0.99	50	1.45	57	-0.53	64	1.3	71	-0.83	78	0.62	0.58
V	37	0.23	44	0.01	51	-0.09	58	-1.36	65	0.82	72	-0.11	79	-1.18	-0.24
VI	38	-0.17	45	-2.02	52	-0.67	59	-0.88	66	-0.26	73	0.7	80	-1.51	-0.69
VII	39	-0.62	46	-2.1	53	-0.12	60	0.62	67	0.72	74	-0.13	81	-1.66	-0.47

Louis Bolk Institute,
Driebergen, Netherlands
Jos Verhulst, associated
researcher

Faculty of Psychology and
Educational Sciences,
Katholieke Universiteit
Leuven, Leuven, Belgium
Patrick Onghena, associate
professor in educational
statistics

We performed a spectral analysis of these data using the SAS SPECTRA procedure.^{3,4} This analysis showed the presence of a sinusoidal component in the time series, with a period of seven years (Fisher's $\kappa = 8.59$, $P = 0.0009$). Growth velocities peaked around multiples of seven years (phase III). Surprisingly, negative growth rates tended to be seen at the minima. Around the age of 70 a maximum was lacking, which may be an artefact due to the paucity of data around this age (for ages 69, 70, 71, and 72 there were only six measurements).

Comment

The idea of a seven year rhythm in human development is old, dating back at least to ancient Greece. Reports on circaseptennial phenomena are, however, scarce in recent published work.⁵

Seven year periodicity remains comparatively unknown, perhaps because it is not looked for by many researchers. This may be because no major seven year rhythms seem to be present in the natural environment. In this respect, the circaseptennial rhythm differs from

the better documented circadian and circaseptadian rhythms, which can be linked to the day-night cycle and to tidal periodicities, respectively.

The presence of a circaseptennial pattern of human ear growth raises a number of further questions. Firstly, are the period and phase observed in this sample universal in humans? Secondly, do other structures such as the nose show lifelong rhythmic growth? Finally, are there corresponding patterns in other species?

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- 1 Heathcote JA. Why do old men have big ears? *BMJ* 1995;311:1668.
- 2 Verhulst J, Onghena P. Cranial suture closing in Homo sapiens: evidence for circaseptennial periodicity. *Ann Hum Biol* (in press).
- 3 Fuller WA. *Introduction to statistical time series*. 2nd ed. New York: Wiley, 1996.
- 4 SAS Institute. *Statistical analysis system*. Version 6.08. Cary, NC: SAS Institute, 1989.
- 5 Verhulst J, Onghena P. Periodic birth-year pattern of the founders of quantum mechanics. *Psychological Reports* 1996;78:19-25.

Reflections on a tsuba

A tsuba is the decorative guard of a Japanese samurai sword. The pictures show a tsuba with, unusually, a medical theme. Made of iron it depicts, in an inlay of gold, silver, and yellow bronze, an old man with the advanced changes of rheumatoid arthritis. His hand shows disorganisation of the finger joints, ulnar deviation

of the knuckles, and swelling of the wrist. He is seen cauterising an affected knee with a heated metal pellet.

This tsuba bears the inscription Suzuki Yasumitsu, an independent craftsman who worked in the town of Mito in the nineteenth century.—J P LISSENDEN, general practitioner, St Helier, Jersey