

## Plethora of genius types in paper titles

Sachi Sri Kantha

*In an exploratory study on the appearance of the word 'genius' in paper titles, I found that at least 29 adjective qualifiers had been used by the authors. These adjective qualifiers to the noun 'genius' range from asexual to unrecognized. Individuals readily recognized like Michelangelo and Einstein share the billing with persons with extreme notoriety like Brown-Sequard and Hitler. Few intellectuals like Freud and Oliver Lowry had the humility to reject this 'genius' honour.*

The guest editorial entitled 'Genius in medicine' by Pai and Pandya<sup>1</sup> offered me an insight into studying the current use of the word 'genius' as a noun. Thus, I checked the PubMed and Scopus database for the paper titles which contain the word 'genius'. When I combined the two words 'genius' and 'medicine' of this guest editorial, both PubMed and Scopus databases gave 310 and 370 titles respectively. As expected, not all titles included in both databases are mutually exclusive.

I share my findings from this search here.

(i) The use of 'genius' in noun form has been qualified by numerous adjectives in 32 titles with 29 adjective qualifiers. Table 1 provides this list arranged in alphabetical order, beginning from asexual to unrecognized<sup>2-33</sup>. An explanation on the two-word adjective 'no lone' for Einstein used by Janssen and Renn<sup>20</sup> is in order. In their commentary on Einstein's 1915 paper on the general theory of relativity, Janssen and Renn<sup>20</sup> provided evidence that Einstein depended on the assistance of his lesser-known colleagues Marcel Grossmann (1878-1936) and Michele Besso (1873-1955) to formulate paper. Thus, the adjective 'no lone' suits better than 'lone' in the title of their contribution.

(ii) Individuals readily recognized like Michelangelo and Einstein share the billing with persons with extreme notoriety like Charles-Edouard Brown-Sequard (1817-1894) and Adolf Hitler (1889-1945). While Hitler's deeds of infamy are well known, Brown-Sequard's notoriety rested on his exaggerated medical reports relating to subcutaneous injection of aqueous extracts from testes of guinea pig and dog (which he called 'orchitic fluid') to 'upwards of 1600' gullible males and claiming a cure for sexual potency.<sup>34-36</sup>

(iii) There appears to be a brick ceiling for women to enter this 'genius' club.

I have two inferences. First, if Hitler can join this 'genius' club with an appropriate 'destructive' adjective, then many dubious types can pick their choice adjectives to qualify as members of this club. Secondly, using the word 'genius' in paper titles, seems to be a talisman for many authors against rejection of their submissions. Which editor has the courage to reject a submission and expose

his/her ignorance or timidity, when a genius (with an appropriate adjective) is the main theme?

Ernest Jones (a prominent biographer of Sigmund Freud) had recorded that his Vienna mentor 'vehemently dissented' genius word applied to his achievements in the field of psychology and psychoanalysis<sup>37</sup>. Few intellectuals like Freud and recently Oliver Lowry had the courage

**Table 1.** Adjectives used to qualify 'genius' in paper titles

Adjective qualifier*	Described individual	Reference
Asexual	Frederic Chopin	2
Cantankerous	Charles C. Bass	3
Clinical-pathologic	Jean-Martin Charcot	4
Courageous	Rudolf Virchow	5
Creative	Walter E. Dandy	6
Destructive	Adolf Hitler	7
Diversified	Arthur Conan Doyle	8
Eastern	Avicenna (Ibn Sina)	9
Eccentric	Charles Brown-Séquard	10
Epileptic	Fyodor Dostoevsky	11
Forgotten	Ibn Nafis Damishqui	12
Forgotten	Robert Hooke	13
Forgotten	Wilhelm Fliess	14
Forgotten	Adolf Fick	15
Great medical	Bartolommeo Eustachio	16
Guiding	Jerome Cochran	17
Humble	Nikola Tesla	18
Lead-poisoned	Michaelangelo, Caravaggio	19
[No]lone	Albert Einstein	20
Mechanical	Robert Hooke	21
Neurosurgical	Walter Edward Dandy	22
Obstinate	Jonathan Hutchinson	23
Organizational	Jordan Matthew Phillips	24
Physician	Anton Chekhov	25
Poet	Friedrich Schiller	26
Quiet	Hal Anger	27
Right-hemispheric	Ludwig van Beethoven	28
Strategic	Jonathan Letterman	29
Surgical	Alexis Carrel	30
Teaching	Andreas Roland Gruentzig	31
Thwarted	Giuseppina Cattani	32
Unrecognized	Themistocles Gluck	33

\*Arranged alphabetically, except [No]lone, as there is differing opinion between 'lone' and 'Nolone'.

and humility to reject this ‘genius’ honour. Lowry gave encouragement to non-genius types by titling his autobiographical paper with the caption ‘How to succeed in research without being a genius’<sup>38</sup>. As of now, Lowry holds the rank of most cited scientist in the history of scientometrics, for co-authoring the protein determination method paper, that has accumulated >300,000 citations<sup>39,40</sup>. In conclusion, I let Jones to have the last word: ‘The number of those whose claims to belong to this Olympus are universally recognized is very small. After listing such names as Newton, Darwin and Einstein we begin to enter a more debatable territory’<sup>41</sup>.

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## How popular is earth science?

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How popular is earth science? There are various ways to assess the place of earth science in our education and society. A few years ago, the American Geoscience Institute collected data on high school science graduation requirements for all states in the USA. The survey found that while 22 states accepted an earth and space science course for graduation, only two states required a year-long earth/environmental science course, whereas the number of states that required life science and physical science courses for graduation were 50 and 30 respectively<sup>1</sup>. Overall, earth science education is underrated in our middle and high schools. However, earth science should be an

integral part of secondary (K12) education. There are many reasons for this. According to The National Earth Science Teachers Association’s position statement, teaching earth science ‘offers experience in a diverse range of interrelated scientific disciplines; it is closely related to the student’s natural surroundings and offers students subject matter which has direct application to their lives and the world around them’<sup>2</sup>. The good news is that the public have an enormous interest in earth science. This is evident from the public coverage of science news by the mass media. For example, the popular science magazine *Discover* publishes, in its January–February issue, the ‘100 Top

Stories’ of the previous year. I usually read these issues. Recently, I tabulated the *Discover*’s ‘100 Top Stories’ for the past six years (2012–2017) under nine categories (Table 1): (1) mathematics and physical sciences, (2) space science and astronomy, (3) earth, environment and energy, (4) archaeology and palaeontology, (5) medicine and life sciences, (6) neuroscience and behavioural sciences, (7) technology as related to culture and entertainment, (8) policy issues, and (9) other. Of these, ‘earth, environment, and energy’ category as well as ‘archaeology and palaeontology’ category belong to the earth science in a broad sense. Note that most of the discoveries