

Nobel Prize Winners for Literature as Palliative for Scientific English

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Plagiarism causes a serious concern in scientific literature. I distinguish two types of plagiarism. What is routinely highlighted and discussed is the reprehensible type of stealing another author's ideas and words. This type I categorize as "heterotrophic" plagiarism. A more prevalent and less-discussed type of plagiarism is the verbatim use of same sentences repetitively by authors in their publications. This I categorize as "autotrophic" plagiarism. Though harmless per se, autotrophic plagiarism is equally taxing on the readers. The occurrence of autotrophic plagiarism is mainly caused by the lack of proficiency in the current *lingua franca* of science, ie, English. The writings of 22 Nobel literature laureates who wrote in English, especially their travelogues, essays, and letters to the press can be used for benefit of improving one's own vocabulary and writing skills and style. I suggest the writings of three *literati* – Bernard Shaw, Bertrand Russell, and Ernest Hemingway – as palliatives for autotrophic plagiarism in scientific publishing.

Key words: *creativeness; ethics; famous persons; literature; medicine in literature; Nobel Prize; plagiarism*

The primary step for scientists on their path to recognition is the publication of their research findings. However, the poor quality of writings indulged by scientists causes much lamentation among the editors of scientific journals. Maddox (1-4), while serving as the editor of a prestigious journal *Nature*, published a series of critical commentaries on the poor quality of "scientific literature" produced by contemporary scientists.

It is not an exaggeration to say that, for reasons of workload and focused research interests, most scientists do not read good prose in English – the *lingua franca* of science for the last five decades. This in turn reflects on the quality of their writing skills, which is mostly poor. Gregory (5) had observed that "scientific literature itself provides little guidance" for good writing. Even if such guidance happens to be provided by one or two sympathetic editors of medical journals (6), the theme of plagiarism seems inadvertently omitted.

Apart from poor writing, plagiarism is a serious concern in medical literature (7-10). What is routinely highlighted and discussed is the reprehensible type of stealing another author's ideas and words. This type I categorize as "heterotrophic" plagiarism. A more prevalent and less-discussed type of plagiarism is the verbatim use of same sentences repetitively by authors in their publications. This I categorize as "autotrophic" plagiarism. Parmley (7) referred to this sec-

ond type as "self-plagiarism". Although harmless per se, autotrophic plagiarism is equally taxing on the readers. However, some may view a duplicate publication as a form of "self-plagiarism", which, in that case, cannot be considered harmless anymore. It is my belief that journal editors like Maddox, while lamenting on the poor quality of English prose in scientific papers, never openly suggest (out of politeness) the list of readings that could be read for the purpose of attaining good writing skills. This is akin to the situation where a physician identifies the disease but refrains from prescribing the palliative medicine.

The aim of this commentary, prompted by Sharp's (6) reference to 1907 Nobel laureate Rudyard Kipling, is to present a view that few additional literature Nobelists can also be of possible relevance to students of medical science interested in improving their writing skills in English. Based on the literary genre, the most suitable *literati* among the 22 laureates who wrote in English are identified for enriching the language skills of budding authors in science, especially those whose native tongue is not English.

Data Sources

Factual materials on the Nobel literature laureates were gathered from standard print reference sources (11,12) and the electronic database of the Nobel e-Museum (www.nobel.se).

Table 1. Nobel Laureates in Literature who wrote in English and the literary genre in which each of the Nobel laureates received high recognition between 1901 and 2002

Year	Nobel Laureates	Born-died	Literary genre
1907	Rudyard Kipling	1865-1936	poetry, short story
1923	William Butler Yeats	1865-1939	poetry
1925	George Bernard Shaw	1856-1950	drama, essays, pamphlets, letters, literary criticism (reviews)
1930	Sinclair Lewis	1885-1951	novel
1932	John Galsworthy	1867-1933	novel
1936	Eugene O'Neill	1888-1953	drama
1938	Pearl Buck	1892-1973	novel
1948	Thomas Stearns Eliot	1888-1965	poetry, drama
1949	William Faulkner	1897-1962	novel
1950	Bertrand Russell	1872-1970	philosophy, science exposition, essays, letters
1953	Winston Churchill	1874-1965	history writing, biography, memoirs
1954	Ernest Hemingway	1899-1961	novel, short story, commentaries, letters
1962	John Steinbeck	1902-1968	novel
1973	Patrick White	1912-1990	novel, drama
1976	Saul Bellow	1915-	novel, drama, memoirs
1983	William Golding	1911-1993	novel
1986	Wole Soyinka	1934-	drama, poetry, novel
1991	Nadine Gordimer	1923-	novel, short story
1992	Derek Walcott	1930-	poetry, drama
1993	Toni Morrison	1931-	novel, essay
1995	Seamus Heaney	1939-	poetry
2001	Vidiadhar Surajprasad Naipaul	1932-	novel, short story, memoirs, travelogues

Results and Discussion

Nobel Literature Laureates in English and Their Contributions

Between 1901 and 2002, 22 writers who wrote in English have been chosen as the Nobel literature laureates (Table 1). Among the different types of literary genre produced by these *literati*, what I call "second string material" (for a want of a distinguishing term!) can also be identified, such as eye-witness dispatches, short travelogues, letters contributed to journals and newspapers in response to criticism or to highlight an obscure event, introductions to various plays, and book reviews. I believe that this type of laureates' writings can be used as "second string material" by scientists to improve their vocabulary and clarity in expression.

Among the 22 *literati*, I selected Bernard Shaw, Bertrand Russell, and Ernest Hemingway as notable authors for medical scientists to read (Table 1). Lucid examples of the "second string material" authored by these three *literati* appeared in compilations such as Shaw's *Agitations Letters to the Press 1875-1950* (13), Hemingway's *By-Line* (14), or Russell's *Autobiography* (15). Distinctive merits of this "second string material" are brevity and humor, both of which are predominantly lacking in the scientific literature. Furthermore, these masters also show how to engage in a debate or dialogue on a selected theme without circumlocution. Among these three *literati*, Shaw and Hemingway, in particular, had described the medical procedures and commented on the medical profession in some of their major works. For example, Shaw wrote a well known play entitled "The Doctor's Dilemma" (16-18). Hemingway realistically depicted the child birth scenes in his novel "A Farewell to Arms", presumably due to his familiarity with the theme, since his father was a medical practitioner (19).

Possible Relevance of Literati for Medical Scientists

Plagiarism is one of the irritating phenomena in the published scientific literature. As Maddox (20) noticed, "Not only does it confuse the record by making it impossible to tell who exactly said what, but it amounts to the literal theft of another's words, thereby depriving the victim not merely of the credit for the content of the stolen words but of whatever thought and imagination they embody."

What Maddox described is the most commonly discussed type of heterotrophic plagiarism. However, what is highly prevalent among scientists whose mother tongue is not English is the autotrophic plagiarism, ie, repetitive verbatim use of same sentences in one's own publications. Even scientists whose native tongue is English are not immune from occasional bouts of autotrophic plagiarism, as can be frequently seen in the periodic "reviews" on a single theme published by these scientists.

While heterotrophic plagiarism involves the theft of another author's ideas, autotrophic plagiarism arises primarily from the lack of good command of English language. In my view, Nobel laureates poetry (Kipling, Yeats, Eliot, Soyinka, Walcott, and Heaney; Table 1) seems less helpful for budding writers of research papers because conventional science writing is based on prose. In a similar vein, plays – where the chosen form of expression is a dialogue between characters – also lose sheen as suitable palliatives for improving the orthodox science writing skills. Equally inconvenient are the primary works of novelist laureates. Novels, by convention, are lengthy and as such not optimal models of prose for scientific writing, where brevity and clarity are valued by the journal editors and readers of technical literature.

By this process of elimination, the most eligible palliatives among the works by Nobel literature laureates can be narrowed to G. B. Shaw (for the mastery of

words, forceful expression, and humor), Bertrand Russell (for scientific logic, versatility, and precisely put thoughts), and Hemingway (for economy in words and clarity). Reading Churchill's non-fiction may be profitable for some students to expand their English vocabulary, but it should be noted that Churchill was cited by the Nobel award committee, notably for his charming oratory. It is nothing but audacious of me to select a few examples from the voluminous literary output of Shaw, Russell, and Hemingway, to illustrate my case. I have also provided a few snippets below, which I consider good examples of sparkling humor, forceful expression, and clarity of thoughts.

Shaw's 1894 Essay

I chose Shaw's 1894 essay entitled "How to become a Man of Genius," for its humor and biting sarcasm. Here is how that piece with an autobiographical slant begins (21):

The secret at the bottom of the whole business is simply this: there is no such thing as a man of genius. I am a man of genius myself, and ought to know. What there is, is a conspiracy to pretend that there are such persons, and a selection of certain suitable individuals to assume the imaginary character. The whole difficulty is to get selected.

In the third paragraph of the same essay, Shaw advanced his thoughts on the fallacy of objectivity, with self-deprecation,

If your enemy might select some moment of your life to judge you by, would you not come out mean, ugly, cowardly, vulgar, sensual, even though you be another Goethe; or if you might choose the moment yourself, would you not come out generous and handsome, though you may be, on an average of all your moments, a most miserly and repulsive person?

Subsequently, he describes how a "genius" is created by the public:

It is now plain how to proceed in order to become a man of genius. You must strike the public imagination in such a fashion that they will select you as the incarnation of their ideal of a man of genius. To do this no doubt demands some extraordinary qualities, and sufficient professional industry; but it is by no means necessary to be what the public will pretend that you are.

In the very next paragraph, Shaw demolishes this public perception by choosing himself as an example, and uses commas and semi-colons to energize his composition,

Very recently the production of a play of mine [Arms and the Man] in New York led to the appearance in the New York papers of a host of brilliant critical and biographical studies of a remarkable person called Bernard Shaw. I am supposed to be that person; but I am not. There is no such person; there never was any such person; there never will or can be any such person. You may take my word for this, because I invented him, floated him, advertised him, impersonated him, and am now sitting here in my dingy second floor lodging in a decaying London Square ...

Although the word Yahoo became popular with the emergence of the Internet search engine with the same name, which happened less than a decade ago, Shaw had used the word Yahoo in this essay over hundred years before its current popularity,

The cynic sees that this degeneration is an imposture, and that the selfish and sensual Yahoo remains a Yahoo underneath the scholar's gown, the priest's cassock, the judge's ermine, the soldier's uniform, the saint's halo, the royal diadem and the poet's wreath. But pray where do these idealists and cynics get their fundamental assumption that human nature needs any apology? What is the objection to man as he really is and can become any more than to the solar system as it really is? All that can be said is that men, even when they have done their best possible, cannot be ideally kind, ideally honest, ideally chaste, ideally brave and so on.

Again, Shaw's appropriate use of commas and question marks, as well as repetitive use of one word (ideally) for vigor in composition is worth noting.

Hemingway's 1920 article

As opposed to Shaw, who skillfully used lengthy sentences, Hemingway was a master of short sentences. In a magazine feature entitled "A Free Shave," written in 1920, Hemingway described his impressions of the barber – professional ancestor of medical surgeons (14):

The true home of the free and the brave is the barber college. Everything is free there. And you have to be brave. If you want to save \$5.60 a month on shaves and hair cuts go to the barber college, but take your courage with you.

For a visit to the barber college requires the cold, naked, valour of the man who walks clear-eyed to death. If you don't believe it, go to the beginner's department of the barber's college and offer yourself for a free shave. I did.

After a stretch of dialogue describing the location of the service, Hemingway described the result as follows:

The shave wasn't so bad. Scientists say that hanging is really a very pleasant death. The pressure of the rope on the nerves and arteries of the neck produces a sort of anesthesia. It is waiting to be hanged that bothers a man. According to the red-haired barber there are sometimes as many as one hundred men on some days who come for free shaves. 'They are not all bums either. A lot of them take a chance just to get something for nothing'.

For a want of space, I leave out Hemingway's subsequent description of free dental and medical service. But I present the last four sentences of this piece to show Hemingway's raucous punch line:

If you wish to secure free board, free room, and free medical attention there is one infallible way of obtaining it. Walk up to the biggest policeman you can find and hit him in the face. The length of your period of free board and room will depend on how Colonel [George Taylor] Denison [police magistrate] is feeling. And the amount of your free medical attention will depend on the size of the policeman.

Russell's 1949 Lecture

Bertrand Russell delivered a lecture on the theme "Can a Scientific Society be Stable?" at the Royal Society of Medicine, London, in the year before he was awarded a Nobel Prize in literature. His focused assessment of the contemporary dilemma and how he put it in words seem relevant even today. One five-sentence paragraph, in which he uses words that are neither difficult nor wasted, would suffice for showing Russell's relevance as a guide to good scientific English (22):

Broadly speaking, we are in the middle of a race between human skill as to means and human folly as to ends. Given sufficient folly as to ends, every increase in the skill required to achieve them is to the bad. The human race has survived hitherto owing to ignorance and incompetence; but, given knowledge and competence combined with folly, there can be no certainty of survival. Knowledge is power, but it is power for evil just as much as for good. It follows that, unless men increase in wisdom as much as in knowledge, increase of knowledge will be increase of sorrow.

One may still be unconvinced by the view that reading works by Shaw, Hemingway, and Russell is beneficial for preventing autotrophic plagiarism. My opinion is that scientists whose native tongue is not English suffer from a scientific English vocabulary deficit. Even many scientists whose native tongue is English are not immune to such a deficit. It is one of the major causes of autotrophic plagiarism. To improve one's general vocabulary and use of synonyms, reference sources like Roget's Thesaurus are indeed helpful. However, how to use these words properly to fit the context can only be learned through reading in English, and *literati* like Shaw, Russell, and Hemingway, who had written prolifically on science-based themes, can prove extremely helpful in this respect.

In conclusion, the essays, letters, travel sketches, and commentaries by Shaw, Russell, and Hemingway can be beneficially studied for improving one's own skills in scientific writing. As coda, I may add that these three *literati* are my favorite selections and I do not assert that they are the best and only guides to be read. The works of *literati* who were not as fortunate to be awarded Nobel Prize can also be of much help, such as those identified by Ann Hudson Jones in her series of essays published in the *Lancet* (23-25).

References

- 1 Maddox J. What is the scientific literature? *Nature* 1986;322:681.
- 2 Maddox J. How not to catch attention. *Nature* 1988;332:391.
- 3 Maddox J. Have good manners gone for good? *Nature* 1990;344:191.
- 4 Maddox J. Does literature deserve the name? *Nature* 1990;348:191.

- 5 Gregory MW. The infectiousness of pompous prose. *Nature* 1992;360:11-2.
- 6 Sharp D. Kipling's Guide to writing a scientific paper. *Croat Med J* 2002;43:262-7.
- 7 Parmley WW. Plagiarism – how serious is it? *J Am Coll Cardiol* 2000;36:953-4.
- 8 Rennie SC, Crosby JR. Are "tomorrow's doctors" honest? Questionnaire study exploring medical students' attitudes and reported behaviour on academic misconduct. *BMJ* 2001;322:274-5.
- 9 Walter G, Bloch S. Publishing ethics in psychiatry. *Aust N Z J Psychiatry* 2001;35:28-35.
- 10 Riis P. Scientific dishonesty: European reflections. *J Clin Pathol* 2001;54:4-6.
- 11 Schlessinger BS, Schlessinger JH, editors. *The Who's Who of Nobel Prize Winners*. Phoenix (AZ): Oryx Press; 1986.
- 12 Thorne JO, Collocott TC, editors. *Chambers biographical dictionary*. Rev. ed. Edinburgh: W & R Chambers Ltd.; 1984.
- 13 Laurence DH, Rambeau J, editors. *Bernard Shaw: agitations letters to the press 1875-1950*. New York (NY): Frederick Ungar Publishing Co.; 1985.
- 14 White W, editor. *By line, Ernest Hemingway: selected articles and dispatches of four decades*. London: Grafton Books; 1989.
- 15 Russel B. *The autobiography of Bertrand Russell*. 3 vols. London: George Allen & Unwin; 1967; 1968; 1969.
- 16 Wilens SL. Mr. Shaw on doctors. *JAMA* 1966;196:67-9.
- 17 Lowy I. Immunology and literature in the early twentieth century: "Arrowsmith" and "The Doctor's Dilemma". *Med Hist* 1988;32:314-32.
- 18 Hill J. Bernard Shaw and the doctors: the art and science of medicine in "The Doctor's Dilemma". *J Med Humanit* 1994;15:93-9.
- 19 King CR. Obstetrics and Ernest Hemingway. *Obstet Gynecol* 1989;74:117-20.
- 20 Maddox J. Another mountain from a molehill. *Nature* 1991;351:13.
- 21 Laurence DH, editor. *Selected non-dramatic writings of Bernard Shaw*. Boston (MA): Houghton Mifflin Company; 1965.
- 22 Russell B. *The impact of science on society*. London: Unwin Paperbacks; 1976.
- 23 Jones AH. Literature and medicine: an evolving canon. *Lancet* 1996;348:1360-2.
- 24 Jones AH. Literature and medicine: narrative ethics. *Lancet* 1997;349:1243-6.
- 25 Jones AH. Literature and medicine: narratives of mental illness. *Lancet* 1997;350:359-61.

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