


# My Words or Your Words? Detecting and Investigating Plagiarism

Nancy R. Gough, Ph.D.  
BioSerendipity, LLC

## Simple Definition

 **pla·gia·rism**  
/plājeˈrɪzəm/

*noun*  
noun: **plagiarism**; plural noun: **plagiarisms**

the practice of taking someone else's work or ideas and passing them off as one's own.  
"there were accusations of plagiarism"  
*synonyms:* copying, infringement of copyright, piracy, theft, stealing, poaching, appropriation, informal cribbing  
"there were accusations of plagiarism"

Origin

GREEK	LATIN	LATIN	
plagion	→ plagium	→ plagiarus	
	a		
	kidnapping	kidnapper	
		ENGLISH	→ plagiarism
		-ism	early 17th century

early 17th century: from Latin *plagiarius* 'kidnapper' (from *plagium* 'a kidnapping', from Greek *plagion*) + *-ism*.

Definition in  
Copyright Infringement  
Scholarly Publishing

Reusing someone else's words or work without permission and proper attribution

AND

Reusing your own published work without permission and proper attribution

## Two Tales of Potential Plagiarism

Style differences are key to identification.

Tale 1: Invited Review  
Japanese author

Clue 1 In search for reviewers found  
article in a review journal with a  
very similar title and abstract...  
by the same author!

## Clue 2

Submitted manuscript text was very different in style and English usage than was all correspondence with author.

## Investigation

Step 1: Obtain full text copy of the highly similar review article

Step 2: Compare overall organization of the two articles (submitted and published)

Step 3: Read and compare an entire section

Step 4: Examine reference list and order of cited references



## Findings

- ✓ Structure and organization identical
- ✓ Beginning and ending sentences in paragraphs identical
- ✓ Text identical within a section
- ✓ References mostly identical
- ✓ References presented in same order

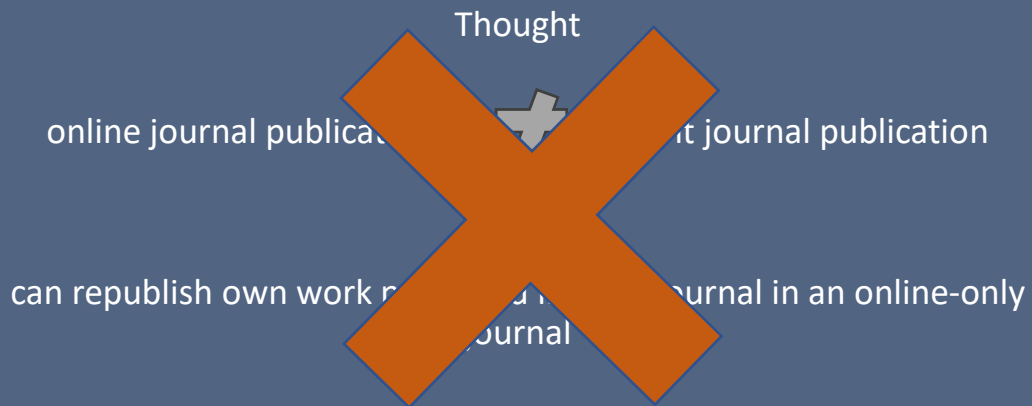
## Self-Plagiarism Confirmed: Next Steps

Document issue and place copy of plagiarized review in tracking system with manuscript record

Reject manuscript with clear explanation of issue to authors

Place copy of author response in tracking system with manuscript record

## Author's Response



Tale 2: Primary Research Article

## Clues

Odd phrasing of a sentence in the Introduction

Undefined abbreviation

Awkward sentence on a topic related but not central to authors' expertise

Phrasing contrasted with that in the rest of the paragraph

In published article's abstract:  
 "Loss of *Pum1* caused progressive motor dysfunction and *SCA1*-like neurodegeneration with motor impairment, primarily by increasing *Ataxin1* levels."

In submitted article's introduction:

Mouse and human PUM1, one of two PUMs encoded in mammalian genes, repress *ATXN1* mRNA and loss of PUM1 leads to *SCA1*-like neurodegeneration with motor impairment<sup>16</sup>. Other report showed that PUM2 controls axon potential in rat neurons by maintaining proper amount of voltage-gated sodium channel transcript (*Nav1.6*)<sup>17</sup>. PUM1 or PUM2 knockout mice showed reduced body mass and defect on fertility<sup>18,19</sup>.

The screenshot shows a web browser window with the URL <https://www.ncbi.nlm.nih.gov/pubmed/25768905>. The page is from PubMed, displaying the following information:

- Format:** Abstract
- Cell:** 2015 Mar 12;160(6):1087-98. doi: 10.1016/j.cell.2015.02.012.
- Title:** **Pumilio1 haploinsufficiency leads to SCA1-like neurodegeneration by increasing wild-type Ataxin1 levels.**
- Authors:** Gennarino VA<sup>1</sup>, Singh RK<sup>2</sup>, White JJ<sup>3</sup>, De Maio A<sup>4</sup>, Han K<sup>5</sup>, Kim JY<sup>1</sup>, Jafar-Nejad P<sup>1</sup>, di Ronza A<sup>1</sup>, Kang H<sup>1</sup>, Sayegh LS<sup>1</sup>, Cooper TA<sup>6</sup>, Orr HT<sup>7</sup>, Sillitoe RV<sup>8</sup>, Zoghbi HY<sup>9</sup>.
- Author information:** (indicated by a plus icon)
- Abstract:** Spinocerebellar ataxia type 1 (SCA1) is a paradigmatic neurodegenerative proteinopathy, in which a mutant protein (in this case, ATAXIN1) accumulates in neurons and exerts toxicity; in SCA1, this process causes progressive deterioration of motor coordination. Seeking to understand how post-translational modification of ATAXIN1 levels influences disease, we discovered that the RNA-binding protein PUMILIO1 (PUM1) not only directly regulates ATAXIN1 but also plays an unexpectedly important role in neuronal function. Loss of *Pum1* caused progressive motor dysfunction and *SCA1*-like neurodegeneration with motor impairment, primarily by increasing *Ataxin1* levels. Breeding *Pum1*(+/-) mice to *SCA1* mice (*Atxn1*(154Q/+)) exacerbated disease progression, whereas breeding them to *Atxn1*(+/-) mice normalized *Ataxin1* levels and largely rescued the *Pum1*(+/-) phenotype. Thus, both increased wild-type ATAXIN1 levels and PUM1 haploinsufficiency could contribute to human neurodegeneration. These results demonstrate the importance of studying post-transcriptional regulation of disease-driving proteins to reveal factors underlying neurodegenerative disease.

Plagiarism?

Technically, no.

But could be a red  flag

## Follow Up

Check a few other cited articles for copied content

If no

↓  
recommend to authors  
that they rephrase

↓  
or consider citation  
adequate

If yes

↓  
document in tracking  
system

↓  
alert authors to problem

↓  
require rephrasing

↓  
or reject



## Common Clues



Mismatched writing style between  
-correspondence and article  
-within paragraphs of article



Introduction of a new abbreviation for a term consistently abbreviated elsewhere in manuscript



Statements with citations but lacking appropriate context or interpretation



Inability of authors to rephrase or clarify upon request

The screenshot shows the Science Editor website interface. At the top, there is a navigation bar with the Science Editor logo, a search bar, and links for 'LOG IN' and social media. Below the navigation bar, there are menu items: 'ISSUES', 'EARLY ONLINE', 'TOPICS', 'ABOUT', 'FOR AUTHORS', 'SPECIAL COLLECTIONS', and a 'GET FULL ACCESS' button. The main content area features the article title 'My Words or Your Words? Detecting and Investigating Plagiarism' by Nancy Gough, dated November 6, 2018. There are several category tags: 'Best Practices', 'Case Studies', 'Ethics', 'Legal Issues', 'Peer Review', and 'Standards & Guidelines'. On the right side, there is a featured image of the journal cover for 'WINTER 2018 • VOL. 41 NO. 3' and a 'VIEWPOINT' section with the text 'Dispatches from a Black Box'. Below that, a 'FEATURES' section lists 'Summary of the African'.

<https://www.csescienceeditor.org/article/my-words-or-your-words-detecting-and-investigating-plagiarism/>



Scientific Consulting and Commentary  
BY NANCY R. GOUGH, PHD

Nancy R. Gough, Ph.D.  
[www.bioserendipity.com](http://www.bioserendipity.com)  
[ngough@bioserendipity.com](mailto:ngough@bioserendipity.com)

5/22/2019 19