

*Department of Surgery, College of Medicine, Univ. of
Iowa
200 Hawkins Drive, 1422 JCP
Iowa City, IA, 52242
Junlin-liao@uiowa.edu*

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Dear Sir or Madam,

You are receiving this letter because I'm interested in your unbiased opinion about a potential inter-language plagiarism case. In inter-language plagiarism, bilingual or multilingual writers compile sources (usually four or less) from one language, and supplement the material with general information readily available from the Internet, to produce articles with almost no original contribution.

Inter-language plagiarism is difficult to identify because the translation process inherently involves paraphrasing. In addition, readers of one language are not typically familiar with the original sources being plagiarized. In this case, the author who may have committed plagiarism, has a track record of fighting plagiarism, and is widely perceived as a person who would be unlikely to plagiarize. In fact this individual explicitly denied plagiarism charges when accused, and stated that his article was written by consulting the original sources published in scientific journals.

During my interaction with the author, he produced no material evidence in his own defense although I have a potentially biased view of the mater. Such a bias may influence how I present this case and I would like you to consider this in rendering your opinion. To be certain, the suspect plagiarizer and the authors of the original content deserve our unbiased evaluation of this matter. Your feedback on this matter will contribute to my development of guidelines that will help Chinese authors write in their own language, using materials from a different language.

The first document (Case Essential Facts) contains the most important and relevant facts about this case. You may limit your comments to the case facts if you prefer. If time allows, the second document (Supplemental Materials) contains supplemental materials related to those facts. This second document will allow you to examine the facts in greater detail.

If you are teaching ethics in writing, you are welcome to use this case material in the classroom. In addition, if you are able to gather students' responses to the case and forward to me, I would be grateful.

Thank you for your support of my endeavor,

A handwritten signature in black ink, appearing to read 'Junlin Liao', with a stylized, cursive script.

Junlin Liao, Ph.D.

Case Essential Facts:

Prelude: Dr. Shi-min Fang is a western trained Biochemist. He is widely recognized for his work against plagiarism and fraud in China. From time to time there have been accusations that Dr. Fang himself is not immune to the rampant plagiarism in China. The reason to implicate Dr. Fang is two-fold. First, nobody deserves a free ride when it comes to plagiarism, and second, the fact that Dr. Fang himself has served as a fraud-buster sends a strong message about how obstinate the plagiarism problem is in China. The educational system in China needs to embrace higher ethical standards in writing.

Warning: Dr. Fang is innocent unless proven otherwise. The author preparing this case may be biased.

Fact 1. Ame et. al. reported their research on cockroaches' shelter distribution in PNAS in April, 2006. This research constructed a theoretical model predicting distribution of cockroaches among shelters based on experimental parameters.

Fact 2. Jennifer Viegas from *Discovery News* subsequently reported on this research by interviewing the authors and other experts. Her article was dated April 3, 2006.

Fact 3. The same research group reported their research on mechanical cockroaches and their impact in modification of normal cockroach behavior in the November 2007 issue of *Science*. This research drew media attention and there were news reports on the internet.

Fact 4. Dr. Fang published an article on Apr 8, 2009 in his science column in a major Chinese newspaper.

Fact 5. Upon accusation of plagiarism, Dr. Fang responded that he "had written the article based on the original articles from PNAS and *Science*."

Fact 6. Dr. Fang's article repeats common myths and misconceptions about cockroaches such as the vitality to endure extreme situations. Such information is widely available through WIKI and other general online media. According to Dr. Kunkel, biology professor from the University of Massachusetts Amherst, cockroaches are more fragile than most insects in temperate environments.

Fact 7. Dr. Fang's article provides no additional information besides paraphrasing Jennifer Viegas' article complimented with information on the subsequent experiment of the same research group. There is no mentioning of Viegas' work or any other resources from which he potentially drew information.

Fact 8. Dr. Fang claimed that he wrote his article based on the original research report in science journals. Yet when Jennifer Viegas reported erroneously that the cockroach distribution example was from experiments, Dr. Fang went further by suggesting readers to try it out themselves. If Dr. Fang had read the PNAS article, it clearly stated that the example was a result of a theoretically developed model.

Fact 9. This is the case preparer's subjective judgment. I reviewed Jennifer Viegas' news report, and an additional news report on subsequent research. I also conducted a Google search on the subject. Dr. Fang's article could be easily produced by expanding on Viegas' original report. It is not necessary to read the original publications in the PNAS and Science Journal. In fact, it may be counter productive to read them, because due to the nature of scientific publications it is difficult to read one and derive a quick and dirty summary of the matter. Journal articles are written for peers and it takes outsiders a tremendous amount of time to pierce together relevant information to completely understand the topic. For example, the PNAS article references an article published in 2004 by the same research group describing the actual experiments they had conducted.

Opinions: You are welcome to comment on the following questions with the above basic facts. You are also encouraged to read through the Supplemental Materials for the case to make your judgment.

Q1. In your opinion, did Dr. Fang plagiarize against Jennifer Viegas? Please justify your response.

Q2. Based on your judgment, what should Dr. Fang do as an author? As a leader against plagiarism?

Q3. How much original content is needed to qualify as an original article instead of a compilation or translation?

Q4. The Chinese news media usually does not allow references at the end of an article. How should authors adapt to avoid accusations of plagiarism?

For reviewers who desire a deeper plunge into this issue, please read the following Supplemental Materials.....

Dr. Fang's Defense: It might seem unfair that I do not include counter arguments for Dr. Fang's defense. It was not that Dr. Fang did not know of my accusations. He responded immediately after I made the accusations. The reason I do not include his responses is for his own defense. Ironic as it seems to be, it is true to the form and spirit. Dr. Fang responded to such accusation no differently than anyone he had accused in the past: denial (initial) and silent treatment (subsequent). It is his silence that prompted me to prepare this case and to develop some kind of a guideline for Chinese writers.

Argument 1. "My article was written based on two research papers (PNAS 103, 5835 (2006)) and Science 318, 1155 (2007)). The report from *Discovery News* only reported on one of the experiments from PNAS."

Argument 2. The Viegas article is completely different from Dr. Fang's article. The only similarity is on the concept of democracy and description of the "experiment". Otherwise "we are completely different", says Dr. Fang.

Argument 3. His accusers are malicious against him and they demonstrate bad character.

Argument 4. Immediately after the accusation, Dr. Fang posted eleven testimonies on his web site stating that he was with good character and that it is not possible for him to commit such a fraud. The witnesses testified against his accusers and all of them believed in Dr. Fang's innocence.

Argument 5. This is not an argument put forward by Dr. Fang but by one of his supporters. I include it both as an amusement and as evidence when people are cornered, they might come up with an argument that a rationally thinking person would not produce. It is stated that if the accusation of Dr. Fang is true, then Jennifer Viegas can be accused of plagiarism as well. Christian List wrote an article with a title of "*Democracy in animal groups: a political science perspective*" and published in 2004 (*Trends in Ecology and Evolution* 19(4)168-9 2004). Jennifer Viegas did not mention List in her report! Furthermore, it is argued that Conradt and Roper (*Proceedings of the Royal Society Biological Sciences* 274:2317-26 2007) would be similarly implicated because they did not cite Viegas in their scientific paper!

Argument 6. This is not an argument Dr. Fang put forward in defense of himself THIS time. Facing similar accusations, he had claimed in the past: "As science education articles, there is no need to introduce new ideas (if so, academic articles should be written). It is completely OK to dedicate 100% of the content to describe others' work, or only the consensus of the field, and be completely void

of new content and ideas. As long as I write with my own language, my own words, and my own writing style, I have my own article.”

Dr. Fang’s Article: I translated his article back into English.

Title: The Democratic Decision-making Process of Cockroaches

Posted online date: Apr 6, 2009

Published: *China Youth Daily*, Apr 8, 2009

When Lake Dongting was pestered by rats, one commentator wrote an article, genuinely believing that because of the vitality displayed by rats, they were to be held in veneration. I do not know what kind of veneration the rats deserve. Did he mean a rat-worshipping religion? If that was his intention, it is better to worship cockroaches. The cockroaches are apparently stronger, more deserving to be worshiped.

Cockroaches can eat anything organic; even baits laced with rat poison are their risk-free food. After one satisfying meal, cockroaches can live for three months without additional food or one month without water as well. If we cut their heads off, they can still live on for one week or up to one month, until they die of dehydration or starvation. It is equally amazing how fast they reproduce themselves. If a female German cockroach migrates into a house, with proper conditions, she will have 100,000 offspring within one year! Therefore, once cockroaches haunt a house, it is extremely difficult to eliminate them completely. No wonder that cockroaches have lived on earth for 300 million years; long after dinosaurs which appeared on earth much later disappeared, they continue to flourish; and there has not been much change in their morphology for those 300 million years. Cockroach fossils from 300 million years ago look not much different from cockroaches of today.

Of course we do not need to worship cockroaches because of those things. However, as a very successfully evolved species, cockroaches deserve research in many areas, such as their behavior.

Cockroaches like to hide out in safe places so that they are not easily found. When they hide, they like to hide together, which can be easily understood from the benefits of doing so: easy to find mates, easy to find food following others, easy to maintain moisture in a dry environment, and so on. Certainly there are disadvantages to hiding together as well. The resources are always limited after all. Then how do they select where and in what manner they would hide out?

In the society of cockroaches, there are no leaders to govern them and there is no social division of labor like ants have either. All cockroaches are equal and the decision-

making process is completely democracy. To make appropriate democratic decisions collectively, it is not necessary to have reflective thinking or high intelligence but a few simple rules instinctively practiced by cockroaches: every cockroach goes out to explore the environment randomly; someone finds a hiding place and make a choice depending on the quality of the hiding place; all roaches contact each other and influence each other; individual roaches then decide to stay or leave based on the crowdedness of the hiding place.

Researchers from the Free University of Brussels in Belgium had performed a series of experiments. Those experiments are easy to conduct. If you have spare time to raise cockroaches, you may reproduce the results easily. In a dish you build two identical shelters such as plastic bottle caps, and then you put cockroaches in, 50 of them, for example. Initially the roaches explore everywhere and they contact each other to “consult”. Gradually they go to the shelters to hide out. If the capacity of the shelters is sufficiently large, able to contain 60 of them, for example, then all cockroaches will tend to hide out in one of the shelters, leaving the other one empty. The collective selection of shelters to hide under is randomly determined.

When you limit the capacity of the shelters, such as 40 per shelter, what will happen then? Will they divide so that 40 of them go to one shelter and the remaining 10 go to the other one? No, the cockroaches tend to divide equally, with 25 of them under each.

Suppose you put one more shelter in there, will the roaches divide equally among the three shelters? No. If the capacity of the shelter is limited, only allowing 40 of them, for example, then the roaches will divide them into two equal numbers, 25 per group, into two of the shelters, leaving the third one empty. If the capacity of the shelters is sufficiently large such as able to contain 60 roaches, then all 50 of them will go under just one of the shelters, leaving the other two empty.

If the quality of those shelters is the same, which shelter will be selected is random. If there is a quality difference, such as darker in one and brighter in the other, most of the time the cockroaches will select the darker shelter.

It can be mathematically proven; the selection made by the cockroaches is the best choice to all individuals: it properly balances the relationship between competition for resources and collaboration among the group. There is no need for leaders to “centralize” and absolute democratic decision process can lead to the best results too.

The results are achieved because everyone obeys the rules of the game. Suppose there is a mutant cockroach who does not want to play by the rule, what then? It is not

easy to find such a mutant cockroach, so the researchers built mechanical cockroaches instead. Mechanical cockroaches do not look like cockroaches at all, instead they look like toy cars. However, cockroaches do not have good eyesight, as long as the machines are smeared with cockroach extract and they smell like cockroaches, they are treated as cockroaches and contacted by cockroaches for consultations.

Through programming, researchers made the machines behave like the cockroaches: they like to hide out in dark places and they like to be with other cockroaches. When four mechanical roaches are placed into a group of twelve cockroaches, the behavior of the group is like that of a whole group of cockroaches. Left to choose between a dark and a bright shelter, most of the time they choose the dark shelter.

Then the researchers reprogrammed the mechanical cockroaches to prefer brighter shelter. Misguided by those machine roaches, most of the time the group chose the bright shelter, which is abnormal. Because of this, perhaps we can use these mechanical cockroaches to bring the cockroaches into the open in order to kill them all. Therefore, even though democracy is a good thing, it is also fragile, susceptible to some abnormal individuals within the group. But if the ideas from these individuals are bad, they will be selected out in evolution. Unfortunately, when they are selected out, there would be a lot of innocent and gullible roaches that die with them.

Jennifer Viegas' article: [Cockroaches live in a democracy](http://www.lobsa.org/Cockroaches_Live_In_A_Democracy.htm) This article is available online. Please use this address to access it:

[http://www.lobsa.org/Cockroaches Live In A Democracy.htm](http://www.lobsa.org/Cockroaches_Live_In_A_Democracy.htm).

PNAS Journal Science Paper: PNAS Ame et. al. 103(15) 5835-40 Apr 11, 2006.

Important passages are included below:

For example, the solution made by 50 cockroaches with three shelters having a carrying capacity of 40 each, is: 25 cockroaches in one shelter, 25 in the second shelter, and none in the third. This solution is adopted despite the possibility of filling up one shelter to its maximum, one of the shelters (up to 40), and leaving the surplus individuals (the remaining 10) in another shelter. If the capacity of each shelter is >50 , only one is occupied by all of the cockroaches.

(There is no use of democracy as an analogy to cockroaches' behavior anywhere in the article.)

Science Journal Science Paper: Halloy et al. 318(16) 1155-58 Nov 2007. Report of this paper can be accessed here:

<http://www.npr.org/templates/story/story.php?storyId=16328789>. Dr. Fang had not made such a mistake as he made in the PNAS paper. There is no way to tell that he had actually read the journal article or the news report. That's why I focus on Jennifer Viegas' article.

Criteria of Judgment: There are many standards in terms of ethical writing. I believe that the reviewers of this case do have access to them. It is simply interesting to review such standards through Dr. Fang's view. As a fraud buster, he had been actively pushing for enforcement of such standards. As shown in the previous defense argument section, when it comes to his cases of plagiarism, the bolts get quite loose. However, we are not interested in such bent standards. It is simply a universal strategy for the suspects to bend existing standards to fit their situations. In a popular Chinese saying, they made the wrong size of shoes and they turned around to cut our feet to fit in the shoes. That may work, but we just could not stand the pain.

“If you translate or compile articles from abroad, you do not note so appropriately, and you publish it as original contribution, you plagiarize.”—Dr. Fang

A Chinese author once defended himself from accusations of plagiarism when he pointed out that the Chinese educational system had not taught the students to reference appropriately (therefore his actions should be regarded not as severe a problem as Dr. Fang accused him of). Dr. Fang called him “idiot” who “stands for plagiarism”.

Case Selection: This case is selected because of the controversial nature of the issue. When an author plagiarizes against foreign materials, it is hard to prove plagiarism. The author may simply claim that he had read something else and come up with the work independently. This case is selected to demonstrate a point. Dr. Fang is always quick to point out the evil character of his critics. In my defense, I have to say that I do have stronger cases of plagiarized work, produced by him, where he translated verbatim the passages of other people, and took credit for the work as original. The reviewers are advised to confine to the discussion of the current case instead of being biased by such personal views.

This case material has been delivered to Dr. Fang. If he is willing to produce any material in his defense, I will be glad to pass it along to the reviewers.

PS: If you have difficulty accessing the materials referenced in this document, please contact me through email: Junlin-liao@uiowa.edu. I will make sure you get the materials promptly.