Shamelessness Shouldn't Be Anyone's Nature
——An Open Letter to *Nature* (Part XXI)

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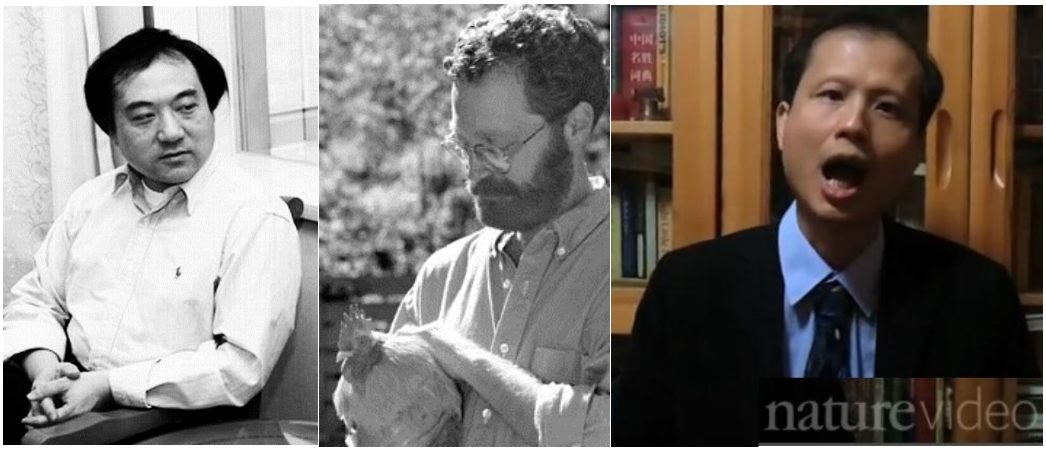
【**Summary**】In January, 2008, Fang published 3 consecutive articles about naked mole-rat in *China Youth Daily*. The three articles were republished two years later in one of Fang's books, along with 10 images without source identification. It was discovered in December, 2010, that Fang's first article in the series, *The Predicted Animal*, was plagiarized from Dr. Stan Braude's article published in *Reports of the NCSE*, in 1997. The plagiarism allegation against Fang was handled by a group of independent Chinese scholars according to a published protocol, and Fang was unanimously convicted of plagiarism by an Academic Misconduct Assessment Panel. Besides the literary plagiarism, Fang also committed artistic work piracy, many of the works were protected by copyright laws.

【Content】

Fang's Plagiarism History: The Naked Mole-Rat Case

On Jan. 16, 2008, Fang published an article entitled *The Predicted Animal* in *China Youth Daily*, introducing Dr. Richard Alexander's prediction for the existence of a eusocial mammal, and the discovery of the eusociality of naked mole-rat[1]. Fang published two more articles about the animal in the next two weeks in his weekly column[2]. On July 7, 2008, Fang announced on his New Threads that *The Predicted Animal* had been used in the High School Entrance Examination in Liaocheng City, Shandong Province[3]. Two days later, Fang published on his New Threads another person's article, touting Fang as China's No. 1 science writer, and his sole example of Fang's excellency was *The Predicted Animal*[4]. In September, 2010, the 3 articles were published again in Fang's book, *Why Elephants Don't Have Hairs?*, the very book which is infamous for its "daytime East Indian" and "nighttime Caucasian" jokes (see Part XIV of the letter), accompanied by ten images without source acknowledgement and attribution[5].

On Jan. 1, 2011, China Academic Integrity Review (AIR-China) made a verdict public, which convicted Fang of plagiarism[6]. It was the first plagiarism case ever convicted by an independent panel according to a published protocol in China's history, probably in the entire human history as well[7].



Major characters

From left: Dr. Yue Dongxiao (岳东晓), the accuser; Dr. Stanton Braude, the victim; and Fang Zhouzi, the convicted plagiarist.

The publishers of Fang's stolen article

Mr. Chen Xiaochuan (陈小川), the editor-in-chief of *China Youth Daily* which published Fang's *The Predicted Animal* on Jan. 16, 2008; Mr. Zhou Mingwei (周明伟), the director of China International Publishing Group which owns Dolphin Books; Mr. Yu Xiaoqun (俞晓群), the president of Dolphin Books, which published Fang's *Why Elephants Don't Have Hairs?* in 2010.

The Story

1. Procedural Justice

On Dec. 1, 2010, I published an article online, the title was *Fang Zhouzi's Plagiarism Case No. 25: Darwin's Orchids*[8]. In the article, I presented evidence showing that Fang, in his article *Darwin's Orchids*, plagiarized a French scientist's webpage and an article published in *Natural History* magazine. The evidence was so convincing that not only Fang remained completely silent on the allegation, it also arose the interest of Dr. Yue Dongxiao, a Ph. D. in theoretical physics from the University of Minnesota (1995)[9]. On Dec. 3, 2010, Dr. Yue informed me[10] that he had noticed that Fang's article, *The Predicted Animal*, was a suspect of plagiarism of Dr. Stanton Braude's *The Predictive Power of Evolutionary Biology and the Discovery of Eusociality in the Naked Mole Rat*, which was published in *Reports of the National Center for Science Education*, 17(4):12-15.

At that time, AIR-China was just started, and to avoid repeating Fang's fraudulent, evil, and even criminal way of "fraud busting," i. e. arrogating all the power (prosecutor, detective, and judge) to himself, and using his own website as the courtroom, I thought it was a good opportunity to establish a new and

legitimate way of busting academic fraud by private individuals. Thus, I asked Dr. Yue to write his finding into an article, and asked Dr. Bian Jianchao (Ke hua), one of the founders, and the coordinator (版主), of ARI-China, to set up a Plagiarism Collection (专辑) to handle the plagiarism allegations. I then draft a *PROTOCOL FOR HANDLING PLAGIARISM CASES*, and posted online for discussion and revision[11].

The basic ideas of the "Protocol" were to separate the powers on the plaintiff/prosecuting side, offer a due process to the accused, and base all conclusions on evidence. Specifically, the accuser (the Plaintiff) reports his/her accusation to the host of Plagiarism Collection (Moderator); the Moderator, acting like an AG, reviews the allegation, and decides whether to pursue the case. If he decides to do so, he should send the allegation to the accused (the Defendant) to defend himself. If the defendant's self-defense is not satisfactory, or the defendant refuses to respond to the request, the Moderator would make the allegation public and request the Coordinator of AIR-China to convene an Academic Misconduct Assessment Panel to evaluate the case and make a verdict. The Coordinator acts like a presiding judge, the Panel acts like a jury. Of course, we were aware fully that ARI-China is not a judicial court; rather, it serves as a court of moral.

On December 9, 2010, Coordinator Ke Hua promulgated the Protocol, and appointed me as the host of Plagiarism Collection[12]. Hence the stage was set.

2. The Allegation

Dr. Yue's article was relatively brief, so I translated the full text[13] here:

The Method for Detecting Plagiarism and Its Application

Yue Dongxiao

Dec. 4, 2010

> According to Dr. Yi Ming's exposure, *Darwin's Orchids*, published in *China Youth Daily*, was plagiarized from Michel Raynal's *MADAGASCAR "PREDICTED MOTH."* Based on Yi Ming's sentence by sentence comparison, it was indeed plagiarism: Fang even plagiarized the three exclamation marks. This is not a small matter. *China Youth Daily* is a national newspaper with great impact; it is the mouthpiece of Chinese youth. If Michel Raynal sues the newspaper for plagiarism and copyright infringement, won't it hurt the reputation of Chinese youth? With such a concern, I searched *Darwin's Orchids* on the internet, and found it was indeed published by Fang Zhouzi himself. At the same time, I also noticed another article by Fang Zhouzi, which had been widely read by young internet users. The article is entitled "*The Predicted Animal*," telling the story that a scientist predicted the existence of a eusocial animal under certain circumstances, and a eusocial underground hairless mole-rat was found in Africa later. It is indeed an interesting story.
>
> After reading *Darwin's Orchids*, I found that the characteristics of plagiarism in Fang's article are noticeable. Although he writes in Chinese, the sentences have distinct structural features of Western languages, such as complex sentence clauses. In *The Predicted Animal*, there are also many non-Chinese syntactic features. When a person translates English directly into Chinese, there is a topological homeotype or isomorph relationship between the translation and the original. Although I am not a linguist, I do know simple analogy and comparison.
>
> The question is, if Fang Zhouzi's *The Predicted Animal* is plagiarism, where is the original? Of

course, there is no such information in Fang Zhouzi's article; otherwise he won't receive his remuneration: *China Youth Daily* would definitely not pay for a plagiarized article, because even publishing such an article would hurt their reputation.

Then, let's make two assumptions: (1) The original is English; (2) The original is on the internet. The rest task is finding the key words for the internet searching engines. Since I had no other information, I chose some English key words from Fang's article: Alexander, social, mole, Africa, predict. The first hit was an article entitled "*The Predictive Power of Evolutionary Biology and the Discovery of Eusociality in the Naked Mole Rat*," the author is Stan Braude in the biology department of Washington University. The article was published in *Reports of the NCSE* in July, 1997 (Citation: NCSE Reports, 17(4): 12-15). To write the article, Dr. Braude cited a lot references and assimilated the comments and suggestions from Nancy Berg, Keith Butler, et al.

Comparing Braude's English original article with Fang Zhouzi's *The Predicted Animal*, the conclusion is obvious: in the key part, it was almost verbatim translation. This kind of work needs little effort from Fang, since his English is not bad. The readers who are interested can do a more detailed comparison yourselves. I attached 3 paragraphs for examples. This can be counted as "*The Predicted Plagiarism Committed by Fang Zhouzi*."

Many dishonest people take advantage of the differences between Chinese and Western languages, translating Western articles into Chinese as their own original writings. Such a behavior is not only immoral, but also breaching the principle of good faith, even breaking the law: infringing the intellectual property rights of the original authors. It is needless to mention its damage to Chinese society if we tolerate such a behavior. I hope the method I have presented here will be useful for the identification and detection of similar plagiarism cases.

The three examples of plagiarism selected by Dr. Yue are listed below; Fang's sentences are translated into English by me:

The three examples of plagiarism presented by Dr. Yue Dongxiao in his allegation article	
Fang's Text	**Dr. Stan Braude's Text**
Alexander could have answered that…compared with insects, there are far fewer species of birds and mammals, and their evolution histories are also much shorter,… Instead, … he predicted that what kind of characteristics it should have if a eusocial vertebrate exists. 【亚历山大本来可以回答说…跟昆虫相比，鸟类、哺乳类的种数少得多，其进化史也短得多… 但是…他根据自然选择的原理，预测如果存在一种真社会性的脊椎动物的话，将会有什么样的特征。】	Alexander could have pointed out that there are far fewer species of birds and mammals than there are species of insects, or that birds and mammals have only existed for 160 million and 250 million years respectively, while insects have existed for 350 million years... Instead he asked himself what characteristics a eusocial vertebrate would have if it had evolved.
Alexander, …summarized that a eusocial vertebrate's nest should have the following features: it must be very safe, otherwise it would be equivalent to provide granaries for its predators; to adapt to the increasing population, it must be expandable; it must be close to abundant food so that the group members don't need to compete for food; and the food must be obtainable with little risk, otherwise group members will be unwilling to retrieve it. 【亚历山大…归纳出一种真社会性脊椎动物的窝必须有什么特征：它必须是非常安全的，否则等于是为天敌提供粮仓；为了适应不断增加的群体数目，它必须是能够扩 展的；它的附近必须有充足的食物，这样群体的成员才不至于为了争夺食物而竞争；食物必须是不必冒什么风险就可	Alexander predicted that a eusocial vertebrate's nest should be (1) safe, (2) expandable, and (3) in or near an abundance of food that can (4) be obtained with little risk. These characteristics follow from the general characteristics of primitive termite nests inside logs. The nest must be safe or it will be exploited as a rich food source for predators. It must be expandable so that workers can enhance the value of the nest. It must be supplied with safe abundant food so that large

以轻易得到的，群体的成员 才不会因为怕担风险谁也不愿觅食。】	groups can live together with little competition over food or over who must retrieve it.
Between 1975 and 1976, Alexander gave a series of lectures at various universities in the U. S., introducing his prediction of the eusocial vertebrate. When he gave a lecture at Northern Arizona University, there was a mammalogist in the audience, and he told Alexander that his introduction to the eusocial animal was a description of the naked mole-rat in East Africa. He suggested that Alexander contact Jennifer Jarvis, a biologist studying on African mole-rats at the University of Cape Town, South Africa. Jarvis was studying the ecology and physiology of naked mole-rats but knew nothing about their social behaviors. 【在 1975 和 1976 年间，亚历山大在美国各大学巡回报告，介绍他对真社会性脊椎动物的预测。当他在北亚利桑那大学做介 绍时，听众中有一位哺乳动物学家对他说，他对这种真社会性动物的介绍，象是在描述一种生活在东非的地下啮齿动物裸鼹鼠，并建议亚历山大与研究这种裸鼹鼠的 南非开普敦大学生物学家珍妮佛•加维斯联系。加维斯这时正在研究裸鼹鼠的生理和生态，但对它们的社会行为一无所知。】	Alexander described this social vertebrate in a series of guest lectures at …and Northern Arizona University at Flagstaff in 1975 and 1976. At Flagstaff, mammalogist Terry Vaughan suggested to Alexander that his hypothetical eusocial rodent was a "perfect description" of the naked mole-rat *Heterocephalus glaber*. He further described the burrowing East African mammal and suggested that Alexander contact Jennifer Jarvis, an authority on African mole-rats. Jarvis had studied the ecology and physiology of naked mole-rats but at that time nothing was known about their social system.

3. The Notification

On Dec. 9, 2010, the same day Ke Hua published the Protocol and announced the appointment, I sent Dr. Yue's article to Fang via email, asking for a response:

> Dear Mr. Fang Zhouzi,
>
> I am the host of the Plagiarism Collection of China Academic Integrity Review. I received an article from Dr. Yue Dongxiao, *The Method for Detecting Plagiarism and Its Application*, in which Dr. Yue alleged that you, in your article, *The Predicted Animal*, published in *China Youth Daily* on Jan. 16, 2008, plagiarized an article by Dr. Stan Braude of Washington University, published in *NCSE Reports*, *The Predictive Power of Evolutionary Biology and the Discovery of Eusociality in the Naked Mole Rat* (See: NCSE Reports, 17(4): 12-15. Link: http://ncseprojects.org/rncse/17/4/predictive-power-evolutionary-biology-discovery-eusociality-).
>
> After careful examination and comparison, I think Dr. Yue's accusation is valid. According to China Academic Integrity Review's PROTOCOL FOR HANDLING PLAGIARISM CASES (Link: http://www.2250s.com/read.php?2,643,643), I am forwarding Dr. Yue's article to you, and asking you to make an explanation or defend for yourself within three days. Based on your response, I'll decide whether the case should be submitted to a panel for evaluation. If your response is not received in the specified time frame, this case will be handled according to the Protocol automatically.
>
> You are hereby notified.
>
> Sincerely,
>
> Yi Ming
> Dec. 9, 2010
> cc: Ke Hua
> bcc: YDX

就《推测出来的动物》一文涉嫌抄袭的通知 1 隐藏详细信息

发件人： 亦明 2010年12月9日, 星期四, 6:33 上午

收件人： smfang@yahoo.com

抄送：

密送：

方舟子先生台鉴：

我是“中国学术评价”网站“方舟子系列”专题“抄袭剽窃”专辑主持人。今收到岳东晓博士的文章，《识别抄袭的方法与实际案例》，其中认为您在2008年1月16日《中国青年报》上发表的文章，《推测出来的动物》，抄袭美国华盛顿大学Stan Braude博士1997年发表在*NCSE Reports*上的文章，The Predictive Power of Evolutionary Biology and the Discovery of Eusociality in the Naked Mole Rat【见：*NCSE Reports*, 17(4): 12-15. 链接：http://ncseprojects.org/rncse/17/4/predictive-power-evolutionary-biology-discovery-eusociality-】。

经认真核对，仔细比较，本人认为岳东晓博士的指控成立。按照“中国学术评价”网站《抄袭剽窃案例认定程序》（见：http://www.2250s.com/read.php?2,643,643），本人现将岳东晓博士的文章转发给您，请您务必在三天内为自己的行为作出解释或者辩护。本人将根据您的回复，决定是否将其提交本网站评议团裁决。逾期不予回复，此案将自动按照《抄袭剽窃案例认定程序》处理。

特此告知。

敬颂

著祺！

亦明 谨上

2010年12月9日

The screen image of the plagiarism allegation notification email I sent to Fang on Dec. 9, 2010

Till today, Fang hasn't responded to the notification yet. As a matter of fact, Fang hasn't responded to any of further notifications[14].

4. The Public Display

On Dec. 12, 2010, three days after notifying Fang the allegation, I posted Dr. Yue's article, my notification to Fang, as well as a brief explanation, on four Chinese websites, under the title of *Fang Zhouzi Is a Suspect of Plagiarism: Public Display No. 1*[15]. The display evoked heated responses.

As expected, Fang's followers were madly upset, because their Great Leader was about to be brought to trial. To keep it from happening, one person, under the web ID Lugu, summarized their reasons for objection[16]:

1. Everyone's writing contains plagiarism;
2. Popular science writings differ from academic papers fundamentally;
3. It is very difficult to define plagiarism when translation is involved.

Obviously, these arguments were a mixture of shamelessness, ignorance, and nonsense, and largely based on Fang's own double standards. For example, one of Fang's close comrades, Dragon Brother-Science Park (龙哥–科学公园), defended his own plagiarism by counterattacking the accuser this way: "Which word of yours is not plagiarized from a dictionary?"[17] And, of course, it was Fang who initiated the notion that there are different standards of plagiarism for popular science writing and academic papers[18].

These arguments were refuted bluntly by other people. For example, someone asked Lugu to demonstrate "Everyone's writing contains plagiarism." Of course he couldn't. Also, someone cited the copyright laws of China and the United States, as well as *Berne Convention for the Protection of Literary and Artistic Works*, to demonstrate that neither popular science writing nor translation is exempt from plagiarism accusation. Yet another person wrote: if there is no plagiarism after translation, then there wouldn't be the profession of translation, because anyone can simply translate anything and then claim his authorship[19].

A major technical argument involved the first example in Dr. Yue's article. Fang's intact paragraph was:

"Alexander could have answered that he didn't say that parental care is a sufficient condition to

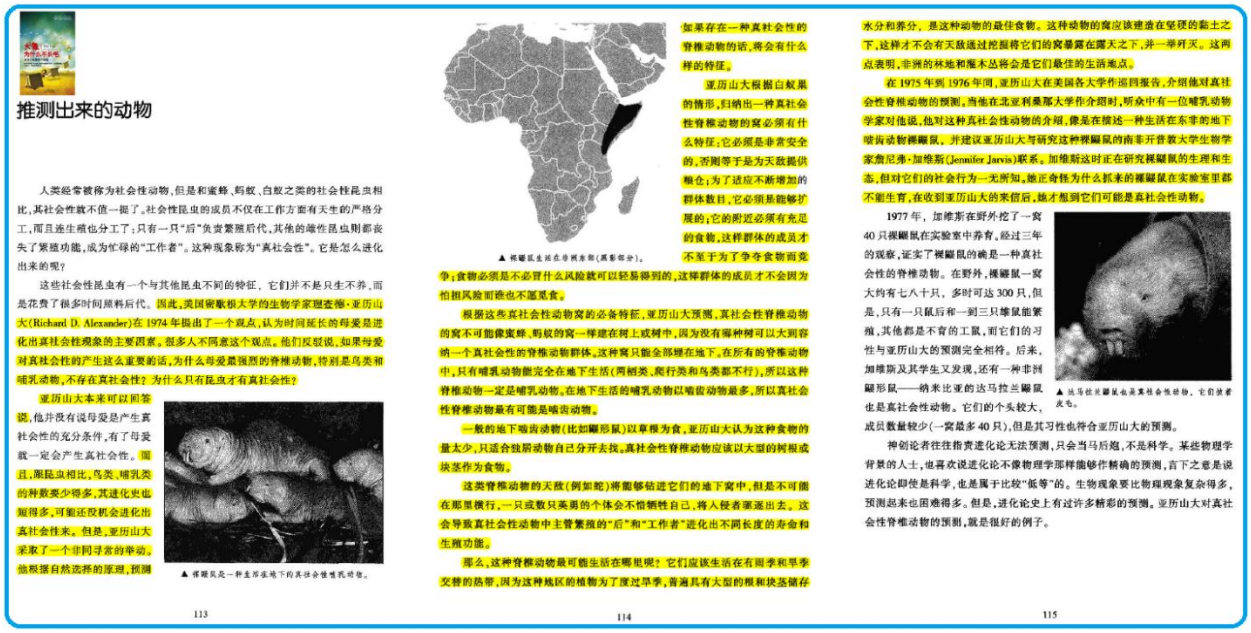
> produce eusociality. Furthermore, compared with insects, there are far fewer species of birds and mammals, and their evolution histories are also much shorter, therefore, it is possible that eusociality has not got the chance to be evolved [among them]. Instead, Alexander took an extraordinary move. Based on the principle of natural selection, he predicted that what kind of characteristics it should have if a eusocial vertebrate exists." (Sentence III-1 to III-4).

And corresponding passage in Dr. Braude's article was:

> "Alexander could have pointed out that there are far fewer species of birds and mammals than there are species of insects, or that birds and mammals have only existed for 160 million and 250 million years respectively (Eisenberg 1981; Welty 1979) while insects have existed for 350 million years (Borror and others1989). Instead he asked himself what characteristics a eusocial vertebrate would have if it had evolved."

Fang's supporters claimed that Fang added his own argument, "Alexander could have answered that he didn't say that parental care is a sufficient condition to produce eusociality," which, according them, indicated that Fang had read other references and input his own idea in his article, so the rest part which resembles Dr. Braude's article must be coincidental[20]. However, a person, "babyfat," argued that Fang's insertion was his typical behavior of trying-to-be-smart and showed that he didn't know Alexander's viewpoint, so it was an even stronger proof of Fang's plagiarism: both Alexander and his critics knew the fact, "parental care is NOT a sufficient condition to produce eusociality," so had Alexander replied that way, it would have indicated that he was not interested in exploring the scientific truth, rather, he was more interested in winning a debate by resorting to sophistry, just like Fang had been doing[21].

However, the most powerful argument was provided by Dr. Chen Tingchao, a Ph. D. in molecular biology and biochemistry from the University of Southern California (2005). Dr. Chen followed Dr. Yue's advice, conducted a more detailed comparison, and found that among the 11 paragraphs in Fang's article, 8 paragraphs, from the 2nd to the 9th, 69.7% of the text, were directly translated from Dr. Braude's article: not only the content was the same, but also the sequence or structure[22].



推测出来的动物

人类经常被称为社会性动物，但是和蜜蜂、蚂蚁、白蚁之类的社会性昆虫相比，其社会性就不值一提了。社会性昆虫的成员不仅在工作方面有天生的严格分工，而且连生殖也分工了：只有一只"后"负责繁殖后代，其他的雌性昆虫则都丧失了繁殖功能，成为忙碌的"工作者"。这种现象称为"真社会性"。它是怎么进化出来的呢？

这些社会性昆虫有一个与其他昆虫不同的特征，它们并不是只生不养，而是花费了很多时间照料后代。因此，美国密歇根大学的生物学家理查德·亚历山大(Richard D. Alexander)在1974年提出了一个观点，认为时间延长的母爱是进化出真社会性现象的主要因素。很多人不同意这个观点。他们反驳说，如果母爱对真社会性的产生这么重要的话，为什么母爱最强烈的脊椎动物，特别是鸟类和哺乳动物，不存在真社会性？为什么只有昆虫才有真社会性？

亚历山大本来可以回答说，他并没有说母爱是产生真社会性的充分条件，有了母爱就一定会产生真社会性。而且，跟昆虫相比，鸟类、哺乳类的种数要少得多，其进化史也短得多，可能还没机会进化出真社会性来。但是，亚历山大采取了一个非同寻常的举动。他根据自然选择的原理，预测

▲ 裸鼹鼠是一种生活在地下的真社会性哺乳动物。

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▲ 裸鼹鼠生活在非洲东部(黑影部分)。

如果存在一种真社会性的脊椎动物的话，将会有什么样的特征。

亚历山大根据自然界的情形，归纳出一种真社会性脊椎动物的窝必须有什么特征，它必须是非常安全的，否则等于是为天敌提供粮仓；为了适应不断增加的群体数目，它必须是能够扩展的；它的附近必须有充足的食物，这样群体的成员才不至于为了争夺食物而竞争；食物必须是不必冒什么风险就可以轻易得到的，这样群体的成员才不会因为怕担风险而被也不愿觅食。

根据这些真社会性动物窝的必备特征，亚历山大预测，真社会性脊椎动物的窝不可能像蜜蜂、蚂蚁的窝一样建在树上或树中，因为没有哪种树可以大到容纳一个真社会性的脊椎动物群体。这种窝只能全部埋在地下。在所有的脊椎动物中，只有哺乳动物能完全在地下生活(两栖类、爬行类和鸟类都不行)，所以这种脊椎动物一定是哺乳动物。在地下生活的哺乳动物以啃齿动物最多，所以真社会性脊椎动物最有可能是啃齿动物。

一般的地下啃齿动物(比如鼹形鼠)以草根为食，亚历山大认为这种食物的量太少，只适合独居动物自己分开去找。真社会性脊椎动物应该以大型的树根或块茎作为食物。

这类脊椎动物的天敌(例如蛇)将能够钻进它们的地下窝中，但是不可能在那里横行，一只或数只英勇的个体会不惜牺牲自己，将入侵者驱逐出去。这会导致真社会性动物中主管繁殖的"后"和"工作者"进化出不同长度的寿命和生殖功能。

那么，这种脊椎动物最可能生活在哪里呢？它们应该生活在有雨季和旱季交替的热带，因为这种地区的植物为了度过旱季，普遍具有大型的根和块茎储存

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水分和养分，是这种动物的最佳食物。这种动物的窝应该难道在坚硬的黏土之下，这样才不会有天敌通过挖掘将它们的窝暴露在露天之下，并一举歼灭。这两点表明，非洲的林地和灌木丛将会是它们最佳的生活地点。

在1975年到1976年间，亚历山大在美国各大学作巡回报告，介绍他对真社会性脊椎动物的预测。当他在北亚利桑那大学作介绍时，听众中有一位哺乳动物学家对他说，他对这种真社会性动物的介绍，像是在描述一种生活在东非的地下啮齿动物裸鼹鼠，并建议亚历山大与研究这种裸鼹鼠的南非开普敦大学生物学家詹尼弗·加维斯(Jennifer Jarvis)联系。加维斯这时正在研究裸鼹鼠的生理和生态，但对它们的社会行为一无所知。她正奇怪为什么抓来的裸鼹鼠在实验室里都不能生育，在收到亚历山大的来信后，她才想到它们可能是真社会性动物。

1977年，加维斯在野外挖了一窝40只裸鼹鼠在实验室中养育，经过三年的观察，证实了裸鼹鼠的确是一种真社会性的脊椎动物。在野外，裸鼹鼠一窝大约有七八十只，多时可达300只，但是，只有一只鼠后和一到三只雄鼠能繁殖，其他都是不育的工鼠，而它们的习性与亚历山大的预测完全相符。后来，加维斯及其学生又发现，还有一种非洲鼹形鼠——纳米比亚的达马拉兰鼹鼠也是真社会性动物。它们的个头较大，成员数量较少(一窝最多40只)，但是其习性也符合亚历山大的预测。

▲ 达马拉兰鼹鼠也是真社会性动物，它们被剥皮后。

神创论者往往指责进化论无法预测，只会当马后炮，不是科学。某些物理学背景的人士，也喜欢说进化论不像物理学那样能够作精确的预测，言下之意是说进化论即使是科学，也是属于比较"低等"的。生物现象要比物理现象复杂得多，预测起来也困难得多。但是，进化论史上有过许多精彩的预测。亚历山大对真社会性脊椎动物的预测，就是很好的例子。

115

70% of the text plus 3 images in Fang's *The Predicted Animal* were swags

The page images are from Fang's book, *Why Elephants Don't Have Hairs?* (its cover is shown in the upper left corner), the portions highlighted in yellow are identical to Dr. Braude's article, *The Predictive Power of Evolutionary Biology and the Discovery of Eusociality in the Naked Mole Rat*. The three images were pirated by Fang from the internet (see below for detail).

5. The Verdict

On Dec. 15, 2010, Ke Hua announced that an Academic Misconduct Assessment Panel had been organized, and the panel comprised five members: an American Ph. D. in biology; an American Master in biology; a Chinese Medical Doctor; an American legal professional; and a Chinese legal professional[23].

On Jan. 1, 2011 (Beijing time), Ke Hua announced the verdict by the panel: an unanimous conviction[24]:

> As a result of the allegation by Dr. Yue Dongxiao that Dr. Fang Shi-min plagiarized Dr. Stanton Braude's paper, this panel is convened by Dr. Ke Hua, the coordinator of China Academic Integrity Review, to assess whether the accusation is true. The panel consists of five members, three of them hold advanced degrees in biology or medicine, the other two are in the profession of legal justice.
>
> Before this assessment, Dr. Fang was offered an opportunity to defend himself and he did not dispute Dr. Yue's allegation. Nevertheless, the panel has made an independent and careful examination of the material evidence and makes the following finding: Dr. Fang's Chinese article, *The Predicted Animals* (《推测出来的动物》), published on Jan. 16, 2008, in *Chinese Youth Daily* (《中国青年报》), is a translated version of Dr. Stanton Braude's paper, *The Predictive Power of Evolutionary Biology and the Discovery of Eusociality in the Naked Mole Rat*, published in the July-August issue of 1997's *Reports of the National Center for Science Education* (*NCSE Reports*.) Dr. Fang did not acknowledge this fact in his article.
>
> Based upon the copyrights laws of both China and the United States, as well as the consensus definition of plagiarism, hold by the government agencies and academic institutions and professional organizations around the world, this panel has unanimously reached the following verdict: Dr. Yue's allegation is true, and Dr. Fang did commit plagiarism. As for the copyrights violation issue, this panel urges Dr. Ke Hua to notify the related parties and agencies.

Certificate of Plagiarism

Serial No. 001

Plagiarizer Profile

Name: Shimin Fang
Aka: Fang Zhouzi
Age: 45
Career: US Bio Co Consultant
Residence: Beijing
POB: Yunxiao, Fujian
Edu.: BS.USTC. PhD.
Michigan State University

After long deliberation, the Academic Misconduct Assessment Panel has unanimously reached the following verdict:

Dr. Shimin Fang (aka Fang Zhouzi) committed plagiarism and violated U.S. copyright laws by directly translating Dr. Stanton Braude's paper, The Predictive Power of Evolutionary Biology and the Discovery of Eusociality in the Naked Mole Rat, into his own article, The Predicted Animals, without proper attribution.

This Certificate is hereby issued to the offender as a part of the punishment.

Academic Misconduct Assessment Panel

China Academic Integrity Review
www.2250s.com
Dec. 30, 2010

Certificate of Plagiarism (Serial No. 001)

In addition to the verdict, all five panelists wrote their personal opinions, detailing the reasons and basis of their decisions[25]. Also, a member of AIR-China, but not a member of the panel, wrote his own analysis voluntarily[26].

The verdict, together with the Certificate of Plagiarism, was sent by Ke Hua to the victim, *China Youth Daily*, as well as international news media such as *Science* magazine and journal *Nature*[27]. However, Fang's column continued in *China Youth Daily* for another 9 months, when Dr. Robert Root-Bernstein's Open Letter forced its termination. But Fang was awarded by *Nature* with the John Maddox Prize 14 months later.

Till this day, "fraud fighter" Fang has not publicly made a single comment on the verdict, neither his followers. As a matter of fact, on Feb. 18, 2011, I challenged Fang that if he could find 100 followers in Chinese academic community who dare to use their true identities to denounce the legitimacy of the Protocol, the fairness of the standard for judgment, and the credibility of the verdicts (by then, Fang had been convicted four times), I would personally pay each of them 100 RMB for their labor[28]. Guess what? Fang has not accepted my challenge yet, neither his followers. Since Fang has nearly 20 million followers on his microblogs[29], but Fang couldn't find even 100 people to defend for him, the silence indeed speaks much louder than any words.

More Evidence

Since I was acting as the Moderator in the prosecution of the case, I didn't participating in its discussion or debate before the case was closed. Now, since the case is over, I'd like to use this opportunity to present my own findings.

First, Dr. Braude's article contains 3 sections, 20 paragraphs, and 2,000 words. Fang's article resembles Dr. Braude's article only in the last third part, making it highly impossible that the similarity was caused by coincidence. As having been pointed out by Dr. Chen Tingchao, the similarity between the two articles was not limited to the content, but extended to the structure. In other words, the contents in the paragraphs 13 to 19 of Dr. Braude's article were entirely duplicated in the paragraphs 2 to 9 of Fang's article, in the same sequence. The linearity in the two articles was highly correlated. (Please refer to the complete comparison table below for detail).

Second, Fang's article contains a lot of unique features in Dr. Braude's article. For example, Dr. Braude suggested that Dr. Alexander "could have" responded to his critics by pointing out that "there are far fewer species of birds and mammals than there are species of insects, or that birds and mammals have only existed for 160 million and 250 million years respectively," and Fang made the same suggestion. However, such an idea was already proposed by Dr. Edward O. Wilson in his *Sociobiology: The New Synthesis*, which was first published in 1975[30]. Therefore, it is more likely that Alexander's unusual move was due to his reluctance to repeat what E. O. Wilson just said, rather than an oversight. In other words, Dr. Braude's suggestion was redundant, if I may.

Third, the most unique feature of Dr. Braude's article is the "12-part model" of Dr. Alexander's prediction, which was duplicated faithfully in Fang's article. According to this model, Dr. Alexander predicted, without any knowledge of naked mole-rat, the existence of a eusocial rodent in tropical Africa. The thing is, there is no written record publicly available showing how Dr. Alexander made his prediction in 1970s, and it is doubtful whether his prediction was as perfect, or as accurate, as what Dr. Braude presented. For example, in an article written by Linda Gamlin and published in 1987, neither the content nor the order of the "parts" was the same as Dr. Braude's presentation[31]. Also, in a book co-edited by Dr. Alexander and published in 1991, the prediction was described as following:

> "In an effort to explain why vertebrates had apparently not evolved eusociality, he hypothesized a fictitious mammal that, if it existed, would be eusocial. This hypothetical creature had certain features that patterned its social evolution after that of termites (e.g., the potential for heroic acts that assisted collateral relatives, the existence of an ultrasafe but expansible nest, and an ample supply of food requiring minimal risk to obtain it). Alexander hypothesized that this mythical beast would probably be a completely subterranean rodent that fed on large tubers and lived in burrows inaccessible to most but not all predators, in a xeric tropical region with heavy clay soil."[32]

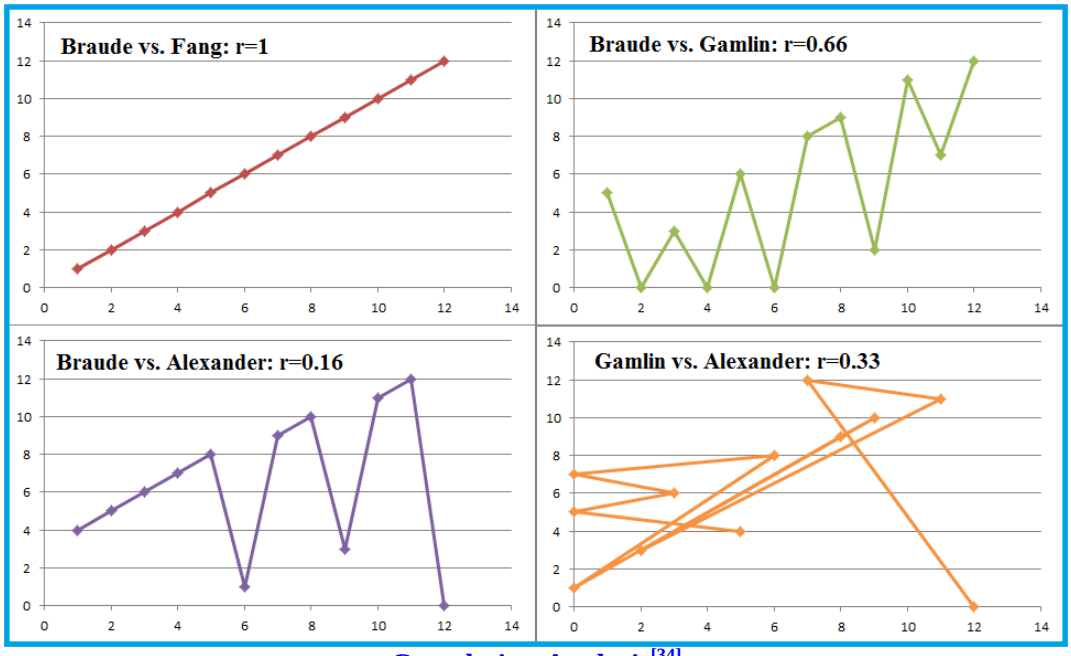
The most prominent common features in Gamlin and Alexander's descriptions are the blood relationship and altruism, which of course is the cornerstone of eusociality. However, the cornerstone was missing in Dr. Braude's, as well as Fang's, "12-part model." Also, neither Gamlin nor Alexander mentioned that Alexander predicted the location was Africa, but both Braude and Fang did. The fact is, the title of Dr. Alexander's lecture in 1970s was "*Why Are There No Eusocial Mammals?*"[33], so it is a little bewildering why Dr. Braude described the prediction starting from vertebrate. And Fang's description was even more absurd, because he had no way of knowing Dr. Alexander's lectures in 1970s, so why did he start from vertebrate also?

How did Alexander predict the existence of a eusocial vertebrate animal?

Two different accounts of Alexander's prediction are compared against Dr. Braude's description. Fang's description was exactly the same as Dr. Braude's in both the content and order.

	Stanton Braude (1997)	L. Gamlin (1987)[31]	Alexander (1991)[32]
1	Nest is safe	Blood relationship	A mammal
2	Nest is expandable	Altruism/heroism	Blood relationship
3	Nest is in or near abundant food	Abundant food	Altruism/heroism
4	Food can be obtained with little risk	A mammal	Safe nest
5	Nest is completely subterranean	Safe nest	Expandable nest
6	The animal is a mammal	Subterranean	Abundant food
7	The mammal is a rodent	hard clay soil	Food can be obtained with little risk
8	The food is underground roots and tubers	A Rodent	Subterranean
9	Heroism among members	The food is roots and tubers as food	A Rodent
10	The animal lives in the wet-dry tropics	Small colony	Roots and tubers as food
11	The soil is hard clay	Arid region	Xeric tropical region
12	The location is the open woodland or scrub of Africa.	Open parkland or savanna, somewhere in the tropics.	Heavy clay soil

Correlation analysis showed that Fang's description of Alexander's prediction is a perfect match to Dr. Braude's description (r=1), however, Dr. Braude's description had much lower correlationship with the descriptions by either Gamlin or Alexander (see figures below). In other words, it is mathematically impossible that the similarity between Fang and Dr. Braude's descriptions was coincidental.



Correlation Analysis[34]

Fang's description of Dr. Alexander's prediction matches perfectly to Dr. Braude's, while others are not so lucky.

The Dumb Thief

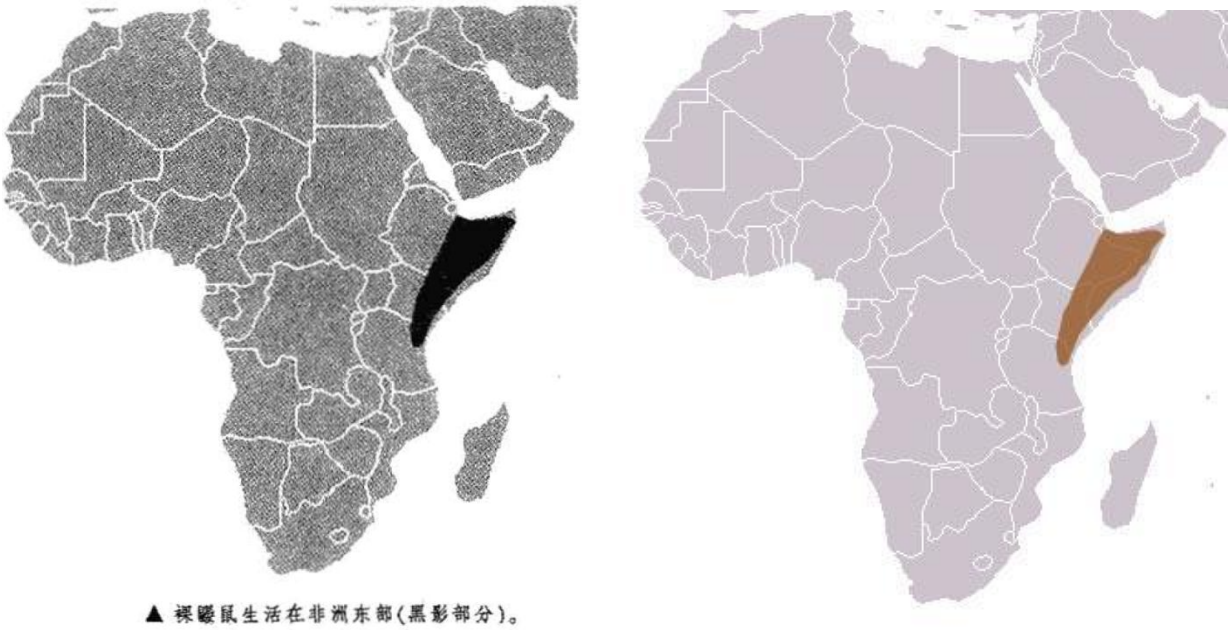
As mentioned above, Fang wrote 3 articles about naked mole-rat in January, 2008, and the three articles were republished in 2010 in the book *Why Elephants Don't Have Hairs?*. Fang not only republished his articles, the three articles were also accompanied by 10 images, all from the internet, and none had a source acknowledgement or attribution. As the saying goes, "a picture is worth a thousand words," hence these pictures are worth ten thousand words. The question is, what did these words say?

Unlike Somali Pirates, who apparently have a territory, Fang's internet piracy covers every corner in the world: from the websites belonging to unknown private individuals, to the websites of high profile big name companies; from the images in public domain, to the art works with explicit copyright claims: Fang steals everything, from everyone in everywhere. Fang's greediness and non-selectiveness in stealing is exemplified in the second image he stole for his naked mole-rat articles: it is a map showing where the animal is distributed. Obviously not knowing the answer himself, he stole a map from theanimalfiles.com (see images below). It seems that questions like the following have never occurred to him: why the distribution area of naked mole-rat has such a neat western borderline? Why the eastern coastline is so immune to the infestation of the mole-rats?

So, where is the animal distributed? Here are what the scholarly books said:

> "Naked mole-rats occur in the hot dry region of the Horn of Africa, from the Rift Valley of Ethiopia eastward into northern Somalia, from Lake Turkana in Kenya in a line to Mt. Kenya, around the eastern splopes to as far south as Tsavo Park, and then northeastward to the Somali coast."[35]

> "The naked mole-rat, or sand puppy, *Heterocephalus glaber*, is found in the arid regions of East Africa, from the Rift Valley of Ethiopia eastwards into the north of Somalia, and from Lake Turkana in Kenya eastwards to the coast of Somalia, and south as far as Tsavo National Park in Kenya."[36]



▲ 裸鼹鼠生活在非洲东部(黑影部分)。

The distribution of naked mole-rat in Africa: the stolen map and its original

The image on the left is from Fang's book, p.114, with the following legend: "Naked mole-rat lives in the eastern Africa (dark shadowed area)." The image on the right is from theanimalfiles.com: "Naked Mole Rat Range Map (Africa)."

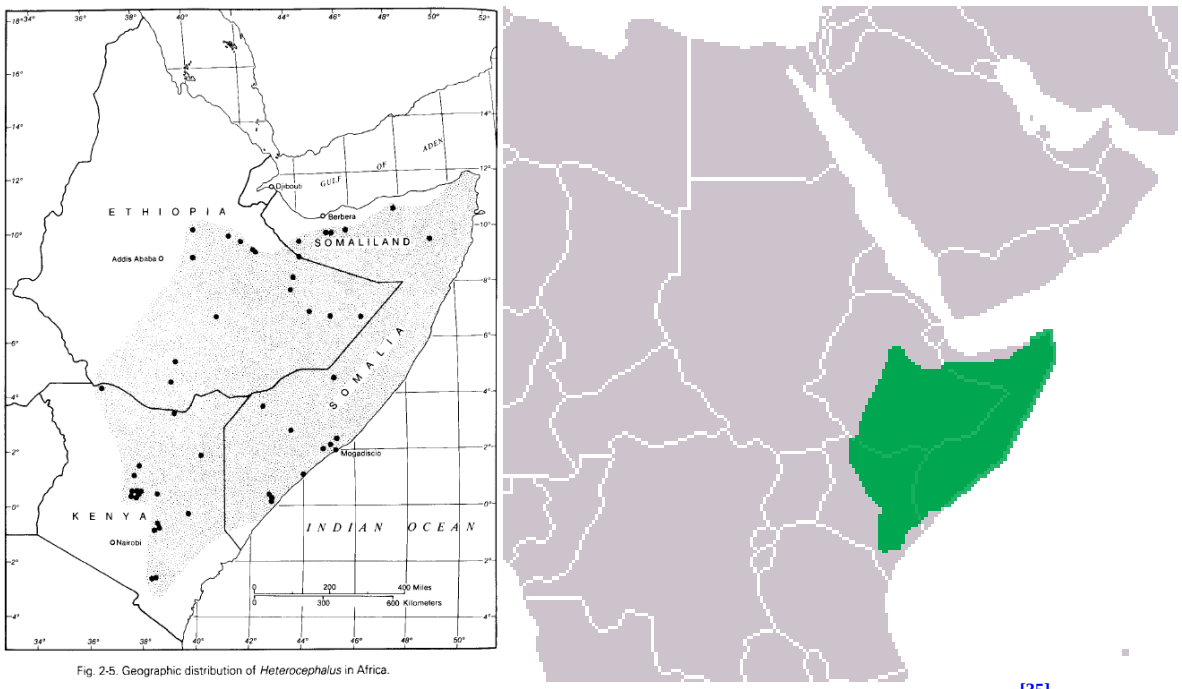


Fig. 2-5. Geographic distribution of *Heterocephalus* in Africa.

The regional distribution maps of naked mole-rat as depicted in a scholarly book[35] (left) and wikipedia

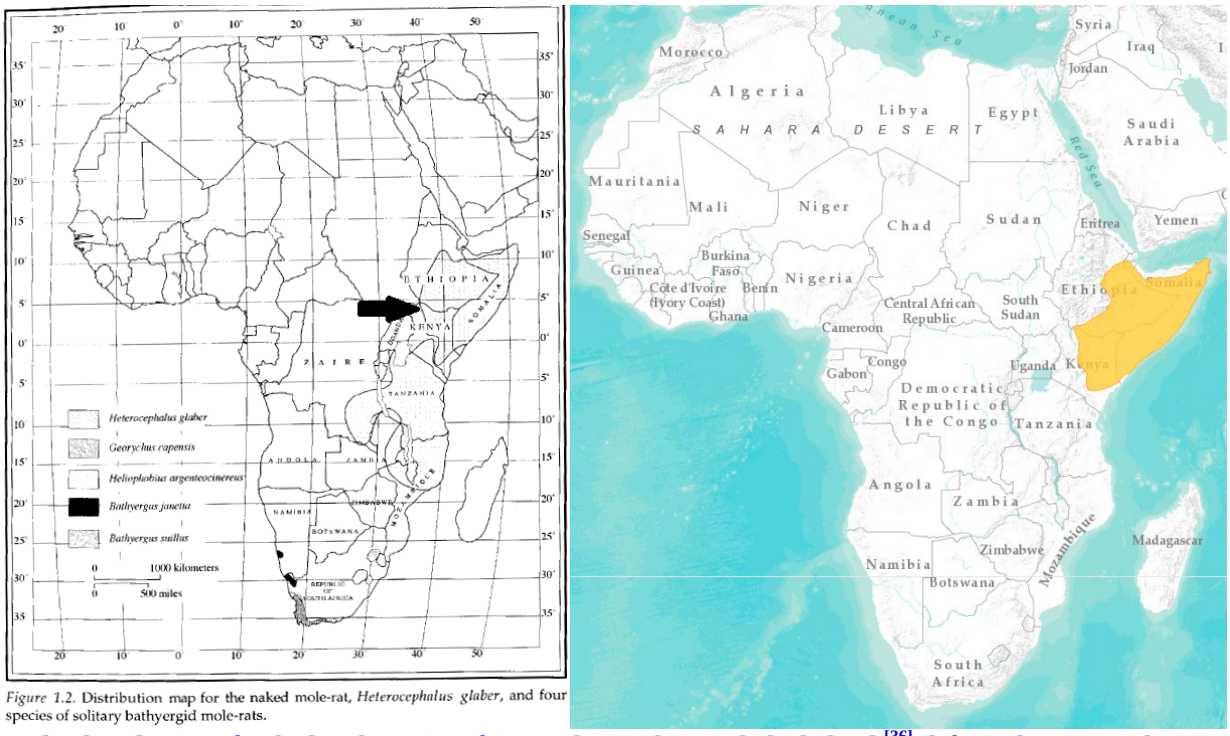


Figure 1.2. Distribution map for the naked mole-rat, *Heterocephalus glaber*, and four species of solitary bathyergid mole-rats.

The distribution of naked mole-rat in Africa as depicted in a scholarly book[36] (left) and IUCN Red List

The fact is, Fang not only stole the image from that website, he also stole a paragraph:

> Fang: In the wild, a colony of naked mole-rat contains about 70 to 80 individuals, and as many as 300, however, one colony has only one queen and 1 to 3 males who are able to breed, the rest are the sterile workers, and their behaviors are the same as predicted by Alexander. (Sentence X-3 in the table below).
>
> theanimalfiles.com: Naked Mole Rats are found in the arid areas of East Africa. They live in colonies of 75 - 80 individuals, although it is not unknown for up to 300 to live in one colony. They have a complex social structure where only one female (the queen) and 1 - 3 males reproduce, while the rest of the colony function as colony defenders and workers.

The largest naked mole-rat colony had a population of 295, caught in a big sweet potato field in Kenya in 1984[37], therefore technically, it was not "in the wild." In fact, colonies with more than 200 naked mole-rats are extremely rare[38]. Although many people do round 295 to 300, and the webpage paragraph contains nothing but common knowledge, considering that Fang just stole an image from the website, and he is famous for his lack of common knowledge, it is not far-fetched to say that Fang stole the paragraph at the same time of stealing the image.

For the same reason, Fang stole a sentence from wikipedia about Damaraland mole rat, and misrepresented another:

> Fang: Damaraland mole rat of Namibia, is also eusocial animal. It has a bigger size, fewer members (at most 40 members per colony), but its habit is in line with what Alexander predicted."
>
> Wikipedia: The Damaraland Mole Rat lives in eusocial colonies of up to 40 individuals dominated by a single breeding pair.[2] Often compared to the Naked Mole Rat for its many

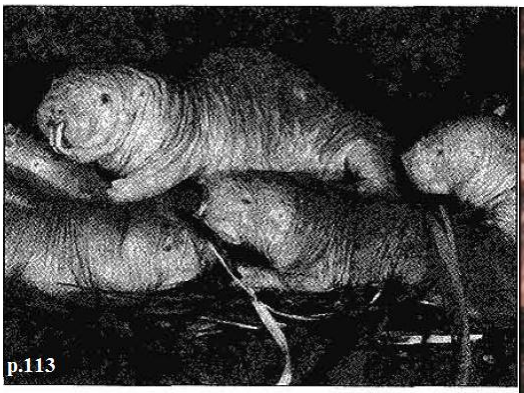
characteristic similarities, the Damaraland species is different in several ways. Aside from being bigger and more hairy, it is also less vocal, making only some birdlike chirps.[3] The colonies are generally less numerous than those of the Naked Mole Rat.

The fact is, the largest colony of Damaraland mole rat had 41 members, and unlike what predicted by Alexander, they live in soft soil in subtropical region of Africa[39].

The distribution of Damaraland mole rat in Africa (yellow region)

Nine Thousand Words More

The following images on the left are from Fang's book (page number in corner), arranged according to their original order in the book, and those on the right are their originals found on the internet (please read the PDF file for hyperlinks).



▲ 裸鼹鼠是一种生活在地下的真社会性哺乳动物。

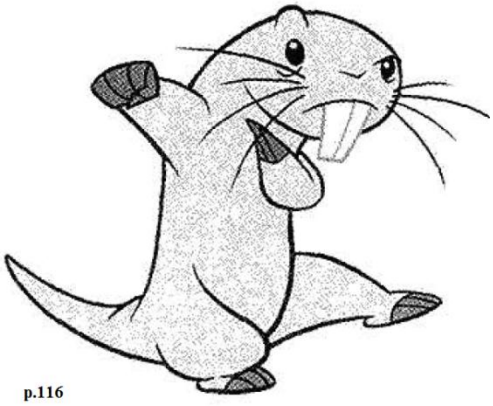
Fang's legend: Naked mole-rat is a eusocial mammal living underground.

Please note that the image on the right is copyrighted by kidsbiology.com.

▲ 达马拉兰鼹鼠也是真社会性动物，它们披着皮毛。

Fang's legend: Damaraland mole-rat is also a eusocial animal, it has hairs.

Note: the original image was made by John White of University of California and copyrighted in 2007. The lower left corner clearly has the copyright symbol (©John White). Fang deliberately removed the sign before using it in his book.



▲ 迪斯尼的动漫《麻辣女孩》中的裸鼹鼠卢福斯(Rufus)。

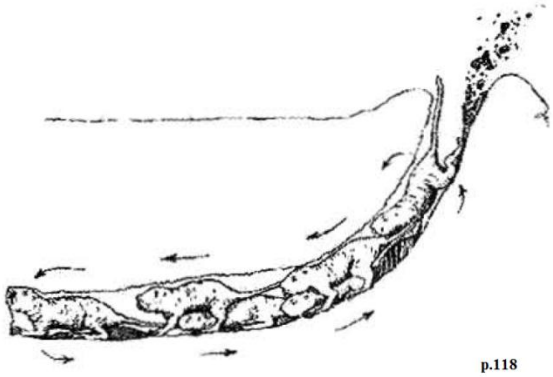
Fang's legend: Naked mole-rat Rufus in Disney animated television series *Kim Possible*.

Note: this is the Nth time that Fang stole Disney images.

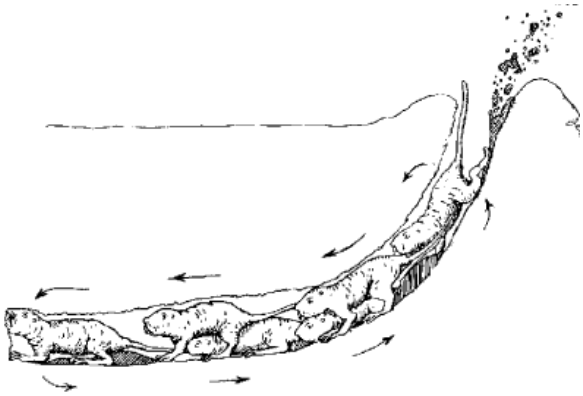
▲ 裸鼹鼠有时通过大家扎堆挤在一起来取暖。

Fang's legend: Sometimes naked mole-rats keep warm by staying together.

Note: the original image was made by Dr. Chris Faulkes, and the website posting it clearly states that "permission has been granted for use & download from this website only and *for non-profit educational purposes only* and not to be further distributed."

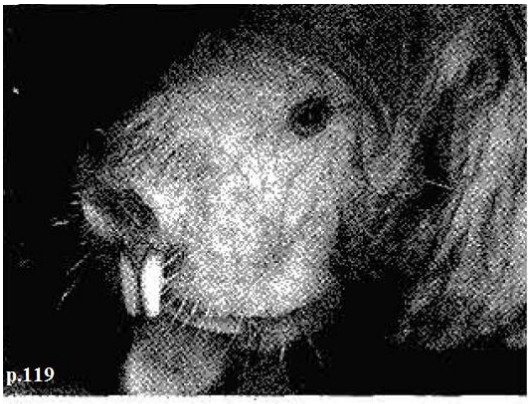


▲ 裸鼹鼠用轮流挖掘的方式，通力合作挖地道。

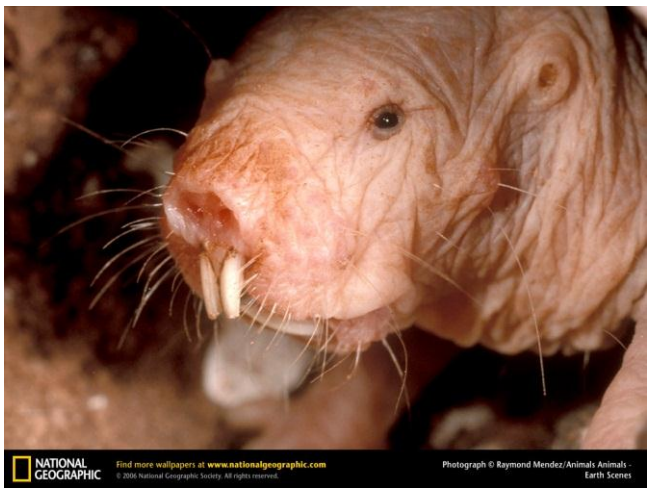


Fang's legend: Naked mole-rat digs tunnels using cooperative rotation method.

Note: the original image was copyrighted.



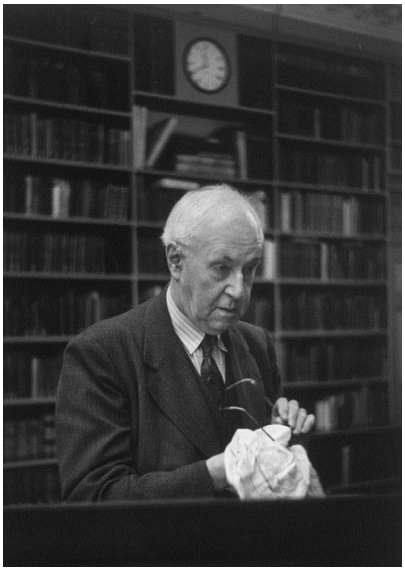
▲ 裸鼹鼠的身体两侧长着像猫的胡须一样的长毛，对触觉非常敏感。



Fang's legend: Naked mole-rat has long hairs like cat's whiskers on its both sides of body, which are very sensitive to touching.

Note: the original image was copyrighted by National Geographic.

▲ 英国著名生理学家戴尔因为研究神经递质的作用，在 1936 年获得诺贝尔奖。

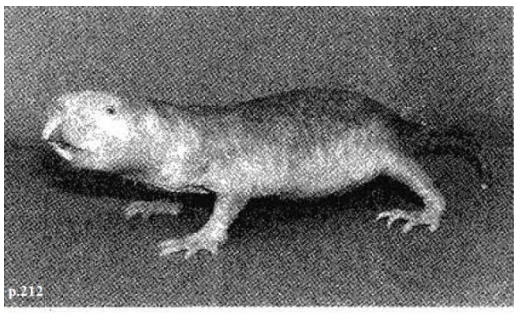


Fang's legend: Renowned British physiologist Dale received Nobel Prize in 1936 for his study on neurotransmitters.

▲ P 物质的发现者冯·欧拉，他在 1970 年也获得了诺贝尔奖。

Fang's legend: Von Euler, the discoverer of substance P, received Nobel Prize in 1970 also.

Note: the original image was from http://www.nobelprize.org.



▲ 裸鼹鼠

Fang's legend: Naked mole-rat.

Note: the original image was from http://www.scientificamerican.com.

A Complete comparison between Fang's *The Predicted Animal* and Dr. Braude's *The Predictive Power of Evolutionary Biology and the Discovery of Eusociality in the Naked Mole Rat*				
Note: The Chinese text of Fang's article was retrieved from his New Threads website, and translated into Chinese by me in its entirety. In the Seq. columns, the Roman numerals indicate the paragraph order, and the Arabic numerals indicate the sentence order in a paragraph.				
Fang's Predicted Animal			**Dr. Braude's article**	
Seq.	Chinese	English Translation	Seq.	Text
I-1 I-2 I-3 I-4	人类经常被称为社会性动物，但是和蜜蜂、蚂蚁、白蚁之类的社会性昆虫相比，其社会性就不值一提了。社会性昆虫的成员不仅在工作方面有天生的严格分工，而且连生殖也分工了：只有一只“后”负责繁殖后代，其他的雌性昆虫则都丧失了繁殖功能，成为忙碌的“工作者”。这种现象称为“真社会性”。它是怎么进化出来的呢？	Human beings are often regarded as social animals. However, compared with social insects such as bees, ants, and termites, their sociality is not worth mentioning. Members of social insects not only divide their work, but also reproduction: only one “queen” is responsible for breeding, all the other female insects have lost their reproductive abilities, and become busy “workers.” This phenomenon is called “eusociality.” How did it evolve?		
II-1	这些社会性昆虫有一个与其他昆虫不同的特征，它们并不是只生不养，而是花费了很多时间照料后代。	These social insects have a distinct characteristic from other insects: they not only breed, they also spend a lot of time to take care their offspring.		
II-2 II-3 II-4	因此，美国密歇根大学生物学家理查德·亚历山大在1974年提出了一个观点，认为时间延长的母爱是进化出真社会性现象的主要因素。很多人不同意这个观点。他们反驳说，如果母爱对真社会性的产生这么重要的话，为什么母爱最强烈的脊椎动物，特别是鸟类和哺乳动物，不存在真社会性？为什么只有昆虫才有真社会性？	Therefore, Richard Alexander, a biologist at the University of Michigan in the United States proposed in 1974 that extended parental care is the major factor for the evolution of eusociality. Many people did not agree. They argued that if parental care is so crucial for the evolution of eusociality, why eusociality doesn't exist among the highly parental vertebrates: birds and mammals? Why it only exists in insects only?	XIII-1	In 1974 entomologist and evolutionary theorist Richard Alexander argued that "subsocial" behavior (that is parental care) and the opportunity for parental manipulation were even more powerful factors in the evolution of social behavior in insects (Alexander 1974). Across taxa, parental behavior correlates much more strongly with eusociality than does haplodiploidy (Andersson 1984; Alexander and others 1991). Alexander's critics argued that if parental care is a crucial precursor to eusociality, we should expect eusociality to have also evolved among the highly parental vertebrates: birds and mammals.
III-1	亚历山大本来可以回答说，他并没有说母爱是产生真社会性的充分条件，有了母爱就一定会产生真社会性。	Alexander could have answered that he didn't say that parental care is a sufficient condition to produce eusociality.		
III-2	而且，跟昆虫相比，鸟类、哺乳类的种数少得多，其进化史也短得多，可能还没机会进化出真社会性出来。	Furthermore, compared with insects, there are far fewer species of birds and mammals, and their evolution histories are also much shorter, therefore, it is possible that eusociality has not got the chance to be evolved [among them].	XIII-4	Alexander could have pointed out that there are far fewer species of birds and mammals than there are species of insects, or that birds and mammals have only existed for 160 million and 250 million years respectively (Eisenberg 1981; Welty 1979) while insects have existed for 350 million years (Borror and others 1989).
III-3 III-4	但是亚历山大却采取了一个非同寻常的举动。他根据自然选择的原理，预测如果存	Instead, Alexander took an extraordinary move. Based on the principle of natural selection, he	XIII-5	Instead he asked himself what characteristics a eusocial vertebrate would have if it had evolved.

	在一种真社会性的脊椎动物的话，将会有什么样的特征。	predicted that what kind of characteristics it should have if a eusocial vertebrate exists.	XIV-1	Alexander based his answer on his understanding of the selective forces involved in the evolution of insect eusociality and hypothesized a eusocial vertebrate. He created a 12-part model for a eusocial vertebrate, based on this body of theory. He had no idea that a mammal with these characteristics existed.
IV-1	亚历山大根据白蚁巢的情形，归纳出一种真社会性脊椎动物的窝必须有什么特征：它必须是非常安全的，否则等于是为天敌提供粮仓；为了适应不断增加的群体数目，它必须是能够扩展的；它的附近必须有充足的食物，这样群体的成员才不至于为了争夺食物而竞争；食物必须是不必冒什么风险就可以轻易得到的，群体的成员才不会因为怕担风险谁也不愿觅食。	Alexander, based on the situations in termite nests, summarized that a eusocial vertebrate's nest should have the following features: it must be very safe, otherwise it would be equivalent to provide granaries for its predators; to adapt to the increasing population, it must be expandable; it must be close to abundant food so that the group members don't need to compete for food; and the food must be obtainable with little risk, otherwise group members will be unwilling to retrieve it.	XV-1	Alexander predicted that a eusocial vertebrate's nest should be (1) safe, (2) expandable, and (3) in or near an abundance of food that can (4) be obtained with little risk. These characteristics follow from the general characteristics of primitive termite nests inside logs. The nest must be safe or it will be exploited as a rich food source for predators. It must be expandable so that workers can enhance the value of the nest. It must be supplied with safe abundant food so that large groups can live together with little competition over food or over who must retrieve it.
V-1 V-2 V-3 V-4	根据这些真社会性动物窝的必备特征，亚历山大预测，真社会性脊椎动物的窝不可能像蜜蜂、蚂蚁的窝一样建在树上或树中，因为没有哪种树可以大到容纳一个真社会性的脊椎动物群体。这种窝只能全部埋在地下。在所有的脊椎动物中，只有哺乳动物能完全在地下生活（两栖类、爬行类和鸟类都不行），所以这种脊椎动物一定是哺乳动物。地下生活的哺乳动物以啮齿动物最多，所以真社会性脊椎动物最有可能是啮齿动物。	Based on these essential characteristics, Alexander predicted that a eusocial vertebrate's nest cannot be like the nests of bees, ants, which are built in or on trees, because no trees are large enough to house large colonies of the vertebrate. Such a nest must be completely subterranean. Among all the vertebrates, only mammals could live completely underground, neither amphibians nor birds can do it. Therefore, the vertebrate must be mammals. Rodents are the most common mammals living underground, so the eusocial vertebrate is most likely rodents.	XVI-1 XVI-2 XVI-3	The limitations of the nest characteristics suggested that the animal would be (5) completely subterranean because few logs or trees are large enough to house large colonies of vertebrates. Being subterranean further suggested that the eusocial vertebrate would be (6) a mammal and even more specifically (7) a rodent since many rodents nest underground. The primary food of the hypothetical vertebrate would be (8) large underground roots and tubers because the small grassy roots and grubs that moles feed on are so scattered that they are better exploited by lone individuals and would inhibit rather than encourage the evolution of eusociality.
VI-1 VI-2	一般的地下啮齿动物（比如鼹形鼠）以草根为食，亚历山大认为这种食物的量太少，只适合于独居动物自己分开了去找。真社会性脊椎动物应该以大型的树根或块茎为食物。	Most underground rodents (mole-rats, for example) live on grassy roots. Alexander believed that the quantity of such food is so scarce that it is only suitable for lone individuals to search. The eusocial vertebrate should live on large underground roots and tubers.	XVI-4	The primary food of the hypothetical vertebrate would be (8) large underground roots and tubers because the small grassy roots and grubs that moles feed on are so scattered that they are better exploited by lone individuals and would inhibit rather than encourage the evolution of eusociality.
VII-1 VII-2	这类脊椎动物的天敌（例如蛇）将能够钻进它们的地下窝中，但是不可能在那里横行，一只或数只英勇的个体会不惜牺牲将入侵者驱逐出去。这会导致真社会性动物中主管繁殖的“后”和“工作者”进化出不同长度的寿命和生殖功能。	The vertebrate's predators (such as snakes) would be able to enter the burrow but they wouldn't prevail, one or a few heroic individuals would deter them. This would lead to the evolution of divergent life lengths and reproductive function between the "queen" who are responsible for reproduction, and the workers.	XVII-1	The major predator of the hypothetical vertebrate would have to be (9) able to enter the burrow but be deterred by the heroic acts of one or a few individuals. This would allow for the evolution of divergent life lengths and reproductive value curves between workers and reproductives. Predators fitting this description would include snakes.

VIII-1 VIII-2 VIII-3 VIII-4	那么，这种脊椎动物最可能生活在哪里呢？它们应该生活在有雨季和旱季交替的热带，因为这种地区的植物为了度过旱季，普遍具有大型的根和块茎储存水分和养分，是这种动物的最佳食物。这种动物的窝应该建造在坚硬的粘土之下，才不会有天敌通过挖掘将它们的窝暴露在露天之下一举歼灭。这两点表明，非洲的林地和灌木丛将会是它们的最佳生活地点。	Then, where does the vertebrate most likely to live? They should live in the wet-dry tropics because plants there generally have large roots and tubers to store water and nutrients to survive the dry periods. They are the best food for these animals. The nest of the animals should be under hard clay so it won't be dug up by their predators. These two characteristics suggested the open woodland or scrub of Africa should be the best place for them to live.	XVIII-1	The eusocial vertebrate was also expected to (10) live in the wet-dry tropics because plants there are more likely to produce large roots and tubers that store water and nutrients to help them survive the dry periods. The soil would need to be (11) hard clay because otherwise the nest would not be safe from digging predators. These two characteristics further suggested (12) the open woodland or scrub of Africa.
IX-1 IX-2 IX-3	在 1975 和 1976 年间，亚历山大在美国各大学巡回报告，介绍他对真社会性脊椎动物的预测。当他在北亚利桑那大学做介绍时，听众中有一位哺乳动物学家对他说，他对这种真社会性动物的介绍，象是在描述一种生活在东非的地下啮齿动物裸鼹鼠，并建议亚历山大与研究这种裸鼹鼠的南非开普敦大学生物学家珍妮佛·加维斯联系。加维斯这时正在研究裸鼹鼠的生理和生态，但对它们的社会行为一无所知。	Between 1975 and 1976, Alexander gave a series of tour lectures at various universities in the U. S., introducing his prediction of the eusocial vertebrate. When he gave a lecture at Northern Arizona University, there was a mammalogist in the audience, and he told Alexander that his introduction to the eusocial animal was a description of the naked mole-rat in East Africa. He suggested that Alexander contact Jennifer Jarvis, a biologist studying on African mole-rats at the University of Cape Town, South Africa. Jarvis was studying the ecology and physiology of naked mole-rats but knew nothing about their social behaviors.	XIX-1	Alexander described this social vertebrate in a series of guest lectures at North Carolina State University, University of Kansas, University of Texas, Colorado State University, Arizona State University, University of Arizona, and Northern Arizona University at Flagstaff in 1975 and 1976. At Flagstaff, mammalogist Terry Vaughan suggested to Alexander that his hypothetical eusocial rodent was a "perfect description" of the naked mole-rat *Heterocephalus glaber*. He further described the burrowing East African mammal and suggested that Alexander contact Jennifer Jarvis, an authority on African mole-rats. Jarvis had studied the ecology and physiology of naked mole-rats but at that time nothing was known about their social system.
IX-4	她正奇怪为什么抓来的裸鼹鼠在实验室里都不能生育，在收到亚历山大的来信后，才想到它们可能是真社会性动物。	She was curious why the captured mole-rats were sterile in the lab. After receiving the letter from Alexander, she realized they were eusocial animals.		
X-1 X-2	1977 年，加维斯在野外挖了一窝 40 只裸鼹鼠在实验室中养育。经过 3 年的观察，证实了裸鼹鼠的确是一种真社会性的脊椎动物。	In 1977, Jarvis captured a colony with 40 naked mole-rats, and raised them in the lab. After 3 years' observation, it was demonstrated that the naked mole-rat is indeed an eusocial vertebrate.		
X-3	在野外，裸鼹鼠一窝大约有七、八十只，能多达 300 只，但是只有一只鼠后和一到三只雄鼠能繁殖，其他都是不育的工鼠，而它们的习性，与亚历山大预测的完全相符。	In the wild, a colony of naked mole-rat contains about 70 to 80 individuals, and as many as 300, however, one colony has only one queen and 1 to 3 males who are able to breed, the rest are the sterile workers, and their behaviors are the same as predicted by Alexander.		Naked Mole Rats are found in the arid areas of East Africa. They live in colonies of 75 - 80 individuals, although it is not unknown for up to 300 to live in one colony. They have a complex social structure where only one female (the queen) and 1 - 3 males reproduce, while the rest of the colony function as colony defenders and workers. http://www.theanimalfiles.com/mammals/rodents/mole_rat_naked.html.
X-4	后来加维斯及其学生又发现还有一种非洲	Later, Jarvis and her student discovered that another African mole-rat, Damaraland mole rat		The Damaraland Mole Rat lives in eusocial colonies of up to 40 individuals dominated by a single breeding pair.[2]

	鼹鼠——纳米比亚的达马拉兰鼹鼠也是真社会性动物，它们的个头较大，成员数量较少（一窝最多 40 只），但是其习性也符合亚历山大的预测。	of Namibia, is also eusocial animal. It has a bigger size, fewer members (at most 40 members per colony), but its habit is in line with what Alexander predicted.		Often compared to the Naked Mole Rat for its many characteristic similarities, the Damaraland species is different in several ways. Aside from being bigger and more hairy, it is also less vocal, making only some birdlike chirps.[3] The colonies are generally less numerous than those of the Naked Mole Rat. https://en.wikipedia.org/w/index.php?title=Damaraland_mole_rat&oldid=178942359
XI-1 XI-2	神创论者往往指责进化论无法预测，只会当马后炮，不是科学。某些物理学背景的人士，也喜欢说进化论不象物理学那样能够做精确的预测，言下之意是说进化论即使是科学，也是属于比较“低等”的。	The creationists usually criticize that the evolution theory lacks the power of prediction, can only act *post hoc*. Some people with physics background also like to say that the evolution theory is unable to make an accurate prediction like physics, meaning that even if the evolution theory is a science, it is a relatively lower in rank.	I-1 VIII-1	Anti-evolutionists have asserted that evolutionary biology lacks predictive power (Gish 1979; Johnson 1991; Morris 1974, 1989). The uses of evolutionary theory to make these various predictive hypotheses have also been criticized as being *post hoc* since we already know what has evolved but cannot do simple experiments and predict what will evolve.
XI-3	生物现象要比物理现象复杂得多，预测也困难得多，但是，进化论史上也有过许多精彩的预测，亚历山大对真社会性脊椎动物的预测，以及达尔文对天蛾的预测（《达尔文的兰花》，本版 2006 年 7 月 19 日），就是很好的例子。	Biological phenomena are much more complex than physical phenomena, and the predictions are much more difficult. However, in the history of evolution theory, there have been many beautiful predictions, for example, Alexander’s prediction of a eusocial vertebrate, and Darwin’s prediction of sphinx moth (See “*Darwin’s Orchids*,” on this page on July 19, 2006.)		

Notes

[1] Fang Zhouzi. *The Predicted Animal*. *China Youth Daily*, Jan. 16, 2008. (方舟子：《推测出来的动物》，2008 年 1 月 16 日《中国青年报》；XYS20080116).

[2] Fang Zhouzi. *The Cold-blooded Mammal*. *China Youth Daily*, Jan. 23, 2008. (方舟子：《冷血的哺乳动物》，2008 年 1 月 23 日《中国青年报》，XYS20080123); Fang Zhouzi. *Why Naked Mole-Rat Doesn't Feel Pain? China Youth Daily*, Jan. 30, 2008. (方舟子：《为什么裸鼹鼠不怕痛》，2008 年 1 月 30 日《中国青年报》，XYS20080130).

[3] 《聊城市 2008 年普通高中招生统一考试》，XYS20080707。

[4] 古道西风老王家：《方舟子的科学普及》，XYS20080709。

[5] Fang Zhouzi. *Why Elephants Don't Have Hairs?* Dolphin Book, 2010. Pp.113-121. (方舟子：《大象为什么不长毛》，海豚出版社 2010 年版，pp.113-121.)

[6] AIR-China. Fang Zhouzi Plagiarism Collection. Case No.1 Achieves. The Verdict.

[7] Most plagiarism cases are stalled at allegation stage, and judgment is made by individuals. Some plagiarism cases are handled by institutions or organizations, if the accused has an affiliation. Plagiarism cases not involved in copyright issue are rarely handled by court of law. Besides Fang's case, I have not heard of other plagiarism cases handled by an alliance of independent scholars according to a published protocol.

[8] 亦明：《方舟子抄袭剽窃 100 例之 25——〈达尔文的兰花〉》，2010 年 12 月 1 日虹桥科技论坛。

[9] He Yuxiang. *Yue Dongxiao: A Doctor from Yiyang Who Challenged American Legal System*. Yiyang News Network, May 26, 2011. (何宇翔：《岳东晓：挑战美国司法的益籍博士》，2011 年 5 月 26 日益阳新闻网).

[10] I had a few email contacts with Dr. Yue Dongxiao before Dec. 3, 2010. We have never met in person.

[11] I posted the "draft for discussion" (《抄袭剽窃案件认定程序 (讨论稿）》) online on Dec. 6, 2010, and the "revised draft" (《抄袭剽窃案件认定程序（修改稿）》) on the next day. The official publication of the protocol was made by Ke Hua on Dec. 9, 2010 (《抄袭剽窃案例认定程序》). The protocol went through further modifications (《抄袭剽窃案例认定程序（修改讨论稿）》) and the current version was published on Jan. 7, 2011 (《抄袭剽窃案例认定程序》). All major modifications were made based on the discussions and suggestions posted online. The final version was translated into English by me on November 20, 2012. (PROTOCOL FOR HANDLING PLAGIARISM CASES).

[12] 柯华：《关于任命亦明为方舟子系列专题抄袭剽窃专辑主持人的通知》，2010 年 12 月 9 日中国学术评价网。

[13] The original Chinese text of Dr. Yue's article can be found here: 《岳东晓的举报文章：识别抄袭的方法与实际案例》.

[14] Four more such notifications, as well as the verdicts, were sent to Fang's email address between January and April, 2011. Fang never responded, neither acknowledged his receptions.

[15] The four websites were www.2250s.com、www.rainbowplan.org、www.starlakeporch.net、and bbs.creaders.net. The Chinese title of the public display is《【方舟子涉嫌抄袭剽窃】公示第一号（举报人：岳东晓）》.

[16] Lugu's original Chinese, posted on Dec. 15, 2010:

“再次明确一下本人对‘抄袭’的观点，以防某些人的恶意混淆视听
1）任何作品都存在抄袭，这根本毋庸置疑，这也是本人的基本观点。任何人试图在这点上再耍什么花样，那我奉劝你彻底闭嘴吧。
2）科技论文和科普文章性质存在很大不同。如果连这点基本常识都不具备，那你根本不配做个什么‘裁判者’。
3）同是汉语作品、但形式不同的作品的‘抄袭’量化标准也是不同，诗歌和小说的量化标准能一样么？但同是汉语作品之间的、根据‘自由量裁’对抄袭的界定相对还是简单，也已有先例。
4）涉及到语言翻译的抄袭界定，不用说，肯定更难。如果是学术作品，本人认为还应该相对简单些，因为学术作品存在学术观点抄袭问题。如果是编译作品，比如科普类文章，本人自我感觉没这个能力做出个合法合理的抄袭界定。首先，什么算‘直接翻译’？什么算‘编译’？什么算‘二次创作’？什么算‘大段的直接照抄’或者‘简单改动’？再者，‘自由量裁’依据的哪国的法？什么法？到多大的‘量’就可认定为抄袭？以上都是在判定抄袭时必须回答的问题。
我靠，说着说着咱自己都感觉越来越没劲头了，谁愿意搞谁就搞，管咱 P 事。”

Note: The original webpage has expired, but the content has been preserved in “*Debate about Plagiarism Case No. 1 on the Internet: Rainbow Science and Education Forum*.” (《001 号抄袭案网上辩论集_虹桥篇》).

[17] The original Chinese of Dragon Brother-Science Park (龙哥-科学公园): “你哪个字不是抄的字典？” (See: 2012-7-12 04:23). His true identity is unknown, but his close relationship with Fang is a well-known fact.

[18] In his “*The Hacks of a Liar Gang UP: A Reply to Dr. Zhao Jijun*,” written in 2001, Fang wrote: “he must demonstrate that I … I have to follow the rules for academic papers when I write for a popular newspaper.*”* See: Part XVI of this letter.

[19] The original Chinese text of these refutations to Lugu (See:《001 号抄袭案网上辩论集_虹桥篇》):

“请麓谷同学系统阐述一下党的十七大报告哪里存在抄袭？”

“中华人民共和国著作权法

“第二条中国公民、法人或者其他组织的作品，不论是否发表，依照本法享有著作权。
外国人、无国籍人的作品根据其作者所属国或者经常居住地国同中国签订的协议或者共同参加的国际条约享有的著作权，受本法保护。
“外国人、无国籍人的作品首先在中国境内出版的，依照本法享有著作权。
“未与中国签订协议或者共同参加国际条约的国家的作者以及无国籍人的作品首次在中国参加的国际条约的成员国出版的，或者在成员国和非成员国同时出版的，受本法保护。”

“如果把英语变成汉语，就不叫剽窃和抄袭的话，那么，世上就不存在“翻译”这行业了，那么严复可以在他所有翻译的书上，在『作者』一栏上，都可以大大方方地写上『严复』的大名了。”

[20] These arguments were presented on Star Lake Porch forum, by a person called “Niujia” (牛甲). The forum was closed later, so all the links to the webpages have expired. The discussions are preserved, though. See: “*Debate about Plagiarism Case No. 1 on the Internet: Star Lake Porch Forum.*” (《001 号抄袭案网上辩论集_星湖篇》).

[21] *ibid*.

[22] Dr. Chen, under different web Ids, posted his article, *The Identification of Fang Zhouzi’s Plagiarism in His The Predicted Animal*, on many websites, and it can be found in the above two collections. A link currently active is here: 《方舟子的〈推测出来的动物〉剽窃和抄袭的鉴定》.

[23] 《中国学术评价网学术不端行为评议团公告（第 1 号）》.

[24] 《中国学术评价网学术不端行为评议团公告(第 3 号)》；《中国学术评价网学术不端行为评议团公告(第 3 号)》.

[25] AIR-China. *Opinions of the Five Panelists on Case 001*.《五位评议员各自独立的评议书》

[26] Babyfat. *The Power of Logic: "Parental Care Is Sufficient Condition."* 《从"母爱是充分条件"谈"逻辑"的力量》.

[27] AIR-China. *The Notification List of the Verdict No.1*.《评议结果通知名单》.

[28] My original Chinese: "从去年 12 月份起，中国学术评价网已经评议了四起方舟子抄袭案，评议结果都是一致认定抄袭指控成立（详见中国学术评价网'抄袭剽窃专辑'档案）。我请方舟子从学术界中找出一百名粉丝，真名实姓地公开宣布，中国学术评价网的评议程序不合理、评议标准不公正、评议结果不可信、那四起抄袭案不能成立。假如方舟子能够做到这一点，本人将向每位粉丝发放一百元人民币劳务费。如果那个无恶不作的 Yush（羽矢）敢站出来，本人多给他一千元人民币。" (Yi Ming. *The 5th Challenge from Brother Yi Ming to Fang Zhouzi*. Feb. 18, 2011.《亦明兄向方舟子提出第五个挑战》).

[29] As of April, 6, 2013, Fang has 4,808,297 followers on his microblog at sina.com, and 15,254,225 followers on his microblog at sohu.com. Many people believe that most of Fang's followers, more than 90% of them, are "mummy followers" (僵尸粉), meaning they are generated by computer programs rather than real people. (For detail, see: Yi Ming. *Fang Zhouzi's Flooding Mummies*. (亦明：《方舟水尸》, January 26, 2012). These "mummy followers" could be purchased, and Fang does have the funds. As a matter of fact, one of the reasons that Fang has been refusing to make his Fund's accounts public is to hide such activities.

[30] In *Sociobiology: The New Synthesis*, Wilson discussed the evolution of eusociality in insects. His major argument was their early appearance during evolution and large number of species: "if the rate of invention of advanced sociality were 10^{-12} per species per year for animals generally, 800,000 insect species would certainly have achieved it many times by chance alone, whereas 10,000 species belonging to another phylum might never do so." Wilson, EO. *Sociobiology: The New Synthesis*. The Belknap Press of Harvard University Press, 1975. pp.380-381.

[31] Linda Gamlin wrote: "Alexander's approach to the problem was to look in detail at the ecology and behaviour of eusocial insects, and attempt to identify the most important unifying elements. One conclusion he drew from Hamilton's theories was that the potential for 'heroism' is a common factor linking all eusocial insects: eusociality is more likely if relatives can protect the reproductive female, perhaps giving their lives in her defence. Secondly, food must be abundant, to support a high concentration of individuals in one place.…And yet there might be certain conditions in which a mammal would evolve towards eusociality. It would probably require a totally closed nest, that could not easily be broken open, as with the termites. The workers could thus gain genetically by sacrificing themselves defending the entrances to the nest. Alexander visualised a subterranean mammal living in exceptionally hard, impenetrable soil — a rodent would fit the bill. To give it the abundant food supply that a colony would need, he postulated that the animals would eat large, nutritious tubers. Even so, given the size and food requirements of individual mammals, the colony would probably be relatively small. Finally, he tried to think of an environment that would supply this sort of niche, and imagined an arid region with uncertain rainfall, subject to bush fires- the sort of habitat that favoured the evolution of plants with large underground reserves of food. He settled on open parkland or savanna, somewhere in the tropics." [Gamlin, L. 1987. *Rodents join the commune*. *New Scientist* 115 (1571):40-47.]

[32] Sherman, PW., Jarvis, JUM., Alexander, RD. *The Biology of the Naked Mole-Rat*. Princeton University Press, 1991. p.viii.

[33] Dugatkin, LA. *The Altruism Equation: Seven Scientists Search for the Origins of Goodness*. Princeton University Press, 2011. p.136. Also, according to the book, Alexander's prediction differs in details from what described by Dr. Braude: "Using the termite as his archetype, Alexander sketched out a hypothetical eusocial mammal. Such a

mammal, he speculated, would be part of a colony full of blood relatives, live in very safe, expandable underground nests, and feed on large, abundant tubers that could be stored for long periods of times. This hypothetical creature, then, would lead a mammalian version of termite life. In evolutionary terms, Alexander was hypothesizing that blood kinship and just the right ecological conditions could produce a eusocial mammal." (pp.136-137).

[34] The 12 characteristics of Alexander's prediction as described by Dr. Braude were each assigned a numerical code (1-12) according to the order of its appearance, and the appearance of these characteristics the other descriptions was aligned according to their appearance record. Then the data were plotted against each other and the correlation coefficients were calculated using Microsoft® Excel 2010. The data sets are shown in the table below.

Braude	Fang	Gamlin	Alexander
1	1	5	4
2	2	0	5
3	3	3	6
4	4	0	7
5	5	6	8
6	6	0	1
7	7	8	9
8	8	9	10
9	9	2	3
10	10	11	11
11	11	7	12
12	12	12	0

[35] Horneycutt, RL., et al. *Systematics and Evolution of the Family Bathyergidae*. In Sherman, PW., Jarvis, JUM., Alexander, RD. *The Biology of the Naked Mole-Rat*. Princeton University Press, 1991. pp.45-65.

[36] Bennett, NC. and Faulkes, CG. *African Mole-Rats: Ecology and Eusociality*. Cambridge University Press, 2000. p.14.

[37] Brett, RA. *The Population Structure of Naked Mole-Rat Colonies*. In Sherman, PW., Jarvis, JUM., Alexander, RD. *The Biology of the Naked Mole-Rat*. Princeton University Press, 1991. pp.97-136.

[38] Bennett, NC. and Faulkes, CG. *African Mole-Rats: Ecology and Eusociality*. Cambridge University Press, 2000. pp.90-91.

[39] *ibid*.

THE PREVIOUS PARTS OF THE OPEN LETTER

Part I: Shameless cover-up

Part II: Shameless "standing-up"

Part III: Shameless make-up

Part IV: Fact distortion and mess-up

Part V: A shameless, fraudulent, and malicious fighter

Part VI: A fake scientist's fight against science