

## LETTERS

Edited by Jennifer Sills

## Editor's note

ON 20 MAY, in response to questions about the validity of the methods and data in the 2014 Report by M. J. LaCour and D. P. Green, *Science* published online an Editorial Expression of Concern on the Report. On 28 May, *Science* released online an Editorial Retraction of the paper. Articles first published online are typically published in print a few weeks after online posting. Because of the rapid chain of events in this case, both the Editorial Retraction and the Editorial Expression of Concern are printed here. The Editorial Retraction is *Science's* final decision on this paper and supersedes the earlier Editorial Expression of Concern.

**Marcia McNutt**  
Editor-in-Chief

## Editorial retraction

*SCIENCE*, WITH THE concurrence of author Donald P. Green, is retracting the 12 December 2014 Report "When contact changes minds: An experiment on transmission of support for gay equality" by LaCour and Green (1).

The reasons for retracting the paper are as follows: (i) Survey incentives were misrepresented. To encourage participation in the survey, respondents were claimed to have been given cash payments to enroll, to refer family and friends, and to complete multiple surveys. In correspondence received from Michael J. LaCour's attorney, he confirmed that no such payments were made. (ii) The statement on sponsorship was false. In the Report, LaCour acknowledged funding from the Williams Institute, the Ford Foundation, and the Evelyn and Walter Haas Jr. Fund. Per correspondence from LaCour's attorney, this statement was not true.

In addition to these known problems, independent researchers have noted certain statistical irregularities in the responses (2). LaCour has not produced the original survey data from which someone else could independently confirm the validity of the reported findings.

Michael J. LaCour does not agree to this Retraction.

**Marcia McNutt**  
Editor-in-Chief



Antibiotics have been found in pork in China.

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## Editorial expression of concern

IN THE 12 December 2014 issue, *Science* published the Report "When contact changes minds: An experiment on transmission of support for gay equality" by Michael J. LaCour and Donald P. Green (1). On 19 May 2015, author Green requested that *Science* retract the paper because of the unavailability of raw data and other irregularities that have emerged in the published paper. *Science* is urgently working toward the appropriate resolution, while ensuring that a fair process is followed. In the meantime, *Science* is publishing this Editorial Expression of Concern to alert our readers to the fact that serious questions have been raised about the validity of findings in the LaCour and Green paper.

**Marcia McNutt**  
Editor-in-Chief

### REFERENCE

1. M. J. LaCour, D. P. Green, *Science* **346**, 1366 (2014).

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## Antibiotics crisis in China

THE EMERGENCE OF antibiotic-resistant pathogens has become a global public health crisis. A new and serious crisis is emerging in China: Antibiotics have polluted the food and drinking water supply. Antibiotics are detectable in the residential

tap water of Chinese homes (1). Urban water supplies present multiclass antibiotic residues, including those of fluoroquinolones (broad-spectrum antibiotics whose use is discouraged except in treating serious bacterial infections). Antibiotic residues have been found in foods, including pork (2), aquatic products (3), vegetables (4), and milk (5). For instance, the Shanghai Food and Drug Administration found 7.7% of aquatic products to be unacceptable for human consumption because of antibiotic residues (6). Antibiotic residues are also found in vegetable samples, especially those grown in manure-amended soil (7). In one study, 47% of raw milk samples from 10 provinces of China were found positive for antibiotic residues (5).

At least three factors are responsible for this new antibiotic-related crisis in China. First, the country is the largest producer and consumer of antibiotics, reaching about 210,000 tons of antibiotics annually (8). Antibiotics are misused and discharged into the environment, where they pollute crop-producing soil and groundwater and rivers that are sources of drinking water, such as the Yangtze River (7). Second, an important source of antibiotics in food is antibiotic residues present in the agricultural and livestock industries (9). In China, about 97,000 tons of antibiotics [46% of all antibiotics used in the country (8)] are used in its livestock to prevent disease and improve production (8). In addition to residues present in livestock food products, misuse of antibiotics results in 29,000 to 87,000 tons of antibiotic residues annually in livestock waste, which is used as manure soil amendment for crop production, thereby causing contamination of agricultural products with antibiotics (10). Third, a main reason for this emerging crisis is the lack of effective supervision over the production, use, and disposal of antibiotics. For instance, one of

the largest antibiotic-producing manufacturers in China was found to be secretly discharging antibiotic-containing sewage, increasing the antibiotic concentration in nearby rivers to 10,000 times that of uncontaminated rivers (1).

Effective measures are urgently needed to control the antibiotic-related crisis in China while it is still at an early stage. It is important to control the sources of antibiotic pollution through prohibiting nontherapeutic use of antibiotics in the livestock industry and the arbitrary discharge of wastewater containing antibiotics. China should also establish more effective systems through strengthening the enforcement of its regulations to monitor and evaluate the safety and adverse reactions of food and drugs, including veterinary pharmaceuticals. Moreover, it is necessary to develop safer food additive products, as well as improve veterinary vaccines so as to eliminate the use of antibiotics in animal feed.

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#### TECHNICAL COMMENT ABSTRACTS

##### Comment on "Human-like hand use in *Australopithecus africanus*"

*Sergio Almécija, Ian J. Wallace, Stefan Judex, David M. Alba, Salvador Moyà-Solà*  
Skinner and colleagues (Research Article, 23 January 2015, p. 395), based on metacarpal trabecular bone structure, argue that *Australopithecus africanus* employed human-like dexterity for stone

tool making and use 3 million years ago. However, their evolutionary and biological assumptions are misinformed, failing to refute the previously existing hypothesis that human-like manipulation preceded systematized stone tool manufacture, as indicated by the fossil record.

Full text at <http://dx.doi.org/10.1126/science.aaa8414>

##### Response to Comment on "Human-like hand use in *Australopithecus africanus*"

*Matthew M. Skinner, Nicholas B. Stephens, Zewdi J. Tsegai, Alexandra C. Foote, N. Huynh Nguyen, Thomas Gross, Dieter H. Pahr, Jean-Jacques Hublin, Tracy L. Kivell*

Almécija and colleagues claim that we apply a simplified understanding of bone functional adaptation and that our results of human-like hand use in *Australopithecus africanus* are not novel. We argue that our results speak to actual behavior, rather than potential behaviors, and our functional interpretation is well supported by our methodological approach, comparative sample, and previous experimental data.

Full text at <http://dx.doi.org/10.1126/science.aaa8931>

# Science

## Editorial retraction

Marcia McNutt

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