COMMENT

L. YOUNG/PACIFIC RIM CONSERVATION

Two female Laysan albatrosses preen each other at Hawaii's Kaena Point Natural Area Reserve.

Let's talk about sex

The media loves to sensationalize research on animal sexual behaviour — so be careful what you say, warn **Andrew B. Barron** and **Mark J. F. Brown**.

Evolutionary biologists and neuroscientists are often interested in variations in animal sexual behaviour — and particularly relationships between animals of the same sex. How did such traits evolve, and what are their functions and biological bases? Although worthwhile, such research can fuel some of the most licentious scientific reporting in both the mainstream media and specialized publications — titillating prose that wildly misinterprets the research and its implications for human behaviour.

Of course, journalists should be allowed to use crafty wordsmanship to engage public interest. But suggestive or lewd reporting is a problem: for scientists, because their work is misrepresented; for sexual minority groups, because it equates their existence to an illness; and for society, because the articles feed negative stereotypes. In a world in which discrimination against sexual minority groups remains common, scientists should present their work objectively, and do all they can to avoid its misappropriation and misuse.

To analyse how the media reports on sexual behaviour in animals other than humans, we surveyed[1] 48 newspaper, magazine and Internet articles written about 11 papers (see 'Science and sensationalism' for examples). We excluded blogs that presented the opinion of the blog author, and any article published on sites with obvious pro- or anti-gay, lesbian or transgender agendas. We found consistent patterns in how sexual-behaviour research is misrepresented and propose suggestions for how it might be avoided.

PAIR BONDS

The vast majority of studies reporting sexual contact between pairs of males or females were presented in media articles as documenting gay, lesbian or transgender behaviour. This is not innocuous — these are terms that refer to human sexuality, which encompasses lifestyle choices, partner preferences and culture, among other factors.

More worryingly, studies that invoked atypical sexual behaviour through genetic or hormonal manipulation were reported as inducing gay or lesbian behaviour or changing the animals' sexual orientation, even in the case of the nematode *Caenorhabditis elegans*, which has males and hermaphrodites, rather than males and females. ▶

To the general public, such inaccurate coverage implies that homosexuality is some sort of illness, which marginalizes a section of human society.

A study of the neurobiological features associated with male–male sexual behaviour in domestic rams[2] was reported as an effort to "cure" homosexuality in sheep, which "could pave the way for breeding out homosexuality in humans"[3]. This reporting led to extensive and coordinated protests against the researchers and their institution from both gay-rights and animal-rights activists, including an e-mail campaign with more than 20,000 signatories calling for an immediate halt to the research programme[4].

Concerns about responsible media coverage have been raised with respect to studies in humans of race and IQ. In research into sexual behaviour in animals other than humans, consistently polarized reporting is the norm.

CHOOSE WORDS CAREFULLY

What can be done to promote more effective and constructive communication of this topic? Careful, objective scientific writing isn't enough. The sensationalist titles of the media articles had no clear connection with the tone of the original papers. Even papers that had restrained and accurate titles were outrageously misinterpreted. For example, 'Female-limited polymorphism in the copulatory organ of a traumatically inseminating insect'[5] became 'Bat bugs turn transsexual to avoid stabbing penises'[6].

The direct quotes that researchers give to journalists seem to have a large influence on the tone of the articles written. Interviews in which scientists drew a link between their research findings and human behaviour consistently led to more-inflammatory media articles. By contrast, scientists who gave no such indications seemed to avoid the worst sensationalism.

These findings suggest that scientists can shape the coverage of their results. Perhaps the most striking examples of successful communication were the articles that came from research led by Lindsay Young, a wildlife biologist with Pacific Rim Conservation in Honolulu, on the breeding behaviour of the Laysan albatross (*Phoebastria immutabilis*)[7]. Young was regularly quoted as saying "Lesbian is a human term. The study is about albatross. The study is not about humans". When asked what her study said about human behaviour, Young's only quoted reply has been "I don't answer that question"[8].

As a result, most of the media coverage of this research used the term 'same-sex couples' when referring to albatross pairing, and only one used 'lesbian'. More significantly, most of the coverage spent more time discussing the behaviour of the birds than speculating on its relevance to humans or poking fun at the findings. In this case, actively denying inappropriate speculation seems to have helped to restrain the tone of the articles without diminishing public interest in the work.

Research on sexual behaviour in animals does not need to be sensationalized to catch public attention. Scientists should be encouraging public interest in their work, and engaging in the debates that surround social and cultural attitudes to human sexuality. But they must also try to ensure responsible reporting of their findings through clear, carefully phrased messages to journalists. The most important advice to scientists working in any area is to maintain a consistent and objective line throughout the paper and in all interactions with the press.

Ultimately, any one study can tell us about the sexual behaviour of only the species under investigation. It might also provide an avenue for exploration in humans, and for phylogenetic analyses of the evolution of sexual behaviour. But simplistic extrapolation, by scientists or by the media, to 'explanations for' human heterosexual, gay, lesbian or transgender behaviour can only stand in the way of these worthy and exciting goals. ■

SCIENCE AND SENSATIONALISM

Six examples of how journal articles dealing with research on sexual behaviour in animals have been covered in the media.

Journal article	Media headline	Phrases used in media article
Advantage of female mimicry to snakes[9]	She-male Garter Snakes: Some Like It Hot[10]	"Male garter snakes can mimic females and drive dozens of other guys to wriggle over them. The force behind this deluded orgy may not be sex, though."
The ram as a model for behavioral neuroendocrinology[2]	Brokeback Mutton[11]	"Gay rams don't act girly. They're just as gay in the wild."
	Gay sheep may help explain biology of homosexuals[12]	"Gay sheep that mate only with other rams have different brain structures from 'straight' sheep, a finding that may shed light on human sexuality."
	Yep, They're Gay[13]	"Another small but fascinating finding: all gay rams are butch."
The sensory circuitry for sexual attraction in *C. elegans* males[14]	Sexual Orientation Is Genetic In Worms, Study Says[15]	"The sexual preferences of nematode worms can be changed by flipping a genetic master switch in their brains."
Female-limited polymorphism in the copulatory organ of a traumatically inseminating insect[5]	Bug sexual warfare drives gender bender[16]	"Females are retaliating by imitating males." "For these females, perhaps it's a stark choice between dressing as a male, or dressing their wounds."
Testing multiple hypotheses for the maintenance of male homosexual copulatory behaviour in flour beetles[17]	How gay sex can produce offspring[18]	"Homosexual activity might, for example, help males practise for straight sex."
Successful same-sex pairing in Laysan albatross[7]	Lesbian albatrosses, gay giraffes and some very open-minded penguins. So, can animals really be gay?[19]	"Many of the albatrosses appear to be, well ... gay."
	The love that daren't squawk its name: when animals come out of the closet[20]	"Young would never use the phrase 'straight couples'. And she is adamantly against calling the other birds 'lesbians' too."

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