All the Palaeontology That's Fit to Print

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1. THERE'S A BIAS IN SCIENCE COMMUNICATION RESEARCH

News media play a significant role in shaping public discourse around, and providing information on, contemporary scientific research.

Studies of science communication have the potential to inform methods of improving the science–media relationship—and, as a consequence, further public engagement across all areas of science.

Not all areas of science, however, receive equal attention from these studies. Meta-analysis has shown that over 75% of discipline-specific science communication research focuses on just four areas (Schäfer 655):

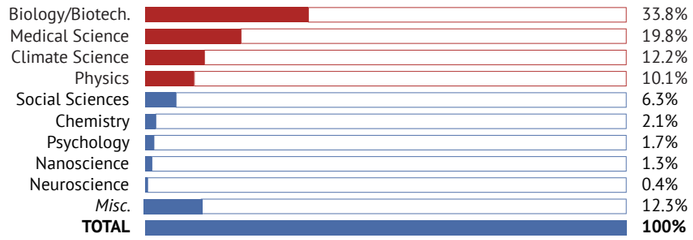


Fig. 1: Breakdown of focuses of science communication research (from Schäfer)

We challenge this selective focus and ask: what discipline-specific issues might we be overlooking?

2. OUR CASE STUDY: PALAEONTOLOGICAL NEWS

Palaeontology represents one such under-examined science beat which receives much media attention, has popular appeal and accessibility, but also around which are anecdotal claims of unique issues—most notably the media's 'dinomania', with dinosaurs often accused of monopolising attention (see Buchanan; Lipps; Sanz; Thomason et al.)

We are analysing two palaeontological news datasets: a cross-section taken from 60 major, international English-language publications in 2013 (n=618); and a longitudinal study of *The New York Times* from 1980 to 2013 (n=1,111). The latter was chosen for its status as a paper of record.

News texts were sourced using keyword searches of the *Nexis* news database, and subsequently coded for apparent news values, frames and topics. Here we present some early observations for discussion.

A corresponding reference sheet is available on request, or via the QR code to the left.

3. POPULAR TOPICS: DINOS, HOMININS & FAMILIAR THINGS

Perhaps as expected, dinosaurs accounted for around a quarter of palaeontology stories in both datasets (2013=24%, *NYT*=27%), and were needlessly referenced in additional articles on top of this (2013=5%, *NYT*=12%). Oddly, stories featuring early hominins were similarly numerous—we wonder why such has not attracted similar criticism.

While the *Times* engaged with a wider range of topics and sub-disciplines, the 2013 cross-section suggests that priority is also given to prehistoric analogues of modern animals—presumably for accessibility's sake.

4. HOW IS PALAEONTOLOGICAL NEWS SELECTED?

Journalists decide whether to run given stories based on their perceived newsworthiness—evaluated (largely unconsciously) against sets of institutionalised 'news values'.

By synthesising potentially relevant news values from existing theoretical frameworks (e.g. by Galtung and Ruge; Badenschier and Wormer; Harcup and O'Neill)—and proposing novel values—we have attempted to identify the factors which most determine palaeontological newsworthiness:

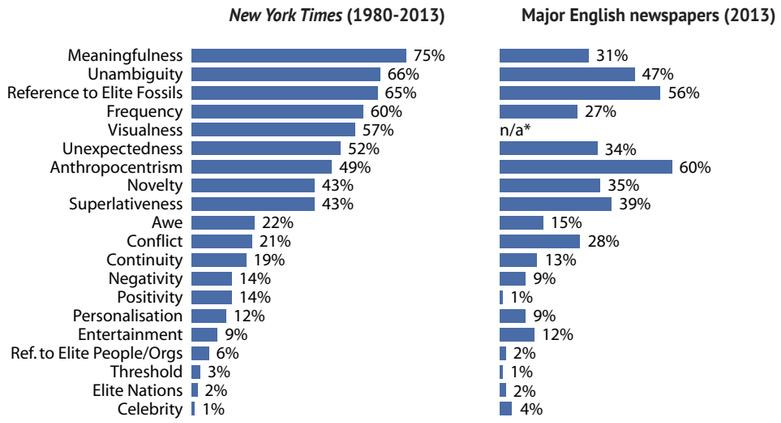


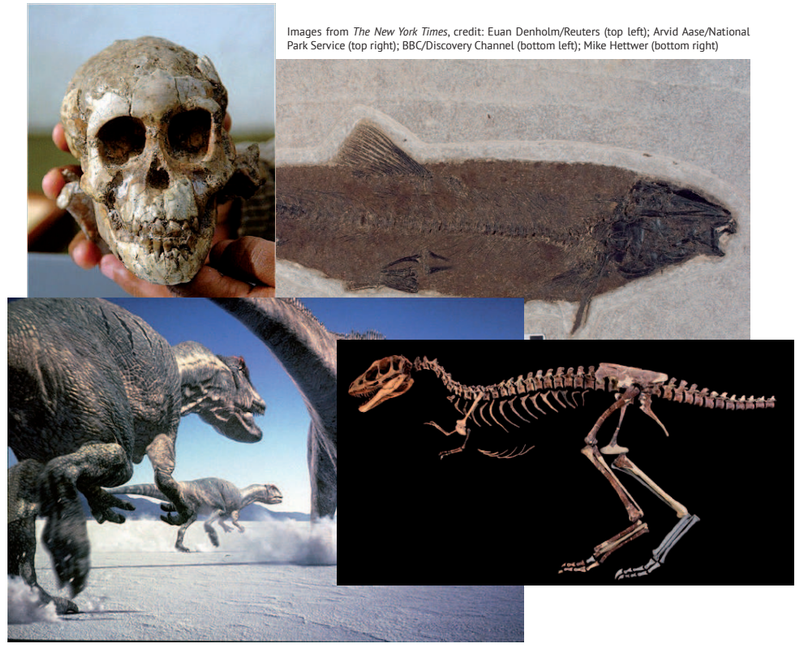
Fig. 2: Percentages of palaeontology stories with given news values

N.B. Graphic data from Nexis was unavailable for all stories in the 2013 cross-section

Note the prominence given to stories with values that promote accessibility, but also sensationalist values such as novelty or superlativeness.

In contrast, some more traditional news values (like threshold or references to elite nations) appear inconsequential here.

Despite a general trend towards popularisation, the *Times* seems to be decreasingly using 'awe' as a selector.



Images from *The New York Times*, credit: Euan Denholm/Reuters (top left); Arvid Aase/National Park Service (top right); BBC/Discovery Channel (bottom left); Mike Hettwer (bottom right)

Fig. 3: What's a picture worth? Visuals appear important in the selection of news for coverage.

5. COMMON PALAEONTOLOGICAL NEWS FRAMES

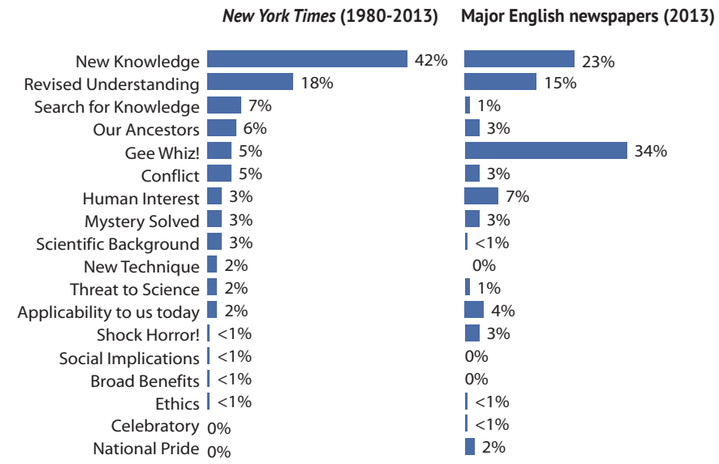


Fig. 4: Percentages of palaeontology stories with given news frames

The sensational 'Gee Whiz!' frame still dominates the cross-sectional data here—despite claims its era had passed (see Jerome; Reed; Rensberger).

6. TAKE-HOME MESSAGE

Palaeontology's relationship with news media presents seemingly atypical issues that merit further study (as may other fields underexplored by communications research.)

Also: are you a palaeontologist interested in sharing your thoughts on the media? Let us know—we'd love to invite you to participate in our work.