Ageing research in the media

How the demands of newspaper and magazine publishing influence what people read about ageing

Laura Helmuth

Ageing research is big news. This is not surprising, considering that when journalists look for a good story, they are guided by some simple principles: Is the research under consideration new and surprising? Is it relevant to a good proportion of the publication's readers? Is it likely to inspire fear or hope? Research on ageing fulfils all these criteria and more. As a result, scientists trying to decipher the molecular processes that underlie ageing have found themselves the objects of intense media scrutiny. "It's extraordinary how insatiable the appetite of the public is," said Aubrey de Grey, from the University of Cambridge, UK, in his presentation at the 2004 EMBL/EMBO Science & Society Conference on Time & Ageing.

This insatiable appetite is in part created by and primarily fed by the media; scientists are not in the business of explaining their work to the public—that is the business of journalism. And journalism is one of the first industries to profit when scientists make breakthroughs in the study of ageing. In this essay, I therefore focus on how ageing research is covered in the news, primarily in US print media.

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Fig 1 | Cover of *The New York Times Magazine*, 22 February 2004 © The New York Times Company. Reprinted by permission.

Newspapers and magazines compete for readers and for advertising business. Ageing stories, particularly anti-ageing stories, are a big attraction for both types of revenue. Competition reigns within publications, too. Stories about ageing have to fight for space—the space left over when all the advertisements are laid out—against stories about natural disasters, scandals and the British royal family. As Stephen Hall, author of

Merchants of Immortality, commented in an interview, "writing about anti-ageing research and anti-ageing remedies is an obvious invitation to hype." Many journalists who cover this field, however, claim that they are careful not to over-sell particular findings, even though the rewards of doing so would be large—both for the profit of their news outlets and for their own careers, which are judged in part by how many front-page newspaper stories or magazine-cover stories they produce.

Recent developments in the publishing business have had a further impact on what kind of research gets covered, and on how it is framed. In the past few years, many US newspapers and magazines have cut down or even closed their science sections. The *Dallas Morning News*, the *San Jose Mercury-News* and *US News and World Report*, among others, no longer have dedicated science departments. Furthermore, mass media make a distinction between science reporting and health reporting which may seem arbitrary to life scientists. Whereas dedicated science pages have shrivelled in the US press lately, dedicated health pages have flourished. *The New York Times*, among other publications, now devotes half of its Tuesday science section to health news. According to an editor at *US News and World Report*, "our readers say they are

very interested in health stories, as opposed to science stories, which they say they are not interested in."

Still, some ageing stories that are more science than health, according to journalistic criteria, do get considerable press attention: research on genes that extend the lifespan of yeast, worms and mice, for instance. But, according to a journalist who works for a major weekly news magazine, "if it's not a dinosaur or a cloned cat or something sexy, basic biology rarely hits a cover. Ageing cover stories tend to be news-you-can-use ones that focus on health." And, as Arthur Caplan, bioethicist at the University of Pennsylvania (Philadelphia, PA, USA), observed in an interview, many of these stories do not reflect the best scientific evidence. "There is tremendous coverage on diet and even non-standard modes of treating ageing but with little evidence that anything really does any good. The health sections of newspapers are filled with this sort of stuff."

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Health stories need humans, rather than mice or even monkeys. The standard health story begins with a personal anecdote about a sympathetic character who suffers from some disease, or, in a story about ageing, with someone who is about 100 years old. Most health reporters do know that the plural of "anecdote" is not "data", but they use these opening anecdotes to put a human face on a complicated topic. Conventional wisdom in journalism holds that people like to read about people. Health stories also contain some practical advice or the promise of health-promoting therapies to come, they are usually written at a simpler level than science stories and they almost always aim to inspire one of two emotions in their readers: hope or fear. According to the aforementioned journalist at a major weekly news magazine, "the media has a hard time covering ageing because it's a downer of a story: we get old and then we die.... Reporters will write about unpleasant

things that people don't want to think about. But we only like to do it if there's some kind of potential for positive change—that's why ageing stories that do well in the media tend to be ones that offer some hope."

An example of the state of the art in translating recent ageing research into an accessible, practical health story is *Time* magazine's cover story of 30 August 2004 (Corliss & Lemonick, 2004). The cover headline read 'How to live to be 100 (and not regret it)'. With a circulation of about 4 million, *Time* reaches more readers than any other news magazine in the USA. The article begins with a 96-year-old woman who still shovels snow, drives, plays tennis and eats lots of chocolate. The story introduces elderly people from Sardinia, Okinawa and other places where life expectancy is higher than normal, as well as Verona Johnston, whom the authors identify as the oldest American. The take-home message of this story is the same as the take-home message in the majority of health stories: eat right and exercise. Aside from these mini-profiles of elderly people, the story does cover some recent scientific research. Calorie restriction merits a sidebar, which describes the ability of resveratrol—a compound found in red wine—to increase lifespan in yeast and fruit flies, as well as the life-extending characteristics of antioxidant genes in roundworms.

But the most striking example of how a mass-media magazine can simplify and condense complex ageing research is the *Time* sidebar entitled 'How long will you live?' This quiz grants 87 years of life as a starting point and instructs readers to add or subtract years according to their answers to a list of questions. Are you optimistic? If not, subtract 5 years. Have any of your family members lived into their 90s? Add 10 years. Do you take on challenging hobbies? That is worth another 5. Editors love this sort of quiz. It makes a story intimately relevant, it summarizes complex research without getting into long-winded discussions of statistical values or control groups, and it visually breaks up a page of otherwise frightening text; frightening, that is, to those readers—and editors—who are intimidated by science or are uncomfortable thinking any more than they have to about old age and death. Only rarely do mass-media stories address the ethical

implications of life-extension work. As Caplan pointed out, "the prospect of living longer but with more dementia or with mini-strokes and so forth, is never raised. Nor are cost issues, or even what sort of clinical testing would be needed to 'prove' something worked."

Occasionally a newspaper or magazine article will go beyond explaining to readers how to maximize their own life expectancies. Some stories contribute new ideas to the public discussion of ageing research and explore ethical and social issues even while fulfilling standard journalistic criteria, such as including lots of interesting characters and presenting recent research in simple language. A prime example is 'Life in the age of old, old age' (Fig 1; Dominus, 2004) from the *The New York Times Magazine*, which is part of the newspaper's Sunday edition with a circulation of about 1.7 million.

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This story delves into the family dynamics of centenarians, and asks, according to the subtitle on the magazine's cover: "Are we prepared for many more people living to 100 and beyond—for parent-child dynamics, sibling rivalries and other relationships that go on and on and on?" It begins with four sisters, aged 83–100, who sometimes squabble much like they did when they were children. "Living to 98, it appears, does not provide immunity from the ministrations of a know-it-all older sister," Dominus wrote. A 73-year-old lawyer feels that he cannot retire because his 100-year-old father needs him in the office. A 102-year-old mother is not as spry as the other characters: she's prone to depression, feels like a burden on her daughter, and says, "all those people who want to live to 100—what's so good about it?" The story is not all about family dysfunction, however; the author also posits that, with more people living to be 100, "there may be second opportunities for reconciliations and resolutions, as families have the boon of extra years, and the wisdom that comes with it, in which to come to terms. The philosophical impact on family dynamics will be profound, as parents

continue to lean on children long past retirement themselves and people in their 80s learn what it means, at that age, to still be somebody's child."

Dominus said that when she reported the piece, "I had a real wariness of patronizing the elderly people I wrote about.... So I was eager to judge the centenarians on the same terms I would judge any subject—and as a result, the quiet charisma that comes with that kind of age surprised me." She added, "I've never so much enjoyed reporting a story, not just because of the centenarians, but because the scientists were so fascinating, and the cultural issues were so complex."

Journalists who write for scientifically literate audiences are free to cover a much wider range of ageing research, and at much greater depth, than mass-media writers are able to do. The news departments of *Science* and *Nature*, for instance, regularly report on new discoveries about internal clocks, signalling molecules in long-lived yeast and cross-species gene comparisons—the sort of studies that disappear from most newspapers and magazines as science sections shrink. But even at specialty magazines, writers still have to come up with a good story that will appeal to scientists from other fields. For instance, a feature I wrote about cognitive skills in the elderly (Helmuth, 2003) would have been difficult to get approved but for the fact that much of the research I reported on was surprising—and hopeful. Conventional wisdom still holds that the elderly are not as sharp as the young. Plenty of research bears this out, but other recent studies show that elderly people have great vocabularies, for instance, and better social skills and emotional stability than many young people.

Similarly, a recent feature on life-extension research conducted by David Sinclair of Harvard University (Boston, MA, USA) and Leonard Guarente of the Massachusetts Institute of Technology (Boston, MA, USA; Couzin, 2004) was allotted plenty of space in *Science* in part because it was a dual profile—a story about people—that explored one of science's archetypal relationships, that between a mentor and an apprentice.

For aficionados of ageing research, one of the best news sources is SAGE-KE, the Science of Ageing Knowledge Environment

(<http://sageke.sciencemag.org>), a website published by the American Association for the Advancement of Science (AAAS). The site is one of a few knowledge environments that AAAS publishes, which shows that ageing is thought to be a particularly hot topic, and one that will continue to grow and draw in advertisers and subscribers. The head of *Science's* advertising and finance office, Beth Rosner, said that "ageing is an attractive topic with our clients." In addition to swapping techniques, searching a gene database and reading scientist-written overviews of key topics in ageing, SAGE-KE members can catch up on the latest news from conferences and scientific papers.

A related site, called SAGE Crossroads (www.sagecrossroads.org), is designed for journalists, political staff members and scientists, as well as the lay public. It publishes debates, interviews and 'News & Views' articles that address ethical and policy issues in ageing and demographic research. The articles quickly bring readers up to speed on current controversies about various aspects of ageing and ageing research. One recent article pointed out similarities between today's debate on stem cells and earlier debates about *in vitro* fertilization (Chen, 2004). Another questioned why elderly people who take a disproportionate number of prescription drugs are often excluded from studies testing those drugs (Davenport, 2004). Some stories may be more directly and personally relevant to scientists, such as one on how mandated retirement policies are forcing out some scientists in ageing research (Aschwanden, 2004).

Ultimately, media coverage of ageing and ageing research depends—at least to some degree—on the scientists who conduct the research. It may take a lot of time and effort to explain a scientific finding to a journalist, but submitting to an interview and explaining research simply and clearly is the best way to ensure that the work is not over-hyped, exaggerated or misrepresented. And time spent talking to a journalist may be profitable for a scientist. Lay readers are not the only people who pay attention to science coverage in newspapers and magazines—scientists read them too. When workers at *The New*

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York Times and other newspapers went on strike for three months in 1978, the repercussions were felt in the Science Citation Index (Phillips *et al.*, 1991). Papers published during the strike in the *New England Journal of Medicine* received fewer citations in the following ten years than papers published while the newspaper was in operation. The world's appetite for news about ageing has only been whetted by the stories that have run in newspapers and magazines so far. The hunger will continue to grow.

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doi:10.1038/sj.embor.7400434