

Corruption of journal Impact Factors

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Scientists and academic institutions widely use Impact Factors (<http://wos.mimas.ac.uk/>) to evaluate the relative importance of journals. Although sometimes considered controversial, publishing in relatively high Impact Factor journals has been broadly applied as a stamp of approval for hiring and promotions, to rate the accomplishments of academic departments, and the importance of particular disciplines. Both authors and publishers strive to publish high impact journal articles, and the pressure to do so has apparently led to an insidious abuse in how some publishers correspond with authors of nearly accepted manuscripts. At or before the time of acceptance, several journals' editors are requesting that authors cite additional papers published in that same journal. Some of these requests are general such as 'We would also appreciate it if you would consider citing relevant past papers [from our journal] in your manuscript', whereas others are more specific, with journal editors indicating one to several recent (often unpublished) citations.

Although the extent of this practice is unknown, at least four major journals in the area of ecology and evolutionary biology routinely encourage such self citation. Because Impact Factors are calculated by dividing the number of citations in the current year (e.g. in 2004) to

articles published in the two previous years (i.e. in 2003 and 2002) by the total number of articles published in the two previous years (i.e. in 2003 and 2002), citation of articles relatively hot off the press will increase the Impact Factor of a journal.

A gentle nudge by an editor to cite additional papers if relevant is all too easy to be uncritically accepted by most authors who are simply overjoyed with the news that their paper has been accepted. To maintain the integrity of objective scientific research, this questionable policy that essentially results in the 'businessification' of science must be stopped. Publishers should be embarrassed and authors should not comply.

Editor's Note

Requiring authors to cite articles from the same journal in which they hope to publish is a practice that the Editors of all *Trends* journals disapprove of. Beyond pointing authors in the direction of papers that they might have missed and would improve the quality of their articles, we do not require authors to cite articles from our journals.

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Genetic compatibility and sexual selection

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In a recent review in *TREE* [1], Mays and Hill discuss the interface between sexual selection for good genes (i.e. female choice based on traits indicating heritable fitness) and sexual selection for genetic compatibility (i.e. how well the genes of the parents function together in their offspring). We feel that the scope of their contribution is somewhat limited, primarily because they implicitly equate genetic compatibility with genetic dissimilarity. Compatibility does, however, not equal dissimilarity. The relationship between genetic dissimilarity and offspring fitness is such that the highest level of fitness (compatibility) is

achieved at intermediate levels of genetic dissimilarity [2]; in the low dissimilarity end of the continuum, reproduction between close relatives yields low fitness, as does reproduction between species in the other end of the continuum. Even within populations, maximal genetic dissimilarity between parents might not yield the fittest offspring [3,4].

We suggest that genetic compatibility is best understood as non-additive genetic variance in fitness, and good genes, correspondingly, as additive genetic variance in fitness [5]. The genetic mechanisms underlying non-additive genetic variance are diverse, but all include interactions between genetic elements [6,7]. For example, dominance effects are responsible for inbreeding depression [8], which can be

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