



Social Recall Bias: Evolved Social Brain or Learned Expertise?



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Main Contribution

Mesoudi, Whiten and Dunbar **observed a bias for recalling social over non-social information in vignettes**; they claimed it was evidence that the selective advantages of social reasoning drove the expansion of the human brain.

We show that **this bias seems cross-culturally invariant**: recent East Asian immigrants, their children and European Canadians all show the bias to a very similar degree.

We also show that **this same bias doesn't apply to independent statements**, and thus seems more like an individually learned 'expertise effect' than a product of genetic selection for social brains. Nonetheless, its cross-cultural regularity makes it an important pressure on *cultural* evolution.

Conclusion: Expertise?

Our pattern of results fits exactly with a common pattern in memory research: '**expertise effects**'. Individuals practised in a domain show improved recall for meaningful related items, but not unrelated items. Such expertise can be acquired quite rapidly (several days of dedicated practice), and measurably improves recall in domains such as:

CHESS, MUSIC, ELECTRONICS

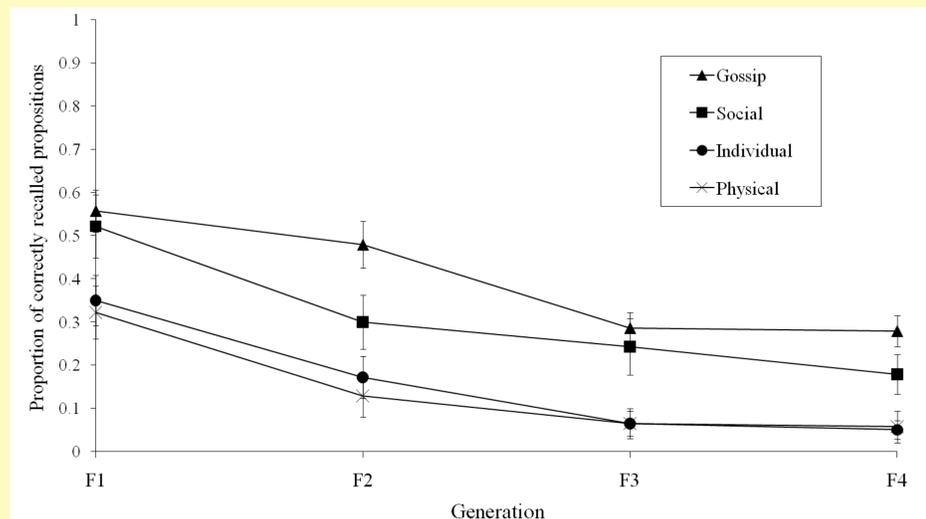
PROGRAMMING, DANCE, BASKETBALL

and even recalling HIKING-RELEVANT TERRAIN

Social Recall Bias better fits the pattern of individually learned, domain-specific expertise than a brain genetically selected for its skill in processing social information. Nonetheless, the fact that people across cultures seem to reliably acquire social expertise suggests that Social Recall Bias may have a powerful influence on cultural evolution.

Previous work: People have a social recall bias

Mesoudi, Whiten and Dunbar's subjects recalled social information better than non-social, even after it had been transmitted three times.



Reproduced with permission from: Mesoudi, A., Whiten, A. & Dunbar, R. (2006) A bias for social information in human cultural transmission. *British Journal of Psychology* 97(3), 405-423.

Materials, Study 1

In study 1 (and Mesoudi et al.'s study), four kinds of coherent vignettes were transmitted, matched for the amount of information they contained. Subjects were briefly distracted and then recalled them. Each subject's recall was given to another subject to recall, and their's to another, for four "generations".

Gossip: concerning an affair between a professor and student,

Social: Concerning everyday interactions,

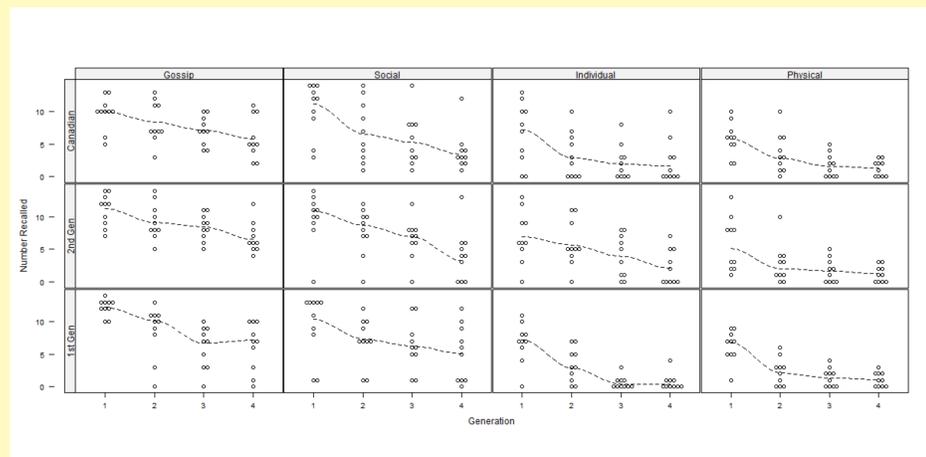
Individual: concerning one persons non-social activities and

Physical: Concerning climate in Colorado information.

Study1: It seems cross-culturally invariant

We transmitted the same materials through chains of 1st and 2nd generation immigrants to Vancouver and >2nd generation Canadians of European descent.

All groups clearly showed a social recall bias, and we detected no meaningful differences in its magnitude.



Materials, Study 2

We were concerned that Mesoudi et al.'s original materials, though matched for amount of information, may have varied systematically in their conceptual redundancy, the familiarity of their content, and subjects' agreement with it. To test these potential confounds and since complex conceptual redundancies in narratives are hard to control, we present subjects with new, independent statements, precisely syntactically balanced and deliberately varied in these three domains.

Since we did not find any per-generation difference in the frequency of information recalled, we maximised our statistical power per subject by reverting to a simple cross-sectional design.

Study2: But doesn't apply to independent statements

We found that redundancy, familiarity didn't significantly affect recall, though agreement did (having an opinion at all and agreeing with a statement both improved recall).

We also found that for independent statements, **the social recall bias had vanished!**

