

Total, genetically-based recall

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There are several human characteristics considered to be genetically predetermined and evolutionarily innate, such as immune system strength, physical adaptations and even sex differences. These qualities drive the nature versus nurture debate and ask of our species, who is more successful and why?

Psychologists Agneta Herlitz and Jenny Rehnman in Stockholm, Sweden asked an even more complicated question of human predisposition: Does one's sex influence his or her ability to remember everyday events? Their surprising findings did in fact determine significant sex differences in episodic memory, a type of long-term memory based on personal experiences, favoring women.

Specific results indicated that women excelled in verbal episodic memory tasks, such as remembering words, objects, pictures or everyday events, and men outperformed women in remembering symbolic, non-linguistic information, known as visuospatial processing. For example, the results indicate a man would be more likely to remember his way out of the woods.

However, there are also sex differences favoring women on tasks such as remembering the location of car keys, which requires both verbal and visuospatial processing.

“In addition, women are better than men at remembering faces, especially of females,” described Herlitz and Rehnman, “and the reason seems to be that women allocate more attention to female than to male

faces.”

To determine this particular finding, the psychologists presented three groups of participants with black and white pictures of hairless, androgynous faces and described them as ‘female faces,’ ‘male faces’ or just ‘faces.’ The findings, which appear in the February 2008 edition of *Current Directions in Psychological Science*, a journal of the Association for Psychological Science, indicate that women were able to remember the androgynous faces presented as female more accurately than the androgynous faces presented as male.

In additional studies, psychologists also discovered that women perform better than men in tasks requiring little to no verbal processing, such as recognition of familiar odors, and that the female episodic memory advantage increases when women utilize verbal abilities and decreases when visuospatial abilities are required. Environmental factors, such as education, seem to influence the magnitude of these sex differences, as well.

While the probability of genetically-based differences between the quality of male and female memory remains unknown, the results suggest that females currently hold the advantage in episodic memory.

Source: Association for Psychological Science

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