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## Geometry In Nature

Rachel Finkelstein  
*Hale Middle School*

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“Across the survey, students responded that males are better in mathematics and females are better in English. When questioned about a sibling’s best subject, brothers were seen as more proficient in math while sisters were more talented in English.”

When juxtaposed with the results of our conversation with the education majors, the survey results are provocative. While they reveal nothing new, they do elicit some surprise at the persistence of the old. Bereiter’s challenge to mathematics educators “to delve deeper into theories of mind and cognition” in order to unveil the psychological substrate of mathematical knowledge may need to encompass the differences between the masculine and feminine psyches. It is generally agreed that a masculine bias surrounds mathematical ideas, but perhaps the bias actually invades the ideas. Mathematics is, after all, a human construction, and, as such, carries the characteristics of its makers. Most of the makers have been men. As more women mathematicians become makers of

mathematical ideas, there may naturally evolve a mathematics that is more appealing to women.

This short essay does not purport to provide answers but simply attempts to make visible some of the complexities involved in rethinking the collegiate curriculum in mathematics. Attention to these complexities may help us circumvent the fate of much educational reform where solutions have oftentimes introduced difficulties more challenging than the original problems. Educational problems are particularly perplexing because of the incestuous nature of our profession. Persons who have been successful students in educational settings tend to reenter those settings as teachers and are inclined to perpetuate the conditions which made them successful. It may be the lack of inclination of women to pursue mathematics and the difficulty with which they do so that constitutes our best option for understanding what needs to change in collegiate mathematics.

#### REFERENCES

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#### GEOMETRY IN NATURE

I had never noticed all the geometry;  
angles and shapes in nature for all to see.  
The obtuseness of a mountain peak;  
the angle of a ballerina’s leap.  
A rainbow is an arc of colors in the sky;  
repeating flowers in a collinear line, oh my.  
A hummingbird in mid-air, flying free;  
the vertex of its beak pointing at me.  
The world is filled with geometry;  
Open your eyes, really look and see.

Rachel Finkelstein

#### TRIANGLE

A  
triangle  
is the sturdiest  
shape of all. they  
use it to brace a ceiling  
and use it to hold up a wall.  
It will not bend. It is very stable.  
In fact it is holding up this table. A  
triangle is every builder’s friend and now  
my poem is at an end.

Ian Ross