

Behind the Talent of Artistic Child Prodigies

Why can some children draw startlingly realistic pictures at a young age without any artistic training? New research suggests they may have an innate ability to look at objects carefully and perceive the parts that can't be seen.

Knowing how to look was the most significant characteristic distinguishing children with exceptional drawing skill from those who drew images more typical of their age, according to a study in the November issue of the *British Journal of Developmental Psychology*.

Research has shown that adults who excel at drawing are able to mentally separate complex forms into their different components and to focus on an object's shape without distraction from overlapping lines and shapes. But it hasn't been clear if these perceptual skills underlie exceptional drawing talent in young children, researchers said.

The study, at Brooklyn College in New York, recruited 57 children, ages 6 to 13 years old, from schools, art programs and a children's museum. During private testing sessions, the children analyzed a red-and-white geometric design and reconstructed it with same-color blocks. They also traced a smaller geometric shape embedded within a larger figure.

And they were given 15 minutes to draw a still-life illustration of a corkscrew and five transparent cylinders, one containing a branch of dried leaves. The drawings were rated for elements typically found in gifted children's artwork.



An example of exceptional drawing skills in a 3-year-old child. ELLEN WINNER

Title of the study: Knowing how to look predicts the ability to draw realistically

URL:

<http://onlinelibrary.wiley.com/doi/10.1111/bjdp.12048/abstract>

Nineteen of the children got high scores on their still-life drawings and were compared with the others who had scores more typical of drawing abilities for their age. Those with high still-life scores also rated higher on the block-design and tracing tests. Only the children's performance on the tracing test, which assessed their ability to perceive the hidden contours of an object, was significantly associated with drawing realistically. Gender, age, and previous art training were unrelated to drawing talent.

Caveat: It is possible the still-life drawing test affected the children's performance on the subsequent embedded-figure test, as it required children to use similar skills, the researchers said.