What Causes Dyslexia?
Early studies (e.g., Galaburda, 1970s-80s)

• Structural issues in language areas of the brain
• Neurons migrating to the wrong place
• Symmetry in left/right hemispheres (when left is usually larger)
Advanced techniques led to more advanced thinking

- fMRI studies (e.g., Shaywitz, 2003)
- Different parts of the brain activate for those with dyslexia
fMRI Views of Reading
fMRI Views of Reading with Dyslexia

Neural Signature for Dyslexia: Disruption of Posterior Reading Systems

© Sally Shaywitz, Overcoming Dyslexia, 2003
Studies investigating genes associated with dyslexia

- Evidence for two genes is most compelling

Inconclusive, thus far...

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2597981/
Twin studies

• If one twin had dyslexia, 40-50% chance other did as well

Family members

• If a parent has dyslexia, 40-60% chance child will have it as well
Concluding Reflection

Which strand of research is the most relevant to teachers/schools?

What plans can we put into place to make this information useful to schools?