HMRC Technical Note *of Kwan-Jin Jung, Ph.D.*

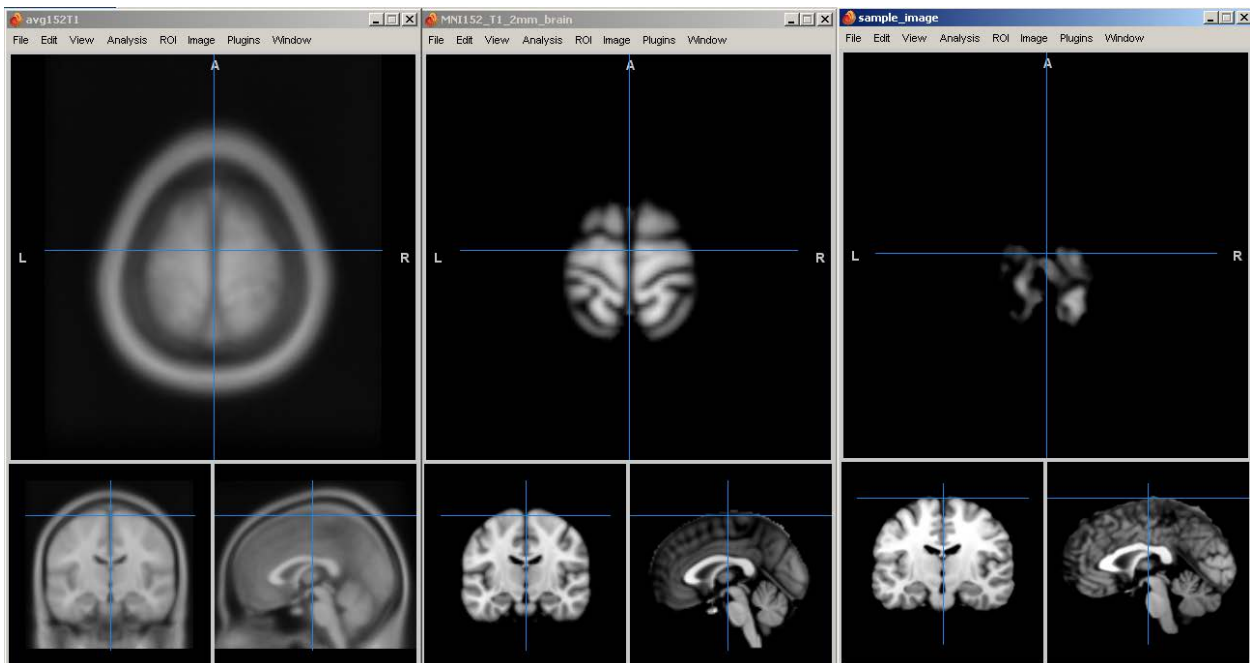**Subject:** Standard Images in fMRI Tools

Introduction
There are differences in standard images of fMRI tools, which can introduce errors in registration and atlas naming.
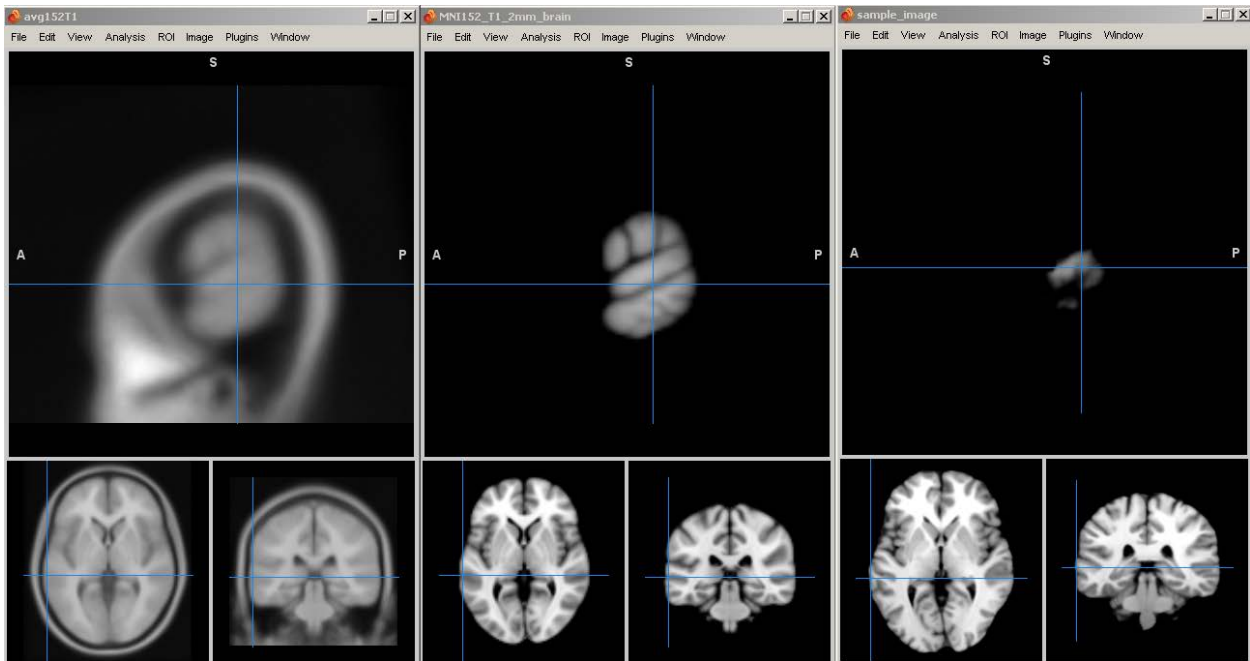
Comparisons of MNI standard images

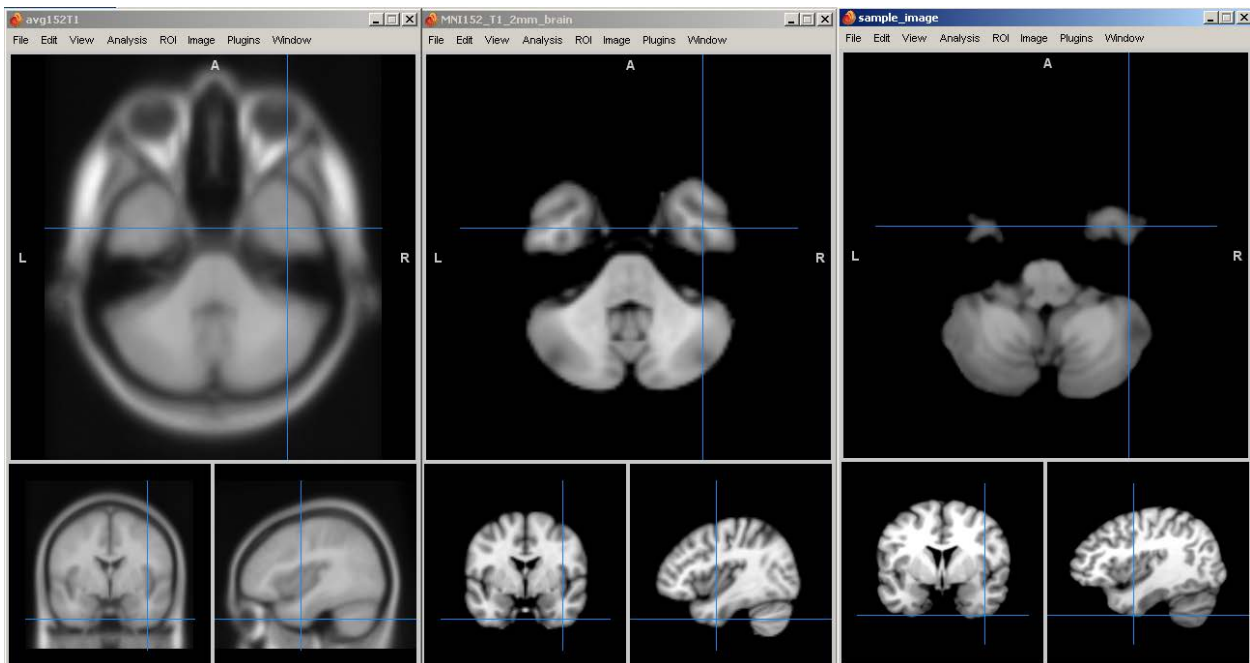| Tool	File location	File name	Resolution
SPM	C:\Programs\spm12\canonical	Avg152T1.nii	2x2x2 mm
FSL	%FSLDIR/data/standard	MNI152_T1_2mm_brain.nii.gz	2x2x2 mm
Mango	C:\Users\jusername\MangoTempData	Sample_image.nii.gz	1x1x1 mm

- The standard image in Mango is smaller than others. Therefore, the fMRI z-stat map overlaid on the Mango' example image can be placed outside the brain.
- SPM uses the head rather than the brain.

- Boundary comparisons (SPM, FSL, Mango): Superior

- Boundary comparisons (SPM, FSL, Mango): Left

- Boundary comparisons (SPM, FSL, Mango): Inferior temporal

Suggestions

- Use the image viewer of the same tool as your analysis
- Copy the images of the fMRI analysis to the viewer's standard image folder.