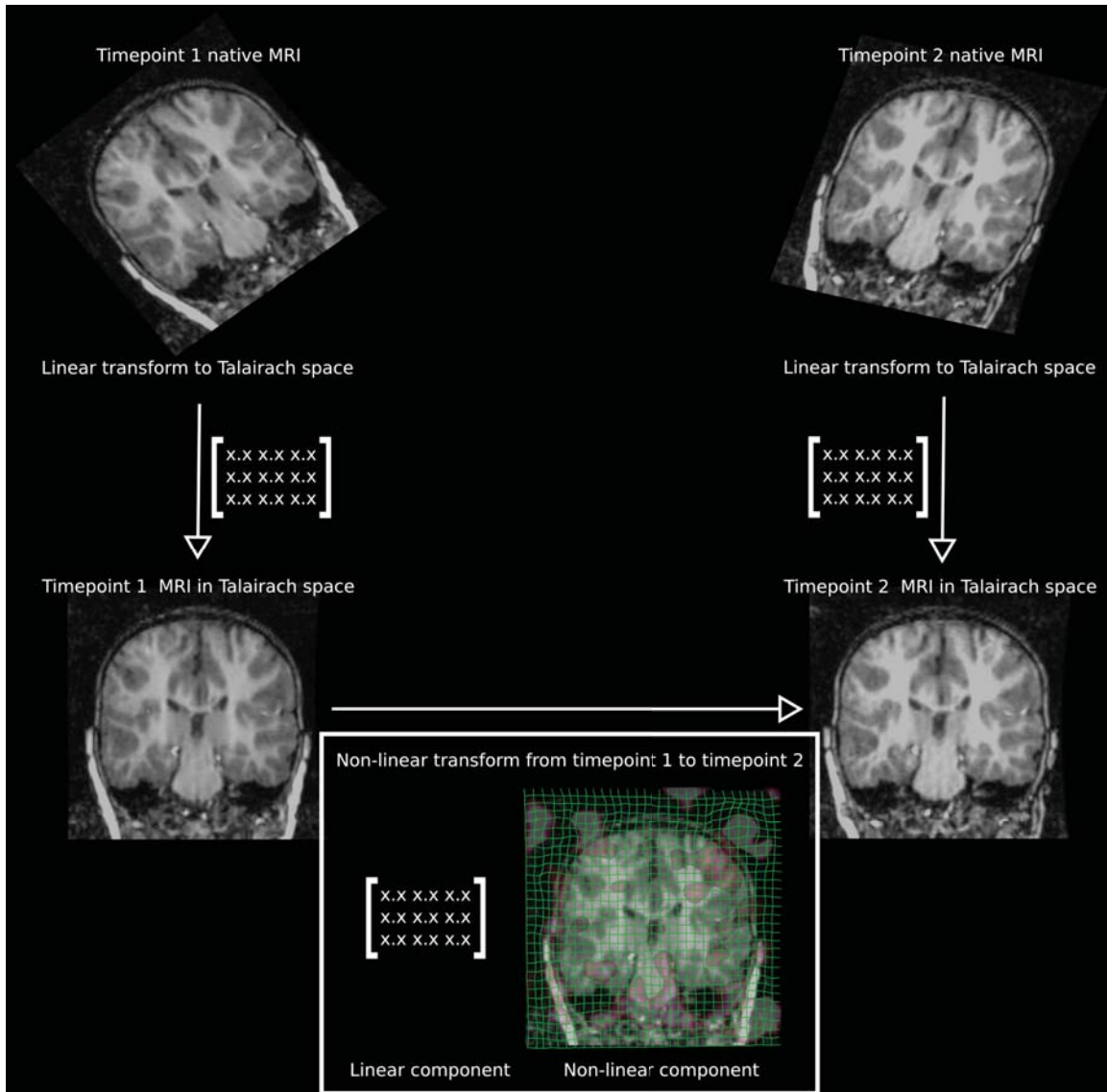


Supplementary Figure 1: Steps in brain deformation-based morphometry analyses



This figure illustrates the methods used to map the timepoint 1 (0 months) MRI scan from each subject to the timepoint 2 (15 months) scan. Each MRI scan is first linearly registered towards MNI space in order to account for global size and orientation differences. We used 'minctracc' (Collins et al., 1995; Robbins et al. 2004) to compute an elastic deformation field, mapping each subject's timepoint 1 scan to their timepoint 2 scan. The deformation schedule was hierarchical, with decreasing blurring kernels of 8, 5, and 3 mm and smaller deformation grid sizes (8, 4, 2 mm) used at each registration. The weights to the image and model terms were selected from Robbins et al., 2004 (weight=1, stiffness=1, similarity=0.3). This transform has two components: a linear component to remove global scaling differences between the two timepoints, and a non-linear component that finds local differences between the two scans. It is this latter part - the non-linear component of the transform between timepoint 1 and timepoint 2 - that is used for the statistical analysis.