

Supplementary Table 1. Fifteen items videotaped Praxis scale.

Gestural score	Oro-lingual score
1. Holding a pen	1. Producing a kiss
2. Piling up 8 blocks	2. Blowing out cheeks
3. Wrist and forearm pronation / supination	3. Moving the tongue up, down, left and right
4. Moving hand (glove puppets)	4. Picture naming (quality of pronunciation)
5. Buttoning up coat	5. Sentence repetition (number of recognizable syllables)
6. Tying shoe-laces	
7. Sequence of three hand gestures (palm, edge, fist)	
8. Cutting a sheet of paper (grasping, cutting and releasing a pair of scissors)	
9. Opposition of the thumb and other fingers (2 ^d to 5 th)	
10. Grasping a small bottle with the thumb and 5th finger	

Suppl MRI Data (or data not shown):

Two ARX patients had a mild ventriculomegaly (lateral ventricle were 11 and 12mm wide respectively), two had ventricular asymmetry without dilatation, one had postero-superior vermis atrophy (lobules VI and VII) associated with an enlargement of the horizontal hemispherical cerebellar fissure and one ARX patient had a retrocerebellar arachnoidal cyst.

Two DS patients had cavum septum lucidum and cavum vergae, one had mega cisterna magna, one had small ventricular dilatation (lateral ventricle was 11mm wide), and one had ventricular asymmetry without dilatation.

In addition, one healthy control had an enlargement of the horizontal hemispherical cerebellar fissure.