A) Individual patient characteristics

Individual patient data (sex, age, duration of the disease, onset of the disease, psychopathology and medication) inclusive summary and t-statistics for all subjects (like mentioned in the manuscript) and for the subjects exclusive the two drop outs (due to ambiguous anatomy).

Group	sex	age	duration	onset	PANSS positive	PANSS negative	PANSS total	CGI	CPZ	Benzo [mg]
C1	0	34								
C2	1	32								
C3	0	25								
C4	0	27								
C5	0	36								
C6	0	39								
C7	1	29								
C8	0	35								
C9	0	50								
C10	0	35								
C11	1	45								
C12	1	20								
C13	1	23								
H1	0	38	2	35	25	16	77	5	1000	30
H2	0	21	5	17	28	16	101	7	500	35
H3	0	26	4	23	23	20	84	6	400	--
H4	0	33	8	31	23	12	74	6	400	--
H5	0	30	12	18	26	24	93	5	450	--
H6	1	39	8	31	19	19	81	5	200	--
H7	0	30	5	29	27	30	109	5	400	--
H8	0	31	15	18	21	30	102	5	1000	20
H9	0	23	2	20	33	22	97	6	467	10
H10	1	38	6	32	13	17	64	4	150	--
H11	1	27	6	21	17	18	71	5	300	--
H12	1	40	2	38	16	22	79	4	550	--
H13	1	50	26	24	34	22	106	7	667	--
N1	0	27	1	27	23	27	109	6	--	--
N2	0	28	2	27	20	29	89	6	750	10
N3	1	18	2	18	11	13	52	5	286	--
N4	0	39	13	26	27	15	75	5	1000	10
N5	1	18	1	17	8	19	58	5	475	--
N6	0	27	4	22	10	29	89	5	400	--
N7	1	35	10	20	19	15	73	5	400	--
N8	1	47	22	22	23	25	101	5	400	--
N9	1	28	11	17	19	19	80	6	125	--
N10 *	0	40	13	27	17	31	92	6	1067	--
N11 *	0	42	15	27	16	25	74	5	125	--
N12	0	21	2	22	28	19	93	6	200	--
N13	0	34	16	35	9	23	56	5	--	--

* Drop out

C = controls, H = hallucinating patients, N = non hallucinating patients, CGI = Clinical Global Impression, CPZ = chlorpromazine equivalent, Benzo = diazepam equivalent

Summary of the patient data (sex, age, duration of the disease, onset of the disease, psychopathology and medication).

Group	sex	age	duration	onset	PANSS positive	PANSS negative	PANSS total	CGI	CPZ	Benzo
C (n=13)	5F/8 M	33 ± 9								
H (n=13)	5F/8 M	33 ± 8	8 ± 7	26 ± 7	24 ± 6	21 ± 5	88 ± 15	5 ± 1	499 ± 261	24 ± 11
N (n=13)	5F/8 M	31 ± 9	9 ± 7	24 ± 5	18 ± 7	22 ± 6	80 ± 18	5 ± 1	475 ± 328	10 ± 0
(n=11)*	5F/6M	29 ± 9	8 ± 7	23 ± 5	18 ± 7	21 ± 6	80 ± 19	5 ± 1	448 ± 273	10 ± 0

* basic descriptive statistic without drop outs

C = controls, H = hallucinating patients, N = non hallucinating patients, CGI = Clinical Global Impression, CPZ = chlorpromazine equivalent, Benzo = diazepam equivalent

t-statistics for all subjects (like mentioned in the manuscript) and for the subjects exclusive the two drop outs (due to ambiguous anatomy) for age, duration of the disease, onset of the disease, psychopathology and medication. Except for positive PANSS, there were no differences between the groups. This difference is due to higher values in the hallucination item. This significant difference at a 5% level attenuates into a trend difference in the group without the dropped out subjects.

	t (38)	**p**	*t (36)**	*p **
duration	0.31	0.76	*-0.05*	*0.96*
positiv	-2.27	**0.03**	*-2.00*	***0.06***
negativ	0.73	0.47	*0.25*	*0.80*
total	-1.18	0.25	*-1.17*	*0.25*
CPZ-equi	-0.20	0.85	*-0.44*	*0.67*
Benzo-equi	-1.65	0.17	*-1.65*	*0.17*
CGI	0.00	1.00	*-0.07*	*0.95*
ED	-0.95	0.35	*-1.12*	*0.28*
	F (2, 36)	**p**	*F (2, 34) **	*p **
age	0.72	0.49	*0.20*	*0.82*

C = controls, H = hallucinating patients, N = non hallucinating patients, CGI = Clinical Global Impression, CPZ = chlorpromazine equivalent, Benzo = diazepam equivalent

Medication equivalents have been computed according to Davis, Woods and Ashton
Davis JM. Dose equivalence of the antipsychotic drugs. J Psychiatric Res. 1974;11:65-69.
Woods SW. Chlorpromazine equivalent dosages for the newer atypical antipsychotics. J
Clin Psychiatry. 2003;64:663-667 and The Ashton Manual · Professor Ashton's Main Page. 2000
– 2009. www.benzo.org.uk

B) The overall intraclass correlation coefficients for the ROI measurements between raters.

Formula to calculate the interrater correlation:
[value (R1 –R2)] / [value (R1 + R2)]

Mean of the interrater coefficients for each ROI

rHG	rHGGM	rHGWM
0.06	0.06	0.07

lHG	lHGGM	lHGWM
0.05	0.05	0.06

R = right, l = left, HG = total volume of Heschl gyrus, HGGM = gray matter volume of Heschl gyrus, HGWM = white matter volume of Heschl gyrus.

C) Correction of the Number-of-Heschl-gyrus bias

In the case of two HG, only the volume of the first gyrus was assigned to volume of HG and the volume of the second was assumed to belong functionally to the PT. Thus, we expected a bias in direction of smaller volumes of the first HG in case of two HG under respect of a relative stabile complete volume of the transverse temporal gyri.

For each partial volume, the volume in case of two HG was smaller compared to the volume in case of one HG. This was significant in the right hemisphere for the total volume and the WM volume as well as for left hemispheric GM volume.

Therefore, we corrected for this bias in our analysis by adding the difference of the mean volume of one HG gyri (of the collapsed group of all subjects) to the smaller volume of the first volume in case of two Heschl gyri separately for each hemisphere.

Volume [mm^3]	Volume of HG in case of 1 HG	Volume of the 1. HG in case of 2 HG	t (36)	p
R total HG	1984 (723)	1492 (462)	**2.3**	**0.03**
R GM of HG	1250 (42)	1057 (380)	1.8	0.08
R WM of HG	734 (420)	434 (227)	**2.3**	**0.03**
L total HG	2375 (573)	1951 (937)	1.9	0.06
L GM of HG	1855 (437)	1519 (686)	**2.0**	**0.05**
L WM of HG	519 (186)	432 (280)	1.4	0.16

Table: *Mean (SD) absolute volumes of HG in case of one resp. two HG and results of the t-statistics (one-tailed). In case of only one HG, the volume of the HG was bigger than in case of two HG.*