



( *et al.* 2007).

( ), *fi* / -  
2004; *et al.* 2007; & *et al.* 2009;  
*et al.* 2012b),  
( *et al.* 2007; *et al.* 2010),

( *et al.* 2013a, b).

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(  
*et al.* 2007),

( *fi* *fi* -  
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/ - ( *et al.* *et al.*  
2004; *et al.* 2007; *et al.* 2012b).  
(2004)

*fi*  
( - )  
*et al.* 2014) ( *et al.* 2005;

( *et al.* 2012; *et al.* 2012).

( *et al.* 2012a, 2013b).

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*fi* -  
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1.7

1.9  
3.0

( *et al.* 2012a, 2013b),

( ) ( *et al.* 2012a).

*fi* *fi* / -  
*fi*  
( & , 2003; & , 2005).

( *et al.* 2012a, 2013b;  
*et al.* 2016).

( )  
( *et al.* 2004, 2009; &  
, 2012; & , 2013; *et al.*  
2016). *et al.* (2016)

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( *et al.* 2016).  
( , )

( *et al.* 1996),

4200  
 ( .1),  
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 500  
 ( 50%  
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 3.44 . 3.44 . 4.6  
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**MRI a a s s a a a s s**

*Pre-processing*

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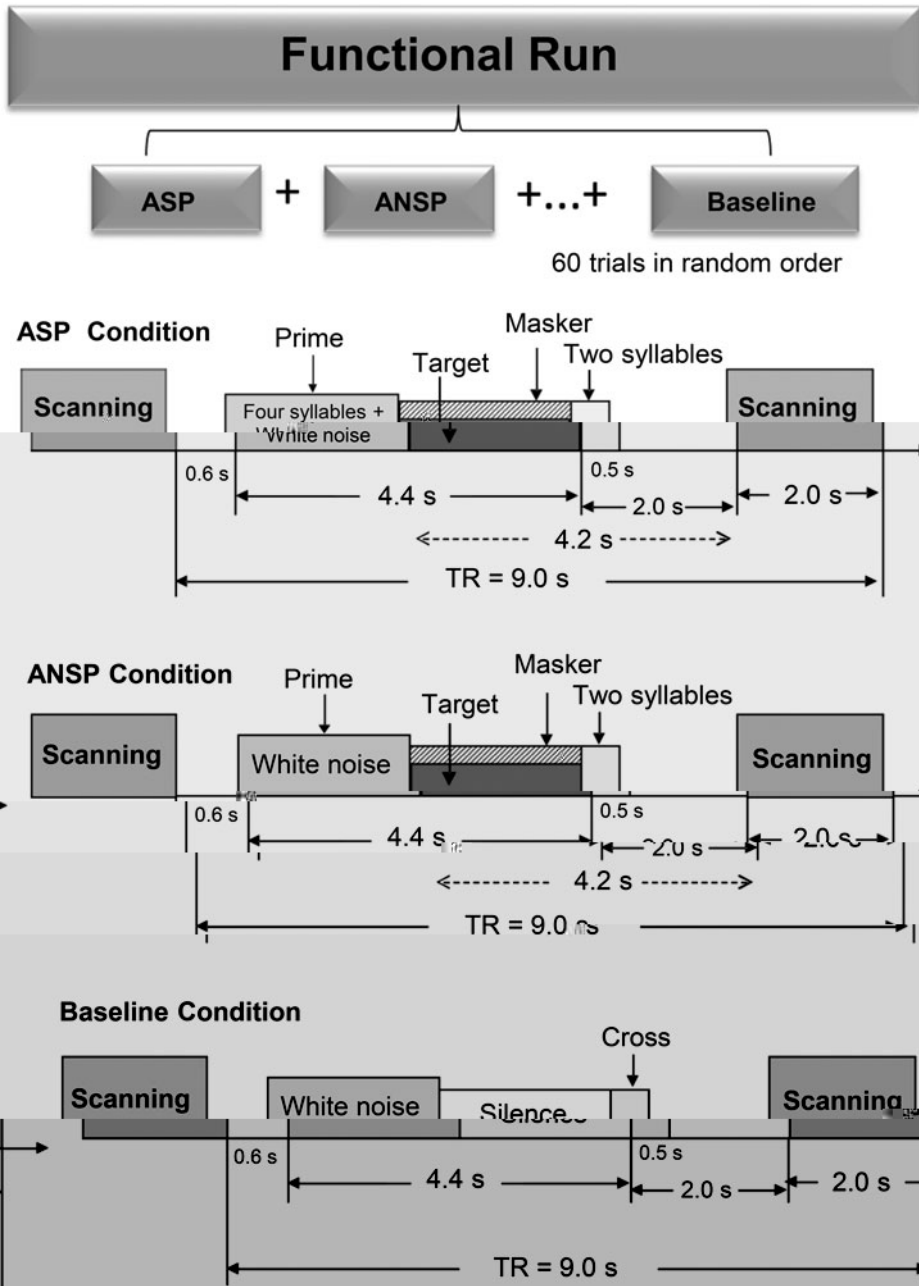
fi ; (3)  
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*Random-effect analyses*

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 ( et al. 1996).  
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*Psychophysiological interaction (PPI) analyses*

( et al. 1997)  
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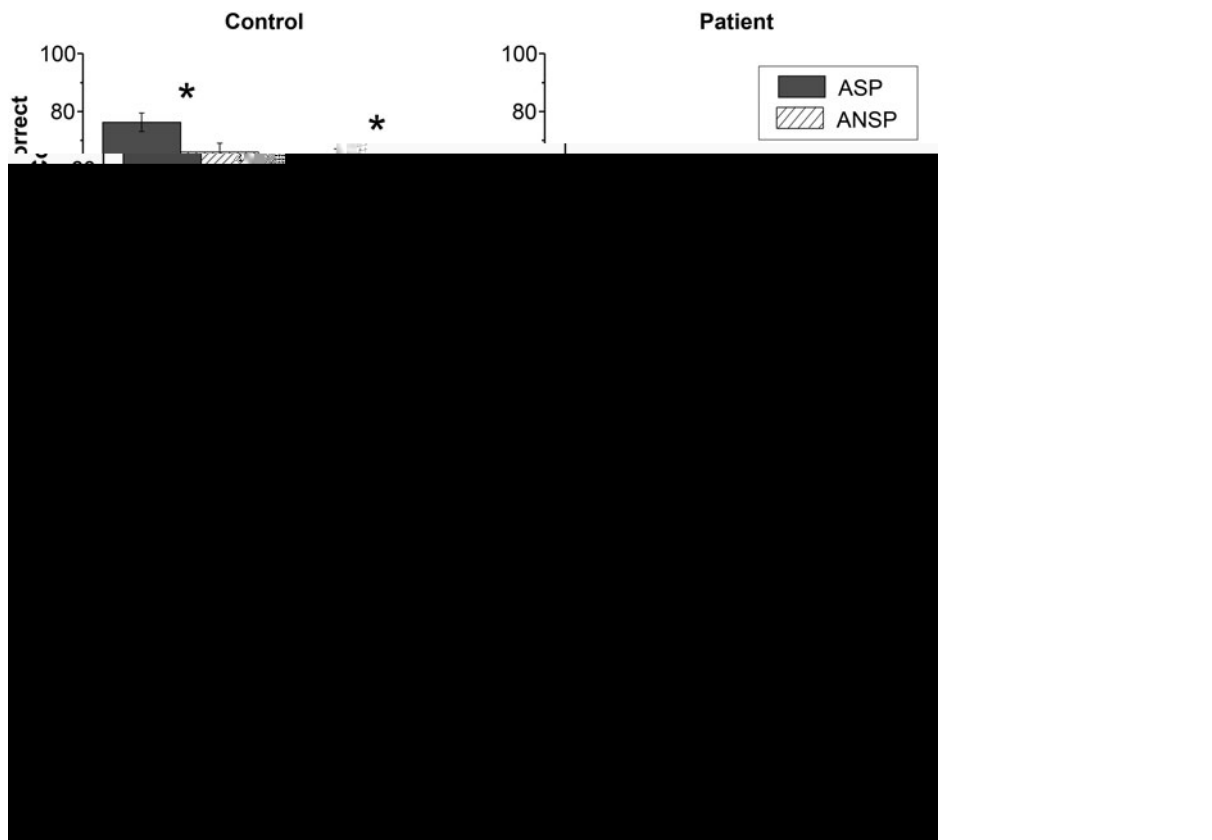
fi p

0.05 ( )

*Functional connectivity analyses (partial correlation)*

([et al. 2002](#); [et al. 2008, 2014](#)).

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( $p < 0.05$ ,  
([: ; ://](#)  
/).  
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fi  
([et al.](#)  
[2005](#); [et al. 2008, 2014](#))



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 \*  $p < 0.05$ .

-8 ( ,  $p < 0.001$ ),  $< 0.001$   $p < 0.05$   $p$   
 ( .2 ( .3 )  
 ),  $p < 0.001$   $p < 0.05$   
 -4 (  $F_{1,72} = 6.880, p = 0.011$  ) -8  
 (  $F_{1,72} = 7.192, p = 0.009$ ).

**B a s a a b s B**  
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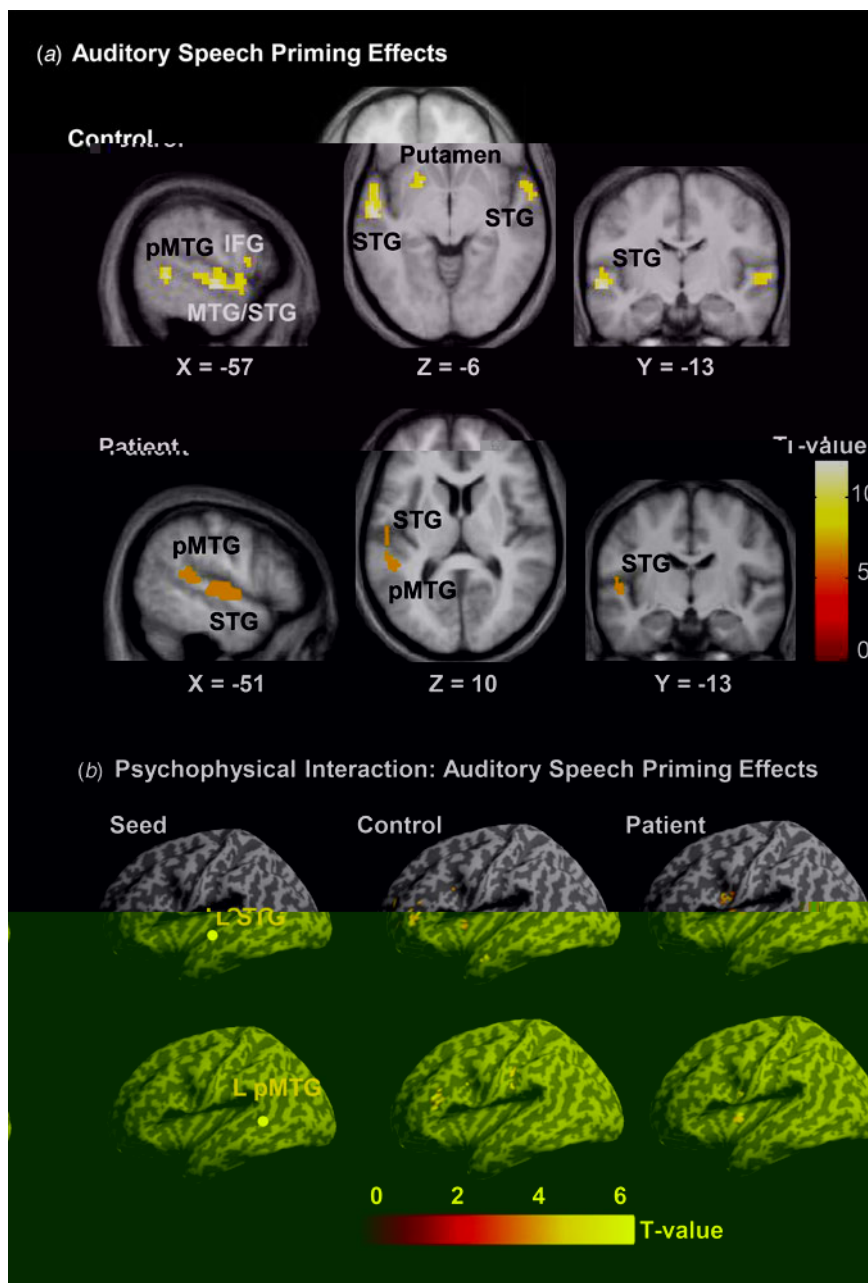


Figure 1. Auditory speech priming effects. (a) T1 values for control and patient groups. (b) Psychophysical interaction: auditory speech priming effects. T-value maps for seed, control, and patient groups.  $p < 0.05$  (corrected for multiple comparisons).

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Schizophrenia-related changes in functional connectivity for speech listening

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 ( ) 6) (p<0.05,  
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 Z- ( )

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Correlation between strength of functional connectivity and speech-recognition performance

Z- . 5a  
 Z- fi  
 -8 (r=0.512, p=0.048)  
 -8 (r=0.488, p=  
 0.021) -4 (r=0.552, p=0.008) ( . 5b c).  
 Z- ( )

Basal ganglia ASP

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 ( et al. 2004; et al.  
 2007; & , 2009; et al. 2010;  
 et al. 2012b, 2013a)  
 ( et al. 2012b),  
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ASP- a a B STG/ MTG

( et al. 2015),

( et al. 2001; et al. 2008; et al. 2008; et al. 2010)

( et al. 2005),

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( et al. 1996; et al. 1997; et al. 2000; et al. 2009; et al. 2012).

( et al. 2014),

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( et al. 2008), ( & , 1981), ( et al. 2001).

fi

( et al. 2007).

F a s a a s B B a- s s B a a s a a aS

( et al. 2007),

( et al. 2012a, 2013b; et al. 2016).

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et al. (2012)

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( et al. 2014)  
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2013; et al. 2014).

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et al. 2010; , 2010; &  
, 2011; & fl , 2012;  
& , 2014; et al. 2015; - et al. 2015)  
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et al. 2002; et al. 2012; et al. 2014; et al.  
2014; & , 2014).

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(1)

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