**Appendix B**. Settings of parameters in Multilink+.

*Clarification of some abbreviations used below:*

OPB = frequency of the input word in Occurrences Per Billion.

MAX\_OPB = frequency in OPB of the most frequent word in the languages (English ‘the’).

IO\_multiplier: multiplier for Input to Orthography (I\_rest = 1).

norm\_LD = (MAX\_L - LD) / MAX\_L.

MAX\_L = length of the longest string.

LD = Levensthein Distance score.

SS\_multiplier = 0.0: semantic spreading activation is turned off.

**Node name Resting Level Activation**

I\_rest (input) 1

O\_rest (orthography) -0.2 + OPB \* (0.2 / MAX\_OPB)

L\_rest (language) -0.2

S\_rest (semantics) -0.2 + OPB \* (0.2 / MAX\_OPB)

P\_rest (phonology) -0.2 + OPB \* (0.2 / MAX\_OPB)

**Connection name**

IO\_alpha max(IO\_multiplier \* norm\_LD^3, 0.0)

OS\_alpha 0.03  
SO\_alpha 0.03  
PO\_alpha 0.03  
OP\_alpha 0.03  
PS\_alpha 0.3  
SP\_alpha 0.3

OO\_gamma -0.0001 or 0

PP\_gamma -0.0001 or 0

SS\_gamma -0.0001 or 0

**Parameter name**

IO\_multiplier 0.2

MIN\_ACT -0.2

MAX\_ACT 1

MIN\_REST -0.2

MAX\_OPB 0.640225933  
Decay rate 0.07

Recognition threshold (criterion value) 0.72

SS\_multiplier 0.0