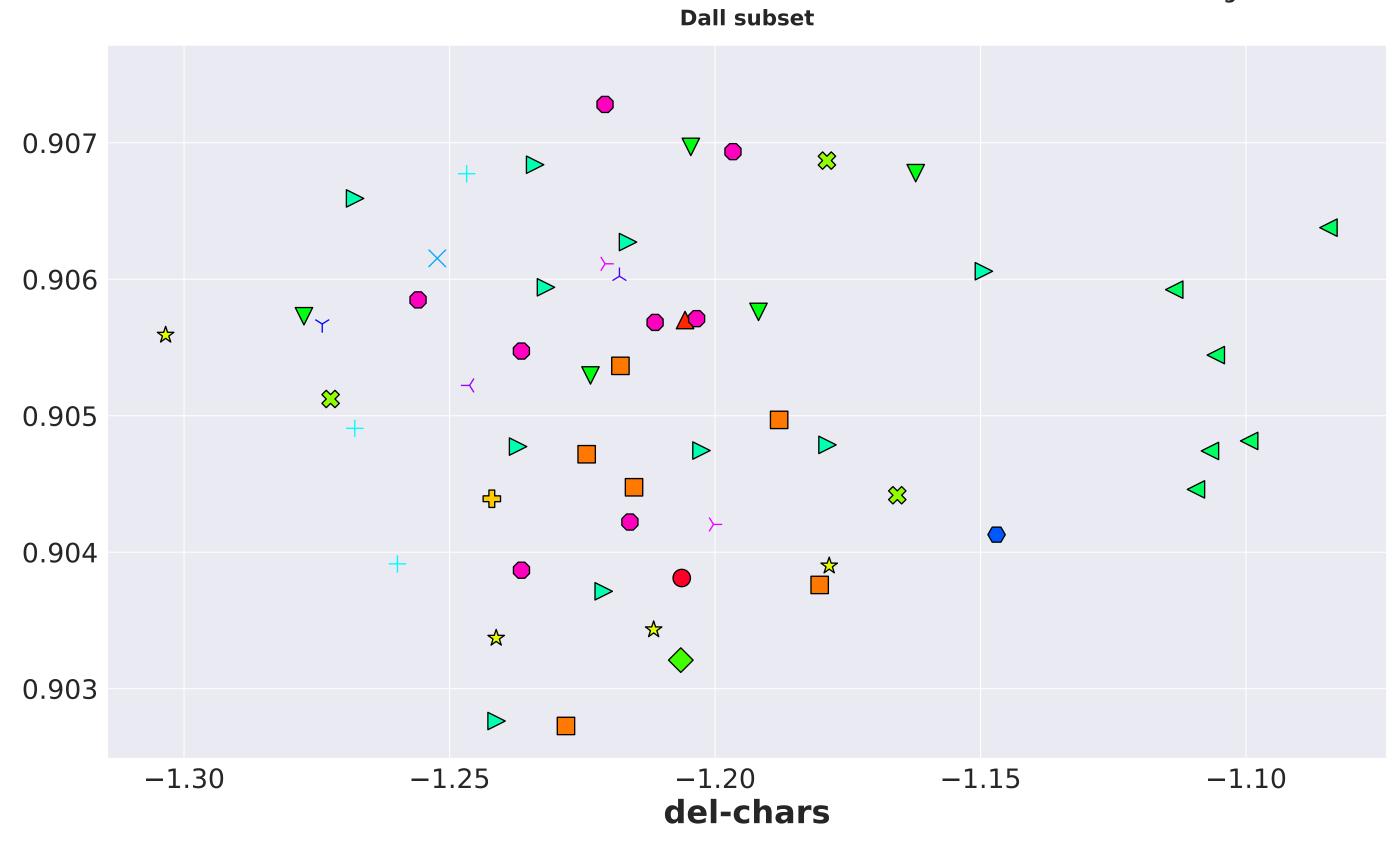


Tupi-Guarani Mundurukú Makú Arawá delUni-chars vs delUni-words Guaikurú **Aruak Ticuna** Karajá **Karib Boróro Pano** Maxakali Mawé Rikbaktsa Yanomami Jê **D90** subset Tukano Indo-European <u></u>Anad 1.10 √kng jmm 人max ≻[guu] 1.08 mac☆ **⊳**[gun] [gnw] 1.06 plk **[watw]** fre◀ **⇔**myr ☆apl 1.04 trn <e ng **>**gua [WWps apu pex ger **delUni-words** 1.00 **⊲** [grc] cax -1.40-1.30-1.45-1.35-1.25**Dall subset** \bigvee 1.10 1.08 $\stackrel{\wedge}{\bowtie}$ \times 1.06 1.04 1.02 1.00 -1.50-1.45-1.40-1.35-1.30-1.25-1.20delUni-chars

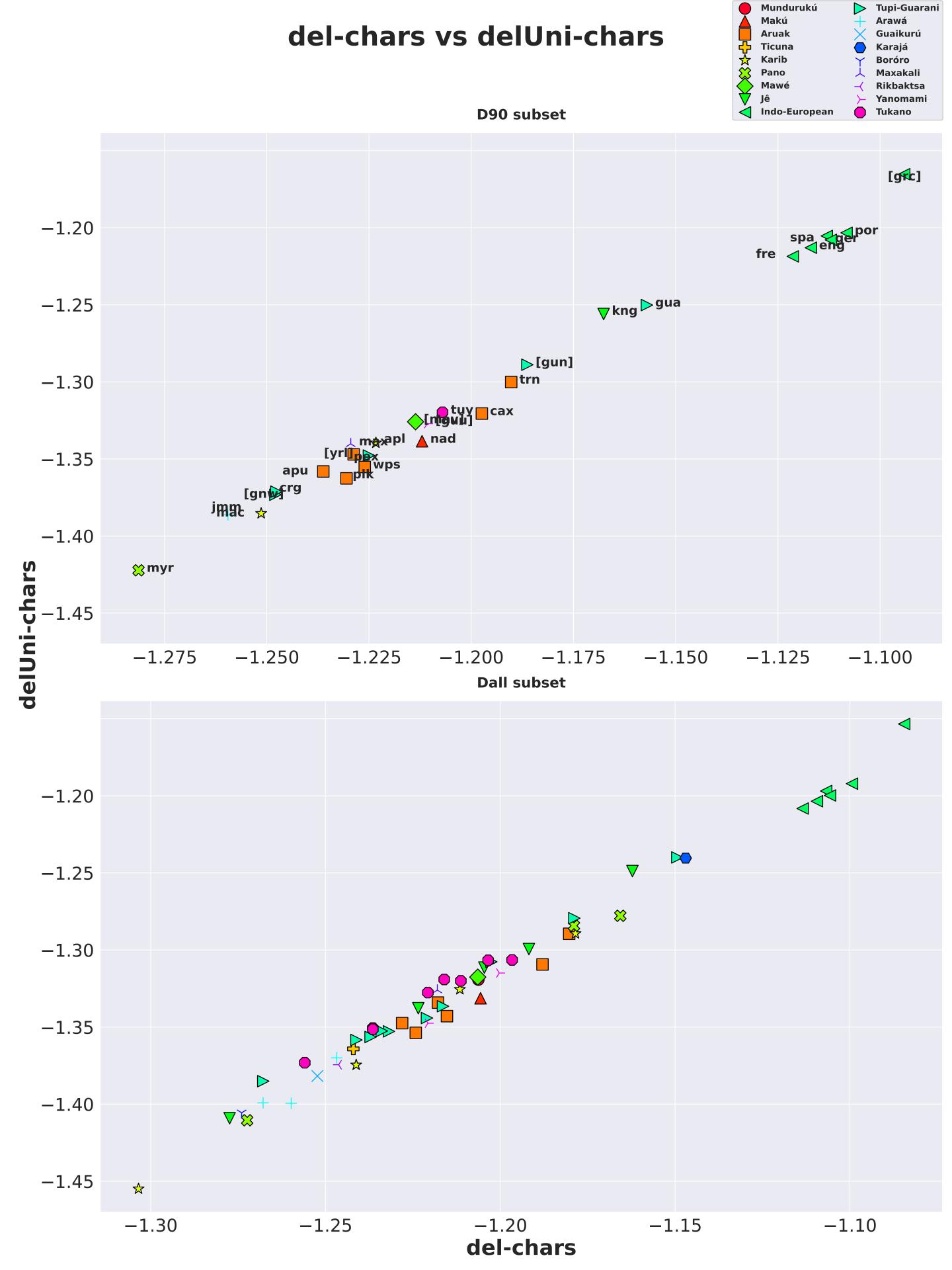
del-chars vs del-verses

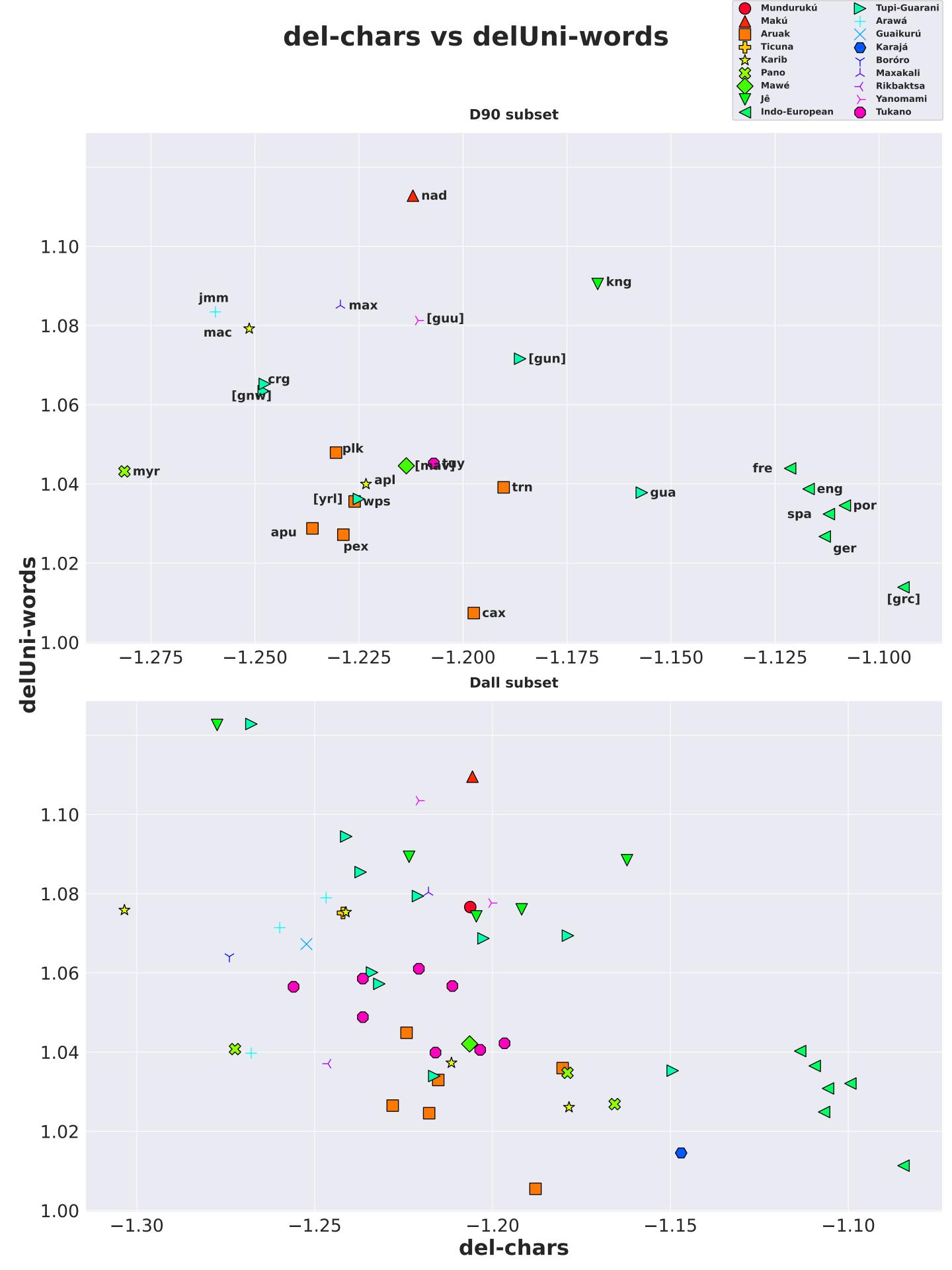


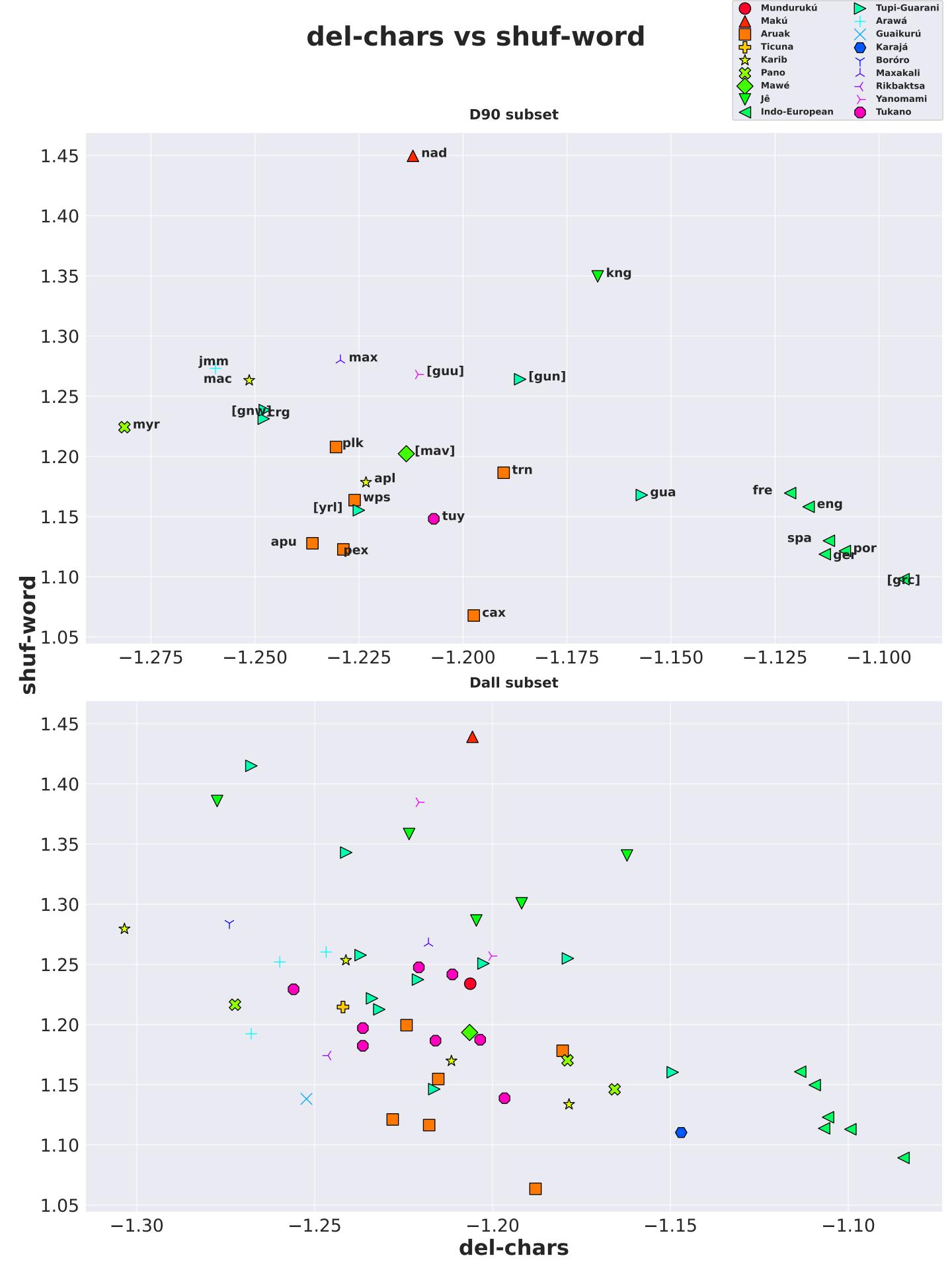




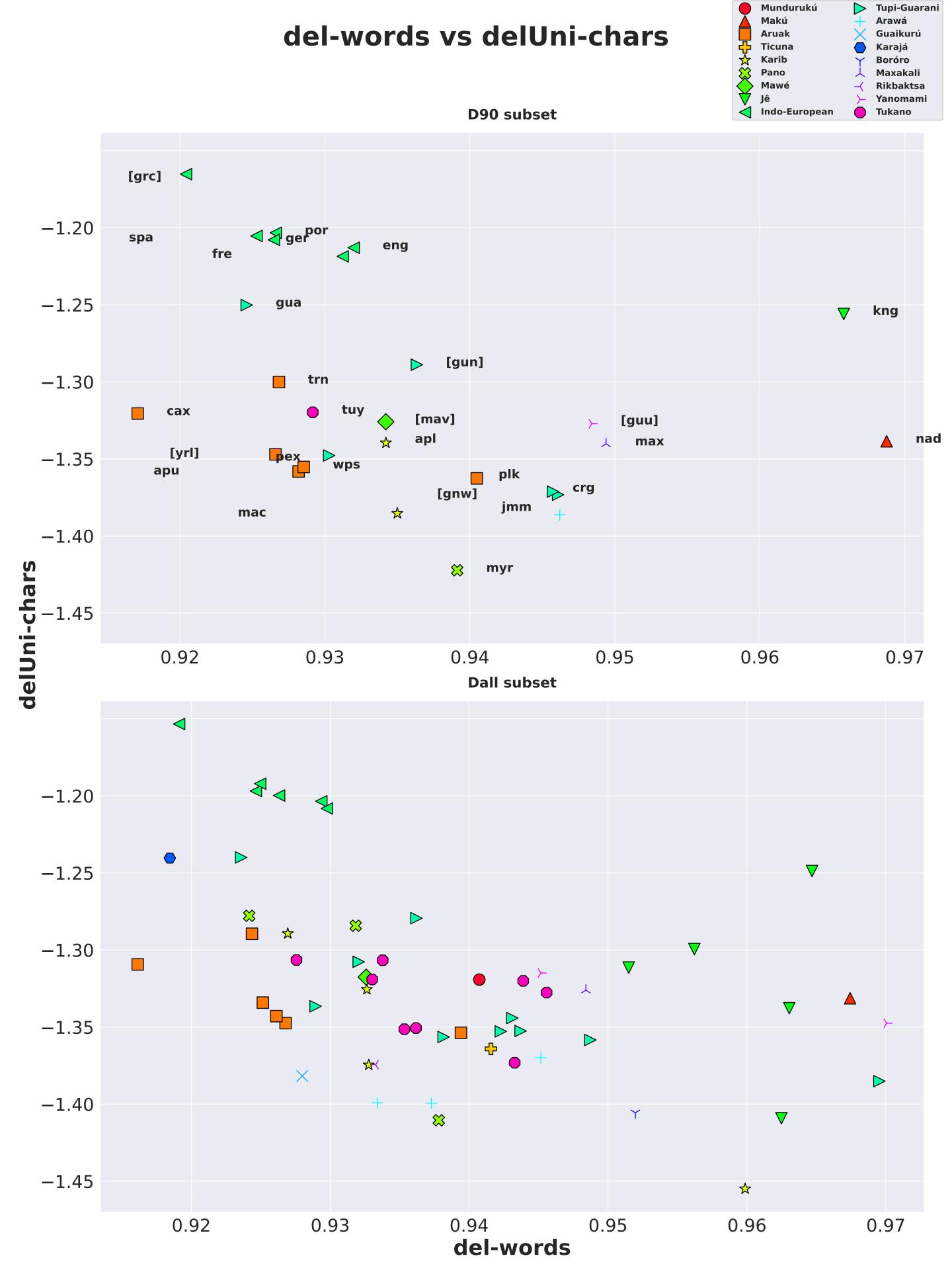
Tupi-Guarani Mundurukú Makú Arawá del-words vs delUni-words Guaikurú **Aruak** Ticuna Karajá **Karib Boróro Pano** Maxakali Mawé Rikbaktsa Jê Yanomami **D90** subset Tukano **Indo-European** nad 1.10 kng \bigvee jmm max [guu] 1.08 $\stackrel{\bigstar}{}$ mac [gun] crg [gnw] 1.06 plk fre myr 1.04 [yrl] spa apu **delUni-words** 1.00 [grc] cax 0.92 0.93 0.94 0.96 0.97 0.95 **Dall subset** \bigvee 1.10 \triangle 1.08 ☆ \bigvee ☆ × Y 1.06 \approx 1.04 1.02 1.00 0.92 0.93 0.95 0.96 0.97 0.94 del-words

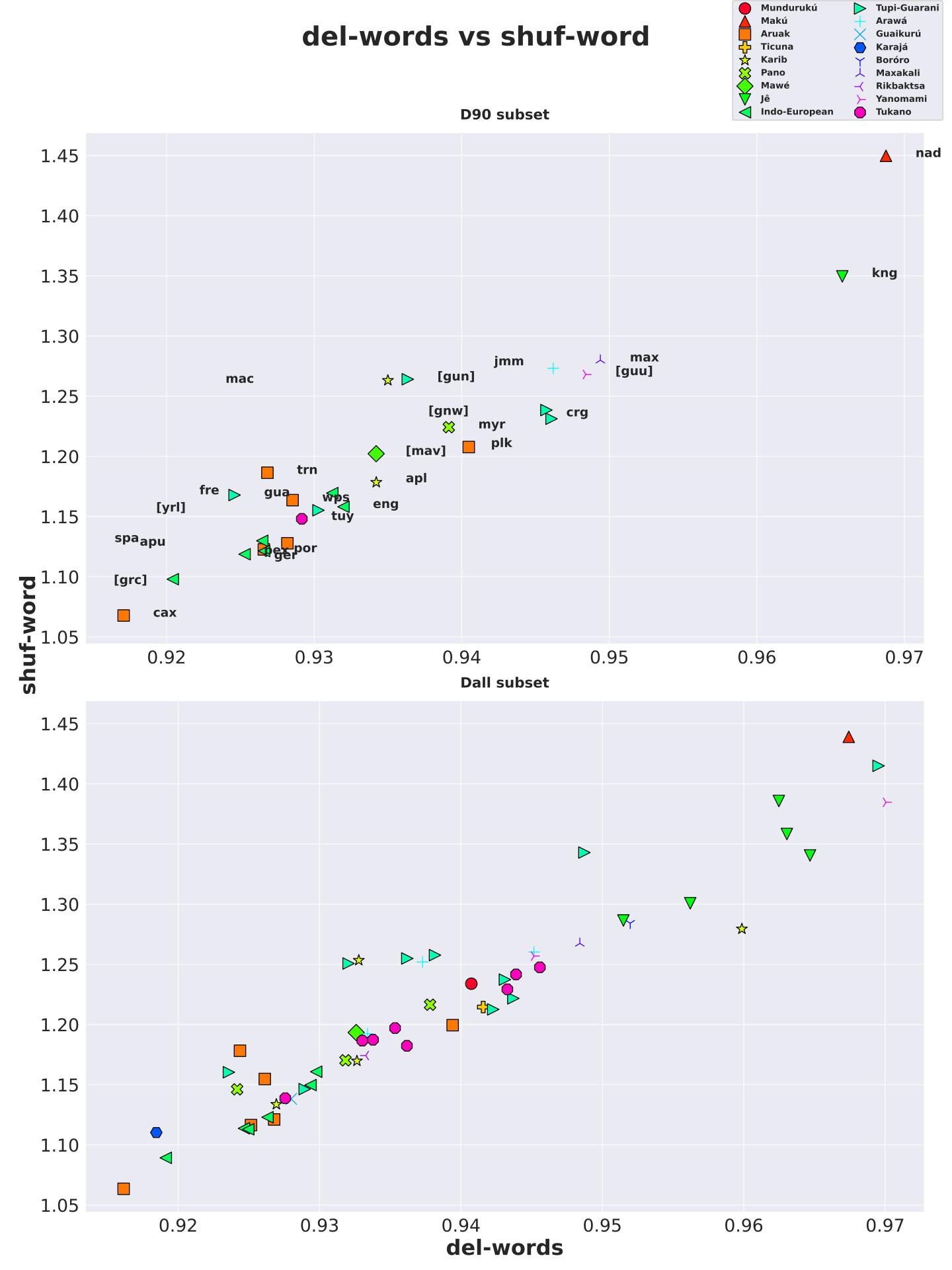


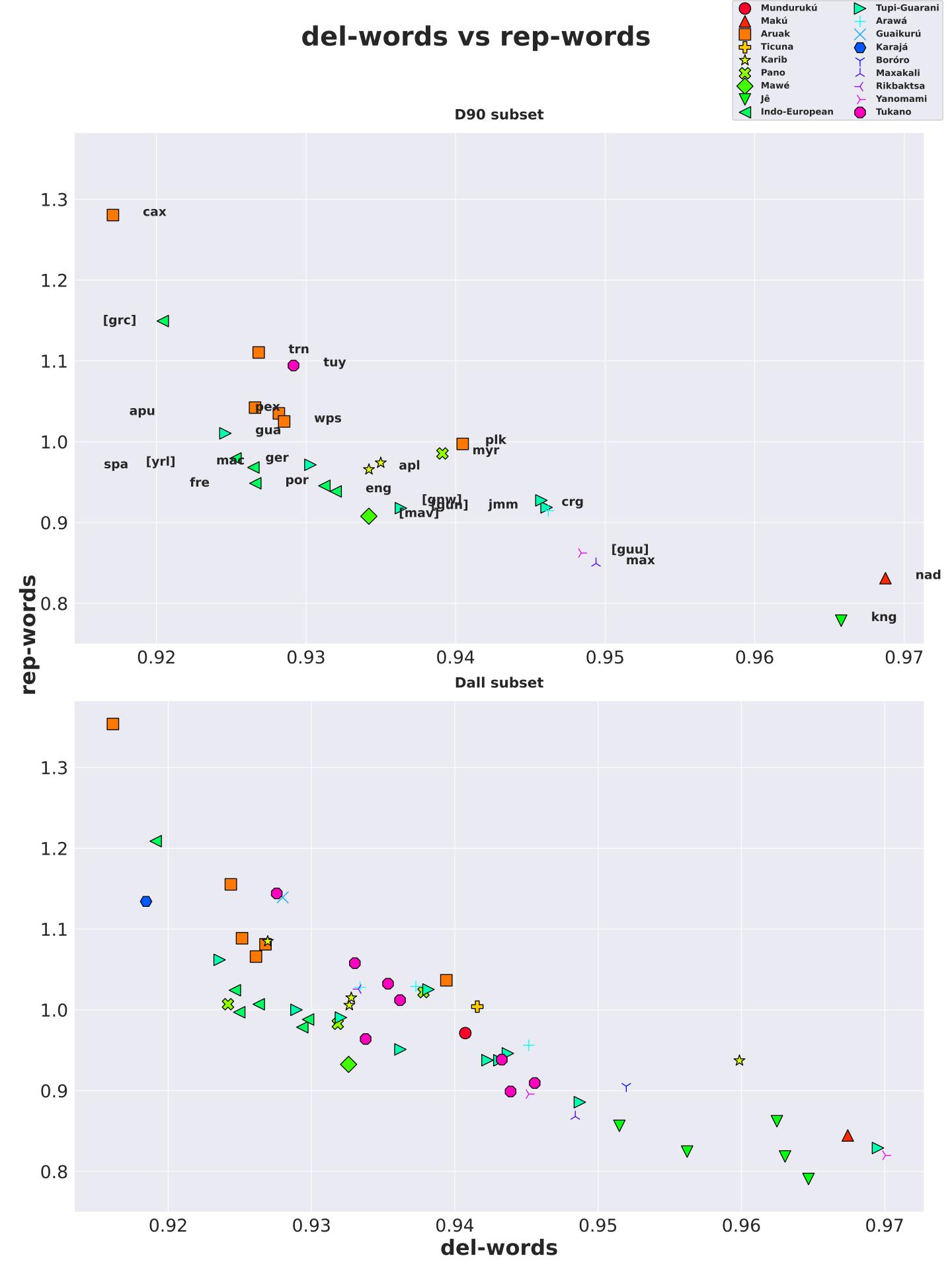




Tupi-Guarani Mundurukú Makú Arawá del-chars vs rep-words Guaikurú **Aruak** Ticuna Karajá Boróro Karib **Pano** Maxakali Mawé Rikbaktsa Jê Yanomami **D90** subset Tukano Indo-European 1.3 cax 1.2 [g**(**c)] trn 1.1 tuy apu wps **y**gua plk 1.0 **⊗** myr [yrl] 🙀 apl mac ☆ jmm [gnvkrg **⊳**[gun] **♦**[mav] 0.9 <mark>≻</mark>[guu] **__** max rep-words **A** nad **▼** kng -1.275-1.250-1.225-1.200-1.175-1.150-1.125-1.100**Dall subset** 1.3 1.2 \times 1.1 ☆ $\triangleright \, \stackrel{\wedge}{\Rightarrow}$ \aleph 1.0 \approx $\stackrel{\bigstar}{\Rightarrow}$ Y 0.9 \bigvee \bigvee ${\color{red} \bigtriangledown }{} \succ$ 8.0 \bigvee -1.30-1.25-1.20-1.15-1.10del-chars







Tupi-Guarani Mundurukú Makú Arawá del-words vs do-nothing Guaikurú **Aruak** Ticuna Karajá **Karib Boróro Pano** Maxakali Mawé Rikbaktsa Yanomami Jê **D90** subset Indo-European Tukano -0.96-0.98crg ≻↓ [g#Habx [grc] fre mac quation where eng mac mac peper [gnw] -1.00**k<u>M</u>g** nad -1.02qo-nothing 0.92 0.93 0.94 0.95 0.96 0.97 **Dall subset** -0.96-0.98-1.00-1.02-1.040.92 0.93 0.95 0.96 0.94 0.97 del-words

Tupi-Guarani Mundurukú Makú Arawá del-words vs del-verses Guaikurú **Aruak Ticuna** Karajá **Karib Boróro Pano** Maxakali Mawé Rikbaktsa Jê Yanomami crg Tukano Indo-European **D90** subset jmm 0.907 plk 0.906 wps kng [yrl] myr trn < 0.905 [guu] nad gua 人 spa fre [gun] 0.904 cax [gnw] mac max apu **del-verses** 0.903 [mav]_{0.94} 0.92 0.93 0.96 0.97 0.95 [grc] pex ger **Dall subset** 0.907 \approx **>** 0.906 ☆ egthankowskip \bigvee \approx 0.905 \approx { 0.904 ☆ 0.903 0.93 0.97 0.92 0.95 0.96 0.94 del-words

Tupi-Guarani Mundurukú Makú Arawá delUni-chars vs shuf-word Guaikurú **Aruak** Ticuna Karajá Boróro **Karib Pano** Maxakali Mawé Rikbaktsa Yanomami Jê **D90** subset Indo-European Tukano 1.45 ▲nad 1.40 **∀**kng 1.35 1.30 j<u>m</u>m **__max ≻**[guu] **⊳**[gun] mac☆ 1.25 [grewy **⇔**myr plk **⊘**[mav] 1.20 **trn** ☆apl fre∢ **>**gua wps [yrl] eng 1.15 tuy apu pex 1.10 [**g**tc] shuf-word cax 1.05 -1.45-1.40-1.35-1.30-1.25**Dall subset** 1.45 1.40 1.35 1.30 Y $\stackrel{\bigstar}{\Rightarrow}$ 1.25 \approx 1.20 1.15 X 1.10 1.05 -1.30-1.50-1.45-1.40-1.35-1.25-1.20delUni-chars

Tupi-Guarani Mundurukú Makú Arawá delUni-chars vs rep-words Guaikurú **Aruak** Ticuna Karajá Boróro **Karib Pano** Maxakali Mawé Rikbaktsa Jê Yanomami **D90** subset Indo-European Tukano 1.3 cax 1.2 [**g**tc] trn 1.1 tuy **S**gua 1.0 **⊗**myr [yrl] → ☆apl mac☆ jmm [grewy **⊳**[gun] **⊘**[mav] 0.9 _max > [guu] <u></u> **▲**nad rep-words √kng -1.45-1.40-1.35-1.30-1.25**Dall subset** 1.3 1.2 X 1.1 \Rightarrow ***** + 1.0 \approx $\stackrel{\bigstar}{\Rightarrow}$ 0.9 \bigvee 8.0 -1.30-1.50-1.40-1.35-1.45-1.25-1.20delUni-chars

Tupi-Guarani Mundurukú Makú Arawá delUni-chars vs del-verses Guaikurú **Aruak** Ticuna Karajá Boróro **Karib Pano** Maxakali Mawé Rikbaktsa Jê Yanomami crg Tukano Indo-European **D90** subset jmm 0.907 \approx \bigvee plk 0.906 wps kng eng por [yrl] tuy \Rightarrow myr ☆apl nad [guu] trn 0.905 gua 人 spa fre [gun] 0.904 cax [gnw] mac max apu **del-verses** 0.903 [mav] - 1.35-1.45-1.40-1.30-1.25[grc] pex ger **Dall subset** 0.907 ∇_{\bigcirc} X 0.906 ☆ \approx 0.905 { \approx $\color{red} \bigcirc \succ$ 0.904 ☆ ☆ ☆ 0.903 -1.50-1.35-1.30-1.20-1.45-1.40-1.25delUni-chars

Tupi-Guarani Mundurukú Makú Arawá delUni-words vs shuf-word Guaikurú **Aruak Ticuna** Karajá Boróro **Karib Pano** Maxakali Mawé Rikbaktsa Jê Yanomami **D90** subset Indo-European Tukano nad 1.45 1.40 **▽** kng 1.35 1.30 jmm ↓ max ma [gun] ├ [guu] 1.25 [gnw] erg 💢 myr o [mav] 1.20 [yrl] 1.15 tuy apu^{spa} por 1.10 [gre¶ shuf-word cax 1.05 1.00 1.02 1.04 1.06 1.08 **Dall subset** 1.45 1.40 1.35 1.30 1.25 1.20 1.15 1.10 1.05 0.98 1.00 1.02 1.04 1.06 1.08 1.10 delUni-words

Tupi-Guarani Mundurukú Arawá Makú delUni-words vs rep-words Guaikurú **Aruak** Ticuna Karajá Boróro Karib **Pano** Maxakali Mawé Rikbaktsa Jê Yanomami **D90** subset Indo-European Tukano 1.3 cax 1.2 [gre trn 1.1 tuy pex apu wps gua 1.0 plk $\stackrel{\bigstar}{\Rightarrow}$ mac [gnw] [gun] jmm (mav) 0.9 nad rep-words **▼** kng 1.00 1.02 1.04 1.06 1.08 **Dall subset** 1.3 1.2 X 1.1 1.0 0.9 \bigvee 8.0 1.02 1.04 1.10 0.98 1.00 1.06 1.08 delUni-words

Tupi-Guarani Mundurukú Makú Arawá delUni-words vs del-verses Guaikurú **Aruak** Ticuna Karajá Boróro **Karib Pano** Maxakali Mawé Rikbaktsa Jê Yanomami crg Tukano Indo-European **D90** subset jmm 0.907 \bigvee plk 0.906 wps kng **⊲** [yrl] tuy ☆ > 0.905 [guu] nad gua 人 spa fre [gun] 0.904 cax [gnw] mac max apu **del-verses** 0.903 [mav] 1.00 1.02 1.08 1.04 1.06 [grc] pex ger **Dall subset** 0.907 \bigvee \times 0.906 \bigvee Y 0.905 \approx 0.904 $\stackrel{\bigstar}{\bowtie}$ ☆ ☆ 0.903 1.10 1.00 1.02 1.04 1.06 0.98 1.08 delUni-words

