# **Understanding Language Evolution Using an Event-Based Model**

#### **Appendices**

- 1. Character Assignments
- 2. Partition Assignments
- 3. Concepts Used
- 4. Results

#### Appendix 1 - Character Assignments

Each segment gets a different number

 $\begin{vmatrix} 1 & e \end{vmatrix} \begin{vmatrix} 2 & g \end{vmatrix} \begin{vmatrix} 3 & o \end{vmatrix} \begin{vmatrix} 4 & 3 \end{vmatrix} \begin{vmatrix} 5 & a \end{vmatrix} \begin{vmatrix} 6 & j \end{vmatrix} \begin{vmatrix} 7 & o \end{vmatrix} \begin{vmatrix} 8 & i \end{vmatrix} \begin{vmatrix} 9 & w \end{vmatrix} \begin{vmatrix} 10 & a \end{vmatrix} \begin{vmatrix} 11 & d \end{vmatrix} \begin{vmatrix} 12 & 1 \end{vmatrix}$ j 14 n 15 s 16 u 17  $\int$  18 oj 19 v 20 b 21 t 22 u: y 24 d 25 f 26 e: 27 m 28 a 29 f 30 e 31 œ 32 ε r 35 x 36  $\Lambda$  37  $\kappa$  38 i 39  $\eta$  40 o 41 h 42 33  $\tilde{\mathbf{q}}$  45  $\tilde{\mathbf{i}}$  46  $\tilde{\mathbf{v}}$  47  $\mathbf{tf}$  48  $\hat{\mathbf{i}}$  49  $\tilde{\mathbf{a}}$  50  $\mathbf{p}$  51  $\mathbf{z}$  52  $\tilde{\mathbf{d}}$  53  $\mathbf{k}$  $\tilde{\mathfrak{J}}$  44 43 a: 56  $\widetilde{\mathfrak{p}}$  57 R 58 D 59  $\theta$  60 ej 62 δ 63 ε: ej 61 54 ts 55 ø: 66 ł 67 c 68 ej 69 ø 70 ea 71 k<sup>w</sup> 64 65 72 y 73 aj U  $\mathfrak{g}$  77  $\mathfrak{g}^{\mathrm{w}}$  78  $\tilde{\mathrm{e}}$  79  $\mathfrak{a}$  80  $\mathfrak{g}$  81  $\mathfrak{f}$  82 **ẽ** 76 74 75 ũ 86  $\mathbf{J}$  87  $\mathbf{c}$  88  $\mathbf{a}$ : 89  $\mathbf{\tilde{j}}$  90  $\mathbf{e}$  91  $\mathbf{a}\mathbf{u}$  92  $\mathbf{v}$  93  $\mathbf{\tilde{e}}\mathbf{\tilde{w}}$ 84 85

### Appendix 2 - Partition Assignments

#### **Basic Rules**

1 Nasal Vowel

ẽj õã ĩ ẽ ã ẽj õ ẽ ẽu ẽ ũ a: cẽ ẽw

2 Vowel

e o: ə o i ɔ ɪ u oj u: y e: a ɐ œ ε i: oa ɨ a: p ej ɐj ε: ø: εj ø ea aj α ɔ: au ʊ

3 Nasal Consonant

nmnŋĵ

4 Non Sylabic Sonorant

wjlr

5 Consonant

gzjdzsſvbtdfrx́лвhtfpzðktsπθηłck<sup>w</sup>γgg<sup>w</sup>βjt͡ʃ ις

|  | I  | We   | YouPlural   | YouSingular  |
|--|--|--|---|--|
| Latin  | - e g o:   | n o: - s -   | wo: - s   | t u:   |
| French   | 3 9  | n u  | v u   | t y  |
| Spanish  | j o  | n o - s -  | b o - s   | t u  |
| Italian  | i o  | n o: i   | v o: i -  | t u  |
| PortugueseBrazi  | - e - w  | n o j - s  | v o j s   | t u  |
|  |  | 1 1311   | 1 131   |  |
| Portuguese   | -   e   -   w  | $ \mathbf{n} \mathbf{o}  -  \mathbf{f} $               | $ \mathbf{v}  \mathbf{o}  $ - $ \int$                             | t u  |
| Catalan  | 3 5  |  | b u - s   | t u  |
| Walloon  | dg 1   | n   o   -   -   -                                      | v o - s   | t y  |
| Friulian   | j o  | n o:   | v o:  | t u  |
| Romanian   | j e - w  | n   oj   -   -   | v   oj   -   -  | t u  |
|  | YouSingular  | Woman  | Woman-Mulier  | Woman-Domina   |
|  | -VostramMercedem   |  |   |  |
| Latin  |  | f e: - m i - n - a                                     | m u l i e r e m   | d o m i n a  |
| French   |  | f a - m  |   | d   a   m   -   -   -                                  |
|  | -  u  s   t   e   d  | -   e   -   m   -   b   r   -   a                      | m u x - e r   | d   o   -   -   n   a                                  |
| Italian  |  | f e m m i - n - a                                      | m o A A e   | d   o   n   -   n   a                                  |
| PortugueseBrazi  | v   o   s   -   e   -  | f e - m e - - e  | m u 1 - e 1   | $ \mathbf{d} \mathbf{o} $ - $ \mathbf{n} \mathbf{e}$   |
|  |  |  |   |  |
| Portuguese   | v o s - e -  | f e - m j e  | m u \lambda - e r   | d o n e  |
| Catalan  | $ \mathbf{v}   \mathbf{o}   \mathbf{s}   \mathbf{t}   \mathbf{e} $ - | f e - m - b r - a                                      | m u   K   -   e   -   -   -                                       | $ \mathbf{d} \mathbf{o}  -  \mathbf{n} \mathbf{o}$     |
| Walloon  |  | f œ - m  |   | d   œ   m   -   -   -                                  |
| Friulian   |  | $ f  \epsilon - m i - n - \epsilon$                    | m u i: r  | d   o   -   n   e                                      |
| Romanian   |  | f e - m e - j e  | m u - j e r e -   | d oam - n ə  |
|  | ManHumanBeing  | ManHumanBeing-Homo                                     | Child   | Child-Ninnus   |
| Latin  | h o m i - n e m  | - h o m o:   | i n f a n t e m   |  |
| French   | -   o   m   -   -   -   -  | $ - \tilde{\mathfrak{z}} - - - $                       | $ \tilde{\alpha}  -  f   \tilde{\alpha}  -  - - - $               |  |
| Spanish  | o m - b r e  |  | i n f a n t e -   | n i n o  |
| Italian  | ~~   | w o m o -  | - f a n t e -   | n i n o  |
| PortugueseBrazi  | o m ej   |  | $ \tilde{i}  -  \tilde{f}  \tilde{g}  -  f  i $                   | n e n ēj   |
| Portuguese   | ɔ  m ẽj   -   -   -   -  |  | $ \tilde{i}  -  f \tilde{e}  -  t \tilde{i} $                     | n a n a  |
| Portuguese<br>Catalan  | o m ej   |  | 1   -   1   6   -   f   4   -                                     | n e n e n e n e n e n e n e n e                        |
| Walloon  | - 3 m  |  | $ \epsilon $ - $ \mathbf{f} $ $ \mathbf{\tilde{a}} $ - $ - - $ -  | 11   C   II   -  |
| Friulian   | - 3 m  |  | c   1   a   -   -   -   |  |
| Romanian   | - o m  |  |   |  |
|  | Wife   | Wife-Mulier  | Husband   | Husband-Sponsus  |
| Latin  | - s p o n s a  | m u l i e r -  | m a r i: t u s  |  |
| French   | - r  |  |   |  |
|  | e - p u - z -  |  | m a в i   | e - p u  |
| Spanish  | e - p u - z -<br>e s p o - s a                                       | m u x - e r -  | mariðo-   | e - p u<br>e s p o - s o -                             |
| Spanish<br>Italian   | e s p o - s a  | m u x - e r -<br>m o λ λ e                             | тагі бо-  | e s p o - s o -  |
| Italian  | e s p o - s a<br>- s p o - z a                                       | m o \lambda \lambda \lambda \left e                    | mariðo-   | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ |
| La fina  | e s p o - s a<br>- s p o - z a                                       |  | тагі бо-  | e s p o - s o -  |
| Italian<br>PortugueseBrazi                                     | e s p o - s a<br>- s p o - z a<br>i s p o - z a                      | m o \lambda \lambda \lambda \left e                    | mariðo-   | e s p o - s o -<br>- s p o - z o -<br>i s p o - z u -  |
| Italian  | e s p o - s a<br>- s p o - z a<br>i s p o - z a                      | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | m a r i ð o - m a r i t o - m a r i d u -                         | e s p o - s o -<br>- s p o - z o -<br>i s p o - z u -  |
| Italian<br>PortugueseBrazi<br>Portuguese                       | e s p o - s a<br>- s p o - z a<br>i s p o - z a                      | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$  | m a r i ð o - m a r i t o - m a r i d u -                         | e s p o - s o -<br>- s p o - z o -<br>i s p o - z u -  |
| Italian<br>PortugueseBrazi<br>Portuguese<br>Catalan            | e s p o - s a<br>- s p o - z a<br>i s p o - z a                      | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$ | m a r i ð o - m a r i t o - m a r i d u - m a r i ð u - m a r i t | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$  |
| Italian<br>PortugueseBrazi<br>Portuguese<br>Catalan<br>Walloon | e s p o - s a<br>- s p o - z a<br>i s p o - z a                      | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$  | m a r i ð o - m a r i t o - m a r i d u -                         | e s p o - s o -<br>- s p o - z o -<br>i s p o - z u -  |

|  | Husband-Socius            | Mother   | Fish-Piskem  | Fish-Pescion  |
|--|---------------------------|--|--|---|
| Latin  | s o k i u s               | m a: t r e m   | p i s k e m  |   |
| French   |                           | m e -  |  | p w a s õ   |
| Spanish  |                           | m a ð r e -  | p e θ  |   |
| Italian  | s o f - o -               | m a: d r e -   | p e   f   f   e   -  |   |
| PortugueseBrazi  |                           | m ej   | p ej ∫ - i -   |   |
|  |                           |  |  |   |
| Portuguese   |                           | m ej   | p ej ʃ -   i -   |   |
| Catalan  |                           | m a - r ə -  | p e   f   -   -  |   |
| Walloon  |                           | $ \mathbf{m}   \mathbf{e}  -  \mathbf{R}  -  \mathbf{r} $  |  | $ p  -  \epsilon  h  \tilde{o} $  |
| Friulian   |                           | $ \mathbf{m} \mathbf{p}  -  \mathbf{r} \mathbf{i} $ -  | $p \mid \epsilon \mid s \mid - \mid - \mid - \mid$   |   |
| Romanian   | s o ts                    |  | $ \mathbf{p}   \mathbf{e}  \int  \mathbf{t}   \mathbf{e} $ -   |   |
|  | Bird-Avem                 | Bird-Avicellum   | Bird-Passerem  | Fruit   |
| Latin  | a w e m                   | -   a   w   i   -   k   -   e   l   l   u   m  | passerem   | $\mathbf{f} \mid \mathbf{r} \mid \mathbf{u} \cdot \mid - \mid \mathbf{k} \mid \mathbf{t} \mid \mathbf{u} \mid \mathbf{s}$ |
| French   |                           | w   a   -   -   -   z   -   o   -   -   -   -  |  | f   |
| Spanish  | a   b   e   -             |  | p a - x a r o -  | f r u - t o -   |
| Italian  |                           | $  -   -   u   -   t   t   -   \epsilon   l   l   o   -   \epsilon   \epsilon   c   c   c   c   c   c   c   c$ | passero-   | f r u - t t o -   |
| PortugueseBrazi  | a   v   i   -             |  | pa-seru-   | f r u t e -   |
| D 1  |                           |  |  |   |
| Portuguese   | a v i                     |  | p a - s e r u -  | f r u t e -   |
| Catalan  | a   w   -   -             | $ \begin{vmatrix} - & - & u & - & - & s & - & e & - & \Lambda & - & - & - & - & - & - & - & -$                 |  | f r u j - t   |
| Walloon  |                           | -   -   u:   -   -   n   -   ε:   -   -   -   -   -   -   -   -   -  |  | f R y   |
| Friulian   |                           | -   -   u   -   -   y   j   ε   -   1   -   -  |  | f r u t   |
| Romanian   | Flores                    | Ness   | p a - s ə r e -<br>Nose-Nares  | f r u - k t   |
| Latin  | Flower f l o: r e m       | Nose<br>n a: s u s   | Nose-Nares   | Sun<br>s o: 1 e m   |
| French   | f 1 œ в                   | n e  |  | S   O.   1   C   III  |
| Spanish  | flor-                     | n a s o -  | $ \mathbf{n} \mathbf{a} \mathbf{r} \mathbf{i} \mathbf{\theta} $ -  | s   o   1   -   -   |
| Italian  |                           |  |  |   |
|  | fiorce-                   | n a s o -  |  | 8 0 1 6 -   |
| PortugueseBrazi  | f j o: r e -              | n   a:   s   o   -   | n a r i tf e   | s o l e -   |
| PortugueseBrazi  |                           | n  a:   s   o   -  |  | S   O   I   E   -   -   -   -   -   |
|  | f   1   o   B   -   -     | n  a:   s   o   -  | n a r i s -  | $ \mathbf{s} \mathbf{o} \mathbf{w}$ – –   |
| Portuguese   |                           |  |  |   |
|  | f 1 o r                   | n a s - -  | n a r i s -  | s   o   w   -   -<br>  s   o   1   -   -<br>  s   o   1   -   -   |
| Portuguese<br>Catalan  | f   1   o   g   -   -   - |  |  | s   o   w   -   -<br>  s   o   <del>1</del>   -   -   |
| Portuguese<br>Catalan<br>Walloon   | f   1   0   B   -   -   - | $ \begin{vmatrix} n & a & s & - & - \\ n & e & - & - & - \end{vmatrix} $                                       |  | s   o   w   -   -<br>  s   o   1   -   -<br>  s   o   1   -   -   |
| Portuguese<br>Catalan<br>Walloon<br>Friulian   | f   1   0   B   -   -     | n a s n e n a: s   | n   a   r   i   s   -<br>  n   e   r   i   f   -<br>  n   a: r   r   s   -   | s   o   w   -   -   |
| Portuguese<br>Catalan<br>Walloon<br>Friulian   | f   1   0   B   -   -     | n   a   s   -   -  | n   a   r   i   s   -<br>  n   e   r   i   ∫   -<br>  n   a: r   r   s   -<br>  Star<br>  -   s   t   -   e:   1   1   a   | s   o   w   -   -   |
| Portuguese<br>Catalan<br>Walloon<br>Friulian<br>Romanian<br>Latin<br>French                                    | f   1   0   B   -   -     | n a s n e n a: s n a s  Moon 1 u: n a 1 y n -  | n   a   r   i   s   -  | s   o   w   -   -   |
| Portuguese Catalan Walloon Friulian Romanian  Latin French Spanish   | f   1   0   B   -   -     | n a s n e n a: s n a s  Moon  1 u: n a 1 y n - 1 u n a   | n   a   r   i   s   -  | s   o   w   -   -   |
| Portuguese<br>Catalan<br>Walloon<br>Friulian<br>Romanian<br>Latin<br>French                                    | f   1   0   B   -   -     | n a s n e n a: s n a s  Moon 1 u: n a 1 y n -  | n   a   r   i   s   -  | s   o   w   -   -   |
| Portuguese Catalan Walloon Friulian Romanian  Latin French Spanish   | f   1   0   B   -   -   - | n a s n e n a: s n a s  Moon  1 u: n a 1 y n - 1 u n a   | n   a   r   i   s   -  | s   o   w   -   -   |
| Portuguese Catalan Walloon Friulian Romanian  Latin French Spanish Italian PortugueseBrazi                     | f   1   0   B   -   -   - | n   a   s   -   -  | n   a   r   i   s   -     n   e   r   i   ∫   -     n   a   r   I   s   -     Star   -   s   t   -   e   1   1   a     e   s   t   r   e   -   j   a     -   s   t   r   e   -   1   e     i   s   t   r   e   -   1   e | s   3   w   -   -   |
| Portuguese Catalan Walloon Friulian Romanian  Latin French Spanish Italian PortugueseBrazi                     | f   1   0   B   -   -   - | n   a   s   -   -  | Star  Star  - s t - e: l l a e - t w a - l - e s t r e - j a - s t r e - l v  i   f   t   r   e - l   v  | s   3   w   -   -   |
| Portuguese Catalan Walloon Friulian Romanian  Latin French Spanish Italian PortugueseBrazi  Portuguese Catalan | f   1   0   B   -   -   - | n   a   s   -   -  | n   a   r   i   s   -  | s   3   w   -   -   |
| Portuguese Catalan Walloon Friulian Romanian  Latin French Spanish Italian PortugueseBrazi                     | f   1   0   B   -   -   - | n   a   s   -   -  | Star  -   s   t   c   e   c   c   c   c   c   c   c   c  | s   3   w   -   -   |

|                | Rain  | Lake   | Sea   | Salt   |
|----------------|---|--|---|--|
| Latin          | p 1 u - w i a   | l a k u m  | m a r e   | s a: 1 e m   |
| French         | p 1 q i -   | 1 a k  | ш ε в -   | s ε 1  |
| Spanish        | j - u - b j a   | 1 a g o -  | mar -   | s a 1  |
| Italian        | pjoddy-a  | 1 a g o -  | m a r e   | s a 1 e -  |
| PortugueseBraz |   | $\begin{vmatrix} 1 & a & g & u \end{vmatrix}$  | ma u -  | s a w  |
|                |   |  |   |  |
| Portuguese     | $\int  - \mathbf{u}  -  \mathbf{v}  -  \mathbf{e} $                   | 1   a   y   u   -  | mar -   | s   a   1   -   -  |
| Catalan        | p 1 u - 3 - ə   | А a k  | mar -   | s a 1  |
| Walloon        | p l u: - в  | 1 a k  | т е в -   | s e  |
| Friulian       | p 1 o j e   | 1 a: t   | ma: r -   | s a: 1   |
| Romanian       | p 1 oa j e  | 1 a k  | m a r e   | s a r e -  |
|                | Earth   | Fog  | Fog-Nebula  | Fog-Tenebrae   |
| Latin          | t - e r r a   | k a: l i: g i n e m  | n - e - b u 1 a   | t e n e: b r aj  |
| French         | t - e - r -   |  | n   j   o   -   -   1   y   |  |
| Spanish        | t   j   e   -   r   a   | k a l i n a -  | n   j   e   -   b   -   l   a   |  |
| Italian        | t - ε r r a   | k a l i d i n e -  | n - e b b - j a   | t e n e b r e  |
| PortugueseBraz | t   -   e   -   r   s   | $ \mathbf{k}  \mathbf{a}  \mathbf{l}  \mathbf{i}  \mathbf{g}  \tilde{\mathbf{e}} \tilde{\mathbf{j}}  - - - $ | $ \mathbf{n}  -  \mathbf{\epsilon}  -  \mathbf{v} \mathbf{w}  -  \mathbf{e} $ |  |
|                |   |  |   |  |
| Portuguese     | t   -   ε   -   в   е   | $ \mathbf{k}  \mathbf{e}  \mathbf{l}  \mathbf{i}  \mathbf{g}  \mathbf{\tilde{e}\tilde{j}}  - - - $           | n - ε - v w - e   |  |
| Catalan        | t - E - r ə   |  | n   -   e   -   -   w   1   ə   |  |
| Walloon        | t - E: - R -  |  |   |  |
| Friulian       | $ \mathbf{t}  \mathbf{j}  \mathbf{\epsilon} - \mathbf{r}  \mathbf{e}$ |  |   |  |
| Romanian       | ts - a - r ə  |  | n e g u r ə   |  |
|                | Fog-Tenebras  | Fog-Fumata   | Fog-Caecia  | Sky  |
| Latin          | t - e n - e: b r a: s   | f u: m a: t a  | k aj k i a  | k - aj l u m   |
| French         | t - e n - ε b в   | f y m e  |   | s j ε l  |
| Spanish        | t - i n j e b l a s   | f u m a t a  |   | $\begin{vmatrix} \theta & j & e & 1 & o \end{vmatrix}$   |
| Italian        | t - E: n - e b r e -  | f u m a: t a   |   | tf - ε 1 ο -   |
| PortugueseBraz | I   | f u m a s e  |   | $ s  -  \epsilon   w  -  -$  |
| Portuguese     | t   r   -   -   ε   v   -   ε   ∫                                     | f u m a s e  |   | $ \mathbf{s}  -  \mathbf{\epsilon} \mathbf{w}  -  \mathbf{r} $   |
| Catalan        | t - ə n - e b r ə s   | 1   u   III   u   S   C  |   | $\begin{vmatrix} \mathbf{s} & - & \mathbf{\epsilon} & \mathbf{w} & - & - \\ \mathbf{s} & - & \mathbf{\epsilon} & \mathbf{l} & - & - \end{vmatrix}$ |
| Walloon        | t     0   11     C   D   1   0   5                                    |  |   |  |
| Friulian       |   | f u m a t e  |   | tf   -   i:   1   -   -  |
| Romanian       |   | 1   4   III   4   5   5  | tf ea tf - ə  | tf - e r   |
|                | Wind  | Fire-Focus   | Year  | Name-Nomen   |
| Latin          | w - e n t u m   | f o k u m  | a n n u m   | n o: m e n   |
| French         | $ \mathbf{v}  -  \tilde{\mathbf{a}}  -  - - - $                       | f - ø  | $ \tilde{\mathfrak{a}}  -  - - - $  | n   3   -   -   -  |
| Spanish        | b j e n t o -   | f w e g o -  | a - n o -   |  |
| Italian        | $v - \epsilon n t o -$  | f w o k o -  | a n n o -   | n o: m e -   |
| PortugueseBraz |   | f - o g u -  | e - n u -   | n o m i -  |
|                |   |  |   |  |
| Portuguese     | $ v  -  \tilde{e}  -  t   u  -$                                       | $  f   -   o   \gamma   u   -$   | e - n u -   | n o m i -  |
| Catalan        | b - e n   | f - 3 k  | a - n   | n o m  |
| Walloon        | v - ē   | f - ø:   | ã   -   -   -   | n   õ   -   -  |
| Friulian       | v - i n t   | f - u: k   | a - ŋ   | n o n  |
| Romanian       | v - i n t   | f - o k  | a n   | n u m e -  |

|   | Name-Nominem   | Tongue   | ToDrink  | ToEat  |
|---|--|--|--|--|
| Latin   | n o: m i n - e m   | l i n g <sup>w</sup> - a   | b i b - e r e  | k o m e d e r e  |
| French  |  | $ 1 \tilde{\alpha} - g - -$  | p w a в -  |  |
| Spanish   | n o m - b r e -  | l e ŋ g w a  | b e b - e r -  | k   o   m   e   -   -   r   -  |
| Italian   |  | l i n g w a  | b e r e  |  |
| PortugueseBrazi   |  | 1   î   -   g   w   e  | p   e   p   -   e   R   -  | k   o   m   e   -   -   -   -  |
| Portuguese  |  | 1     ī   -   g   w   e  | b  i   |  |
| Catalan   |  |  | b & w r ə  |  |
| Walloon   |  | l ẽu -   -   -   | b   -   ø: в -   |  |
| Friulian  |  | $ 1  \hat{\epsilon}  n  g - \epsilon$  | b e v i  |  |
| Romanian  |  | l i m b - ə  | b ea   |  |
|   | ToEat-Manducare  | ToBite   | ToBite-Morsicare   | ToSuck   |
| Latin   | m a n d u k a: r e   | m - o r d e: r e   | m o r s i k a: r e   | s u: g e r e   |
| French  | m  | m -   o   r   q   -   r   -  |  | s y s e  |
| Spanish   | m a n d u k a r -  | $ \mathbf{m}  -  \mathbf{o}  \mathbf{r}  \mathbf{\delta}  \mathbf{e}  \mathbf{r}  -$           | m o - s - k a r -  |  |
|   | m a n dg a r e   | m -   2   r   d   e   r   e  | m o r s i k a r e  |  |
| PortugueseBrazi   | m   §   -   З   -   -   а   в   -  | $ \mathbf{m} $ - $ \mathbf{o} $ $\mathbf{R}$ $ \mathbf{q} $ $ \mathbf{e} $ $ \mathbf{R} $ -    | $ \mathbf{m} \mathbf{u}  -  \mathbf{s} \mathbf{\vartheta} \mathbf{g} \mathbf{a}  -  \mathbf{s} \mathbf{\vartheta} \mathbf{g} \mathbf{a} $  | $ s u g a \mathbf{g}$  |
| D 1   | ~  | <br>   |  |  |
|   | m e - 3 a r -  | $ \mathbf{m}  -  \mathbf{u}  \mathbf{r}  \mathbf{\delta}  \mathbf{e}  \mathbf{r}  -$           | m u - s ə g a r -  | s u g a r -  |
|   | m ə n ʒ a  |  | $ \mathbf{m} \mathbf{u}  -  \mathbf{s} \mathbf{\vartheta} \mathbf{v} \mathbf{a}  -  \mathbf{v} $   |  |
| Walloon   | m a n i:   |  |  | s y s i:   |
|   | maŋ - a:   | $ \mathbf{m} \mathbf{w} \mathbf{a} \mathbf{r} \mathbf{d} \mathbf{i} $ - $ -$                   |  | c u c a:   |
| Romanian  | m i n - k a  | TaCnit Evennenue   | m u r s e k a  | s u dg e   |
| Latin   | ToSpit k o n s p u e r e   | ToSpit-Exconspuere   | ToSpit-Sputare   | s k i: r e   |
| French  | k õ - s p y e  |  |  | 3   K   I.   I   C   |
| Spanish   | K 3 S P Y C  | e   s   k   u   -   p   i   r  | e s p u t a r -  |  |
| Italian   |  |  | - s p u t a r e  |  |
|   | k u - s p i в  |  |  |  |
| l ortugueseziazi  |  |  |  |  |
| Portuguese  | $ \mathbf{k} \mathbf{u}  -  \int  \mathbf{p} \mathbf{i} \mathbf{r}  -  \mathbf{r} $  |  |  |  |
| Catalan   |  |  |  |  |
| Walloon   |  | ə   s   k   u   -   p   i   -  |  |  |
| Eriulian  |  | $  \mathbf{s}   \mathbf{s}   \mathbf{k}   \mathbf{u}   -   \mathbf{p}   \mathbf{i}   -$        |  |  |
| Friulian  |  | $  \mathbf{a}   \mathbf{s}   \mathbf{k}   \mathbf{u}   -   \mathbf{p}   \mathbf{i}  $          | s   p   u   d   a:   -   -   -   |  |
| Friulian<br>Romanian  |  | - s k u j p a -  |  | <b> </b>    <b> </b>   |
| Romanian  | ToKnow-Sapere  | - s k u j p a -<br>ToKnow-Cognoscere   | ToThink  | ToThink-Pensare  |
| Romanian<br>Latin   | s a p - e r e  | -   s   k   u   j   p   a   -<br>ToKnow-Cognoscere<br>  k   o   g   n   o:   s   k   e   r   e | ToThink   k   -   o:   g   i   t   a:   r   e  | ToThink-Pensare p e: n s a: r e  |
| Romanian<br>Latin<br>French   | s a p - e r e<br>s a v w a в -   | s k u j p a   -  | ToThink   k   - o: g   i   t   a: r   e  | ToThink-Pensare  p e: n s a: r e p a - s e   |
| Romanian<br>Latin<br>French<br>Spanish                                    | s a p - e r e<br>s a b - e r -   | -   s   k   u   j   p   a   -  | ToThink   k   - o: g   i   t   a: r   e  | ToThink-Pensare    p   e:   n   s   a:   r   e     p   \tilde{a}   -   s   e   -     p   e   n   s   a   r   -   |
| Romanian<br>Latin<br>French<br>Spanish<br>Italian                         | s a p - e r e<br>s a b - e r -<br>s a p - e r e  | -   s   k   u   j   p   a   -  | ToThink  k - o: g i t a: r e k y i d e k w i d a r - k - o d; i t a r e  | ToThink-Pensare    p   e:   n   s   a:   r   e     p   \tilde{a} -   s   e     p   e   n   s   a   r   e     p   e   n   s   a   r   e   |
| Romanian<br>Latin<br>French<br>Spanish                                    | s a p - e r e<br>s a b - e r -<br>s a p - e r e  | -   s   k   u   j   p   a   -  | ToThink   k   - o: g   i   t   a: r   e  | ToThink-Pensare    p   e:   n   s   a:   r   e     p   \widetilde{a} -   s   e   -     p   e   n   s   a   r   -   |
| Romanian<br>Latin<br>French<br>Spanish<br>Italian<br>PortugueseBrazi      | s a p - e r e<br>s a b - e r -<br>s a p - e r e  | -   s   k   u   j   p   a   -  | ToThink  k - o: g i t a: r e k y i d e k w i d a r - k - o d; i t a r e k - u z i t a в -  | ToThink-Pensare    p   e:   n   s   a:   r   e     p   \tilde{a} -   s   e   -     p   e   n   s   a   r   -     p   e   n   s   a   r   e     p   \tilde{e} -   s   a   r   e     p   \tilde{e} -   s   a   r   e   |
| Romanian<br>Latin<br>French<br>Spanish<br>Italian                         | s a p - e r e s a v w a в - s a p - e r e s a b - e r e s a b - e r - s a b - e r -  | -   s   k   u   j   p   a   -  | ToThink    k   - o: g   i   t   a: r   e     k   u   i   d   e       k   w   i   d   a   r   -     k   - o   d   i   t   a   r   e     k   - u   3   i   t   a   r   -     k   - u   3   i   t   a   r   - | ToThink-Pensare    p   e:   n   s   a:   r   e     p   \tilde{a} -   s   e   -     p   e   n   s   a   r   -     p   e   n   s   a   r   -     p   \tilde{e}   -   s   a   r   -   |
| Romanian  Latin French Spanish Italian PortugueseBrazi Portuguese         | s a p - e r e s a b - e r e s a b - e r e s a b - e r e  | -   s   k   u   j   p   a   -  | ToThink  k - o: g i t a: r e k y i d e k w i d a r - k - o d; i t a r e k - u z i t a в -  | ToThink-Pensare    p   e:   n   s   a:   r   e     p   \tilde{a} -   s   e   -     p   e   n   s   a   r   e     p   e   n   s   a   r   -     p   e   n   s   a   r   e     p   e   n   s   a   r   e     p   e   n   s   a   r   -     p   e   n   s |
| Romanian  Latin French Spanish Italian PortugueseBrazi Portuguese Catalan | s       a       p       -       e       r       e         s       a       v       w       a       b       -       e       r       e         s       a       b       -       e       r       e       s       e       s       e       r       e       s       e       s       e       s       e       r       e       s       s       e       s       s       e       s       s       s       s       s       s       s       s       s <td>  -   s   k   u   j   p   a   -                                </td> <td>ToThink    k   - o: g   i   t   a: r   e     k   u   i   d   e       k   w   i   d   a   r   -     k   - o   d   i   t   a   r   e     k   - u   3   i   t   a   r   -     k   - u   3   i   t   a   r   -  </td> <td>ToThink-Pensare    p   e: n   s   a: r   e     p   \tilde{a} - s   e   -     p   e   n   s   a   r   e     p   e   n   s   a   r   e     p   e   - s   a   r   -     p   e   - s   a   r   -     p   e   n   s   a   -  </td> | -   s   k   u   j   p   a   -  | ToThink    k   - o: g   i   t   a: r   e     k   u   i   d   e       k   w   i   d   a   r   -     k   - o   d   i   t   a   r   e     k   - u   3   i   t   a   r   -     k   - u   3   i   t   a   r   - | ToThink-Pensare    p   e: n   s   a: r   e     p   \tilde{a} - s   e   -     p   e   n   s   a   r   e     p   e   n   s   a   r   e     p   e   - s   a   r   -     p   e   - s   a   r   -     p   e   n   s   a   -   |

|  | ToFear   | ToFear-Tremere   | ToSleep   | ToLive  |
|--|--|--|---|---|
| Latin  | t i m e: r e   | t r e m - e r e  | d   -   o   r   m   i:   r   e  | w i: w e r e  |
| French   |  | k в ё - d - в -  | d - э к m i к -   | v i v - в -   |
| Spanish  | t e m e r -  | t r e m - e r -  | d - o r m i r -   | b i b i r -   |
| Italian  | t e m e r e  | t r e m - a r e  | d - o r m i r e   | v i v e r e   |
| PortugueseBrazi  |  | t гет - ев-  | q - о в ш і в -   | v i v e в -   |
|  |  |  |   |   |
| Portuguese   | t   i   m   e   r   -  | $ t  \mathbf{r}  \dot{\mathbf{s}}  \mathbf{m} -  \mathbf{e}  \mathbf{r} -$   | d   -   u   r   m   i   r   -   | $ \mathbf{v}  \mathbf{i}  \mathbf{v}  \mathbf{e}  \mathbf{r} $  |
| Catalan  | t e m ə  |  | d - u r m i   | b i w - r ə   |
| Walloon  |  |  | d w a в m i   |   |
| Friulian   | t   e   m   i   -   -  | t   r   i  m  -  a:   -   -  | d - u r m i:  | v   i   v   i   -   -   |
| Romanian   | t e m e  |  | d - o r m i   | v i - a   |
|  | ToDie  | ToKill   | ToKill-Adnecare   | ToKill-Tutari   |
| Latin  |  | n  -  e  k  a:  r   e  |   | t u: - t a: r i   |
| French   | m u в i в -  | n w aj e   |   | t - q - e   |
|  | morir-   |  | a - n e g a r -   |   |
|  | m o r i r e  |  | a n n e g a r e   |   |
| PortugueseBrazi  |  |  |   |   |
|  |  |  |   |   |
| Portuguese   | muser-   |  |   |   |
| Catalan  | muri-  | n - ə g a - -  |   |   |
| Walloon  | m o R i  |  |   | t   u   w   -   e   -   -   |
| Friulian   | m u r i:   |  |   |   |
| Romanian   | m u r i  | n   -   e   k   a   -   -  |   |   |
|  | ToKill-Mactare   | ToKill-Occidere  | ToFight   | ToFight-Battuere  |
| Latin  | m a c t a: r e   | o k k i: d e r e   | p u g n a: r e  | b a t t u e r e   |
| French   | m a - t e  | с к в і в -  |   | b   a   t   -   -   в   -   -   |
|  | m a t C  | J K S I B -  |   |   |
| Spanish  | m a - t a r -  |  | p u  -  p a r   |   |
| Italian  | ma-ta-   | $ \mathbf{u} \mathbf{t} \mathbf{t} \mathbf{t} \mathbf{d} \mathbf{e} \mathbf{r} \mathbf{e}$                           | p u - p a r -<br>p u p p a r e  | b a - t - i r -<br>b a t t - e r e  |
| 1 '  | ma-ta-   |  |   |   |
| Italian<br>PortugueseBrazi   | $ \mathbf{m}  \mathbf{a} -  \mathbf{t}  \mathbf{a}  \mathbf{r}  -  \mathbf{m}  \mathbf{a} -  \mathbf{t}  \mathbf{a}  \mathbf{g}  -  \mathbf{m}  \mathbf{a} -  \mathbf{t}  \mathbf{a}  \mathbf{g}  -  \mathbf{g}  \mathbf{g}$           |  |   | b   a   -   t   -   e   r   e   b   a   -   t   -   e   r   e   -   e   r   e   e     -   e   r   e       e       e       e       e       e       e       e       e         e       e         e         e         e           e |
| ltalian<br>PortugueseBrazi<br>Portuguese   | m   a   -   t   a   r   -  | $ \mathbf{u} \mathbf{t} \mathbf{t} \mathbf{i} \mathbf{d} \mathbf{e} \mathbf{r} \mathbf{e}$                           | punnare   | b   a   -   t   -   i   r   -   e   b   a   -   t   -   e   r   e     -     e   r     -     e   r     -     e   r     -   |
| Italian<br>PortugueseBrazi<br>Portuguese<br>Catalan  | $ \mathbf{m}  \mathbf{a} -  \mathbf{t}  \mathbf{a}  \mathbf{r}  -  \mathbf{m}  \mathbf{a} -  \mathbf{t}  \mathbf{a}  \mathbf{g}  -  \mathbf{m}  \mathbf{a} -  \mathbf{t}  \mathbf{a}  \mathbf{g}  -  \mathbf{g}  \mathbf{g}$           |  |   | b   a   c   t   -   e   r   e   b   a   c   t   -   e   r   e   c   e   b   a   -   t   -   e   r   e   b   a   -   t   -   r   e   r   e   c   c   |
| Italian<br>PortugueseBrazi<br>Portuguese<br>Catalan<br>Walloon   | m a - t a r -  m e - t a r -  m e - t a  | $ \mathbf{u} \mathbf{t} \mathbf{t} \mathbf{i} \mathbf{d} \mathbf{e} \mathbf{r} \mathbf{e}$                           | punnare   | b   a   - t   - i   r   -   e   r   e   b   a   - t   -   e   r   e   b   a   - t   -   e   r   -   e   b   a   - t   -   r   a   b   a   t   -   e   -   -   -   -   |
| Italian<br>PortugueseBrazi<br>Portuguese<br>Catalan<br>Walloon<br>Friulian   | m   a   -   t   a   r   -  | u t t i a e r e $ u k s i - - - -$   | punnare   | b   a   - t   - i   r   -   b   a   t   t   - e   r   e   b   a   - t   - e   r   e   b   a   -   t   -   e   r   -   b   a   t   -   e   r   -   b   a   t   -   e   -   -   b   a   t   -   i   -   -   -   b   a   t   -   i   -   -   -   |
| Italian<br>PortugueseBrazi<br>Portuguese<br>Catalan<br>Walloon   | m a - t a r -  m a - t a r -  m e - t a r -  m e - t a r -  m e - t a r -  m a f   | u t t i d e r e $ u k s i - - -   u - t i d e - -$   | p   u   n   n   a   r   e   | b   a   - t   - i   r   -   b   a   t   t   -   e   r   e     b   a   -   t   -   e   r   -   b   a   t   -   e   r   -   b   a   t   -   e   r   -   b   a   t   -   e   r   -   b   a   t   -   e   -   -   b   a   t   -   e   -   -   -   b   a   t   -   e   -   -   -     b   a   t   -   e   -   -   -     b   a   t   -   e   -   -   -     b   a   t   -   e   -   -   -       b   a   t   -   a   -     -   |
| Italian<br>PortugueseBrazi<br>Portuguese<br>Catalan<br>Walloon<br>Friulian<br>Romanian   | m a - t a r -  m a - t a r -  m e - t a r -  m e - t a r -  m e - t a -  m a ff - a: -  ToHunt-Captiare  | $egin{array}{c c c c c c c c c c c c c c c c c c c $   | p   u   p   p   a   r   e   | b   a   - t   - i   r   -   |
| Italian PortugueseBrazi Portuguese Catalan Walloon Friulian Romanian Latin   | m a - t a r - m a - t a r - m e - t a r - m e - t a r - m e - t a  m a ff - a: -  ToHunt-Captiare k a p t i a: r e   | $\begin{array}{c c c c c c c c c c c c c c c c c c c $   | p   u   p   a   r   e   | b   a   - t   - i   r   -   b   a   t   t   -   e   r   e     b   a   -   t   -   e   r   -   b   a   t   -   e   r   -   b   a   t   -   e   r   -   b   a   t   -   e   r   -   b   a   t   -   e   -   -   b   a   t   -   e   -   -   -   b   a   t   -   e   -   -   -     b   a   t   -   e   -   -   -     b   a   t   -   e   -   -   -     b   a   t   -   e   -   -   -       b   a   t   -   a   -     -   |
| Italian PortugueseBrazi Portuguese Catalan Walloon Friulian Romanian Latin French  | m a - t a r - m a - t a r - m e - t a r - m e - t a r - m e - t a - m a ff - a: -  ToHunt-Captiare k a p t i a: r e ∫ a - s - e  | $\begin{array}{c c c c c c c c c c c c c c c c c c c $   | ToCut    p   u   p   a   r   e     p   u   -   p   a   -   -     s   -   e   k   a   r   e     s   j   e   -   -   -  | b   a   - t   - i   r   -   |
| Italian PortugueseBrazi Portuguese Catalan Walloon Friulian Romanian Latin French Spanish  | m a - t a r - m a - t a r - m a - t a r - m a τ - t a r - m a τ  ToHunt-Captiare k a p t i a: r e ∫ a - s - e k a - θ - a r -  | u t t i d e r e<br> u k s i - - - -<br> u - t i d e - -<br>ToHit<br> p u 1 s a: r e<br> p u - s e <br> p u - x a r - | ToCut    p   u   p   a   r   e     p   u   -   p   a   -     s   -   e   k   a: r   e     s   j   e   -   -     s   -   e   g   a   r   -   | b   a   - t   - i   r   -   |
| Italian PortugueseBrazi Portuguese Catalan Walloon Friulian Romanian Latin French Spanish Italian  | m a - t a r - m a - t a r - m a - t a r - m a τ a r - m a τ a r - m a τ a r -  ToHunt-Captiare k a p t i a: r e ∫ a - s - e k a - θ - a r - k a t f - a r e  | u   t   t   i   d   e   r   e  | ToCut    S  | b   a   - t   - i   r   -   |
| Italian PortugueseBrazi Portuguese Catalan Walloon Friulian Romanian Latin French Spanish  | m a - t a r - m a - t a r - m a - t a r - m a - t a r - m a f - t a r - m a f - t a r -  ToHunt-Captiare k a p t i a: r e ∫ a - s - e - k a - θ - a r - k a t f - a r e  | u t t i d e r e<br> u k s i - - - -<br> u - t i d e - -<br>ToHit<br> p u 1 s a: r e<br> p u - s e <br> p u - x a r - | ToCut    S  | b   a   - t   - i   r   -   |
| Italian PortugueseBrazi Portuguese Catalan Walloon Friulian Romanian  Latin French Spanish Italian PortugueseBrazi                             | m a - t a r - m a - t a r - m a - t a r - m a τ a m a τ a m a τ a  ToHunt-Captiare k a p t i a: r e ∫ a - s - e k a - θ - a r - k a t f - a r e k a - s - a в -  | u   t   t   i   d   e   r   e  | ToCut    p   u   p   p   a   r   e     p   u   -   p   a   -     s   -   e   k   a: r   e     s   -   e   g   a   r   -     s   -   e   g   a   r   e     s   -   e   g   a   r   e     s   -   e   g   a   r   e     s   -   e   g   a   r   e                           | b   a   - t   - i   r   -   b   a   t   t   - e   r   e   b   a   - t   - e   r   e   b   a   - t   - e   r   a   r   e   b   a   t   - e   r   -   b   a   t   - e   r   -   -   b   a   t   - e   r   -   -   b   a   t   - e   r   -   -   b   a   t   r   e     k   u   r   t   a   r   e     k   o   r   t   a   r   e     k   o   r   t   a   r   -     k   o   r   t   a   r   -     k   o   r   t   a   r   -     k   o   r   t   a   r   -     k   o   r   t   a   r   -     k   o   r   t   a   r   -     k   o   r   t   a   r   -     k   o   r   t   a   r   -       k   o   r   t   a   r   -       k   o   r   t   a   r   -   |
| Italian PortugueseBrazi Portuguese Catalan Walloon Friulian Romanian  Latin French Spanish Italian PortugueseBrazi Portuguese                  | m a - t a r -  m a - t a r -  m e - t a r -  m a t - t a r -  m a t - t a r -  m a t - t a r -  m a t - t a r -  k a p t i a r e k a - s - a r e k a - s - a r -  k b - s - a r -  | u   t   t   i   d   e   r   e  | ToCut    p   u   p   p   a   r   e     p   u   -   p   a   -     s   -   e   k   a: r   e     s   -   e   g   a   r   e     s   -   e   g   a   r   e     s   -   i   y   a   r   -   | b   a   - t   - i   r   -   |
| Italian PortugueseBrazi Portuguese Catalan Walloon Friulian Romanian  Latin French Spanish Italian PortugueseBrazi  Portuguese Catalan         | m a - t a r - m a - t a r - m a - t a r - m a - t a r - m a f - t a - m a f - t a r - m a f - t a r -  ToHunt-Captiare  k a p t i a: r e ∫ a - s - e - k a - θ - a r - k a t f - a r e k a - s - a r - k a - s - a r - k a - s - a r - | u   t   t   i   d   e   r   e  | ToCut    p   u   p   p   a   r   e     p   u   -   p   a   -     s   -   e   k   a: r   e     s   -   e   g   a   r   -     s   -   e   g   a   r   e     s   -   e   g   a   r   e     s   -   e   g   a   r   e     s   -   e   g   a   r   e                           | b   a   - t   - i   r   -   b   a   t   t   - e   r   e   b   a   - t   - e   r   e   b   a   - t   - e   r   a   r   e   b   a   t   - e   r   -   b   a   t   - e   r   -   -   b   a   t   - e   r   -   -   b   a   t   - e   r   -   -   b   a   t   r   e     k   u   r   t   a   r   e     k   o   r   t   a   r   e     k   o   r   t   a   r   -     k   o   r   t   a   r   -     k   o   r   t   a   r   -     k   o   r   t   a   r   -     k   o   r   t   a   r   -     k   o   r   t   a   r   -     k   o   r   t   a   r   -     k   o   r   t   a   r   -       k   o   r   t   a   r   -       k   o   r   t   a   r   -   |
| Italian PortugueseBrazi Portuguese Catalan Walloon Friulian Romanian  Latin French Spanish Italian PortugueseBrazi  Portuguese Catalan Walloon | m a - t a r - m a - t a r - m a - t a r - m a t a m a t a m a t a  ToHunt-Captiare k a p t i a: r e f a - s - e k a - θ - a r - k a t t - a r e k a - s - a r e k a - s - a r - t a - s - a - t e t t t                                | u   t   t   i   d   e   r   e  | ToCut    p   u   p   p   a   r   e     p   u   -   p   a   -     s   -   e   k   a: r   e     s   j   e   -   -   -     s   -   e   g   a   r   e     s   -   e   g   a   r   e     s   -   e   g   a   r   -     s   -   e   g   a   r   -     s   -   e   g   a   r   - | b   a   - t   - i   r   -   b   a   t   t   - e   r   e   b   a   - t   - e   r   e   b   a   - t   - e   r   a   r   e   b   a   t   - e   r   -   b   a   t   - e   r   -   -   b   a   t   - e   r   -   -   b   a   t   - e   r   -   -   b   a   t   r   e     k   u   r   t   a   r   e     k   o   r   t   a   r   e     k   o   r   t   a   r   -     k   o   r   t   a   r   -     k   o   r   t   a   r   -     k   o   r   t   a   r   -     k   o   r   t   a   r   -     k   o   r   t   a   r   -     k   o   r   t   a   r   -     k   o   r   t   a   r   -       k   o   r   t   a   r   -       k   o   r   t   a   r   -   |
| Italian PortugueseBrazi Portuguese Catalan Walloon Friulian Romanian  Latin French Spanish Italian PortugueseBrazi  Portuguese Catalan         | m a - t a r - m a - t a r - m a - t a r - m a - t a r - m a f - t a - m a f - t a r - m a f - t a r -  ToHunt-Captiare  k a p t i a: r e ∫ a - s - e - k a - θ - a r - k a t f - a r e k a - s - a r - k a - s - a r - k a - s - a r - | u   t   t   i   d   e   r   e  | ToCut    p   u   p   p   a   r   e     p   u   -   p   a   -     s   -   e   k   a: r   e     s   -   e   g   a   r   e     s   -   e   g   a   r   e     s   -   i   y   a   r   -   | b   a   - t   - i   r   -   b   a   t   t   - e   r   e   b   a   - t   - e   r   e   b   a   - t   - e   r   a   r   e   b   a   t   - e   r   -   b   a   t   - e   r   -   -   b   a   t   - e   r   -   -   b   a   t   - e   r   -   -   b   a   t   r   e     k   u   r   t   a   r   e     k   o   r   t   a   r   e     k   o   r   t   a   r   -     k   o   r   t   a   r   -     k   o   r   t   a   r   -     k   o   r   t   a   r   -     k   o   r   t   a   r   -     k   o   r   t   a   r   -     k   o   r   t   a   r   -     k   o   r   t   a   r   -       k   o   r   t   a   r   -       k   o   r   t   a   r   -   |

|                                 | ToCut-Excurtare   | ToCut-Taliare  | ToSplit  | ToSplit-Scindere   |
|---------------------------------|---|--|--|--|
| Latin                           | e k s k u r t a: r e  | t a: - l i a: r e  | d i: w i d e r e   | s k i n d e r e  |
| French                          | e k u r t e   | t   a   j   -   -   e   -   -  |  | $ s  -  \tilde{\epsilon}  -  d   e  -  -$  |
| Spanish                         |   | t   a   -   x   -   a   r   -  | d i b i d i r -  |  |
| Italian                         | -   -   s   c   o   r   t   a   r   e                           | t a - K K a: r e   | d i v i d e r e  | $\int \left  - \right  i \left  n \right  d \left  e \right  r \left  e \right $             |
| PortugueseBrazi                 |   | $  t   a   -   \Lambda   -   a   B   -$  | ф i v i ф i в -  |  |
| Portuguese                      |   | t   e   -   \land   -   a   r   -  | d   i   v   i   ð   i   r   -  |  |
| Catalan                         |   | $\begin{vmatrix} \mathbf{t} & \mathbf{d} & \mathbf{h} \\ \mathbf{t} & \mathbf{a} \end{vmatrix} - \begin{vmatrix} \mathbf{h} & \mathbf{a} & \mathbf{h} \\ \mathbf{h} & \mathbf{a} \end{vmatrix} - \begin{vmatrix} \mathbf{h} & \mathbf{h} \\ \mathbf{h} & \mathbf{h} \end{vmatrix}$ | d i b i d i  |  |
| Walloon                         |   | $\begin{vmatrix} \mathbf{t} & \mathbf{\epsilon} & - & \mathbf{j} & \mathbf{i} \\ \mathbf{t} & \mathbf{\epsilon} & - & \mathbf{j} & \mathbf{i} \end{vmatrix} = -$   |  |  |
| Friulian                        | -   -   s   c   u   r   t   a:   -   -                          | t a j a:   | $ \mathbf{d}   \mathbf{i}   \mathbf{v}   \mathbf{i}   \mathbf{d}   \mathbf{i}  $ - |  |
| Romanian                        | s k u r t a   | t ə j a  | d i v i d e  |  |
|                                 | ToSplit-Findere   | ToSplit-Partire  | ToSplit-Separare   | ToStab   |
| Latin                           | f i n d e r e   | p a r t i: r e   | s e: p a r a: r e -  | p - u n g e r e  |
| French                          | f g - q - r -   | bartir-  | s ə - v <b>x</b> e   | $ \mathbf{b} \mathbf{m} \mathbf{\hat{\epsilon}} $ - $ \mathbf{q} $ - $ \mathbf{r} $ -        |
| Spanish<br>Italian              | - e n d e r -<br>f ε n d e r e                                  | p a r t i r -<br>  p a r t i r e   | s e p a r a r e -  | p -  u  n  dz   e   r   e  |
| PortugueseBrazi                 |   | bartlife   | separar -  | p - ũ - 3 i s -  |
| l ortagaesebrazi                |   |  | 3   C   P   a   1   a   B  | $ \mathbf{p} $ $ \mathbf{u} $ $ 3 1 \mathbf{B} $   |
| Portuguese                      | $ f \tilde{e}  -  d e r $                                       | pertir-  | s i p e r a r  | $ p  -  \tilde{u}  -  3  i  r  -$  |
| Catalan                         | $f \mid \varepsilon \mid n \mid d \mid - \mid r \mid \vartheta$ | p ə r t i  | s ə p ə r a  | p   -   u   n   -   i   -   -  |
| Walloon                         | $ f \tilde{\epsilon} - t - - -$                                 | p 3: R t i   |  |  |
| Friulian                        |   | p   a   r   t   i:   -   -   | s e p a r a:   |  |
| Romanian                        |   |  | s e p a r a  | p u n d e  |
| Latin                           | ToStab-lugulare<br>  j   u   g   u   l   a:   r   e             | ToScratch  | ToScratch-Rasare   | ToScratch-Rasicare   |
| French                          | 3 y g y l e   | r   a:   d   e   r   e   | в a z e  |  |
| Spanish                         | 3   9   9   9   1   0   | r   a   -   e   r   -  | r a s a r  | r a s k a r  |
| Italian                         | j u g u l a: r e  | r a d e r e  | r a s a r e  |  |
| PortugueseBrazi                 |   | ва-ев-   | ва дав -   | $\mathbf{R} \mid \mathbf{a} \mid \mathbf{l} \mid \mathbf{k} \mid \mathbf{a} \mid \mathbf{k}$ |
|                                 |   |  |  |  |
| Portuguese                      |   | R   S   -   G   U   -  | R B Z B L -  | R B V K a L  |
| Catalan                         |   | $ \mathbf{r}  \mathbf{a}  \mathbf{w}  -  \mathbf{r}  \mathbf{a}$   | r   ə   z   a   -   -  | r   ə   s   k   a   -  |
| Walloon<br>Friulian             |   | r   a   d   a:   -   -   | r   a   s   a:   -   -   |  |
| Romanian                        |   | r a d e  | 1   a   S   a   -   -  |  |
|                                 | ToScratch-Coctiare  | ToDig  | ToDig-Cavare   | ToDig-Excavare   |
| Latin                           |   | f o d e r e  | k a w a: r e   | e k s k a w a: r e   |
| French                          |   | f w i B - -  |  |  |
| Spanish                         |   |  | k a b a r -  | e s k a b a r  |
| Italian                         | 1   |  | k a v a r e  | -   s   k   a   v   a   r   e  |
| PortugueseBrazi                 | $ \mathbf{K}  \mathbf{O}  \mathbf{S}  \mathbf{a}  \mathbf{J}$   |  |  | i   -   f   k   g   v   a   B   -  |
| Portuguese                      | k u s a r   |  | k e v a r -  | i   -   f   k   e   v   a   r   -  |
| Catalan                         | K   G   G   G   I   |  | k ə b a  | 1   J   K   6   7   4   1  |
|                                 |   |  |  |  |
| Walloon                         |   |  | ç a: v - 1 e   |  |
| Walloon<br>Friulian<br>Romanian |   |  | ç a: v - l e   | -   -   z   ֈ   a   v   a:   -   -   |

|   | ToSwim   | ToSwim-Navigare   | ToFly  | ToFly-Exvolare   |
|---|--|---|--|--|
| Latin   | n - a t a r e  | n a v i g a: r e  | w o l a: r e   | ĺ  |
| French  |  | n a 3 e   | v o l e  |  |
| Spanish   | n - a d a r -  | n a b e g a r -   | b o l a r -  |  |
| Italian   | n w o t a r e  | n a v i g a r e   | v o l a r e  | z v o l a r e  |
| PortugueseBrazi   | n   -   a   a   B   -  | $ \mathbf{n}   \mathbf{a}   \mathbf{v}   \mathbf{i}   \mathbf{y}   \mathbf{a}   \mathbf{k}  -$  | v o - a B -  |  |
| Portuguese  | n - e ð a r -  | n e v i y a r -   | v w - a r -  |  |
| Catalan   | n - ə d a  | n ə b ə g a   | b u 1 a  |  |
| Walloon   |  | n ε dz i:   | v   o   1   e   -   -  |  |
| Friulian  | n - a d a:   | n a v i g a:  |  | z v o 1 a:   |
| Romanian  |  | n a v i g a   |  | z b u r a  |
| 1 -4:   | ToWalk   | ToWalk-Marcher  | ToWalk-Mergere   | ToWalk-Ambitare  |
| Latin<br>French   |  | m a в б е   | m e r g e r e  | a  m  b   i   t  a:   r   e  |
| Spanish   | kaminar  | III a B J E   |  | a   n   d   -   -   a   r   -  |
| Italian   | k a mm i n a r e   |   | m ε r dz e r e   | a n d a r e  |
|   | keminar-   |   | -     - <b>J</b>   -     -   | 8 - q a r -  |
|   |  |   |  |  |
| Portuguese  | keminar-   |   |  | $ \tilde{v}  -  d  -  - a r $  |
| Catalan   | k ə m i n a  |   |  |  |
| Walloon<br>Friulian   | tf i m i n e<br>tf j a m i n a   | m a: R tf i:  |  |  |
|   | y   j   a   m   1   m   a   -   -  |   | a     <del>1.</del> .   a  |  |
| ECOMBINAD   |  |   | meruze   |  |
| Romanian  | ToCome   | ToLieAsInABed   | m e r d e<br>ToLieAsInABed-lacere  | ToSit  |
| Latin   | w e n i: r e   | e k s t e n d e r e   | ToLieAsInABed-lacere j a - k e: r e  | ToSit  |
| Latin<br>French   | w e n i: r e<br>v ə n i ʁ -  | $ \begin{array}{c c c c c c c c c c c c c c c c c c c $   | ToLieAsInABed-lacere  j a - k e: r e g e - z i ʁ -   | s   -   e   d   e:   r   e     e     s   w   a   -   -   u     -   |
| Latin<br>French<br>Spanish  | w e n i: r e<br>v ə n i в -<br>b e n i r -   | e   k   s   t   e   n   d   e   r   e<br>  e   - t   a   - d   -   B   -   -  | ToLieAsInABed-lacere  j a - k e: r e g e - z i κ - j a - θ e r -   | S -   e   d   e: r   e   s   w   a   -   B   -   s   |
| Latin<br>French<br>Spanish<br>Italian   | W e n i: r e<br>v ə n i в -<br>b e n i r -<br>v e n i r e  | e k s t e n d e r e e t a - d - B e k s t e n d e r - e - s t e n d e r e   | ToLieAsInABed-lacere  j a - k e: r e g e - z i κ - j a - θ e r - dg a - tf e: r e  | S -   e   d   e: r   e   |
| Latin<br>French<br>Spanish  | W e n i: r e<br>v ə n i в -<br>b e n i r -<br>v e n i r e  | e   k   s   t   e   n   d   e   r   e<br>  e   - t   a   - d   -   B   -   -  | ToLieAsInABed-lacere  j a - k e: r e g e - z i κ - j a - θ e r -   | S -   e   d   e: r   e   s   w   a   -   B   -   s   |
| Latin<br>French<br>Spanish<br>Italian<br>PortugueseBrazi  | W e n i: r e   v e n i r - v e n i r e   v - i r e   v - v e n i | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$  | ToLieAsInABed-lacere  j a - k e: r e 3 e - z i в - j a - θ e r - dg a - tf e: r e 3 e - z e в -  | S  |
| Latin<br>French<br>Spanish<br>Italian   | W e n i: r e<br>v ə n i в -<br>b e n i r -<br>v e n i r e  | e k s t e n d e r e e t a - d - B e k s t e n d e r - e - s t e n d e r e   | ToLieAsInABed-lacere  j a - k e: r e 3 e - z i β - j a - θ e r d a - ff e: r e 3 e - z e β -  3 e - z e β -  | S -   e   d   e: r   e   s   w   a     g   -   s   -   s   -   s   e   d   e   r   e   |
| Latin French Spanish Italian PortugueseBrazi Portuguese Catalan Walloon   | w e n i: r e   v a n i k -   b e n i r e   v -   i r e   v -   i r e   v -   i r e   v -   i r e   v -   v e n i r -   v e n i | e   k   s   t   e   n   d   e   r   e   e   - t   a   - d   -   u   -   -   e   k   s   t   e   n   d   e   r   e   e   i   s   t   e   -   d   e   r   -   -   | ToLieAsInABed-lacere  j a - k e: r e 3 e - z i κ - j a - θ e r - dg a - ff e: r e 3 e - z e κ -  3 e - z e κ -  3 a w r ə dg e - r r e   | S  |
| Latin French Spanish Italian PortugueseBrazi Portuguese Catalan Walloon Friulian  | w e n i: r e   v o n i u -   v e n i r e   v o n i u -   v e n i r e   v -   i u -   v e n i -   v i | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$  | ToLieAsInABed-lacere  j a - k e: r e 3 e - z i κ - j a - θ e r - dg a - ff e: r e 3 e - z e κ -  3 e - z e κ -  3 e - z e κ -  j e - s i   | S   -   e   d   e: r   e   s   w   a   -   -   r   -   s   - |
| Latin French Spanish Italian PortugueseBrazi Portuguese Catalan Walloon   | w e n i: r e         v a n i в -         b e n i r -         v e n i r e         v - i в -         v i n i         v i n i         v e n i   | e   k   s   t   e   n   d   e   r   e   e   - t   a   - d   -   B   -   -   e   k   s   t   e   n   d   e   r   e   e   -   s   t   e   n   d   e   r   -   -   e   k   s   t   e   n   d   -   r   e   e   k   s   t   i   n   d   e   -   -   -   e   k   s   t   i   n   d   e   -   -   -   e   k   s   t   i   n   d   e   -   -   -   e   k   s   t   i   n   d   e   -   -   -     e   k   s   t   i   n   d   e   -   -     -     e   k   s   t   i   n   d   e   -   -     -   | ToLieAsInABed-lacere  j a - k e: r e 3 e - z i κ - j a - θ e r - dg a - ff e: r e 3 e - z e κ -  3 e - z e κ -  3 e - z e κ -  3 e - z e κ -  3 a w r e j e - s i - z ə - ff ea -                      | S   -   e   d   e: r   e   s   w   a   -   -   r   -   s   - |
| Latin French Spanish Italian PortugueseBrazi Portuguese Catalan Walloon Friulian Romanian   | w e n i: r e   v o n i u -   b e n i r -   v e n i r e   v i u -   v - i u -   v i n i   v i n i -   v e n i   v e n i   v e n i   v e n i   v e n i   v e n i   v e n i   v e n i   v e n i   v e n i   v e n i   v e n i   v e n i   v e n i   v e n i -   v e n i -   v e n i -   v e n i -   v e   | e   k   s   t   e   n   d   e   r   e   e   - t   a   - d   - u   e   k   s   t   e   n   d   e   r   e   - e   s   t   e   n   d   e   r   e   s   t   e   n   d   - r   e   e   t   - r   e   e   k   s   t   i   n   d   e   -   - E   ToStand   | ToLieAsInABed-lacere  j a - k e: r e 3 e - z i κ - j a - θ e r - dg a - ff e: r e 3 e - z e κ -  3 e - z e κ -  3 e - z e κ -  3 e - r e - j e - s i - z ə - ff ea -  ToStand-Levare                   | S  |
| Latin French Spanish Italian PortugueseBrazi Portuguese Catalan Walloon Friulian Romanian Latin   | w e n i: r e         v a n i в -         b e n i r -         v e n i r e         v - i в -         v i n i         v i n i         v e n i   | e   k   s   t   e   n   d   e   r   e   e   - t   a   - d   - u   e   k   s   t   e   n   d   e   r   e   - e   s   t   e   n   d   e   r   e   s   t   e   n   d   e   r   e   s   t   e   n   d   - r   e   e   s   t   e   n   d   e   -   - e   ToStand   -   s   t   a   r   e   e   e   e   e   e   e   e   e   | ToLieAsInABed-lacere  j a - k e: r e 3 e - z i κ - j a - θ e r - dg a - ʧ e: r e 3 e - z e κ -  3 e - z e κ -  3 e - r e j e - r e j e - s i - z ə - ʧ ea -  ToStand-Levare l e v a: r e               | S  |
| Latin French Spanish Italian PortugueseBrazi Portuguese Catalan Walloon Friulian Romanian Latin French  | w e n i: r e   v o n i   u -   b e n i   r -   e   v o n i   u -   v e n i   r   e   v -   i   u -   v i n i   -   v e n i   -   v e n i   -   v e n i   -   v e n i   -   v e n i   -   v e n i   -   v e n i   -   v e n i   -   v e n i   -   v e n i   -   v e n i   -   v e n i   e | e   k   s   t   e   n   d   e   r   e   e   - t   a   - d   - u   e   k   s   t   e   n   d   e   r   e   - e   s   t   e   n   d   e   r   e   s   t   e   n   d   - r   e   e   t   e   s   t   e   n   d   - r   e   e   t   e   e   k   s   t   i   n   d   e   -   - E   ToStand   | ToLieAsInABed-lacere  j a - k e: r e 3 e - z i κ - j a - θ e r - dg a - ff e: r e 3 e - z e κ -  3 e - z e κ -  3 e - z e κ -  3 e - r e - j e - s i - z ə - ff ea -  ToStand-Levare                   | S  |
| Latin French Spanish Italian PortugueseBrazi Portuguese Catalan Walloon Friulian Romanian Latin French Spanish Italian  | w e n i: r e   v o n i u   v   e n i r   e   v   e n i r   e   v   o n i u   r   e   v   o n i r   e   v   o n i r   o   v   o n i r   o   v   o n i r   o   v   o n i r   o   v   o n i r   o   v   o n i r   o   v   o n i r   o   v   o n i r   o   v   o n i r   o   v   o n i r   o   v   o n i r   o   v   o n i r   o   o   o   o   o   o   o   o   o   | e   k   s   t   e   n   d   e   r   e   e   e   t   a   a   d   e   r   e   e   k   s   t   e   n   d   e   r   e   e   s   t   e   n   d   e   r   e   e   s   t   e   n   d   e   r   e   e   s   t   e   n   d   e   r   e   e   s   t   e   n   d   e   r   e   e   e   s   t   a   r   e   e   s   t   a   r   e   e   e   r   r   s   e   e   r   r   r   s   e   e   r   r   r   e   e   r   r   r   | ToLieAsInABed-lacere  j a - k e: r e 3 e - z i κ - j a - θ e r - dg a - ʧ e: r e 3 e - z e κ -  3 e - z e κ -  3 e - r e j e - r e j e - s i - z ə - ff ea -  ToStand-Levare l e v a: r e l ə v e      | S  |
| Latin French Spanish Italian PortugueseBrazi Portuguese Catalan Walloon Friulian Romanian Latin French Spanish Italian  | w e n i: r e   v o n i   u -   b e n i   r -   e   v o n i   u -   v e n i   r   e   v -   i   u -   v i n i   -   v e n i   -   v e n i   -   v e n i   -   v e n i   -   v e n i   -   v e n i   -   v e n i   -   v e n i   -   v e n i   -   v e n i   -   v e n i   -   v e n i   e | e   k   s   t   e   n   d   e   r   e   e   - t   a   - d   - u   e   k   s   t   e   n   d   e   r   e   e   s   t   e   n   d   e   r   e   s   t   e   n   d   e   r   e   s   t   e   n   d   e   r   e   s   t   e   n   d   e   r   e   s   t   a   r   e   e   s   t   a   r   r   e   e   s   t   a   r   r   e   e   s   t   a   r   r   e   e   s   t   a   r   r   e   e   s   t   a   r   r   e   e   s   t   a   r   r   e   e   s   t   a   r   r   e   e   s   t   a   r   r   e   e   s   t   a   r   r   e   e   s   t   a   r   r   e   e   s   t   a   r   r   e   e   e   s   t   a   r   r   e   e   e   s   t   a   r   r   e   e   e   s   t   a   r   r   e   e   e   e   s   t   a   r   r   e   e   e   e   e   e   e   e   | ToLieAsInABed-lacere  j a - k e: r e 3 e - z i κ - j a - θ e r - dg a - ff e: r e 3 v - z e κ -  3 v - z e κ -  3 a w - r e j e - s i - z e - f ea  ToStand-Levare  l e v a: r e l e v e - j e b a r - | S  |
| Latin French Spanish Italian PortugueseBrazi Portuguese Catalan Walloon Friulian Romanian Latin French Spanish Italian PortugueseBrazi                            | w e n i: r e   v o n i k -   b e n i r -   v e n i r e   v -   i k -     v e n i r -   v i n i -   v e n i -   v | e   k   s   t   e   n   d   e   r   e   e   e   t   a   a   d   e   r   e   e   k   s   t   e   n   d   e   r   e   e   s   t   a   c   n   d   e   r   e   e   s   t   a   c   n   d   e   r   e   e   s   t   a   r   e   e   s   t   a   r   e   e   s   t   a   r   e   e   s   t   a   r   e   e   s   t   a   r   e   e   s   t   a   r   r   e   e   s   t   a   r   r   e   e   s   t   a   r   r   e   e   s   t   a   r   r   e   e   s   t   a   r   r   e   e   s   t   a   r   r   e   e   s   t   a   r   r   e   e   s   t   a   r   r   e   e   e   s   t   a   r   r   e   e   e   e   f   f   f   f   f   f   | ToLieAsInABed-lacere   | S  |
| Latin French Spanish Italian PortugueseBrazi Portuguese Catalan Walloon Friulian Romanian Latin French Spanish Italian  | w e n i: r e   v o n i u   v   e n i r   e   v   e n i r   e   v   o n i u   r   e   v   o n i r   e   v   o n i r   o   v   o n i r   o   v   o n i r   o   v   o n i r   o   v   o n i r   o   v   o n i r   o   v   o n i r   o   v   o n i r   o   v   o n i r   o   v   o n i r   o   v   o n i r   o   v   o n i r   o   o   o   o   o   o   o   o   o   | e   k   s   t   e   n   d   e   r   e   e   - t   a   - d   - u   e   k   s   t   e   n   d   e   r   e   - e   s   t   e   n   d   e   r   e   s   t   e   n   d   e   r   e   s   t   e   n   d   - r   e   s   t   a   r   e   e   s   t   a   r   e   e   s   t   a   r   e   e   s   t   a   r   e   e   s   t   a   r   e   e   s   t   a   r   e   e   s   t   a   r   e   e   s   t   a   r   e   e   s   t   a   r   e   e   s   t   a   r   e   e   s   t   a   r   e   e   s   t   a   r   e   e   s   t   a   r   e   e   e   s   t   a   r   e   e   e   e   e   e   e   e   e   | ToLieAsInABed-lacere  j a - k e: r e 3 e - z i κ - j a - θ e r - dg a - ff e: r e 3 v - z e κ -  3 v - z e κ -  3 v - r e j e - s i - z e - f ea  ToStand-Levare  l e v a: r e l e v a r e             | S  |
| Latin French Spanish Italian PortugueseBrazi Portuguese Catalan Walloon Friulian Romanian Latin French Spanish Italian PortugueseBrazi Portuguese Catalan Walloon | w e n i: r e   v o n i   k -   b e n i   r -   v e n i   r   e   v -   i   k -     v e n i   r   e     v -   i   k   -     v i   n i   -     v e n i   -     v e n i   -     v e n i   -       v e n i   -   | e   k   s   t   e   n   d   e   r   e   e   e   - t   a   a   d   e   r   e   e   e   - t   a   a   a   a   a   a   a   a   a   | ToLieAsInABed-lacere    j a - k e: r e     3 e - z i   | S  |
| Latin French Spanish Italian PortugueseBrazi Portuguese Catalan Walloon Friulian Romanian  Latin French Spanish Italian PortugueseBrazi Portuguese Catalan        | w e n i: r e   v o n i k -   b e n i r -   v e n i r e   v -   i k -     v e n i r -   v i n i -   v e n i -   v | e   k   s   t   e   n   d   e   r   e   e   - t   a   a   - a   - a   e   k   s   t   e   n   d   e   r   e   e   k   s   t   e   n   d   e   r   e   e   i   s   t   e   a   d   e   r   - a   e   s   t   a   r   e   e   s   t   a   r   e   e   s   t   a   r   e   e   s   t   a   r   e   e   s   t   a   r   - a   s   t   a   r   a   s   t   a   r   a   s   t   a   r   a   s   t   a   r   a   s   t   a   r   a   s   t   a   r   a   s   t   a   r   a   s   t   a   r   a   s   t   a   s   t   a   s   s   t   a   r   a   s   t   a   s   s   t   a   s   s   t   a   s   s   t   a   s   s   s   t   a   s   s   s   t   a   s   s   s   s   s   s   s   s   s | ToLieAsInABed-lacere    j a - k e: r e     3 e - z i   | S  |

|  | ToTurnIntransitive   | ToTurnIntransitive-Gyrare  | ToTurnIntransitive -AncestralClass3  | ToTurnIntransitive<br>-Torquere  |
|--|--|--|--|--|
| Latin<br>French<br>Spanish<br>Italian<br>PortugueseBrazi | t o r n a r e t o r n a r e t o r n a r e  | g y r a: r e 3 i в e x i r a r - d i r a r - 3 i r a r -   | v i  | t o r k e r e t o r f e r e t o r f e r e t u r s e r -  |
| Portuguese<br>Catalan<br>Walloon<br>Friulian             | t u r n a r -<br>t u r n a -<br>t u r n e -<br>t o r n a: -  | 3   i   r   a   r   -<br> 3   i   r   a   -   -<br> dg   i   r   a:   -   -  | 3 i r a r -<br>b i r a -<br>v i r e -<br>d i r a: -  | t   u   r   s   e   r   -   -   -   -   -   -   -   -   -  |
| Romanian   | t u r n a  |  |  | t oa r tf e  |
|  | ToFall   | ToFall-Tumbare   | ToHold   | ToHold-Segurar   |
| Latin<br>French<br>Spanish<br>Italian<br>PortugueseBrazi | k - a d e r e k - a - e r - k - a d e r e k - i r -  | $\begin{vmatrix} t & \tilde{o} & - & b & e \\ t & u & m & b & a \end{vmatrix} r$ $\begin{vmatrix} t & \tilde{o} & - & b & a & \mu \end{vmatrix}$ | t e n - e r e t e n - e r e t e n - e r - t e n - e r -  | s e g u r a r<br> s i g u r a B  |
| Portuguese<br>Catalan<br>Walloon<br>Friulian<br>Romanian | k - e - i r -<br>k - a w - r ə<br>tf - e: r -<br>tf j a d e<br>k ə d ea  | t   0   -   b   a   r<br>t   u   m   b   a   -<br>t   u   m   -   e   -  | t e r - t - t a n - i t i n j i t i n - e  | $ s $ $\dot{i}$ $ \gamma u r a r$  |
|  | ToSqueeze  | ToSqueeze-Serrere  | ToSqueeze-Serare   | ToSqueeze-Appectorare  |
| Latin<br>French<br>Spanish<br>Italian<br>PortugueseBrazi | $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | s   e   r   r   e   r   e<br>  s   e   -   r   a   r   -<br>  s   e   -   в   a   -   -  | s e - r a r e<br>s e - r a r e<br>s e r r a r e<br>s e r r a r e   | a p p e k t o r a: r e $ a - p - - r e t a r   e - p i - r - t a r -$                              |
| Portuguese<br>Catalan<br>Walloon<br>Friulian<br>Romanian | $ \begin{vmatrix} i & - & \int & p & r & a & m & - & e & r & - \\ a & - & s & p & r & e & m & - & a & - & - \\ \end{vmatrix} $ | $\begin{vmatrix} s & a & - & R & a & f & - \\ s & a & - & r & a & - & - \end{vmatrix}$   | $\begin{vmatrix} s &   \mathbf{i} &   - &   \mathbf{k} &   \mathbf{a} &   \mathbf{f} \end{vmatrix} = $ $\begin{vmatrix} s &   \mathbf{\epsilon} &   - &   \mathbf{R} &   \mathbf{e} &   - &   - &   \end{vmatrix}$ | $ \mathbf{e}  -  \mathbf{p}  \mathbf{i}   -  \mathbf{f}  -  \mathbf{t}  \mathbf{a}  \mathbf{f}  -$ |
|  | ToSqueeze-Stringere  | ToRub  | ToRub-Exfricare  | ToRub-Frictare   |
| Latin<br>French<br>Spanish<br>Italian<br>PortugueseBrazi | $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$   | $ \mathbf{i}  \int  \mathbf{f}  \mathbf{r}  \mathbf{i}  g  \mathbf{a}  \mathbf{r}$   | f r i k t a: r e f b o t e f r o t a r - f r e t t a r e   |
| Portuguese<br>Catalan<br>Walloon<br>Friulian<br>Romanian | $\begin{array}{cccccccccccccccccccccccccccccccccccc$   | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$   | $ \mathbf{i}  \int  \mathbf{f}  \mathbf{r}  \mathbf{i}  \mathbf{y}  \mathbf{a}  \mathbf{r}$  | f   B   o   t   e   -   -   -  |

|   | ToRub-Frictiare                                  | ToWash  | ToWipe                         | ToWipe-Extergere   |
|---|--|---|--------------------------------|--|
| Latin   | Tortab Triodaio                                  | 1 a w a: r e  | t e r g e r e                  | e k s t e r g e r e  |
| French  |  | 1 a v e   |                                |  |
| Spanish   | f r i s a r                                      | 1 a β a r -   |                                | e   -   s   t   a   r   s   i   r   -  |
| Italian   |  | l a v a r e   | t ε r dz e r e                 |  |
| PortugueseBrazi   |  | 1   e   v   a   r   -   |                                |  |
|   |  |   |                                |  |
| Portuguese  |  |   |                                |  |
| Catalan<br>Walloon  | f r ə s a -                                      | К р b a<br>1 a v e  |                                | ə   -   s   t   ə   r   ʒ   i   -   -  |
| Friulian  |  | 1 a v e   |                                |  |
| Romanian  |  | 1 a v a. 1 a a a a a a a a a a a a a a a a a  |                                | - -     t   e   r   dz   e   -  -  |
|   | ToWipe-Exsucare                                  |   | ToPull                         | ToPull-Pulsare   |
| Latin   | e   k   s   -   u:   k   -   a:   r   e          | l i m p i d a: r e  | t i r a: r e                   | p u l s a: r e   |
| French  | e - s y i - j e                                  |   | t   i   <b>B</b>   e   -   -   | p u - s e  |
| Spanish   | e n x-u g-a r-                                   | 1 i m p j - a r -   | t i r a r -                    | p   u   -   x   a   r   -  |
| Italian   | $a \int \int -u g - a r e$                       |   | t i r a r e                    | p u l s a r e  |
| PortugueseBrazi   | $ \tilde{e}  -  \int  - u g  -  a r $            | $ 1 \tilde{\imath} - p - - a r -$   | t   i   r   a   -   -          | $ p u  -  \int  a  f $   |
| Portuguese  | e   -   f   -   u   y   -   a   r   -            |   | t   i   r   a   r   -          | $ \mathbf{p} \mathbf{u}  -  \int  \mathbf{a} \mathbf{r}  -$  |
| Catalan   | $\partial - \int - u g a$                        | $ 1 1   \mathbf{p}   \mathbf{a} 1 $   | t i r a -                      | $ \mathbf{p} \mathbf{u}   \mathbf{j} \mathbf{a} 1 $  |
| Walloon   | s - u - w e                                      |   | t i r e                        | p   u:   s   i:   -   -   -  |
| Friulian  | s - u - j a:                                     |   | t i r a:                       | p u 1 s a:   |
| Romanian  | u - s k - a                                      |   |                                | p   u   1   s   a   -   -  |
|   | ToPull-Trahere                                   |   | ToThrow                        | ToThrow-Lanceare   |
| Latin   | t r a h e r e                                    | i m p i n g e r e   | j a k t a: r e                 | l a n k e a: r e   |
| French  | t   R   -   -   ε   R   -                        |   | 3 ə - t e                      | $\begin{vmatrix} 1 & \tilde{\alpha} \end{vmatrix} - \begin{vmatrix} s & - & e \end{vmatrix} - \begin{vmatrix} - & - & - \end{vmatrix}$                             |
| Spanish<br>Italian  | t   r   a   r   -   r   e                        | i mpi ndjere  | - e - tf a r -                 |  |
| PortugueseBrazi   |  | 1   m   p   1   n   ug   e   r   e  | dg e t t a r e<br>g ej t a r - | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$   |
| l ortuguesebrazi  |  |   | 3   c j   t   a   1            |  |
| Portuguese  | t r g z e r -                                    |   | g ej t a r                     | 1   <del>e</del>   -   s   -   a   r   -   |
| Catalan   | t r e w - r ə                                    | $ \mathbf{a} \mathbf{m} \mathbf{p} \mathbf{\epsilon} \mathbf{n} - \mathbf{a} - -$   | x i t a                        | Λ   ə   n   s   -   a   -   -  |
| Walloon   |  |   | dz ε t e                       | 1 a n c - i:   |
| Friulian  | t r aj   |   |                                | 1   a   n   tf   a:   -   -   -  |
| Romanian  |  | · 1   |                                |  |
|   | t r a dz e                                       | i   m   p   i   n   dz   e   -   -  |                                |  |
|   | ToThrow-Eruncare                                 | ToTie   | ToTie-Aptare                   | ToSew  |
|   |  | ToTie<br>  1   i   g   a:   r   e   | ToTie-Aptare                   | k o: n - s u e r e   |
| French  | ToThrow-Eruncare e:   r   u   n   k   a:   r   e | ToTie   1   i   g   a:   r   e  | a p t a: r e                   | $ \begin{array}{ c c c c c c c c c c c c c c c c c c c$  |
| French<br>Spanish   | ToThrow-Eruncare e: - r u n k a: r e             | ToTie   1   i   g   a: r   e     1   i   - e   -     1   e   g   a   r   -  |                                | k     o:     n     -     s     u     e     r     e       k     u     -     d     -     -     u     -       k     o     -     s     -     e     r     -             |
| French  | ToThrow-Eruncare e:   r   u   n   k   a:   r   e | ToTie   1   i   g   a:   r   e  | a p t a: r e                   | k     o:     n     -     s     u     e     r     e       k     u     -     d     -     -     s     -     e     r       k     o     -     s     -     e     r     - |
| French<br>Spanish<br>Italian<br>PortugueseBrazi               | ToThrow-Eruncare e: - r u n k a: r e             | ToTie   1   i   g   a: r   e     1   i   - e   -     1   e   g   a   r   -  | a   p   t   a:   r   e         | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$   |
| French<br>Spanish<br>Italian<br>PortugueseBrazi<br>Portuguese | ToThrow-Eruncare e: - r u n k a: r e             | ToTie   1   i   g   a:   r   e     1   i   -   e   -     1   e   g   a   r   e     1   e   g   a   r   e  | a   p   t   a:   r   e         | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$   |
| French Spanish Italian PortugueseBrazi Portuguese Catalan     | ToThrow-Eruncare e: - r u n k a: r e             | ToTie    1   i   g   a: r   e     1   i   - e   -     1   e   g   a   r   -     1   e   g   a   r   e      \( \Lambda \)   i   \( \chi \)   a   -   - | a   p   t   a:   r   e         | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$   |
| French<br>Spanish<br>Italian<br>PortugueseBrazi<br>Portuguese | ToThrow-Eruncare e: - r u n k a: r e             | ToTie   1   i   g   a:   r   e     1   i   -   e   -     1   e   g   a   r   e     1   e   g   a   r   e  | a   p   t   a:   r   e         | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$   |

|                      | ToCount   | ToCount-Enumerare                                     | ToSay   | ToSay-Exponere   |
|----------------------|---|---|---|--|
| Latin                | k o m p u t a: r e  | e: n u m e r a: r e                                   | d i: k e r e  | e k s p o: n e r e   |
| French               | k õ t e   | е n u m е в е   | d   i   -   -   R   -   |  |
| Spanish              | k o n t a r -   | e n u m e r a r -                                     | $d \mid e \mid \theta \mid i \mid r \mid$                             |  |
| Italian              | k o n t a r e   | e n u m e r a r e                                     | d i r e   | -   -   s   p   o   r   -   r   e  |
| PortugueseBrazi      | $ \mathbf{k}  \mathbf{\tilde{o}}   -   -   -   \mathbf{t}  \mathbf{a}   \mathbf{r}   -$ | e n u m e r a r                                       | $ \mathbf{d} \mathbf{i} \mathbf{z}  -  \mathbf{e} \mathbf{r}$         |  |
| Portuguese           | k   õ   -   -   t   a   r   -   | e n u m e r a r -                                     | $ \mathbf{d}   \mathbf{i}   \mathbf{z}   -   \mathbf{e}   \mathbf{r}$ |  |
| Catalan              | k   u   m   -   -   t   a   -   -   | e   n   u   m   e   r   a   -   -                     | d i   |  |
| Walloon              | k õ t e   |   | q   i:   -   -   R   -  |  |
| Friulian             | k   o   n   -   -   t   a:   -   -  |   | d i:  |  |
| Romanian             |   | - n u m a r a   | $z \mid i \mid \mathfrak{t} \mid e \mid - \mid -$                     | s p u n e  |
|                      | ToSing-AncestralClass   | ToPlay-Ludere   | ToPlay-Jiocare  | ToFloat  |
| Latin                | k a n t a: r e  | 1   u:   d   e   r   e                                | j o - k a: r e  | f l u: k t u a: r e  |
| French               | $\int_{1}  \tilde{\alpha}  -  t  e  - -$  |   | $ \mathfrak{Z}  -  \mathfrak{W}  -  \mathfrak{e}  -  \mathfrak{e} $   | f   1   y   k   t   q   e   -   -  |
| Spanish              | kantar-   | 1   u   d   i   r   -                                 | x u - g a r -   | f l u g t w a r -  |
| Italian              | k a n t a r e   |   | dgo-kare  | f l u t t u a r e  |
| PortugueseBrazi      | K   e   -   t   a   r   -   |   | 3 o - g a B -   | f   1   u   -   t   u   a   в   -  |
| Portuguese           |   |   | $ \mathbf{z} \mathbf{u}  -  \mathbf{y} \mathbf{a} \mathbf{r} $        | f   1   u   -   t   u   a   r   -  |
| Catalan              | k ə n t a   |   | 3 u - g a   | f   1   u   k   t   u   a   -   -  |
| Walloon              | tf  |   | dy u w - e  |  |
| Friulian             | c a n t a:  |   | dg u j - a:   |  |
| Romanian             | k i n t a   |   | 3 u - k a   | f   1   u   c   t   u   a   -   -  |
|                      | ToFloat-Fluitare  | ToFlow  | ToFlow-Colare   | ToFlow-Excurrere   |
| Latin                | f   l   u   i   t   a:   r   e  | f l u e r e   | k o: l a: r e   | e k s k u r r e r e  |
| French               |   | f 1 y e   | k u l e   |  |
| Spanish              |   | f l u i r -   | k o l a r -   | e - s k u r i r  |
| Italian              | f   1   u   i   t   a   r   e   | f l u i r e   | k o l a r e   | s k o r r e r e  |
| PortugueseBrazi      |   | $ \mathbf{f}  1  \mathbf{w}  \mathbf{i}  \mathbf{s} $ |   | i   -  |
| Portuguese           |   | f   1   w   i   r   -                                 | k   u   -   a   r   -   | i   -   f   k   u   -   R   e   f   -  |
| Catalan              |   | f 1 u i   | k u ł a   | $\begin{vmatrix} \mathbf{a} & \mathbf{c} & \mathbf{c} & \mathbf{c} \\ \mathbf{c} & \mathbf{c} & \mathbf{c} \end{vmatrix} = \begin{vmatrix} \mathbf{c} & \mathbf{c} & \mathbf{c} \\ \mathbf{c} & \mathbf{c} & \mathbf{c} \end{vmatrix} = \begin{vmatrix} \mathbf{c} & \mathbf{c} \\ \mathbf{c} & \mathbf{c} \end{vmatrix} = \begin{vmatrix} \mathbf{c} & \mathbf{c} \\ \mathbf{c} & \mathbf{c} \end{vmatrix}$ |
| Walloon              |   |   | k o l e   |  |
| Friulian             |   |   |   | -   -   s   k   o   -   r   i:   -   -   |
| Romanian             |   |   |   | s k u r ʤ e  |
|                      | ToFlow-Currere  | ToFreeze  | ToFreeze-Glaciare   | ToFreeze-Inglaciare  |
| Latin                | k u r r e r e   | g e l a: r e  | g l a - k i a: r e  | i n g l a k i a: r e   |
| French               | k u -   | 3 ə 1 e   | g   1   a   -   s   -   e   -   -                                     |  |
| Spanish              | ko-rer-   | -   e   1   a   r   -                                 |   |  |
| Italian              | k o r r e r e   | dg e l a r e  | $g \mid j \mid a \mid t \mid f \mid j \mid a \mid r \mid e$           |  |
| PortugueseBrazi      |   | 3   i   1   a   r   -                                 |   |  |
| Portuguese           | k   u   -   в   е   г   -   | 3   i   1   a   r   -                                 |   |  |
| Catalan              | k o - r ə   | 3 ə 1 a   | g  1  a  -  s  -  a  -  a   |  |
| Walloon              |   | 3   2   1   a   -   -   -   -   -   -   -   -   -     |   |  |
| Friulian<br>Romanian | ko-ri-  |   | g  1  a  -  tf  -  a:  -   -  | $\begin{vmatrix} \mathbf{i} & \mathbf{n} & \mathbf{g} \end{vmatrix} - \begin{vmatrix} \mathbf{e} & \mathbf{ts} \end{vmatrix} - \begin{vmatrix} \mathbf{a} & \mathbf{e} \end{vmatrix} - \begin{vmatrix} \mathbf{e} & \mathbf{s} \end{vmatrix}$  |
|                      |   |   |   | 1 n g - e ts - a   |

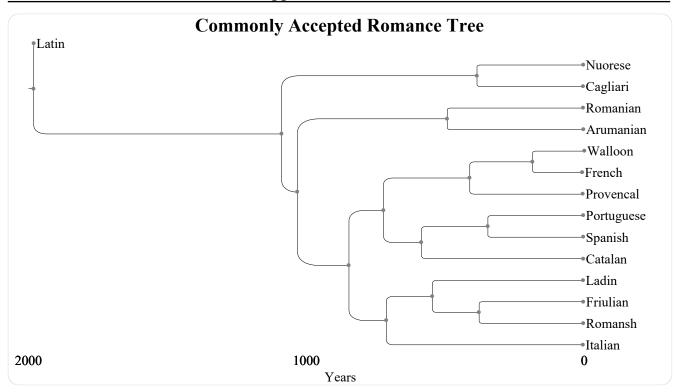
|  | ToBurn-Brojan  | ToBurn-Cremare   | ToBurn-Flammare  | ToBurn-Ardere   |
|--|--|--|--|---|
| Latin  |  | k r e m a: r e   | f l a m m a: r e   | a r d e: r e  |
| French   | b   в   у   1   е   -   -  | k в a m e  | f   1   <del>a</del>   -   b   e   -   -   | a r q - r -   |
| Spanish  |  | k   -   e   m   a   r   -  | f l a - m e a r  | a r d e r -   |
| Italian  | b r u t a r e  | k r e m a r e  | f   j   a m m   a   r   e  | a r d e r e   |
| PortugueseBrazi  |  | k - ej m a r e   |  | $ \mathbf{a} \mathbf{R} \mathbf{q} \mathbf{e} \mathbf{R} $ -  |
| Destruction  |  | <br> 1     •   |  | 1   |
| Portuguese<br>Catalan  |  | k - ej m a в e<br>k r ə m a  | f   1   a   m   a   -   -   -  | $-  \mathbf{r}  \mathbf{d}  \mathbf{e}  \mathbf{r}$   |
| Walloon  | b   ʁ   u:   1   e   -   -   | K   I   9   III   a   -   -  |  |   |
| Friulian   | b r u z a: -   |  |  |   |
| Romanian   |  |  |  | a r d e   |
|  | ToBurn-Flagrare  | ToBurn-Incendere   | ToBurn-AncestralClass8   | All   |
| Latin  | f l a g r a: r e   | i n k e n d - e r e  | u s t u l a: r e   | o m n e: s  |
| French   | f l a g в е  | $\left  \tilde{\epsilon} \right  - \left  s \right  \tilde{\alpha} \left  - \left  d \right  j \left  e \right  - \left  - \right  $ |  |   |
| Spanish  | f l a g r a r -  | $\mid e \mid n \mid \theta \mid e \mid n \mid d \mid - \mid e \mid r \mid -$   |  |   |
| Italian  | f l a g r a r e  | $\begin{vmatrix} i & n & t \end{vmatrix} \epsilon \begin{vmatrix} n & d & j \end{vmatrix} a \begin{vmatrix} r & e \end{vmatrix}$     | u s t o l a r e  | o   n   n   i   -   |
| PortugueseBrazi  | t   I   a   B   R   a   R   -  | $ \tilde{i}  -  s  e  n  ds  i  a  r  -$   |  |   |
| Portuguese   | f   1   a   g   r   a   r   -  | $ \tilde{i}  -  s \tilde{e}  -  d j a r $  |  |   |
| Catalan  | $ 1  1  \alpha  g  1  \alpha  1 $  | ə n s e n d r ə  |  |   |
| Walloon  |  |  |  |   |
| Friulian   |  |  |  |   |
| Romanian   |  | i n f i n d 3 e  | u s t u r a  |   |
|  | All-Totus  | Many   | Many-Tantus  | Some  |
| Latin  | t o: - t u s   | m u l t u s  | t a n t u s  |   |
| French   | £  |  |  |   |
|  | t u  | m u  |  | $  o   -   k   \tilde{e}   -   -$   |
| Spanish  | t   o   -   d   o   -  | m u - tf o -   | t a n t o -  | a l g u n o   |
| Spanish<br>Italian   | t o - d o -<br>t u t t o -   | m u - tf o -<br>m o 1 t o -  | t a n t o -  | a l g u n o<br>a l k u n o  |
| Spanish  | t o - d o -<br>t u t t o -   | m u - tf o -   |  | a l g u n o   |
| Spanish<br>Italian<br>PortugueseBrazi  | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$   | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$  | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$   | a 1 g u n o<br>a 1 k u n o<br>a w g ũ   |
| Spanish<br>Italian   | t     o     -     d     o     -       t     u     t     t     o     -       t     o     -     d     u     -  | m u - tf o -<br>m o 1 t o -  | t a n t o -  | a l g u n o<br>a l k u n o  |
| Spanish<br>Italian<br>PortugueseBrazi<br>Portuguese<br>Catalan<br>Walloon  | t o - d o -<br>t u t t o -<br>t o - d u -<br>t o - ŏ u -<br>t o - t -<br>t o   | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$  | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$   | a   1   g   u   n   o   o   a   1   k   u   n   o   o   a   w   g   ũ   -   -   -                           |
| Spanish Italian PortugueseBrazi Portuguese Catalan Walloon Friulian  | t o - d o -<br>t u t t o -<br>t o - d u -<br>t o - d u -<br>t o - t -<br>t o - t -<br>d u - t -  | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$  | t   a   n   t   o   -<br>t   e   -   t   u   -   | a   1   g   u   n   o   o   a   1   k   u   n   o   o   a   w   g   ũ   -   -   -                           |
| Spanish Italian PortugueseBrazi  Portuguese Catalan Walloon  | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$   | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$  | $ \begin{vmatrix} t & a & n & t & o & - \\ t & \tilde{e} & - & t & u & - \end{vmatrix}  $ $ \begin{vmatrix} t & \tilde{e} & - & t & u & - \\ t & a & n & t & - & - \end{vmatrix}  $ $ \begin{vmatrix} t & a & n & c & - & - \end{vmatrix}  $ | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$  |
| Spanish Italian PortugueseBrazi Portuguese Catalan Walloon Friulian Romanian   | t     o     -     d     o     -       t     u     t     t     o     -       t     o     -     d     u     -       t     o     -     t     -     -     -     -       t     o     - <td><math display="block">\begin{array}{c ccccccccccccccccccccccccccccccccccc</math></td> <td>t   a   n   t   o   -   t   e   -   t   u   -   -     t   a   n   c   -   -     Other-Alius</td> <td><math display="block"> \begin{array}{c ccccccccccccccccccccccccccccccccccc</math></td>  | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$  | t   a   n   t   o   -   t   e   -   t   u   -   -     t   a   n   c   -   -     Other-Alius  | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$  |
| Spanish Italian PortugueseBrazi Portuguese Catalan Walloon Friulian Romanian Latin   | t o - d o - t u t t o - t o - ð u - t o - t - t o - t - t o - t - t o - t - t o - t - t o - t - T o - t - T o - t - T o - t -  | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$  | $ \begin{vmatrix} t & a & n & t & o & - \\ t & \tilde{e} & - & t & u & - \end{vmatrix}  $ $ \begin{vmatrix} t & \tilde{e} & - & t & u & - \\ t & a & n & t & - & - \end{vmatrix}  $ $ \begin{vmatrix} t & a & n & c & - & - \end{vmatrix}  $ | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$  |
| Spanish Italian PortugueseBrazi Portuguese Catalan Walloon Friulian Romanian Latin French  | t o - d o - t u t t o - t o - d u - t o - d u - t o - t o - t o - c d u - t o - t o - c d u - t o - t o - t - c - c d u - t o - t - c - c t o - t - c - c d u - t o - c - c d u - c - c - c - c d u - c - c - c - c - c - c - c - c - c -  | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$  | t   a   n   t   o   -   t   e   -   t   u   -   -     t   a   n   c   -   -     Other-Alius  | a   1   g   u   n   o   o   a   1   k   u   n   o   o   a   w   g   ũ   -   -     a   1   g   u   -   -     |
| Spanish Italian PortugueseBrazi Portuguese Catalan Walloon Friulian Romanian Latin French Spanish  | t o - d o - t u t t o - t o - d u - t o - d u - t o - t o - t o - c d u - t o - t o - c d u - t o - t o - t - c - c d u - t o - t - c - c d u - t o - t - c - c d u c - t o - c - c d u c - c c d u c - c c c c c c c c c c c c c c c c c  | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$  | t   a   n   t   o   -   t   e   -   t   u   -   -     t   a   n   c   -   -     Other-Alius  | a   1   g   u   n   o   o   a   1   k   u   n   o   o   a   w   g   ũ   -   -     o   o   o   o   o   o   o |
| Spanish Italian PortugueseBrazi Portuguese Catalan Walloon Friulian Romanian Latin French Spanish Italian                                      | t o - d o - t u t t o - t o - d u -  t o - ð u - t o - t - t o - t - t o - t - T o - t | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$  | t   a   n   t   o   -     t   v     -   t   u     -  | a   1   g   u   n   o   o   a   1   k   u   n   o   o   a   w   g   ũ   -   -     a   1   g   u   -   -     |
| Spanish Italian PortugueseBrazi Portuguese Catalan Walloon Friulian Romanian Latin French Spanish  | t o - d o - t u t t o - t o - d u -  t o - ð u - t o - t - t o - t - t o - t - T o - t | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$  | t   a   n   t   o   -   t   e   -   t   u   -   -     t   a   n   c   -   -     Other-Alius  | a   1   g   u   n   o   o   a   1   k   u   n   o   o   a   w   g   ũ   -   -     o   o   o   o   o   o   o |
| Spanish Italian PortugueseBrazi Portuguese Catalan Walloon Friulian Romanian Latin French Spanish Italian                                      | t o - d o - t u t t o - t o - d u -  t o - ð u - t o - t - t o - t - t o - t - T o - t | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$  | t   a   n   t   o   -  | a   1   g   u   n   o   o   a   1   k   u   n   o   o   a   w   g   ũ   -   -     o   o   o   o   o   o   o |
| Spanish Italian PortugueseBrazi Portuguese Catalan Walloon Friulian Romanian  Latin French Spanish Italian PortugueseBrazi                     | t o - d o - t u t t o - t o - d u - t o - d u -  t o - d u - t o - t - t o - t - t o - t - t o - t - t o - t - c - d u - t - t o - t - c - d u - t - c - c - c - d u - t - c - c - c - c - c - c - c - c - c - c   | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$  | t   a   n   t   o   -     t   v     -   t   u     -  | a   1   g   u   n   o   o   a   1   k   u   n   o   o   a   w   g   ũ   -   -     o   o   o   o   o   o   o |
| Spanish Italian PortugueseBrazi Portuguese Catalan Walloon Friulian Romanian  Latin French Spanish Italian PortugueseBrazi Portuguese          | t o - d o - t u t t o - t o - d u - t o - d u -  t o - d u - t o - t - t o - t - t o - t - t o - t - t o - t - t o - t - c - d u - t - t o - t - c - c - d u - t - c - c - c - d u - t - c - c - c - c - c - c - c - c - c - c   | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$  | t   a   n   t   o   -  | a   1   g   u   n   o   o   a   1   k   u   n   o   o   a   w   g   ũ   -   -     o   o   o   o   o   o   o |
| Spanish Italian PortugueseBrazi Portuguese Catalan Walloon Friulian Romanian  Latin French Spanish Italian PortugueseBrazi  Portuguese Catalan | t o - d o - t u t t o - t o - d u - t o - d u -  t o - d u - t o - t - t o - t - t o - t - t o - t - t o - t - c - d u - t - t o - t - c - d u - t - c - c - c - d u - t - c - c - c - c - c - c - c - c - c - c   | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$  | t   a   n   t   o   -  | a   1   g   u   n   o   o   a   1   k   u   n   o   o   a   w   g   ũ   -   -     o   o   o   o   o   o   o |

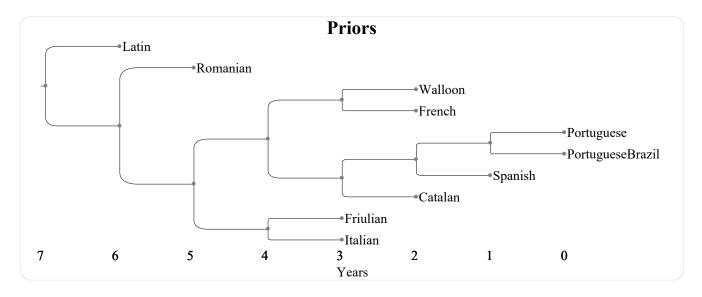
|   | Big-Grandem   | Big-Majjorem   | Long-Longum   | Long-Largum   |
|---|---|--|---|---|
| Latin   | g r a n d e m   | maj j o r e m  | 1 o - n g u m   | l a r g u m   |
| French  | g   <b>g</b>   <b>a</b>   -   -   -   -   |  | 1   5   -   -   -   -   | 1 a B 3   |
| Spanish   | grande-   |  | 1 o - n g o -   | 1 a r γ o -   |
| Italian   | g r a n d e -   |  | l u - n g o -   | 1 a r g o -   |
| PortugueseBrazi   |   |  | 1   o   -   g   u   -   -                                     | 1 а в g u -   |
|   | 31 1 1 31 1   |  | 1 1 131 1   |   |
| Portuguese  | $ \mathbf{g} \mathbf{r} \mathbf{\tilde{g}} - \mathbf{d} \mathbf{i} $  |  | 1   õ   -   g   u   -   -                                     |   |
| Catalan   | g r a n   |  | Λ o - η   | Аа r k  |
| Walloon   | g   <b>g</b>   <b>ã</b>   -   -   -   -   |  | 1   0   -   -   -   -   |   |
| Friulian  | g r a n t   |  | l u n k   |   |
| Romanian  |   | m a - - r e  | l   u   n   g   -   -   -                                     |   |
|   | Wide  | Wide-Amplum  | Heavy   | Heavy-Lurdus  |
| Latin   | l a: t u m  | a m p l u m  | g r a w i s   | l u r d u s   |
| French  | l   e   -   -   -   | $\left  \tilde{\mathfrak{a}} \right  - \left  p \right  1 \left  - \right  -$  | g k a v   | l   u   ʁ   -   -   -   |
| Spanish   | lato-   | a   n   tf   -   o   -   | g r a b e -   | l e r d o -   |
| Italian   | lato-   | a m p j o -  | g r ε v e -   | 1 o r d o -   |
| PortugueseBrazi   | l   a   t   u   -   | $ \tilde{e}  -  \tilde{\int}  -  \mathbf{u}  -$  | g r a v i -   | 1 e r d o -   |
|   |   |  |   |   |
| Portuguese  | l   a   t   u   -   | $ \tilde{e}  -  \int  - u  -$  | g r a v i -   | 1   e   r   d   o   -   |
| Catalan   |   | a   m   p   1   ə   -  | g r e w   |   |
| Walloon   |   |  | g r a v   |   |
| Friulian  |   |  | $g \mid r \mid \epsilon \mid v \mid i \mid$ -                 |   |
| Romanian  | 1   a   t   -   -   |  | g r e w   |   |
|   | Heavy-Pesant  | Small  | Small-Pittinus  | Small-Pitulus   |
| Latin   | p e: s a n t -  | p i t t i t u s  | $p \mid i \mid t \mid t \mid i \mid n \mid u \mid s$          | p   i   -   t   u   1   u   s   |
| French  | p ə z a   | p   ə   -   t   i   -   -   -  |   |   |
| Spanish   | $p \mid e \mid s \mid a \mid - \mid \delta \mid o$  |  | pe-keno-  |   |
| Italian   | p e s a n t e   |  | p i t t i n o -   | p   i   k   k   o   1   o   -   |
| PortugueseBrazi   | p   e   z   a   -   d   u   |  | p   e   -   k   e   n   u   -                                 |   |
| Dortuguese  | $ \mathbf{p} \mathbf{i} \mathbf{z} \mathbf{a} - \mathbf{\delta} \mathbf{u}$   |  | p   i   -   k   e   n   u   -                                 |   |
| Portuguese<br>Catalan   | p ə z a - t -   |  | p   1   -   k   e   n   u   -                                 |   |
| Walloon   | p   <del>0</del>   z   a   -   t   -  | $\left  egin{array}{c c c c c c c c c c c c c c c c c c c $  |   |   |
| Friulian  | p e z a n t -   |  |   | p   i   -   tf   u   1   -   -  |
| Romanian  |   |  | p   u   -   ts   i   n   -   -                                | P   1   -   y   u   1   -   -   |
| rtomaman  | Short   | Short-Brevis   | Narrow  | Narrow-Strictus   |
| Letin   |   |  |   |   |
| Laun  |   |  |   | - s t r - i - k t u s   |
| Latin<br>French   | k u r t u s   | b r e w i s  | $\begin{vmatrix} a & n & g & u & s & t & u & s \end{vmatrix}$ |   |
| French  | k u r t u s   | b r e w i s<br>b r e f   | a n g u s t u s   | e - t & w a   |
|   | k u r t u s<br>k u в<br>k o r t o -   | b   r   e   w   i   s   b   κ   ε   f   -   -  | a n g u s t u s a n g o s t o -                               | e     -     t     s     w     a     -     -     -     -     -     -       e     s     t     r     -     e     -     -     tf     o     -  |
| French<br>Spanish<br>Italian                                      | k u r t u s<br>k u r t o -<br>k o r t o -<br>k o r t o -  | b   r   e   w   i   s   b   ε   f   -   -  | a n g u s t u s   | e - t & w a e s t r - e - t t o -   |
| French<br>Spanish   | k u r t u s<br>k u r t o -<br>k o r t o -<br>k o r t o -  | b   r   e   w   i   s   b   κ   ε   f   -   -  | a n g u s t u s a n g o s t o -                               | e     -     t     s     w     a     -     -     -     -     -     -       e     s     t     r     -     e     -     -     tf     o     -  |
| French<br>Spanish<br>Italian                                      | k u r t u s<br>k u r t o -<br>k o r t o -<br>k o r t o -  | b   r   e   w   i   s   b   ε   f   -   -  | a n g u s t u s a n g o s t o -                               | e - t & w a e s t r - e - t t o -   |
| French<br>Spanish<br>Italian<br>PortugueseBrazi                   | k       u       x       t       u       s         k       u       x       -       -         k       o       r       t       o       -         k       u       x       t       u       -   | b   r   e   w   i   s   b   r   ε   f   -   -  | a n g u s t u s a n g o s t o -                               | e       -       t       b       w       a       - |
| French<br>Spanish<br>Italian<br>PortugueseBrazi<br>Portuguese     | k       u       r       t       u       s         k       u       g       -       -         k       o       r       t       o       -         k       u       g       t       u       -   | b   r   e   w   i   s   b   x   \varepsilon f   e   b   e   -   b   r   \varepsilon v   e   -   b   r   \varepsilon v   i   -   b   r   \varepsilon v   \var | a n g u s t u s a n g o s t o -                               | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$  |
| French Spanish Italian PortugueseBrazi Portuguese Catalan         | k       u       r       t       u       s         k       u       g       -       -         k       o       r       t       o       -         k       u       g       t       u       -         k       u       f       t       u       -         k       u       f       t       -       -   | b   r   e   w   i   s   b   x   \varepsilon f   e   b   e   -   b   r   \varepsilon v   e   -   b   r   \varepsilon v   i   -   b   r   e   w   -   -  | a n g u s t u s a n g o s t o -                               | $ \begin{array}{c ccccccccccccccccccccccccccccccccccc$  |
| French Spanish Italian PortugueseBrazi Portuguese Catalan Walloon | k       u       r       t       u       s         k       u       r       t       u       -         k       o       r       t       o       -         k       u       r       t       u       -         k       u       r       t       u       -         k       u       r       t       u       -         k       u       r       t       -       - | b   r   e   w   i   s   b   x   \varepsilon f   e   b   e   -   b   r   \varepsilon v   e   -   b   r   \varepsilon v   i   -   b   r   e   w   -   -  | a n g u s t u s a n g o s t o -                               | e - t & w a e s t r - e - t t o - i s t r - ej - t u - ej - t - t u - e s t r - ε - t e s t r - ε t e s t r - ε t e s t r - ε   |

| Thin Thin-Delicatus Thin-Subtilis Rec  | d  |
|--|--|
|  | ı b e r -  |
| French m ə n y d u: 3 e:   |  |
| Spanish m e n u - d o - d e 1 - y a ð o - s u - t i 1  |  |
|  | ı   b   -   r   o  |
| PortugueseBrazi m i - u - d u - d e w - g a d u - s u - tf i w   |  |
|  |  |
| Portuguese $m \mid i \mid - \mid u \mid - \mid \delta \mid u \mid - \qquad \qquad d \mid \epsilon \mid i \mid - \mid \gamma \mid a \mid \delta \mid u \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad s \mid u \mid - \mid f \mid i \mid w \mid - \mid - \qquad s \mid u \mid - \mid f \mid u \mid + \mid - \mid + \mid + \mid - \mid f \mid u \mid + \mid +$   |  |
| Catalan   m ə n u - t   d ə l i k a t   s u p t i l  |  |
| Walloon   m   i   n   u   -   -   -   -  |  |
| Friulian m i n u: - t s u - t i: 1   |  |
| Romanian m ə r u n t s u b ts i r e -  |  |
| Red-Russus Red-Vermiculus Red-Rubeus Gre   |  |
|  | i r i d e m  |
| French   | 6 R  |
|  | e r - d e -  |
|  | e r - d e -<br>e r - d <del>i</del> -                          |
|  | =   1   -   u   1   -  |
| Portuguese $ \mathbf{v}  \mathbf{o}   - \int  \mathbf{u}  -  \mathbf{v}  \frac{1}{2}  \mathbf{r}  \mathbf{m}  \mathbf{v}  -  \mathbf{f}  \mathbf{u}  -  \mathbf{r}  \mathbf{u}  -  \mathbf{b}  \mathbf{e}  \mathbf{o}  -  \mathbf{v}  \mathbf{e}$  | e   r   -   d   i   -  |
|  | e r - t  |
|  | E   R   -   -   -  |
|  | e   r   -   t   -   -  |
|  | e r - d e -  |
|  | o-Duas   |
|  | ıas  |
| French   |  |
| Spanish u n o - d - o s  |  |
| Italian u n o - d u - e  |  |
| PortugueseBrazi $ \tilde{\mathbf{u}} $ - $ - $ - $ \mathbf{d} $ - $ \mathbf{oj} $ s  | 1   g   s  |
| Portuguese $ \tilde{\mathbf{u}}  -  - - $ $ \mathbf{d}  -  \mathbf{o}\mathbf{j}  \int$   | ı   ɐ   ʃ  |
| Catalan un d - o s   | *   <sup>0</sup>   J   |
| Walloon   0   -   -   d   -   Ø: -   |  |
| Friulian   u   ŋ   -   -   d   -   oj   -  |  |
| Romanian $\begin{vmatrix} \mathbf{u} & \mathbf{n} & \mathbf{u} \end{vmatrix} - \begin{vmatrix} \mathbf{d} & \mathbf{o} & \mathbf{j} \end{vmatrix} - \begin{vmatrix} \mathbf{d} & \mathbf{o} & \mathbf{w} \end{vmatrix} = \begin{vmatrix} \mathbf{d} & \mathbf{d} & \mathbf{d} & \mathbf{w} \end{vmatrix} = \begin{vmatrix} \mathbf{d} & \mathbf{d} & \mathbf{d} & \mathbf{d} & \mathbf{d} \end{vmatrix} = \begin{vmatrix} \mathbf{d} & \mathbf{d} & \mathbf{d} & \mathbf{d} & \mathbf{d} \end{vmatrix} = \begin{vmatrix} \mathbf{d} & \mathbf{d} & \mathbf{d} & \mathbf{d} & \mathbf{d} & \mathbf{d} \end{vmatrix} = \begin{vmatrix} \mathbf{d} & \mathbf{d} & \mathbf{d} & \mathbf{d} & \mathbf{d} & \mathbf{d} \end{vmatrix} = \begin{vmatrix} \mathbf{d} & \mathbf{d} & \mathbf{d} & \mathbf{d} & \mathbf{d} & \mathbf{d} & \mathbf{d} \end{vmatrix} = \begin{vmatrix} \mathbf{d} & \mathbf{d} & \mathbf{d} & \mathbf{d} & \mathbf{d} & \mathbf{d} & \mathbf{d} \end{vmatrix} = \begin{vmatrix} \mathbf{d} & \mathbf{d} \end{vmatrix} = \begin{vmatrix} \mathbf{d} & $ |  |
| Three Four Five Her  |  |
|  | e k k u m h i: k   |
| French   | -   -   s   -   -   i   -                                      |
|  | a - k i -  |
| talian t r - e - k w a t t r o tf i ŋ k w e  |  |
| $   \text{PortugueseBrazi}   \mathbf{t}   \mathbf{r}   -   \mathbf{e}   \mathbf{s}                                   $   | a   -   k   -   -   -   i   -                                  |
|  | e - k - - i -  |
| Portuguese treef kwa-tru si-k-u  | -       -   -     -     -       -                              |
| Portuguese $\begin{array}{cccccccccccccccccccccccccccccccccccc$  | a   -   k   -   -   -   i   -                                  |
| $ \begin{array}{cccccccccccccccccccccccccccccccccccc$  | e   -   k   -   -   i   -<br>a   -   k   -   -   i   -         |
| Walloon   t r - Ø: -   k w a - t   s ē - k   | a   -   k   -   -   -   i   -<br>a   -   k   -   -   -   i   - |

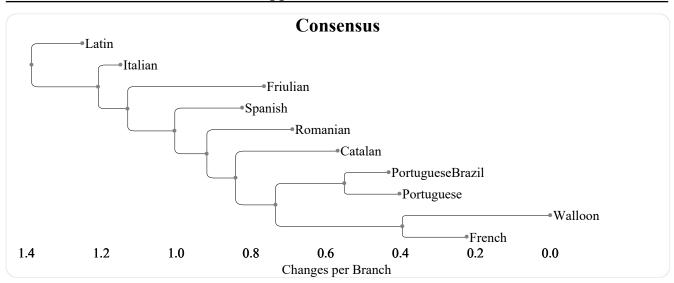
|                 | There  | There-Ibi   | There-Adlbi   | Who-Qui   |
|-----------------|--|---|---|---|
| Latin           | i   1   1   a:   k                                       | i b i:  |   | $\mathbf{k}^{\mathbf{w}}$ – $\mathbf{i}$ s  |
| French          | - - l a -  |   |   | k   -   i   -   |
| Spanish         | a - j a -  |   | a i   |   |
| Italian         | -   -   l   a   -  | $-  \mathbf{v}  \mathbf{i}$                             |   | k   -   i   -   |
| PortugueseBrazi | - - 1 a -  |   | a i   |   |
| Portuguese      | - - 1 a -  |   | e i   |   |
| Catalan         | ə - K a -  |   |   |   |
| Walloon         | - - l a -  |   |   |   |
| Friulian        |  |   |   | k   w   i   -   |
| Romanian        | -   -   l   a   -  |   |   |   |
|                 | Who-Quem   | What  | When-Quando   | How-Quomodo   |
| Latin           | k <sup>w</sup> - e m -                                   | $\mathbf{k}^{\mathbf{w}}$ - $\mathbf{i}$ $\mathbf{d}$   | k <sup>w</sup> - a n d o:   | kwo: modo   |
| French          |  | k w a -   | k   -   ã   -   -   -   | k   ɔ   m   -   -   |
| Spanish         | k   j   e   n   -  | k   -   e   -   | k w a n d o   | k   o   m   o   -   -   |
| Italian         |  | k   -   e   -   | k w a n d o   | k   o   m   e   -   -   |
| PortugueseBrazi | $ \mathbf{k} $ - $ \mathbf{\tilde{e}\tilde{j}} $ - $ $ - |   | $ \mathbf{k} \mathbf{w} \tilde{\mathbf{e}}  -  \mathbf{d} \mathbf{u}$ | $ \mathbf{k}  \mathbf{o}  \mathbf{m}  \mathbf{u}  -  \mathbf{m}  \mathbf{u} $             |
| Portuguese      | k -   ej -   -   |   | $ \mathbf{k} \mathbf{w} \tilde{\mathbf{e}}  -  \mathbf{d} \mathbf{u}$ | k   o   m   u   -   -   |
| Catalan         | -5   | k - ε -   | k w a n   | k o m   |
| Walloon         |  | k w ε: -  | k w a n d -   | $ \mathbf{k}   \mathfrak{d}   \mathbf{m}   \tilde{\boldsymbol{\epsilon}}  -  \mathbf{k} $ |
| Friulian        |  | tf   -   e   -  | kwant-  | tf e m u: t -   |
| Romanian        | tf   -   i   n   e                                       | tf - e -  | k - i n d -   | k   u   m   -   -   -   |
|                 | Not  | Not-Nec   | And-Et  | And-Si  |
| Latin           | n o: n   | n e k   | e t   | s i: k  |
| French          | $ \mathbf{n}  \tilde{\mathfrak{o}}  $ -                  | n i -   | e -   |   |
| Spanish         | n o -  | n i -   | i   -   |   |
| Italian         | n o n  | n e -   | e -   |   |
| PortugueseBrazi | n ę̃w̃-  | $ \mathbf{n}  \tilde{\mathbf{e}} \tilde{\mathbf{j}} $ - | i   -   |   |
| Portuguese      | n ę̃w̃-  | $ \mathbf{n} \mathbf{\widetilde{e}\widetilde{j}} $ -    | i   -   |   |
| Catalan         | n o -  | n   i   -   | i   -   |   |
| Walloon         |  | $ \mathbf{n}  \tilde{\mathbf{e}}  $ -                   | ε   |   |
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| Romanian        | n u -  |   | e -   | <b>  </b>   |

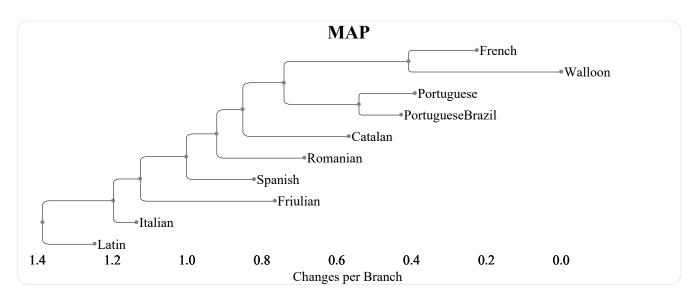
Appendix 4 - Results





#### Appendix 4 - Results





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