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

1	e	2	g	3	oː	4	ʒ	5	ə	6	ɟ	7	o	8	i	9	w	10	ɔ	11	ʤ	12	ɪ	13	j
14	n	15	s	16	u	17	ʃ	18	oj	19	v	20	b	21	t	22	uː	23	y	24	d	25	f		
26	eː	27	m	28	a	29	ɾ	30	ɐ	31	œ	32	ɛ	33	l	34	r	35	x	36	ʎ	37	ʁ		
38	iː	39	ɲ	40	o̯a	41	h	42	ẽj̃	43	ɔ̃	44	ɑ̃	45	ĩ	46	ɐ̃	47	ʧ	48	ɨ	49	p		
50	z	51	ð	52	k	53	ʦ	54	aː	55	ɐ̃j̃	56	ʁ	57	aj	58	ɛː	59	θ	60	ej				
61	ɐj	62	õ	63	ẽ	64	β	65	ɬ	66	ɥ	67	øː	68	au̯	69	ø	70	c	71	e̯a				
72	kʲ	73	g	74	ɛj	75	kʷ	76	ɣ	77	ẽː	78	ʣ	79	ŋ	80	gʷ	81	ẽu̯	82	ɑ				
83	ɟ	84	ɛ̃	85	ɔː	86	ũ	87	ɻ	88	ç	89	ɑː	90	j̃	91	œ̃	92	ʊ	93	ɐ̃w̃				

Model: “Linguistically Informed”

1 **Nasal Vowel**

ɛ̃j ɔ̃ ɑ̃ ĩ ɐ̃ ɐ̃j õ ẽ ẽː ɛ̃ʉ̯ ɛ̃ ũ œ̃ ɐ̃w̃

2 **Vowel**

e oː ə o i ɔ ɪ u oj uː y eː a ɐ œ ɛ iː o̯a ɨ aː aj ɛː ej ɐj øː aʉ̯ ø e̯a ɛj ɑ ɔː ɑː ʊ

3 **Nasal Consonant**

n m ɲ ŋ j̃

4 **Non Sylabic Sonorant**

w j l r

5 **Consonant**

g ʒ ʝ ʤ s ʃ v b t d f ɾ x ʎ ʁ h ʧ p z ð k ʦ ʀ θ β ɬ ɥ c kʲ g kʷ ɣ ʣ gʷ ɟ ɻ ç

Appendix 3 - Concepts Used

	I	We	YouPlural	YouSingular
Latin	- e g oː	n oː - s -	w oː - s	t uː
French	ʒ ə - -	n u - - -	v u - -	t y
Spanish	j - - o	n o - s -	b o - s	t u
Italian	i - - o	n oː i - -	v oː i -	t u
PortugueseBrazi	- e - w	n ɔ j - s	v ɔ j s	t u
Portuguese	- e - w	n ɔ - ʃ -	v o - ʃ	t u
Catalan	ʒ - - ɔ		b u - s	t u
Walloon	ʤ ɪ - -	n o - - -	v o - s	t y
Friulian	j - - o	n oː - - -	v oː - -	t u
Romanian	j e - w	n oj - - -	v oj - -	t u

	YouSingular-VostramMerc	Woman	Woman-Mulier	Woman-Domina
Latin		f eː - 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 - - -
Spanish	- u s t e d	- e - m - b ɾ - a	m u x - e ɾ - -	d o - - ɲ a
Italian		f e m m i - n - a	m o ʎ ʎ e - - -	d ɔ n - n a
PortugueseBrazi	v o s - e -	f e - m e - - - ɐ	m u ʎ - e ʁ - -	d o - - n ɐ
Portuguese	v ɔ s - e -	f e - m j - - - ɐ	m u ʎ - e ɾ - -	d o - - n ɐ
Catalan	v o s t e -	f e - m - b ɾ - a	m u ʎ - e - - -	d ɔ - - n ə
Walloon		f œ - m - - - - -		d œ m - - -
Friulian		f ɛ - m i - n - ɛ	m u - - iː r - -	d ɔ - - n e
Romanian		f e - m e - - j e	m u - j e r e -	d - m - n ə

	ManHumanBeing	ManHumanBeing-Homo	Child	Child-Ninnus
Latin	h o m i - n e m	h - o m oː	i n f a n t e m	
French	- ɔ m - - - - - -	- - ɔ̃ - -	ɑ̃ - f ɑ̃ - - - -	
Spanish	o m - b ɾ e - -		i n f a n t e -	n i ɲ o
Italian		- w ɔ m o	- - f a n t e -	n i n o
PortugueseBrazi	o m ẽj - - - - -		ĩ - f ẽ - ʧ i -	n e n ẽj
Portuguese	ɔ m ẽj - - - - -		ĩ - f ɐ̃ - t ɨ -	n e n ẽj
Catalan	- ɔ m ə - - - -			n e n -
Walloon	- ɔ m - - - - -		ɛ - f ɑ̃ - - - -	
Friulian	- ɔ m - - - - -			
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 iː t u s	- s p o n s u s
French	e - p u - z -		m a ʁ i - - -	e - p u - - - -
Spanish	e s p o - s a	m u x - e ɾ -	m a ɾ i ð o -	e s p o - s o -
Italian	- s p ɔ - z a	m o ʎ ʎ e - -	m a r i t o -	- s p ɔ - z o -
PortugueseBrazi	i s p o - z a	m u ʎ - e ʁ -	m a ɾ i d u -	i s p o - z u -
Portuguese	ɨ ʃ p o - z ɐ	m u ʎ - e ɾ -	m ɐ ɾ i ð u -	ɨ ʃ p o - z u -
Catalan	ə s p ɔ - z ə	m u ʎ - e - -	m a ɾ i t - -	ə s p ɔ - s - -
Walloon				
Friulian		m u - iː r - -	m a r iː t - -	- s p oː - s - -
Romanian		m u - j e r e	m ə r i t - -	

Appendix 3 - Concepts Used

	Husband-Socius	Mother	Father	Father-Tata
Latin	s o k i u s	m aː t r e m	p a t r e	t a t a
French		m e - ʁ - -	p e - ʁ -	
Spanish		m a ð ɾ e -	p a ð ɾ e	t a t a
Italian	s ɔ ʧ - o -	m aː d r e -	p aː d r e	t a t a
PortugueseBrazi		m ɐ̃j - - - -	p aj - - -	t a t a
Portuguese		m ɐ̃j - - - -	p aj - - -	t a t a
Catalan		m a - ɾ ə -	p a - ɾ ə	
Walloon		m e - ʁ - -	p ɛː - r -	
Friulian		m a - r i -	p a - r i	
Romanian	s o ʦ - - -			t a t ə

	Animal	Animal-Bestia	Fish-Piskem	Fish-Pescion
Latin	a n i m a l i a	b eː s t i a	p i s k e m	
French	o - - m a - j -			p w a s õ
Spanish	a l i m a ɲ - a		p e θ - - -	
Italian		b i ʃ ʃ - a	p e ʃ ʃ e -	
PortugueseBrazi		b i - ʃ - ɐ	p ej ʃ - i -	
Portuguese		b i - ʃ - ɐ	p ɐj ʃ - ɨ -	
Catalan			p e ʃ - - -	
Walloon				p - ɛ h õ
Friulian	n e m aː l - - -	b i s - - -	p ɛ s - - -	
Romanian	- n ə m a - j e		p e ʃ t e -	

	Bird-Avem	Bird-Avicellum	Bird-Passerem	Louse
Latin	a w e m	- a w i - k - e l l u m	p a s s e r e m	p - e d u - k l u s
French		w a - - - z - o - - - -		p - u - - - - - - -
Spanish	a b e -		p a - x a ɾ o -	p j o - - x - o - -
Italian		- - u - t ʧ - ɛ l l o -	p a s s e r o -	p - i d ɔ k k j o -
PortugueseBrazi	a v i -		p a - s ɐ ɾ u -	p - i - o - ʎ u - -
Portuguese	a v ɨ -		p a - s ɐ ɾ u -	p - i - o - ʎ u - -
Catalan	a w - -	- - u - - s - e - ʎ - -		p - o - - - ʎ - - -
Walloon		- - uː - - h - ɛː - - - -		p j u - - - - - - -
Friulian		- - u - - ʧ j ɛ - l - -		p - e d o - l i - -
Romanian			p a - s ə ɾ e -	p - ə d u - k j e -

	Snake	Snake-Serpens	Worm	Tree
Latin	s - e r p - e n t e m	s - e r p e n s	w e r m e m	a r b o r e m
French	s - e ʁ p - q̃ - - - -		v e ʁ - - -	a ʁ b - ʁ - -
Spanish	s - e ɾ p j e n t e -	s j e ɾ p e - -	b e ɾ m e -	a ɾ β o l - -
Italian	s - e r p - e n t e -	s - ɛ r p e - -	v e r m e -	a l b e ɾ o -
PortugueseBrazi	s - e ʁ p - ẽ - ʧ i -		v e ʁ m i -	a ʁ v o ɾ i -
Portuguese	s - ɨ ɾ p - ẽ - t ɨ -		v e ɾ m ɨ -	a ɾ v u ɾ ɨ -
Catalan	s - ə r p - e n - - -	s - e ɾ p - - -	v ɛ ɾ m - -	a - b - ɾ ə -
Walloon	s j ɛ ʁ p - ẽ - - - -		v j ɛ ʁ - -	oː - b - - - -
Friulian	s - a r p - i n t - -		v j ɛ r - -	a r b u l - -
Romanian	ʃ - a ɾ p - e - - - -	ʃ - a ɾ p e - -	v j e r m e	a r b o r e -

Appendix 3 - Concepts Used

	Forest	Stick	Fruit	Flower
Latin	s i l w a	p a: l u s	f r u: - k t u s	f l o: r e m
French		p a l - -	f ʁ ɥ i - - - -	f l œ ʁ - -
Spanish	s e l b a	p a l o -	f ɾ u - - t o -	f l o ɾ - -
Italian	s e l v a	p a l o -	f r u - t t o -	f j o: ɾ e -
PortugueseBrazi	s ɛ w v a	p a w - -	f ɾ u - - t ɐ -	f l o ʁ - -
Portuguese	s ɛ ɬ v ɐ	p a w - -	f ɾ u - - t ɐ -	f l o ɾ - -
Catalan	s e l b a	p a l - -	f ɾ u j - t - -	f l ɔ - - -
Walloon			f ʁ y - - - - -	f l ø: ʁ - -
Friulian	s ɛ l v e	p a: l - -	f r u - - t - -	f l o: r - -
Romanian		p a ɾ - -	f r u - k t - -	f l - ɾ e -

	Tail	Feather	Feather-Penna	Hair
Latin	k a d a -	p l u: m a	p e n n a	p - i l u s
French	k ø - - -	p l y m -	p ɛ - n -	p w a l - -
Spanish	k o l a -	p l u m a	p e - ɲ a	p - e l o -
Italian	k o d a -	p j u m a	p e n n a	p - e l o -
PortugueseBrazi	k a w d ɐ		p e - n ɐ	p - e l u -
Portuguese	k a w d ɐ		p e - n ɐ	p - ɨ l u -
Catalan	k u - a -	p l o m ə	p ɛ - ɲ ə	p - ɛ l - -
Walloon	k ɔ w - -	p l ɔ m -	p e - n -	
Friulian	k ɔ d ɛ -	p l u m ɛ	p ɛ - n e	p - e: l - -
Romanian	c - d ə -		p a - n ə	p - ə ɾ - -

	Hair-Capillus	Head	Head-Testa	Ear
Latin	k a p i l l u s	k a p i - t i a	t e s t a	o: r i k l a -
French	ʃ ə v ø - - - -	ʃ ə v ɛ - - - -	t ɛ - t -	o ʁ ej - - - -
Spanish	k a b e - ɟ o -	k a β e - θ - a		o ɾ e - x - a
Italian	k a p e l l o -	k a v e t t s a	t ɛ s t a	o r e k k j a
PortugueseBrazi	k a b e - l u -	k a b e - s - ɐ	t ɛ s t ɐ	o ɾ e - - ʎ ɐ
Portuguese	k ɐ β e - l u -	k ɐ β e - s - ɐ	t ɛ ʃ t ɐ	o ɾ ɐj - - ʎ ɐ
Catalan	k ə b ɛ - ʎ - -	k a p - - - - -	t e s t ə	u ɾ ɛ - - ʎ ə
Walloon	ʧ i v j - - a -		ʧ ɛ s - -	ɔ ʁ aj - - - -
Friulian	c a v ej - - - -	c a: f - - - - -	t ɛ s t e	o r e - - l e
Romanian		k a p - - - - -	ʦ - s t ə	u r e - k - e

	Eye	Nose	Nose-Nares	Mouth
Latin	- o - k u l u s	n a: s u s		b u k k a
French	- œ - j - - - -	n e - - -		b u - ʃ -
Spanish	- o - x - o - -	n a s o -	n a ɾ i θ -	b o - k a
Italian	- ɔ k k - j o -	n a: s o -	n a r i ʧ e	b o k k a
PortugueseBrazi	- o - - - ʎ u -		n a ɾ i s -	b o - k ɐ
Portuguese	- o - - - ʎ u -		n ɐ ɾ i ʃ -	b o - k ɐ
Catalan		n a s - -	n a: r ɪ s -	b o - k ə
Walloon	- u: - j - - - -	n e - - -		b ɔ k - -
Friulian	v o - - l i - -	n a: s - -		b ɔ - c ɛ
Romanian	- o - kʲ - - - -	n a s - -		b u - k ə

Appendix 3 - Concepts Used

	Mouth-Gula	Wing	Sun	Sun-Soliculus
Latin	g u l a	aː l a	s oː l e m	s o l i k u l u s
French	g œ l -	e l -		s ɔ l ɛj - - - - -
Spanish	g o l a	a l a	s o l - -	
Italian	g o l a	a l a	s o l e -	
PortugueseBrazi		a - -	s ɔ w - -	
Portuguese		a - -	s ɔ ɫ - -	
Catalan	g o l ə	a l ə	s ɔ l - -	
Walloon	g øː j -	e l -	s ɔ l ɔ -	
Friulian	g ɔ l e	a l e		s o r e - - l i -
Romanian	g u ɾ ə		s ɾ e -	

	Moon	Star	Water	Rain
Latin	l uː n a	- s t - eː l l a	a - k - a	p l u - w i a
French	l y n -	e - t w a - l -	o - - - -	p l ɥ - - i -
Spanish	l u n a	e s t ɾ e - ʝ a	a - ɣ w a	ʝ - u - b j a
Italian	l u n a	- s t - e l l a	a k k w a	p j o d ʤ - a
PortugueseBrazi	l u - ɐ	i s t ɾ e - l ɐ	a - ɡ w ɐ	ʃ - u - v - ɐ
Portuguese	l u - ɐ	ɨ ʃ t ɾ e - l ɐ	a - ɡ w ɐ	ʃ - u - v - ɐ
Catalan	ʎ u n ə	ə s t - ɛ - l -	aj - ɣ w ə	p l u - ʒ - ə
Walloon	l ø n -	- s t - øː - l -	ɛː - - w -	p l uː - ʁ - -
Friulian	l u n e	- s t - ɛ - l e	a - g - e	p l o - - j e
Romanian	l u n ə	- s t - - - -	a - p - ə	p l - - j e

	River	River-Rivus	River-Riparia	Lake
Latin	f l uː m e n	r iː w u s	r iː p - aː r i a	l a k u m
French		ʁ y - - -	ʁ i v j e ʁ - -	l a k - -
Spanish		r i - o -		l a g o -
Italian	f j u m e -	r i - o -		l a g o -
PortugueseBrazi	f l u m i -	ʁ i - w -		l a g u -
Portuguese	f l u m ɨ -	ʁ i - u -		l a ɣ u -
Catalan		r i - w -		ʎ a k - -
Walloon			r i v iː - ʁ - -	l a k - -
Friulian	f l u m - -			l aː t - -
Romanian		r ɨ - w -		l a k - -

	Sea	Salt	Earth	Fog
Latin	m a r e	s aː l e m	t - e r r a	k aː l iː g i n e m
French	m ɛ ʁ -	s ɛ l - -	t - e - ʁ -	
Spanish	m a ɾ -	s a l - -	t j e - r a	k a l i - - n a -
Italian	m a r e	s a l e -	t - ɛ r r a	k a l i ʤ i n e -
PortugueseBrazi	m a ʁ -	s a w - -	t - e - ʁ ɐ	k a l i ʒ ẽj - - -
Portuguese	m a ɾ -	s a l - -	t - ɛ - ʁ ɐ	k ɐ l i ʒ ẽj - - -
Catalan	m a r -	s a l - -	t - ɛ - r ə	
Walloon	m e ʁ -	s e - - -	t - ɛː - ʁ -	
Friulian	m aː r -	s aː l - -	t j ɛ - r e	
Romanian	m a r e	s a r e -	ʦ - a - r ə	

Appendix 3 - Concepts Used

	Fog-Nebula	Fog-Tenebrae	Fog-Tenebras	Fog-Fumata
Latin	n - e - b u l a	t e n eː b r aj	t - e n - eː b r aː s	f uː m aː t a
French	n j ɔ - - - l y		t - e n - ɛ b ʁ - -	f y m e - -
Spanish	n j e - b - l a		t - i n j e b l a s	f u m a t a
Italian	n - e b b - j a	t ɛː n e b r e	t - ɛː n - e b r e -	f u m aː t a
PortugueseBrazi	n - ɛ - v w - ɐ			f u m a s ɐ
Portuguese	n - ɛ - v w - ɐ		t ɾ - - - ɛ v - ɐ ʃ	f u m a s ɐ
Catalan	n - e - - w l ə		t - ə n - e b ɾ ə s	
Walloon				
Friulian				f u m a t e
Romanian	n e g u r ə - -			

	Fog-Caecia	Sky	Wind	Ice
Latin	k aj k i a	k - aj l u m	w - e n t u m	g e l uː
French		s j ɛ l - -	v - ɑ̃ - - - -	ʒ ɛ l -
Spanish		θ j e l o -	b j e n t o -	ʝ e l o
Italian		ʧ - ɛ l o -	v - ɛ n t o -	ʤ ɛ l o
PortugueseBrazi		s - ɛ w - -	v - ẽ - t u -	
Portuguese		s - ɛ w - -	v - ẽ - t u -	
Catalan		s - ɛ l - -	b - e n - - -	ʒ ɛ ɬ -
Walloon		s - iː ʁ - -	v - ẽ - - - -	
Friulian		ʧ - iː l - -	v - i n t - -	
Romanian	ʧ ʧ - ə	ʧ - e ɾ - -	v - ɨ n t - -	ʤ e r -

	Smoke	Fire-Focus	Ash	Ash-Cinisia
Latin	f uː m u s	f - o k u m	k i n e - r e m	
French		f - ø - - -	s ɑ̃ - - d ʁ - -	
Spanish	- u m o -	f w e ɡ o -		θ e n i θ a -
Italian	f u m o -	f w ɔ k o -	ʧ e n e - r e -	
PortugueseBrazi	f u m u -	f - o ɡ u -		s ĩ - - z ɐ ʃ
Portuguese	f u m u -	f - o ɣ u -		s ĩ - - z ɐ ʃ
Catalan	f u m - -	f - ɔ k - -	s ɛ n - d r ə -	
Walloon		f - øː - - -	s ɛ̃ː - - d - - -	
Friulian	f u m - -	f - uː k - -		ʧ i n i z ɛ -
Romanian	f u m - -	f - o k - -		ʧ e n u ʃ ə -

	Night	Day	Day-Diurnus	Day-Diurna
Latin	n - o c t e m	d i eː s	d i u r n u m	
French	n ɥ i - - - - -		ʒ - u ʁ - - -	
Spanish	n - o - ʧ e -	d i a -	d j u ɾ n o -	
Italian	n - ɔ t t e -	d i - -	ʤ - o r n o -	
PortugueseBrazi	n - oj t ɨ - -	d i ɐ -		ʒ ɔ ʁ n a
Portuguese	n - oj t ɨ - -	d i ɐ -		ʒ ɔ ʁ n a
Catalan	n - i - t - -	d i ə -	ʒ - o ɾ n - -	
Walloon	n - y - t - -	ʤ uː - -	ʤ - uː - - - -	
Friulian	ɲ - ɔ - t - -	d i - -		
Romanian	n - - p t e -	z i - -		

Appendix 3 - Concepts Used

	Day-Diurnata	Year	Name-Nomen	Name-Nominem
Latin	d i u r n aː t a	a n n u m	n oː m e n	n oː m i n - e m
French	ʒ - u ʁ n e - -	ɑ̃ - - - -	n ɔ̃ - - -	
Spanish	x - o ɾ n a d a	a - ɲ o -		n o m - b ɾ e -
Italian	ʤ o r n a t a -	a n n o -	n oː m e -	
PortugueseBrazi		ɐ - n u -	n o m i -	
Portuguese		ɐ - n u -	n o m ɨ -	
Catalan		a - ɲ - -	n ɔ m - -	
Walloon		ɑ̃ - - - -	n õ - - -	
Friulian	ʣ - o r n a d e	a - ŋ - -	n ɔ ŋ - -	
Romanian		a n - - -	n u m e -	

	Tongue	ToDrink	ToEat	ToEat-Manducare
Latin	l i n - a	b i b - e r e	k o m e d e r e	m a n d u k aː r e
French	l ɑ̃ - g - -	b - - w ɑ ʁ -		m ɑ̃ - ʒ - - e - -
Spanish	l e ŋ g w a	b e b - e ɾ -	k o m e - - ɾ -	m a n d u k a ɾ -
Italian	l i n g w a	b e - - - ɾ e		m a n ʤ - - a ɾ e
PortugueseBrazi	l ĩ - g w ɐ	b e b - e ʁ -	k o m e - - - -	m ẽ - ʒ - - a ʁ -
Portuguese	l ĩ - g w ɐ	b ɨ β - e ɾ -	k u m - - e ɾ -	m ẽ - ʒ - - a ɾ -
Catalan		b ɛ w - - ɾ ə		m ə ɲ ʒ - - a - -
Walloon	l ẽ - - - -	b - - - øː ʁ -		m a ɲ - - - iː - -
Friulian	l ɛ n g - ɛ	b e v i - - -		m a ŋ ɟ - - aː - -
Romanian	l i m b - ə	b - - - - - -		m ɨ n - - k a - -

	ToBite	ToBite-Morsicare	ToSuck	ToSpit
Latin	m - o r d eː r e	m o r s i k aː r e	s uː g e r e	k o n s p u e r e
French	m - o ʁ d - ʁ -		s y s e - -	k ɔ̃ - s p y e - -
Spanish	m - o ɾ ð e ɾ -	m o - s - k a ɾ -		
Italian	m - ɔ r d e r e	m o r s i k a ɾ e		
PortugueseBrazi	m - o ʁ d e ʁ -	m u - s ə g a - -	s u g a ʁ -	k u - s p i ʁ - -
Portuguese	m - u ɾ ð e ɾ -	m u - s ə g a r -	s u g a ɾ -	k u - ʃ p i ɾ - -
Catalan		m u - s ə ɣ a - -		
Walloon			s y s iː - -	
Friulian	m w a r d i - -		c u c aː - -	
Romanian		m u r s e k a - -	s u ʤ e - -	

	ToSpit-Exconspuere	ToSpit-Sputare	ToKnow	ToKnow-Sapere
Latin		- s p u t e r e	s k iː r e	s a p - e r e
French				s a v w a ʁ -
Spanish	e s k u - p i ɾ	e s p u t a ɾ -		s a b - e ɾ -
Italian		- s p u t a ɾ e		s a p - e r e
PortugueseBrazi				s a b - e ʁ -
Portuguese				s ɐ b - e ɾ -
Catalan	ə s k u - p i -			s ə β - ɛ - -
Walloon				s a v - øː ʁ -
Friulian		s p u d aː - - -		s a v - eː - -
Romanian	- s k u j p a -		ʃ t i - -	

Appendix 3 - Concepts Used

	ToKnow-Cognoscere	ToThink	ToThink-Pensare	ToFear
Latin	k o g n oː s k e r e	k - oː g i t aː r e	p eː n s aː r e	t i m eː r e
French	k ɔ - n ɛ - t ʁ - -	k ɥ - - i d e - -	p ɑ̃ - s e - -	
Spanish	k o - n o θ e ɾ - -	k w - - i d a ɾ -	p e n s a ɾ -	t e m e ɾ -
Italian	k o - n o ʃ ʃ e r e	k - o ʤ i t a r e	p e n s a ɾ e	t e m e r e
PortugueseBrazi	k o - ɲ e s - e ʁ -	k - u ʒ i t a ʁ -	p ẽ - s a ʁ -	t e m e ʁ -
Portuguese	k u - ɲ i s - e ɾ -	k - u ʒ i t a ɾ -	p ẽ - s a ɾ -	t i m e ɾ -
Catalan	k u - n ɛ ʃ - ə - -	k - u - j d a - -	p ə n s a - -	t e m ə - -
Walloon	k i - n ɔ h - - - -		p ɛ̃ - s e - -	
Friulian	k o - ɲ o s - i - -		p e ŋ s aː - -	t e m i - -
Romanian	k u - n ʃ t e - -	k - u ʤ e t a - -	p ə - s a - -	t e m e - -

	ToFear-Tremere	ToSleep	ToLive	ToDie
Latin	t r e m - e r e	d - o r m iː r e	w iː w e r e	
French	k ʁ ɛ̃ - d - ʁ -	d - ɔ ʁ m i ʁ -	v i v - ʁ -	m u ʁ i ʁ -
Spanish	t ɾ e m - e ɾ -	d - o ɾ m i ɾ -	b i b i ɾ -	m o ɾ i ɾ -
Italian	t r e m - a r e	d - o r m i r e	v i v e r e	m o r i r e
PortugueseBrazi	t ɾ e m - e ʁ -	d - o ʁ m i ʁ -	v i v e ʁ -	m o ʁ e ʁ -
Portuguese	t ɾ ɨ m - e ɾ -	d - u ɾ m i ɾ -	v i v e ɾ -	m u ʁ e ɾ -
Catalan		d - u r m i - -	b i w - ɾ ə	m u ɾ i - -
Walloon		d w a ʁ m i - -		m ɔ ʁ i - -
Friulian	t r i m - aː - -	d - u r m iː - -	v i v i - -	m u r iː - -
Romanian		d - o r m i - -	v i - a - -	m u r i - -

	ToKill	ToKill-Adnecare	ToKill-Tutari	ToKill-Mactare
Latin	n - e k aː r e		t uː - t aː r i	m a k t aː r e
French	n w aj e - - -		t - ɥ - e - -	m a - t e - -
Spanish		a - n e g a ɾ -		m a - t a ɾ -
Italian		a n n e g a r e		
PortugueseBrazi				m a - t a ʁ -
Portuguese				m ɐ - t a ɾ -
Catalan	n - ə g a - -			m ə - t a - -
Walloon			t u w - e - -	
Friulian				m a ʧ - aː - -
Romanian	n - e k a - -			

	ToKill-Occidere	ToFight	ToFight-Battuere	ToHunt-Captiare
Latin	o k k iː d e r e	p u g n aː r e	b a t t u e r e	k a p t i aː r e
French	ɔ k s i - - ʁ -		b a t - - ʁ - -	ʃ a - s - e - -
Spanish		p u - ɲ a ɾ -	b a - t - i ɾ -	k a - θ - a ɾ -
Italian	u t ʧ i d e ɾ e	p u ɲ ɲ a r e	b a t t - e r e	k a t ʧ - a r e
PortugueseBrazi			b a - t - e ʁ -	k a - s - a ʁ -
Portuguese			b ɐ - t - e ɾ -	k ɐ - s - a ɾ -
Catalan	u k s i - - - - -	p u - ɲ a - -	b a - t - - ɾ ə	k ə - s - a - -
Walloon			b a t - e - - -	ʧ ɛ - s - iː - -
Friulian			b a t - i - - -	c a - ʧ - aː - -
Romanian	u - ʧ i d e - -		b a t - e - - -	

Appendix 3 - Concepts Used

	ToHit	ToCut	ToCut-Curtare	ToCut-Excurtare
Latin	p u l s aː r e	s - e k aː r e	k u r t aː r e	e k s k u r t aː r e
French	p u - s e - -	s j e - - - -		e - - k u ʁ t e - -
Spanish	p u - x a ɾ -	s - e g a ɾ -	k o ɾ t a ɾ -	
Italian	p u l s a r e	s - e g a r e		- - s k o r t a r e
PortugueseBrazi	p u - ʃ a ʁ -	s - e ɡ a ʁ -	k o ʁ t a ʁ -	
Portuguese	p u - ʃ a ɾ -	s - ɨ ɣ a ɾ -	k u ɾ t a ɾ -	
Catalan		s - ə ɣ a - -		
Walloon				
Friulian	p u l s aː - -	s - e - aː - -		- - s k u r t aː - -
Romanian	p u l s a - -			- - s k u r t a - -

	ToCut-Taliare	ToSplit	ToSplit-Scindere	ToSplit-Findere
Latin	t aː - l i aː r e	d iː w i d e r e	s k i n d e r e	f i n d e r e
French	t ɑ j - - e - -		s - ɛ̃ - d e - -	f ɑ̃ - d - ʁ -
Spanish	t a - x - a ɾ -	d i b i d i ɾ -		- e n d e ɾ -
Italian	t a - ʎ ʎ aː r e	d i v i d e r e	ʃ - i n d e r e	f ɛ n d e r e
PortugueseBrazi	t a - ʎ - a ʁ -	ʤ i v i ʤ i ʁ -		f ẽ - d e ʁ -
Portuguese	t ɐ - ʎ - a ɾ -	d i v i ð i ɾ -		f ẽ - d e ɾ -
Catalan	t ə - ʎ - a - -	d i b i d i - -		f ɛ n d - ɾ ə
Walloon	t ɛ - - j iː - -			f ɛ̃ - t - - -
Friulian	t a - - j aː - -	d i v i d i - -		
Romanian	t ə - - j a - -	d i v i d e - -		

	ToSplit-Partire	ToSplit-Separare	ToStab	ToStab-Iugulare
Latin	p a r t iː r e	s eː p a r aː r e -	p - u n g e r e	j u g u l aː r e
French	p a ʁ t i ʁ -	s ə - v - - - ʁ e	p w ɛ̃ - d - ʁ -	ʒ y g y l e - -
Spanish	p a ɾ t i ɾ -	s e p a ɾ a ɾ - -		
Italian	p a r t i r e	s e p a r a r e -	p - u n ʤ e r e	j u g u l aː r e
PortugueseBrazi	p a ʁ ʧ i ʁ -	s e p a ɾ a ʁ - -	p - ũ - ʒ i ʁ -	
Portuguese	p ɐ ɾ t i ɾ -	s ɨ p ɐ ɾ a ɾ - -	p - ũ - ʒ i ɾ -	
Catalan	p ə r t i - -	s ə p ə ɾ a - - -	p - u ɲ - i - -	
Walloon	p ɔː ʁ t i - -			
Friulian	p a r t iː - -	s e p a r aː - - -		
Romanian		s e p a r a - - -	p u n ʤ e - - -	

	ToScratch	ToScratch-Rasare	ToScratch-Rasicare	ToScratch-Coctiare
Latin	r aː d e r e			
French		ʁ ɑ z e - -		
Spanish	r a - e ɾ -	r a s a ɾ -	r a s k a ɾ	
Italian	r a d e r e	r a s a r e		
PortugueseBrazi	ʁ a - e ʁ -	ʁ a z a ʁ -	ʁ a ʃ k a ʁ	k o s a ɻ
Portuguese	ʁ ɐ - e ɾ -	ʁ ɐ z a ɾ -	ʁ ɐ ʃ k a ɾ	k u s a ɾ
Catalan	r a w - ɾ ə	r ə z a - -	r ə s k a -	
Walloon				
Friulian	r a d aː - -	r a s aː - -		
Romanian	r a d e - -			

Appendix 3 - Concepts Used

	ToDig	ToDig-Cavare	ToDig-Excavare	ToSwim
Latin	f o d e r e	k a w aː r e	e k s k a w aː r e	n - a t aː r e
French	f w i ʁ - -			
Spanish		k a b a ɾ -	e s k a b a ɾ - -	n - a d a ɾ -
Italian		k a v a r e	- - s k a v a r e	n w o t a ɾ e
PortugueseBrazi		k ɐ v a ʁ -	i - ʃ k ɐ v a ʁ -	n - a d a ʁ -
Portuguese		k ɐ v a ɾ -	i - ʃ k ɐ v a ɾ -	n - ɐ ð a ɾ -
Catalan		k ə b a - -		n - ə d a - -
Walloon		ç ɑː v - l e		
Friulian		ɟ a v aː - -	- - z ɟ a v aː - -	n - a d aː - -
Romanian				

	ToSwim-Navigare	ToFly	ToFly-Exvolare	ToWalk
Latin	n a v i g aː r e	w o l aː r e		
French	n a - - ʒ e - -	v o l e - -		ʃ ə m i n e - - -
Spanish	n a b e ɡ a ɾ -	b o l a ɾ -		k a m i n a ɾ - -
Italian	n a v i ɡ a r e	v o l a ɾ e	z v o l a ɾ e	k a m m i n a ɾ e
PortugueseBrazi	n a v ɨ ɣ a ʁ -	v o - a ʁ -		k ɐ m i ɲ a ʁ - -
Portuguese	n ɐ v ɨ ɣ a ɾ -	v w - a ɾ -		k ɐ m i ɲ a ɾ - -
Catalan	n ə b ə ɡ a - -	b u l a - -		k ə m i n a - - -
Walloon	n ɛ - - ʤ iː - -	v ɔ l e - -		ʧ i m i n e - - -
Friulian	n a v i g aː - -		z v o l aː - -	c a m i n aː - - -
Romanian	n a v i g a - -		z b u ɾ a - -	

	ToWalk-Marcher	ToWalk-Mergere	ToWalk-Ambitare	ToCome
Latin		m e r g e r e	a m b i t aː r e	w e n iː r e
French	m a ʁ ʃ e			v ə n i ʁ -
Spanish			a n d - - a ɾ -	b e n i ɾ -
Italian		m ɛ r ʤ e r e	a n d - - a r e	v e n i ɾ e
PortugueseBrazi			ẽ - d - - a ʁ -	v - - i ʁ -
Portuguese			ɐ̃ - d - - a ɾ -	v - - i ɾ -
Catalan				b ə n i - -
Walloon	m aː ʁ ʧ iː			v i n i - -
Friulian				v i ɲ iː - -
Romanian		m e r ʤ e - -		v e n i - -

	ToLieAsInABed	ToLieAsInABed-Iacere	ToSit	ToSit-Sedentare
Latin	e k s t e n d e r e	j a - k eː r e	s - e d eː r e	s e d e n t aː r e
French	e - t ɑ̃ - d - ʁ - -	ʒ e - z i ʁ -	s w a - - ʁ -	
Spanish	e k s t e n d e ɾ -	j a - θ e ɾ -	s - e - - ɾ -	s e - - n t a ɾ -
Italian	e - s t ɛ n d e r e	ʤ a - ʧ eː ɾ e	s - e d e r e	
PortugueseBrazi	i s t ẽ - d e ʁ - -	ʒ ɐ - z e ʁ -	s - e - - ʁ -	s ẽ - - - t a ɾ -
Portuguese	i ʃ t ẽ - d e ɾ - -	ʒ ɐ - z e ɾ -	s - e - - ɾ -	s ẽ - - - t a ɾ -
Catalan	ə - s t e n d - ɾ ə	ʒ a w - - ɾ ə		
Walloon		ʤ e - - r e -		
Friulian		j e - s i - -		s e - - n t aː - -
Romanian	e k s t i n d e - -	z ə - ʧ - -	ʃ - e d - -	

Appendix 3 - Concepts Used

	ToStand	ToStand-Levare	ToStand-Altiare	ToTurnIntransitive
Latin	- s t a: r e	l e v a: r e	- a l t i a: r e	t o r n a: r e
French	ɛ - t - ʁ -	l ə v e - -	- o - s - e - -	t u ʁ n e - -
Spanish	e s t a ɾ -	ɟ e b a ɾ -	- a l θ - a ɾ -	t o ɾ n a ɾ -
Italian	- s t a r e	l e v a r e	- a l ʦ a r e -	t o r n a r e
PortugueseBrazi	ɨ ʃ t a ɾ -	l e v a ʁ -	- a ɬ s - a - -	t o ʁ n a ʁ -
Portuguese	ɨ ʃ t a ɾ -	l ɨ v a ɾ -	- a ɬ s - a ɾ -	t u ɾ n a ɾ -
Catalan	ə s t a - -	ʎ ə b a - -	- ə l s - a - -	t u r n a - -
Walloon	ɛ s - - - -	l ə v e - -	h ɔ: - s - i: - -	t u: r n e - -
Friulian	- s t a: - -	l e v a: - -	- a l t ʃ - a: -	t o r n a: - -
Romanian	- s t a - -	l - u a - -		t u r n a - -

	ToTurnIntransitive-Gyrare	ToTurnIntransitive-Ancestr	ToTurnIntransitive-Torquer	ToFall
Latin	g y r a: r e		t o r k e: r e	k - a d e r e
French	ʒ i ʁ e - -	v i ʁ e - -	t ɔ ʁ d - ʁ -	ʃ w a - - ʁ -
Spanish	x i ɾ a ɾ -	b i ɾ a ɾ -	t o ɾ θ e ɾ -	k - a - e ɾ -
Italian	ʤ i r a ɾ e	v i r a ɾ e	t ɔ r ʧ e r e	k - a d e ɾ e
PortugueseBrazi	ʒ i ɾ a ɾ -	v i ɾ a ɾ -	t u r s e r -	k - ɐ - i ɾ -
Portuguese	ʒ i ɾ a ɾ -	ʒ i ɾ a ɾ -	t u r s e r -	k - ɐ - i ɾ -
Catalan	ʒ i ɾ a - -	b i ɾ a - -	t ɔ r s ə - -	k - a w - r ə
Walloon		v i ʁ e - -		ʧ - ɛ: - - ʁ -
Friulian	ʤ i r a: - -	ʤ i r a: - -		ʧ j a d e - -
Romanian			t - r ʧ e - -	k ə d - - -

	ToFall-Tumbare	ToHold	ToHold-Segurar	ToSqueeze
Latin		t e n - e: r e		e k s p r i m - e r e
French	t õ - b e -	t ə n - i ʁ -		e - - p ʁ ɛ̃ - d - ʁ -
Spanish	t u m b a ɾ	t e n - e ɾ -	s e g u ɾ a ɾ	e k s p ɾ e m - i ɾ -
Italian		t e n - e ɾ e		- - s p r ɛ m - e r e
PortugueseBrazi	t õ - b a ʁ	t e - - - ʁ -	s ɨ g u ɾ a ʁ	i - ʃ p r ə m - e ʁ -
Portuguese	t õ - b a ɾ	t e - - - ɾ -	s ɨ ɣ u ɾ a ɾ	i - ʃ p r ə m - e r -
Catalan	t u m b a -	t ə n - i - -		ə - s p ɾ e m - ə - -
Walloon	t u m - e -	t i n - i - -		
Friulian		t i n j i - -		e - s p r i m - i - -
Romanian		ʦ i n - e - -		- s k - r e m e - - -

	ToSqueeze-Serrere	ToSqueeze-Serare	ToSqueeze-Appectorare	ToSqueeze-Stringere
Latin	s e r r e r e	s e - r a r e	a p p e k t o r a: r e	- s t r i n g e r e
French		s e - ʁ e - -		e - t ʁ ɛ̃ - d - ʁ -
Spanish	s e - r a ɾ -	θ e - r a ɾ -	a - p - - ɾ e t a ɾ -	e s t ɾ e ɲ - i ɾ -
Italian		s e r r a r e		- s t r i n ʤ e r e
PortugueseBrazi	s e - ʁ a - -	s ɨ - ʁ a ɾ -	ɐ - p ɨ - ɾ - t a ɾ -	ə ʃ t r ĩ - ʒ i r -
Portuguese	s ə - ʁ a ɾ -	s ɨ - ʁ a ɾ -	ɐ - p ɨ - ɾ - t a ɾ -	ə ʃ t r ĩ ʒ i r - -
Catalan	s ə - r a - -			ə s t ɾ ɛ ɲ ə - - -
Walloon		s ɛ - ʁ e - -		s t r i n g e - - -
Friulian				s t r ɛ n g i: - - -
Romanian				s t r ɨ n ʤ e - - -

Appendix 3 - Concepts Used

	ToRub	ToRub-Exfricare	ToRub-Frictare	ToRub-Frictiare
Latin	f r i k aː r e		f r i k t aː r e	
French	f ʁ ɛj e - - -		f ʁ o t e - - -	
Spanish	f ɾ e g a ɾ -		f ɾ o t a ɾ - -	f r i s a ɾ
Italian	f r e g a r e		f r e t t a r e	
PortugueseBrazi		ɨ ʃ f ɾ ɨ g a ɾ		
Portuguese		ɨ ʃ f ɾ ɨ ɣ a ɾ		
Catalan	f ɾ ə g a - -			f ɾ ə s a -
Walloon	f r oj - - - -		f ʁ o t e - - -	
Friulian	f r e - a - -			
Romanian	f r e k a - -			
	ToWash	**ToWipe**	**ToWipe-Extergere**	**ToWipe-Exsucare**
Latin	l a w aː r e	t e r g e r e	e k s t e r g e r e	e k s - uː k - aː r e
French	l a v e - -			e - s ɥ i - j e - -
Spanish	l a β a ɾ -		e - s t a ɾ s i ɾ -	e n x - u g - a ɾ -
Italian	l a v a r e	t ɛ r ʤ e r e		a ʃ ʃ - u g - a r e
PortugueseBrazi	l ɐ v a ɾ -			ẽ - ʃ - u g - a ɾ -
Portuguese	l ɐ v a ɾ -			ẽ - ʃ - u ɣ - a ɾ -
Catalan	ʎ ə b a - -		ə - s t ə r ʒ i - -	ə - ʃ - u g a - - -
Walloon	l a v e - -			- - s - u - w e - -
Friulian	l a v aː - -			- - s - u - j aː - -
Romanian	l a - - - -		- - ʃ t e r ʤ e - -	u - s - - k - a - -
	ToWipe-Limpidare	**ToPull**	**ToPull-Pulsare**	**ToPull-Trahere**
Latin	l i m p i d aː r e	t i r aː r e	p u l s aː r e	t r a h e r e
French		t i ʁ e - -	p u - s e - -	t ʁ - - ɛ ʁ -
Spanish	l i m p j - a ɾ -	t i ɾ a ɾ -	p u - x a ɾ -	
Italian		t i r a r e	p u l s a r e	t r a r - r e
PortugueseBrazi	l ĩ - p - - a ɾ -	ʧ i ɾ a - -	p u - ʃ a ɾ -	t ɾ a z e - -
Portuguese	l ĩ - p - - a ɾ -	t i ɾ a ɾ -	p u - ʃ a ɾ -	t ɾ ɐ z e ɾ -
Catalan		t i ɾ a - -		t ɾ ɛ w - ɾ ə
Walloon		t i r e - -	p uː s iː - - -	
Friulian		t i r aː - -	p u l s aː - -	t r aj - - - -
Romanian			p u l s a - -	t r a ʤ e - -
	ToPush	**ToThrow**	**ToThrow-Lanceare**	**ToThrow-Eruncare**
Latin	i m p i n g e r e	j a k t aː r e	l a n k e aː r e	eː - r u n k aː r e
French		ʒ ə - t e - -	l ɑ̃ - s - e - -	
Spanish		- e - ʧ a ɾ -	l a n θ - a ɾ -	a - r a n k a ɾ -
Italian	i m p i n ʤ e r e	ʤ e t t a r e	l a n ʧ a r e -	a r r o n ʧ a r e
PortugueseBrazi		ʒ ej t a ɾ - -	l ẽ - s - a - -	
Portuguese		ʒ ej t a ɾ - -	l ẽ - s - a ɾ -	
Catalan	ə m p ɛ ɲ - ə - -	x i t a - - -	ʎ ə n s - a - -	
Walloon		ʤ ɛ t e - - -	l a n c - iː - -	
Friulian			l a n ʧ aː - - -	
Romanian	ɨ m p i n ʤ e - -			a - ɾ u ŋ k a - -

Appendix 3 - Concepts Used

	ToTie	ToTie-Aptare	ToSew	ToCount
Latin	l i g aː r e	a p t aː r e	k oː n - s u e r e	k o m p u t aː r e
French	l i - e - -		k u - d - - - ʁ -	k õ - - - t e - -
Spanish	l e g a ɾ -	a - t a ɾ -	k o - - s - e ɾ -	k o n - - t a ɾ -
Italian	l e g a r e		k u - - ʧ - i r e	k o n - - t a r e
PortugueseBrazi		ɐ - t a ɾ -	k u - - z - e ɾ -	k õ - - - t a ɾ -
Portuguese		ɐ - t a ɾ -	k u - - z - e ɾ -	k õ - - - t a ɾ -
Catalan	ʎ i ɣ a - -		k u - - z - i - -	k u m - - t a - -
Walloon	l ɔ j iː - -		k øː - - z - - - -	k õ - - - t e - -
Friulian	l e - aː - -		k u - - z i - - -	k o n - - t aː - -
Romanian	l e g a - -		c - - - s - e - -	

	ToCount-Enumerare	ToSay	ToSay-Exponere	ToSing-AncestralClass
Latin	eː n u m e r aː r e	d iː k e r e	e k s p oː n e r e	k a n t aː r e
French	e n u m e ʁ e - -	d i - - ʁ -		ʃ ɑ̃ - t e - -
Spanish	e n u m e ɾ a ɾ -	d e θ i ɾ -		k a n t a ɾ -
Italian	e n u m e r a r e	d i - - r e	- - s p o r - r e	k a n t a r e
PortugueseBrazi	e n u m e ɾ a ɾ -	d i z - e ɾ		k ɐ̃ - t a ɾ -
Portuguese	e n u m e ɾ a ɾ -	d i z - e ɾ		k ɐ̃ - t a ɾ -
Catalan	e n u m e ɾ a - -	d i - - - -		k ə n t a - -
Walloon		d iː - - ʁ -		ʧ ɑ̃ - t e - -
Friulian		d iː - - - -		c a n t aː - -
Romanian	- n u m a r a - -	z i ʧ e - -	- - s p u n e - -	k ɨ n t a - -

	ToPlay-Ludere	ToPlay-Jiocare	ToFloat	ToFloat-Fluitare
Latin	l uː d e r e	j o - k aː r e	f l uː k t u aː r e	f l u i t aː r e
French		ʒ - w - e - -	f l y k t ɥ e - -	
Spanish	l u d i ɾ -	x u - g a ɾ -	f l u g t w a ɾ -	
Italian		ʤ o - k a r e	f l u t t u a r e	f l u i t a r e
PortugueseBrazi		ʒ o - g a ʁ -	f l u - t u a ʁ -	
Portuguese		ʒ u - ɣ a ɾ -	f l u - t u a ɾ -	
Catalan		ʒ u - g a - -	f l u k t u a - -	
Walloon		ʤ u w - e - -		
Friulian		ʤ u j - aː - -		
Romanian		ʒ u - k a - -	f l u c t u a - -	

	ToFlow	ToFlow-Colare	ToFlow-Excurrere	ToFlow-Currere
Latin	f l u e r e	k oː l aː r e	e k s k u r r e r e	k u r r e r e
French	f l y e - -	k u l e - -		k u - ʁ i ʁ -
Spanish	f l u i ɾ -	k o l a ɾ -	e - s k u r i ɾ - -	k o - r e ɾ -
Italian	f l u i r e	k o l a r e	- - s k o r r e r e	k o r r e r e
PortugueseBrazi	f l w i ʁ -	k o - a ʁ -	i - ʃ k o - ʁ e ʁ -	k o - ʁ e ʁ -
Portuguese	f l w i ɾ -	k u - a ɾ -	i - ʃ k u - ʁ e ɾ -	k u - ʁ e ɾ -
Catalan	f l u i - -	k u ɫ a - -	ə - s k o - r ə - -	k o - r ə - -
Walloon		k ɔ l e - -		
Friulian			- - s k o - r iː - -	k o - r i - -
Romanian			- - s k u ɾ ʤ e - -	k u ɾ ʤ e - -

Appendix 3 - Concepts Used

	ToFreeze	ToFreeze-Glaciare	ToFreeze-Inglaciare	ToBurn-Brojan
Latin	g e l aː r e	g l a - k i aː r e	i n g l a k i aː r e	
French	ʒ ə l e - -	g l a - s - e - -		b ʁ y l e - -
Spanish	- e l a ɾ -			
Italian	ʤ e l a r e	g j a t ʧ j a r e		b r u ʧ a r e
PortugueseBrazi	ʒ i l a ɾ -			
Portuguese	ʒ i l a ɾ -			
Catalan	ʒ ə l a - -	g l ə - s - a - -		
Walloon	ʤ a l e - -			b ʁ uː l e - -
Friulian		g l a - ʧ - aː - -		b r u z aː - -
Romanian			i n g - e ʦ - a - -	

	ToBurn-Cremare	ToBurn-Flammare	ToBurn-Ardere	ToBurn-Flagrare
Latin	k r e m aː r e	f l a m m aː r e	a r d eː r e	f l a g r aː r e
French	k ʁ a m e - -	f l ɑ̃ - b e - -	a ʁ d - ʁ -	f l a g ʁ e - -
Spanish	k - e m a ɾ -	f l a - m e a ɾ	a ɾ d e ɾ -	f l a g ɾ a ɾ -
Italian	k r e m a r e	f j a m m a r e	a r d e r e	f l a g r a r e
PortugueseBrazi	k - ɐj m a ɾ e		a ʁ d e ʁ -	f l a g ʁ a ʁ -
Portuguese	k - ej m a ʁ e		ɐ ɾ d e ɾ -	f l a g ɾ a ɾ -
Catalan	k r ə m a - -	f ɫ a m a - - -		
Walloon				
Friulian				
Romanian			a ɾ d e - -	

	ToBurn-Incendere	ToBurn-AncestralClass8	All	All-Totus
Latin	i n k e n d - e r e	u s t u l aː r e	o m n eː s	t oː - t u s
French	ɛ̃ - s ɑ̃ - d j e - -			t u - - - -
Spanish	e n θ e n d - e ɾ -			t o - d o -
Italian	i n ʧ ɛ n d j a r e	u s t o l a r e	o ɲ ɲ i -	t u t t o -
PortugueseBrazi	ĩ - s e n ʤ ɪ a ɾ -			t o - d u -
Portuguese	ĩ - s ẽ - d j a ɾ -			t o - ð u -
Catalan	ə n s e n d - - ɾ ə			t o - t - -
Walloon				t ɔ - - - -
Friulian				d u - t - -
Romanian	ɨ n ʧ i n d ʒ e - -	u s t u r a - -		t o - t - -

	Many	Many-Tantus	Some	Few
Latin	m u l t u s	t a n t u s		p a k u s
French	m u - - - -		o - k œ̃ - -	p ø - - -
Spanish	m u - ʧ o -	t a n t o -	a l g u n o	p o k o -
Italian	m o l t o -	t a n t o -	a l k u n o	p ɔ k o -
PortugueseBrazi	m ũ j̃ - t u	t ẽ - t u -	a w g ũ - -	p o w k u
Portuguese	m ũ j̃ - t u	t ẽ - t u -	a ɫ g ũ - -	p o w k u
Catalan	m o l - - -	t a n t - -	ə l g u - -	p ɔ k - -
Walloon				p õ - - -
Friulian	m o l c - -	t a n c - -		p oː k - -
Romanian	m u l t - -			

Appendix 3 - Concepts Used

	Other	Other-Alius	Big	Big-Grandem
Latin	a l t e r -	a l i u s	m a g n u s	g r a n d e m
French	o - t - ʁ -			g ʁ ɑ̃ - - - -
Spanish	o - t - ɾ o		m a - ɲ o -	g ɾ a n d e -
Italian	a l t - r o		m a ɲ ɲ o -	g r a n d e -
PortugueseBrazi	o w t - ɾ u	a w - - -		g ɾ ẽ - ʤ i -
Portuguese	o w t - ɾ u	a ɬ - - -		g ɾ ẽ - d ɨ -
Catalan	a l t - ɾ ə			g r a n - - -
Walloon	õ - t - - -			g ʁ ɑ̃ - - - -
Friulian	a l t - r i			g r a n t - -
Romanian	a l t - - -			

	Big-Majjorem	Long-Longum	Long-Largum	Wide
Latin	m aj j oː r e m	l o - n g u s	l a r g u s	l aː t u s
French		l ɔ̃ - - - - -	l a ʁ ʒ - -	l e - - -
Spanish		l o - n g o -	l a ɾ ɣ o -	l a t o -
Italian		l u - n g o -	l a r g o -	l a t o -
PortugueseBrazi		l õ - g u - -	l a ʁ g u -	l a t u -
Portuguese		l õ - g u - -	l a ɾ g u -	l a t u -
Catalan		ʎ o - ŋ - - -	ʎ a ɾ k - -	
Walloon		l õ - - - - -		
Friulian		l u n k - - -	l a r k - -	
Romanian	m a - - - ɾ e	l u n g - - -	l a r g - -	l a t - -

	Wide-Amplum	Thick	Thick-Spissum	Thick-Gurdum
Latin	a m p l u s	k r a s s u s	- s p i s s u s	g u r d u s
French	ɑ̃ - p l - -	g ʁ ɑ - - - - -	e - p e - - - -	
Spanish	a n ʧ - o -	g ɾ a - s o -	e s p e s o - -	g o ɾ d o -
Italian	a m p j o -	g r a s s o -	- s p e s s o -	
PortugueseBrazi	ẽ - ʃ - u -		e s p ɛ - s u -	
Portuguese	ẽ - ʃ - u -	g ɾ a - ʃ u -	i ʃ p e - s u -	
Catalan	a m p l ə -	g ɾ a - s - -	ə s p ɛ - s - -	
Walloon			- s p ɛ - - - -	
Friulian		g r a s - - -		
Romanian		g r a s - - -		

	Thick-Grossum	Heavy	Heavy-Lurdus	Heavy-Pesant
Latin	g r o - s s u s	g r a - - w i s	l u r d u s	p eː s a n t -
French	g ʁ o - - - - - -	g ʁ i j ɛ f - -	l u ʁ - - -	p ə z ɑ̃ - - -
Spanish		g ɾ a - - b e -	l e ɾ d o -	p e s a - ð o
Italian	g r ɔ - s s o -	g r ɛ - - v e -	l o r d o -	p e s a n t e
PortugueseBrazi	g ɾ o - s u - -	g ɾ a - - v i -	l e ɾ d o -	p e z a - d u
Portuguese	g ɾ o - s u - -	g ɾ a - - v ɨ -	l e ɾ d o -	p ɨ z a - ð u
Catalan	g ɾ ɔ - s - - -	g ɾ e - - w - -		p ə z a - t -
Walloon		g r a - - v - -		
Friulian	g r w ɛ s - - -	g r ɛ - - v i -		p e z a n t -
Romanian	g r o - s - - -	g ɾ e - - w - -		

Appendix 3 - Concepts Used

	Small	Small-Pittinus	Small-Pitulus	Short
Latin	p i t t i t u s	p i t t i n u s	p i - t u l u s	k u r t u s
French	p ə - t i - - -			k u ʁ - - -
Spanish		p e - k e ɲ o -		k o ɾ t o -
Italian		p i t ʧ i n o -	p i k k o l o -	k o r t o -
PortugueseBrazi		p e - k e n u -		k u ʁ t u -
Portuguese		p ɨ - k e n u -		k u ɾ t u -
Catalan	p ə t i t - - -			k u ɾ t - -
Walloon	p i - t i - - -			k u: ʁ - - -
Friulian			p i - ʧ u l - -	k u r t - -
Romanian		p u - ʦ i n - -		

	Short-Brevis	Narrow	Narrow-Strictus	Thin
Latin	b r e w i s	a n g u s t u s	- s t r - i - k t u s	m i n u: - t u s
French	b ʁ ɛ f - -		e - t ʁ w a - - - - -	m ə n y - - - -
Spanish	b ɾ e b e -	a n g o s t o -	e s t ɾ - e - - ʧ o -	m e n u - d o -
Italian	b r ɛ v e -	a n g u s t o -	- s t r - e - t t o -	m i n u - t o -
PortugueseBrazi	b ɾ ɛ v i -		i s t ɾ - ej - - t u -	m i - u - d u -
Portuguese	b ɾ ɛ v ɨ -		ɨ ʃ t ɾ - ɐj - - t u -	m i - u - ð u -
Catalan	b ɾ e w - -		ə s t ɾ - ɛ - - t - -	m ə n u - t - -
Walloon	b ʁ e f - -		- s t ʁ - ø: - - - - -	m i n u - - - -
Friulian			- s t r - ɛ - - t - -	m i n u: - t - -
Romanian		ɨ ŋ g u s t - -	- s t r - ɨ m - t - -	m ə r u n t - -

	Thin-Delicatus	Thin-Subtilis	Dry	Right-Dextrem
Latin	d e: l i k a: t u s	s u b t i: l e m	s i k k u s	d - e k s t r u m
French	d u: - - ʒ e: - - -		s ɛ - k - -	
Spanish	d e l - ɣ a ð o -	s u - t i l - -	s e - k o -	d j e - s t ɾ o -
Italian	d e l i k a t o -	s o t t i l e -	s e k k o -	d - ɛ - s t r o -
PortugueseBrazi	d e w - g a d u -	s u - ʧ i w - -	s e - k u -	d - ɛ - s t ɾ u -
Portuguese	d ɛ ɬ - ɣ a ð u -	s u - ʧ i w - -	s e - k u -	d - ɛ - ʃ t ɾ u -
Catalan	d ə l i k a t - -	s u p t i l - -	s ɛ k - - -	d - e - s t ɾ ə -
Walloon		s u: - t i - - -	s ɛ ʧ - - -	
Friulian		s u - t i: l - -	s ɛ - k - -	
Romanian		s u b ʦ i r e -	s e k - - -	

	Right-Directus	Red	Red-Vermiculus	Red-Rubeus
Latin	d i: r - e: k t u s	r u s s u s	v e r m i k u l u s	r u - b e u s
French	d - ʁ w a - t - -	ʁ u - - - -	v ɛ ʁ m ɛj - - - - -	ʁ u - ʒ - - -
Spanish	d e ɾ - e - ʧ o -	r o - x o -	b e ɾ m e x o - - -	r u - b j o -
Italian	d ɛ s t r a - - -	r o s s o -	v e r m i ʎ - ʎ o -	r ɔ b b j o -
PortugueseBrazi	d i ɾ - ɐj - t ɐ -	ʁ o - ʃ ʊ -	v e ʁ m e - - ʎ u -	r u - b e o -
Portuguese	d i r - ɐj - t ɐ -	ʁ o - ʃ u -	v ɨ ɾ m ɐj - - ʎ u -	r u - b e o -
Catalan	d ɾ ɛ t - - - - -	r o - s - -	b ə r m ɛ - - ʎ - -	r u - ʤ e - -
Walloon	d r ø: t - - - - -			r ɔ - ʧ - - -
Friulian	d r ɛ t - - - - -	r ɔ - s - -		
Romanian	d ɾ e p t - - - -	ɾ o - ʃ u -		r oj - b - - -

Appendix 3 - Concepts Used

	Green	Yellow	Yellow-Amarellus	Yellow-Croceus
Latin	w i r i d e m	g a l b i n u s	a m a r e l l u s	k r o k e u s
French	v e ʁ - - - -	ʒ o - - - n - -		
Spanish	b e ɾ - d e -		a m a ɾ i - ɟ o -	
Italian	v e r - d e -			k r o ʧ e o -
PortugueseBrazi	v e ɾ - d i -		ɐ m a ɾ ɛ - l u -	
Portuguese	v e ɾ - d i -		ɐ m ɐ ɾ ɛ - l u -	
Catalan	v ɛ ɾ - t - -			g ɾ ɔ k - - -
Walloon	v ɛ ʁ - - - -	ʤ ɛ - - - n - -		
Friulian	v ɛ r - t - -			
Romanian	v e ɾ - d e -	g a l b e n - -		

	White	One	Two-Duos	Two-Duae
Latin	a l b u s	u: n u m	d u o: s	d u - aj
French		œ̃ - - -	d - ø -	
Spanish	a l b o -	u n o -	d - o s	
Italian	a l b o -	u n o -		d u - e
PortugueseBrazi	a w v u -	ũ - - -	d - oj s	
Portuguese	a l v u -	ũ - - -	d - oj ʃ	
Catalan	a l b - -	u n - -	d - o s	
Walloon		õ - - -	d - ø: -	
Friulian		u ŋ - -	d - oj -	
Romanian	a l b - -	u n u -	d - oj -	d o w ə

	Two-Duas	Three	Four	Five
Latin	d u a s	t r - e: s	k - a t t w o r -	k i: n k - e
French		t ʁ w ɑ -	k - a - t - - ʁ -	s ẽ - k - -
Spanish		t ɾ - e s	k w a - t - - ɾ o	θ i n k - o
Italian		t r - e -	k w a t t - - r o	ʧ i ŋ k w e
PortugueseBrazi	d u ɐ s	t ɾ - e s	k w a - t - - ɾ u	s ĩ - k - u
Portuguese	d u ɐ ʃ	t ɾ - e ʃ	k w a - t - - ɾ u	s ĩ - k - u
Catalan		t r - ɛ s	k w a - t - - ɾ ə	s i ŋ k - -
Walloon		t r - ø: -	k w a - t - - - -	s ẽ - k - -
Friulian		t r - e: -	k w a - t - - r i	ʧ i ŋ k - -
Romanian		t r - ej -	p - a - t - - r u	ʧ i n ʧ - -

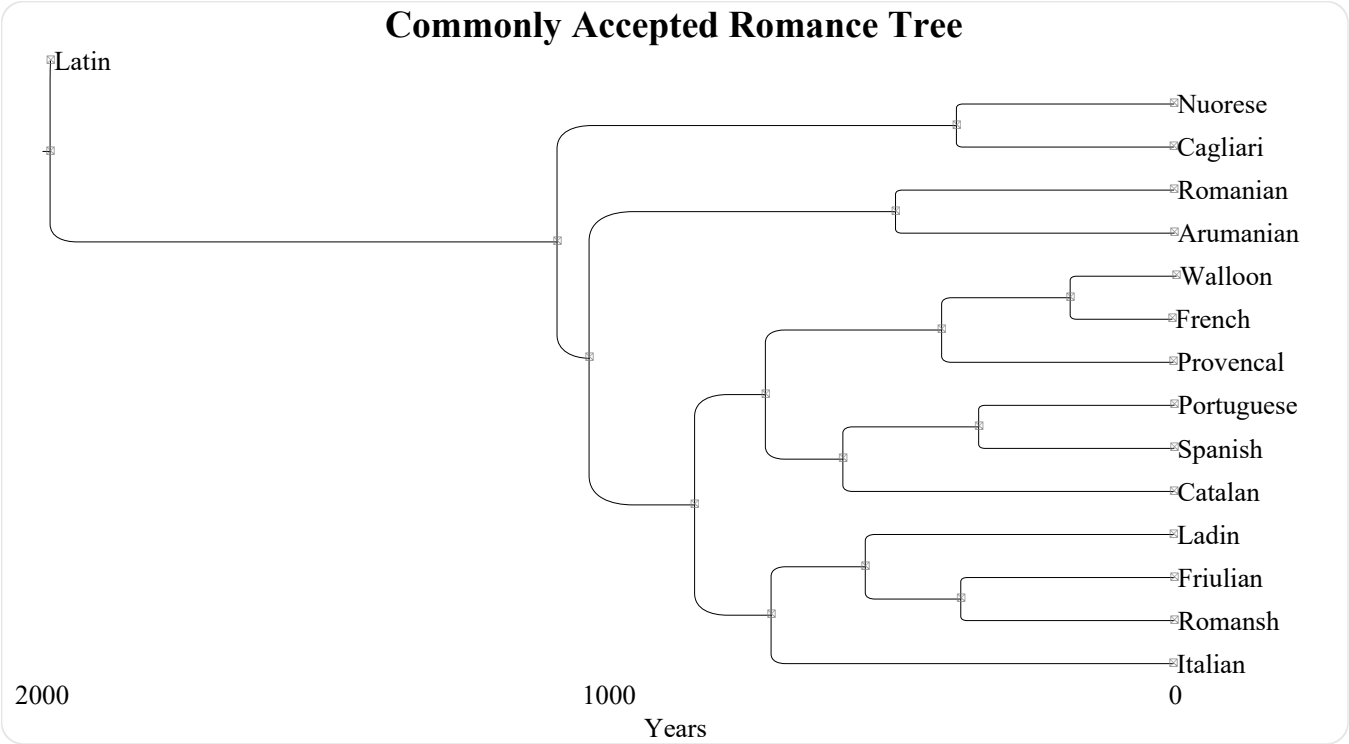
	Here	There	There-Ibi	There-AdIbi
Latin	- e k k u m h i: k	i l l a: k	i b i:	
French	i - - s - - - i -	- - l a -		
Spanish	- a - k - - - i -	a - ɟ a -		a i
Italian	- - - k w - - i -	- - l a -	- v i	
PortugueseBrazi	- a - k - - - i -	- - l a -		a i
Portuguese	- ɐ - k - - - i -	- - l a -		ɐ i
Catalan	- a - k - - - i -	ə - ʎ a -		
Walloon		- - l a -		
Friulian	- a - k - - - i -			
Romanian		- - l a -		

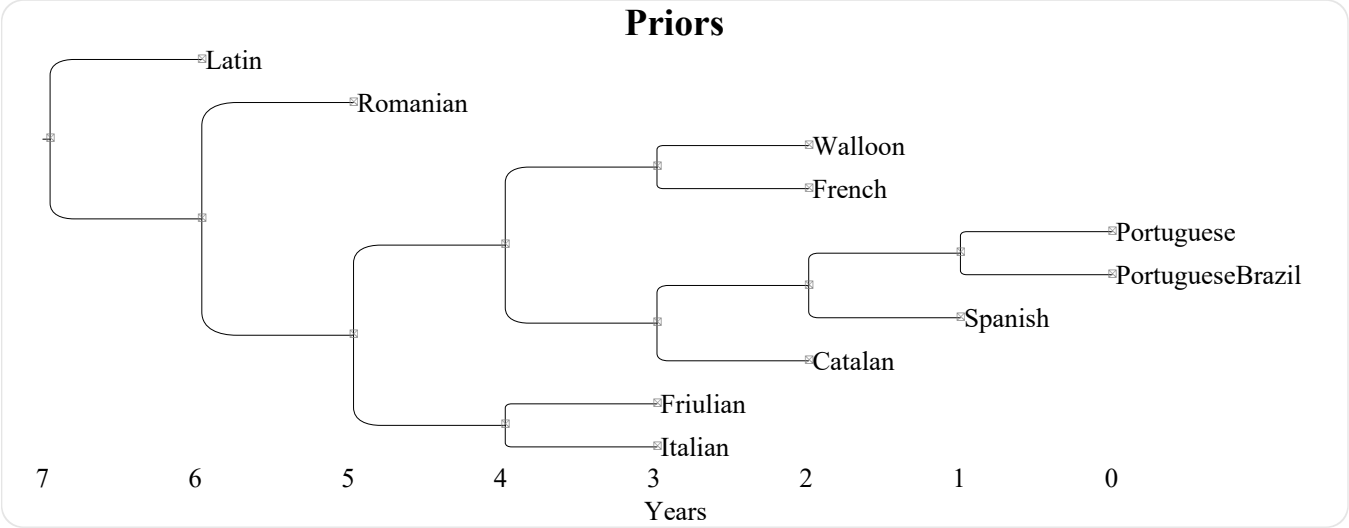
Appendix 3 - Concepts Used

	Who-Qui	Who-Quem	What	When-Quando
Latin	k - i s	k - e m -	k - i d	k - a n d oː
French	k - i -		k w a -	k - ɑ̃ - - -
Spanish		k j e n -	k - e -	k w a n d o
Italian	k - i -		k - e -	k w a n d o
PortugueseBrazi		k - ẽj - -	k - i -	k w ɐ̃ - d u
Portuguese		k - ɐ̃j - -	k - ɨ -	k w ɐ̃ - d u
Catalan	k - i -		k - ɛ -	k w a n - -
Walloon	k - iː -		k w ɛː -	k w a n d -
Friulian	k w i -		ʧ - e -	k w a n t -
Romanian		ʧ - i n e	ʧ - e -	k - ɨ n d -

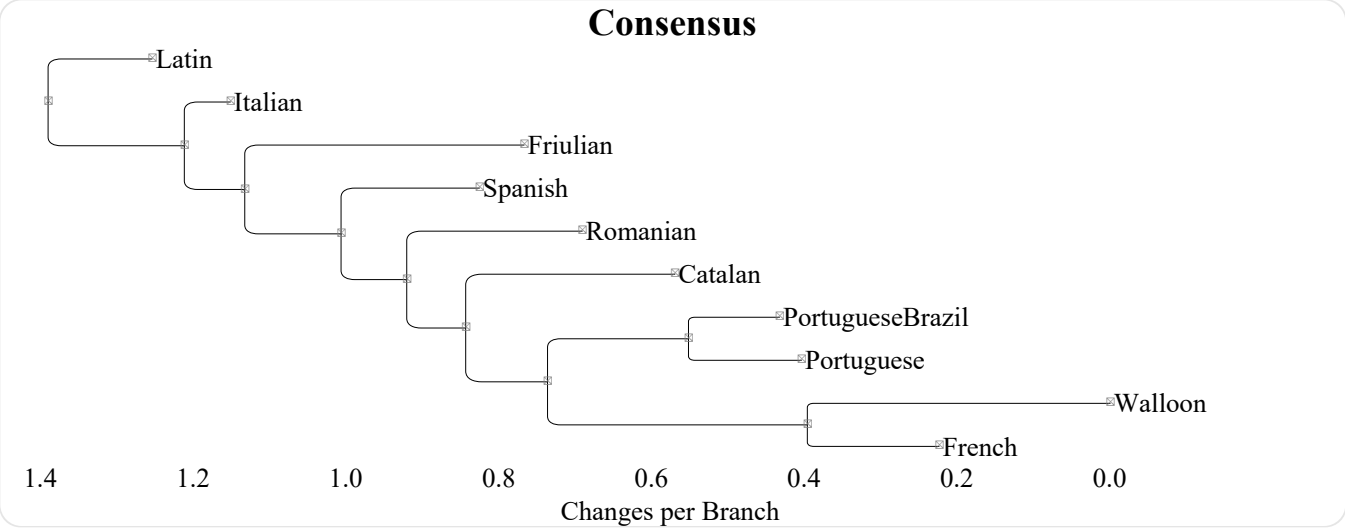
	How-Quomodo	Not	Not-Nec	And-Et
Latin	k oː m o d o	n oː n	n e k	e t
French	k ɔ m ɑ̃ - -	n ɔ̃ -	n i -	e -
Spanish	k o m o - -	n o -	n i -	i -
Italian	k o m e - -	n o n	n e -	e -
PortugueseBrazi	k o m u - -	n ɐ̃ -	n ẽj -	i -
Portuguese	k o m u - -	n ɐ̃ -	n ɐ̃j -	i -
Catalan	k ɔ m - - -	n o -	n i -	i -
Walloon	k ɔ m ɛ̃ - -		n ẽ -	ɛ -
Friulian	ʧ e m uː t -	n o -		e -
Romanian	k u m - - -	n u -		e -

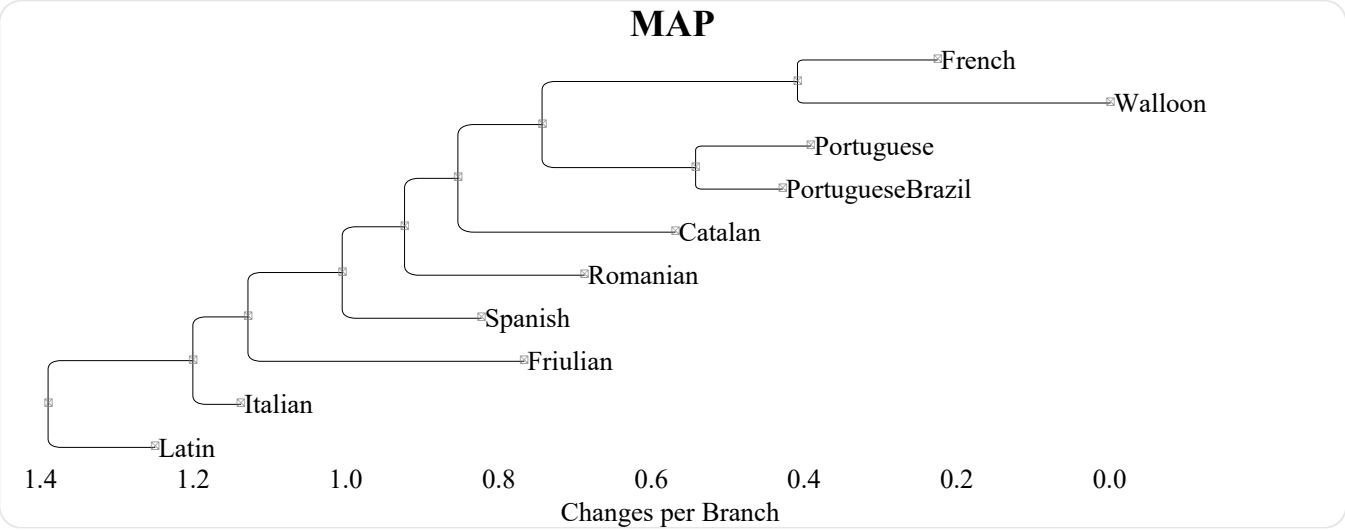
	And-Si
Latin	s iː k
French	
Spanish	
Italian	
PortugueseBrazi	
Portuguese	
Catalan	
Walloon	
Friulian	
Romanian	ʃ i -

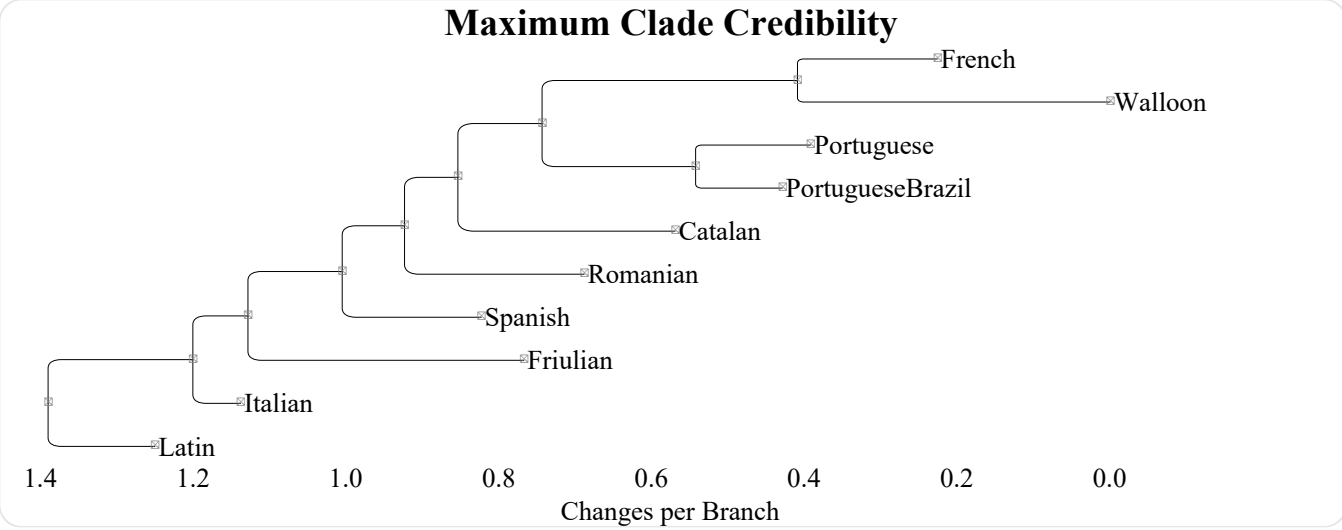

Commonly Accepted Romance Tree
Latin
Nuorese
Cagliari
Romanian
Arumanian
Walloon
French
Provencal
Portuguese
Spanish
Catalan
Ladin
Friulian
Romansh
Italian
2000
1000
0
Years


Priors
Latin
Romanian
Walloon
French
Portuguese
PortugueseBrazil
Spanish
Catalan
Friulian
Italian
7
6
5
4
3
2
1
0
Years

Appendix 4 - Results






Maximum Clade Credibility
French
Walloon
Portuguese
PortugueseBrazil
Catalan
Romanian
Spanish
Friulian
Italian
Latin
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
Changes per Branch