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	ʝ	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	g	72	ə		
73	ɛj	74	e̯a	75	kʷ	76	ɣ	77	ŋ	78	gʷ	79	ẽu̯	80	ɑ	81	ɟ	82	ɛ̃	83	ɔː				
84	ũ	85	ɻ	86	ç	87	ɑː	88	j̃	89	œ̃	90	ʊ	91	ɐ̃w̃										

Model: “Linguistically Informed”

1 **Nasal Vowel**

ɛ̃j̃ ɔ̃ ɑ̃ ĩ ɐ̃ ɐ̃j̃ õ ẽ ɛ̃u̯ 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 au̯ ø ə ɛj e̯a ɑ ɔː ɑː ʊ

3 **Nasal Consonant**

n m ɲ ŋ j̃

4 **Non Sylabic Sonorant**

w j l r

5 **Consonant**

ɡ ʒ ɟ 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 g kʷ ɣ 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 aː l u s	f r uː - k t u s	f l oː 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 oː 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 øː ʁ - -
Friulian	s ɛ l v e	p aː l - -	f r u - - t - -	f l oː 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 uː 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 - eː l - -
Romanian	c - d ə -		p a - n ə	p - ə ɾ - -

	Hair-Capillus	Head	Head-Testa	Nose
Latin	k a p i l l u s	k a p i - t i a	t e s t a	n aː s u s
French	ʃ ə v ø - - - -	ʃ ə v ɛ - - - -	t ɛ - t -	n e - - -
Spanish	k a b e - ʝ o -	k a β e - θ - a		n a s o -
Italian	k a p e l l o -	k a v e t t s a	t ɛ s t a	n aː s o -
PortugueseBrazi	k a b e - l u -	k a b e - s - ɐ	t ɛ s t ɐ	
Portuguese	k ɐ β e - l u -	k ɐ β e - s - ɐ	t ɛ ʃ t ɐ	
Catalan	k ə b ɛ - ʎ - -	k a p - - - - -	t e s t ə	n a s - -
Walloon	ʧ i v j - - a -		ʧ ɛ s - -	n e - - -
Friulian	c a v ej - - - -	c aː f - - - - -	t ɛ s t e	n aː s - -
Romanian		k a p - - - - -		n a s - -

	Nose-Nares	Mouth	Mouth-Gula	Wing
Latin		b u k k a	g u l a	aː l a
French		b u - ʃ -	g œ l -	e l -
Spanish	n a ɾ i θ -	b o - k a	g o l a	a l a
Italian	n a r i ʧ e	b o k k a	g o l a	a l a
PortugueseBrazi	n a ɾ i s -	b o - k ɐ		a - -
Portuguese	n ɐ ɾ i ʃ -	b o - k ɐ		a - -
Catalan	n aː r ɪ s -	b o - k ə	g o l ə	a l ə
Walloon		b ɔ k - -	g øː j -	e l -
Friulian		b ɔ - c ɛ	g ɔ l e	a l e
Romanian		b u - k ə	g u ɾ ə	

Appendix 3 - Concepts Used

	Sun	Sun-Soliculus	Moon	Star
Latin	s o: l e m	s o l i k u l u s	l u: n a	- s t - e: l l a
French		s ɔ l ɛj - - - - -	l y n -	e - t w a - l -
Spanish	s o l - -		l u n a	e s t ɾ e - j a
Italian	s o l e -		l u n a	- s t - e l l a
PortugueseBrazi	s ɔ w - -		l u - ɐ	i s t ɾ e - l ɐ
Portuguese	s ɔ ɬ - -		l u - ɐ	i ʃ t ɾ e - l ɐ
Catalan	s ɔ l - -		ɹ́ u n ə	ə s t - ɛ - l -
Walloon	s ɔ l ɔ -		l ø n -	- s t - ø: - l -
Friulian		s o r e - - l i -	l u n e	- s t - ɛ - l e
Romanian	s - ɾ e -		l u n ə	- s t - - - -

	Water	Rain	River	River-Rivus
Latin	a - k - a	p l u - w i a	f l u: m e n	r i: w u s
French	o - - - -	p l ɥ - - i -		ʁ y - - -
Spanish	a - ɣ w a	ʝ - u - b j a		r i - o -
Italian	a k k w a	p j o d ʤ - a	f j u m e -	r i - o -
PortugueseBrazi	a - ɡ w ɐ	ʃ - u - v - ɐ	f l u m i -	ʁ i - w -
Portuguese	a - ɡ w ɐ	ʃ - u - v - ɐ	f l u m ɨ -	ʁ i - u -
Catalan	aj - ɣ w ə	p l u - ʒ - ə		r i - w -
Walloon	ɛ: - - w -	p l u: - ʁ - -		
Friulian	a - g - e	p l o - - j e	f l u m - -	
Romanian	a - p - ə	p l - - - j e		r ɨ - w -

	River-Riparia	Lake	Sea	Salt
Latin	r i: p - a: r i a	l a k u m	m a r e	s a: l e m
French	ʁ i v j e ʁ - -	l a k - -	m ɛ ʁ -	s ɛ l - -
Spanish		l a g o -	m a ɾ -	s a l - -
Italian		l a g o -	m a r e	s a l e -
PortugueseBrazi		l a ɡ u -	m a ʁ -	s a w - -
Portuguese		l a ɣ u -	m a ɾ -	s a l - -
Catalan		ɹ́ a k - -	m a r -	s a l - -
Walloon	r i v i: - ʁ - -	l a k - -	m e ʁ -	s e - - -
Friulian		l a: t - -	m a: r -	s a: l - -
Romanian		l 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 l a	t e n e: b r aj
French	t - e - ʁ -		n j ɔ - - - l y	
Spanish	t j e - r a	k a l i - - n a -	n j e - b - l a	
Italian	t - ɛ r r a	k a l i ʤ i n e -	n - e b b - j a	t ɛ: n e b r e
PortugueseBrazi	t - e - ʁ ɐ	k a l i ʒ ẽj - - -	n - ɛ - v w - ɐ	
Portuguese	t - ɛ - ʁ ɐ	k ɐ l i ʒ ɐ̃j - - -	n - ɛ - v w - ɐ	
Catalan	t - ɛ - r ə		n - e - - w l ə	
Walloon	t - ɛ: - ʁ -			
Friulian	t j ɛ - r e			
Romanian	ʦ - a - r ə		n e ɡ u r ə - -	

Appendix 3 - Concepts Used

	Fog-Tenebras	Fog-Fumata	Fog-Caecia	Sky
Latin	t - e n - eː b r aː s	f uː m aː t a	k aj k i a	k - aj l u m
French	t - e n - ɛ b ʁ - -	f y m e - -		s j ɛ l - -
Spanish	t - i n j e b l a s	f u m a t a		θ j e l o -
Italian	t - ɛː n - e b r e -	f u m aː t a		ʧ - ɛ l o -
PortugueseBrazi		f u m a s ɐ		s - ɛ w - -
Portuguese	t ɾ - - - ɛ v - ɐ ʃ	f u m a s ɐ		s - ɛ w - -
Catalan	t - ə n - e b ɾ ə s			s - ɛ l - -
Walloon				s - iː ʁ - -
Friulian		f u m a t e		ʧ - iː l - -
Romanian			ʧ ʧ - ə	ʧ - e ɾ - -

	Wind	Ice	Smoke	Fire-Focus
Latin	w - e n t u m	g e l uː	f uː m u s	f - o k u m
French	v - ɑ̃ - - - -	ʒ ɛ l -		f - ø - - -
Spanish	b j e n t o -	ɟ e l o	- u m o -	f w e g o -
Italian	v - ɛ n t o -	ʤ ɛ l o	f u m o -	f w ɔ k o -
PortugueseBrazi	v - ẽ - t u -		f u m u -	f - o g u -
Portuguese	v - ẽ - t u -		f u m u -	f - o ɣ u -
Catalan	b - e n - - -	ʒ ɛ ɬ -	f u m - -	f - ɔ k - -
Walloon	v - ẽ - - - -			f - øː - - -
Friulian	v - i n t - -		f u m - -	f - uː k - -
Romanian	v - ɨ n t - -	ʤ e r -	f u m - -	f - o k - -

	Year	Name-Nomen	Name-Nominem	Tongue
Latin	a n n u m	n oː m e n	n oː m i n - e m	l i n - a
French	ɑ̃ - - - -	n ɔ̃ - - -		l ɑ̃ - g - -
Spanish	a - ɲ o -		n o m - b ɾ e -	l e ŋ g w a
Italian	a n n o -	n oː m e -		l i n g w a
PortugueseBrazi	ɐ - n u -	n o m i -		l ĩ - g w ɐ
Portuguese	ɐ - n u -	n o m ɨ -		l ĩ - g w ɐ
Catalan	a - ɲ - -	n ɔ m - -		
Walloon	ɑ̃ - - - -	n õ - - -		l ẽ - - - -
Friulian	a - ŋ - -	n ɔ ŋ - -		l ɛ n g - ɛ
Romanian	a n - - -	n u m e -		l i m b - ə

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

Appendix 3 - Concepts Used

	ToBite-Morsicare	ToSuck	ToSpit	ToSpit-Exconspuere
Latin	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		s y s e - -	k ɔ̃ - s p y e - -	
Spanish	m o - s - k a ɾ -			e s k u - p i ɾ
Italian	m o r s i k a ɾ e			
PortugueseBrazi	m u - s ə ɡ a - -	s u ɡ a ʁ -	k u - s p i ʁ - -	
Portuguese	m u - s ə ɡ a r -	s u ɡ a ɾ -	k u - ʃ p i ɾ - -	
Catalan	m u - s ə ɣ a - -			ə s k u - p i -
Walloon		s y s iː - -		
Friulian		c u c aː - -		
Romanian	m u r s e k a - -	s u ʤ e - -		- s k u j p a -
	ToSpit-Sputare	**ToKnow**	**ToKnow-Sapere**	**ToKnow-Cognoscere**
Latin	- s p u t e r e	s k iː r e	s a p - e r e	k o g n oː s k e r e
French			s a v w a ʁ -	k ɔ - n ɛ - t ʁ - -
Spanish	e s p u t a ɾ -		s a b - e ɾ -	k o - n o θ e ɾ - -
Italian	- s p u t a ɾ e		s a p - e r e	k o - n o ʃ ʃ e r e
PortugueseBrazi			s a b - e ʁ -	k o - ɲ e s - e ʁ -
Portuguese			s ɐ b - e ɾ -	k u - ɲ ɨ s - e ɾ -
Catalan			s ə β - ɛ - -	k u - n ɛ ʃ - ə - -
Walloon			s a v - øː ʁ -	k i - n ɔ h - - - -
Friulian	s p u d aː - - -		s a v - eː - -	k o - ɲ o s - i - -
Romanian		ʃ t i - -		k u - n ʃ t e - -
	ToThink	**ToThink-Pensare**	**ToFear**	**ToFear-Tremere**
Latin	k - oː ɡ i t aː r e	p eː n s aː r e	t i m eː r e	t r e m - e r e
French	k ɥ - - i d e - -	p ɑ̃ - s e - -		k ʁ ɛ̃ - d - ʁ -
Spanish	k w - - i d a ɾ -	p e n s a ɾ -	t e m e ɾ -	t ɾ e m - e ɾ -
Italian	k - o ʤ i t a r e	p e n s a ɾ e	t e m e r e	t r e m - a r e
PortugueseBrazi	k - u ʒ i t a ʁ -	p ẽ - s a ʁ -	t e m e ʁ -	t ɾ e m - e ʁ -
Portuguese	k - u ʒ i t a ɾ -	p ẽ - s a ɾ -	t ɨ m e ɾ -	t ɾ ɨ m - e ɾ -
Catalan	k - u - j d a - -	p ə n s a - -	t e m ə - -	
Walloon		p ɛ̃ - s e - -		
Friulian		p e ŋ s aː - -	t e m i - -	t r i m - aː - -
Romanian	k - u ʤ e t a - -	p ə - s a - -	t e m e - -	
	ToSleep	**ToLive**	**ToDie**	**ToKill**
Latin	d - o r m iː r e	w iː w e r e		n - e k aː r e
French	d - ɔ ʁ m i ʁ -	v i v - ʁ -	m u ʁ i ʁ -	n w aj e - - -
Spanish	d - o ɾ m i ɾ -	b i b i ɾ -	m o ɾ i ɾ -	
Italian	d - o r m i r e	v i v e r e	m o r i r e	
PortugueseBrazi	d - o ʁ m i ʁ -	v i v e ʁ -	m o ʁ e ʁ -	
Portuguese	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 - -	n - ə g a - -
Walloon	d w a ʁ m i - -		m ɔ ʁ i - -	
Friulian	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 - -	n - e k a - -

Appendix 3 - Concepts Used

	ToKill-Adnecare	ToKill-Tutari	ToKill-Mactare	ToKill-Occidere
Latin		t u: - t a: r i	m a k t a: r e	o k k i: d e r e
French		t - ɥ - e - -	m a - t e - -	ɔ k s i - - ʁ -
Spanish	a - n e g a ɾ -		m a - t a ɾ -	
Italian	a n n e g a r e			u t ʧ i d e ɾ e
PortugueseBrazi			m a - t a ʁ -	
Portuguese			m ɐ - t a ɾ -	
Catalan			m ə - t a - -	u k s i - - - -
Walloon		t u w - e - -		
Friulian			m a ʧ - a: - -	
Romanian				u - ʧ i d e - -

	ToFight	ToFight-Battuere	ToHunt-Captiare	ToHit
Latin	p u g n a: r e	b a t t u e r e	k a p t i a: r e	p u l s a: r e
French		b a t - - ʁ - -	ʃ a - s - e - -	p u - s e - -
Spanish	p u - ɲ a ɾ -	b a - t - i ɾ -	k a - θ - a ɾ -	p u - x a ɾ -
Italian	p u ɲ ɲ a r e	b a t t - e r e	k a t ʧ - a r e	p u l s a r e
PortugueseBrazi		b a - t - e ʁ -	k a - s - a ʁ -	p u - ʃ a ʁ -
Portuguese		b ɐ - t - e ɾ -	k ɐ - s - a ɾ -	p u - ʃ a ɾ -
Catalan	p u - ɲ a - -	b a - t - - ɾ ə	k ə - s - a - -	
Walloon		b a t - e - - -	ʧ ɛ - s - i: - -	
Friulian		b a t - i - - -	c a - ʧ - a: - -	p u l s a: - -
Romanian		b a t - e - - -		p u l s a - -

	ToCut	ToCut-Curtare	ToCut-Excurtare	ToCut-Taliare
Latin	s - e k a: r e	k u r t a: r e	e k s k u r t a: r e	t a: - l i a: r e
French	s j e - - - -		e - - k u ʁ t e - -	t ɑ j - - e - -
Spanish	s - e g a ɾ -	k o ɾ t a ɾ -		t a - x - a ɾ -
Italian	s - e g a r e		- - s k o r t a r e	t a - ʎ ʎ a: r e
PortugueseBrazi	s - e g a ʁ -	k o ʁ t a ʁ -		t a - ʎ - a ʁ -
Portuguese	s - i ɣ a ɾ -	k u ɾ t a ɾ -		t ɐ - ʎ - a ɾ -
Catalan	s - ə ɣ a - -			t ə - ʎ - a - -
Walloon				t ɛ - - j i: - -
Friulian	s - e - a: - -		- - s k u r t a: - -	t a - - j a: - -
Romanian			- - s k u r t a - -	t ə - - j a - -

	ToSplit	ToSplit-Scindere	ToSplit-Findere	ToSplit-Partire
Latin	d i: w i d e r e	s k i n d e r e	f i n d e r e	p a r t i: r e
French		s - ɛ̃ - d e - -	f ɑ̃ - d - ʁ -	p a ʁ t i ʁ -
Spanish	d i b i d i ɾ -		- e n d e ɾ -	p a ɾ t i ɾ -
Italian	d i v i d e r e	ʃ - i n d e r e	f ɛ n d e r e	p a r t i r e
PortugueseBrazi	ʤ i v i ʤ i ʁ -		f ẽ - d e ʁ -	p a ʁ ʧ i ʁ -
Portuguese	d i v i ð i ɾ -		f ẽ - d e ɾ -	p ɐ ɾ t i ɾ -
Catalan	d i b i d i - -		f ɛ n d - ɾ ə	p ə r t i - -
Walloon			f ɛ̃ - t - - -	p ɔ: ʁ t i - -
Friulian	d i v i d i - -			p a r t i: - -
Romanian	d i v i d e - -			

Appendix 3 - Concepts Used

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

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

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

	ToFly	ToFly-Exvolare	ToWalk	ToWalk-Marcher
Latin	w o l aː r e			
French	v o l e - -		ʃ ə m i n e - - -	m a ʁ ʃ e
Spanish	b o l a ɾ -		k a m i n a ɾ - -	
Italian	v o l a ɾ e	z v o l a ɾ e	k a m m i n a ɾ e	
PortugueseBrazi	v o - a ʁ -		k ɐ m i ɲ a ʁ - -	
Portuguese	v w - a ɾ -		k ɐ m i ɲ a ɾ - -	
Catalan	b u l a - -		k ə m i n a - - -	
Walloon	v ɔ l e - -		ʧ i m i n e - - -	m aː ʁ ʧ iː
Friulian		z v o l aː - -	c a m i n aː - - -	
Romanian		z b u ɾ a - -		

Appendix 3 - Concepts Used

	ToWalk-Mergere	ToWalk-Ambitare	ToCome	ToLieAsInABed
Latin	m e r g e r e	a m b i t a: r e	w e n i: r e	e k s t e n d e r e
French			v ə n i ʁ -	e - t ɑ̃ - d - ʁ - -
Spanish		a n d - - a ɾ -	b e n i ɾ -	e k s t e n d e ɾ -
Italian	m ɛ r ʤ e r e	a n d - - a r e	v e n i ɾ e	e - s t ɛ n d e r e
PortugueseBrazi		ẽ - d - - a ʁ -	v - - i ʁ -	i s t ẽ - d e ʁ - -
Portuguese		ẽ - d - - a ɾ -	v - - i ɾ -	i ʃ t ẽ - d e ɾ - -
Catalan			b ə n i - -	ə - s t e n d - ɾ ə
Walloon			v i n i - -	
Friulian			v i ɲ i: - -	
Romanian	m e r ʤ e - -		v e n i - -	e k s t i n d e - -

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

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

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

Appendix 3 - Concepts Used

	ToHold	ToHold-Segurar	ToSqueeze	ToSqueeze-Serrere
Latin	t e n - eː r e		e k s p r i m - e r e	s e r r e r e
French	t ə n - i ʁ -		e - - p ʁ ɛ̃ - d - ʁ -	
Spanish	t e n - e ɾ -	s e g u ɾ a ɾ	e k s p ɾ e m - i ɾ -	s e - r a ɾ -
Italian	t e n - e ɾ e		- - s p r ɛ m - e r e	
PortugueseBrazi	t e - - - ʁ -	s i g u ɾ a ʁ	i - ʃ p r ə m - e ʁ -	s e - ʁ a - -
Portuguese	t e - - - ɾ -	s i ɣ u ɾ a ɾ	i - ʃ p r ə m - e r -	s ə - ʁ a ɾ -
Catalan	t ə n - i - -		ə - s p ɾ e m - ə - -	s ə - r a - -
Walloon	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-Serare	ToSqueeze-Appectorare	ToSqueeze-Stringere	ToRub
Latin	s e - r a r e	a p p e k t o r aː r e	- s t r i n g e r e	f r i k aː r e
French	s e - ʁ e - -		e - t ʁ ɛ̃ - d - ʁ -	f ʁ ɛj e - - -
Spanish	θ e - r a ɾ -	a - p - - ɾ e t a ɾ -	e s t ɾ e ɲ - i ɾ -	f ɾ e g a ɾ -
Italian	s e r r a r e		- s t r i n ʤ e r e	f r e g a r e
PortugueseBrazi	s i - ʁ a ɾ -	ɐ - p i - ɾ - t a ɾ -	ə ʃ t r ĩ - ʒ i r -	
Portuguese	s i - ʁ a ɾ -	ɐ - p i - ɾ - t a ɾ -	ə ʃ t r ĩ ʒ i r - -	
Catalan			ə s t ɾ ɛ ɲ ə - - -	f ɾ ə g a - -
Walloon	s ɛ - ʁ e - -		s t r i n g e - - -	f r oj - - - -
Friulian			s t r ɛ n g iː - - -	f r e - a - -
Romanian			s t r i n ʤ e - - -	f r e k a - -

	ToRub-Exfricare	ToRub-Frictare	ToRub-Frictiare	ToWash
Latin		f r i k t aː r e		l a w aː r e
French		f ʁ o t e - - -		l a v e - -
Spanish		f ɾ o t a ɾ - -	f r i s a ɾ	l a β a ɾ -
Italian		f r e t t a r e		l a v a r e
PortugueseBrazi	i ʃ f ɾ i g a ɾ			l ɐ v a ɾ -
Portuguese	i ʃ f ɾ i ɣ a ɾ			l ɐ v a ɾ -
Catalan			f ɾ ə s a -	ʎ ə b a - -
Walloon		f ʁ o t e - - -		l a v e - -
Friulian				l a v aː - -
Romanian				l a - - - -

	ToWipe	ToWipe-Extergere	ToWipe-Exsucare	ToWipe-Limpidare
Latin	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	l i m p i d aː r e
French			e - s ɥ i - j e - -	
Spanish		e - s t a ɾ s i ɾ -	e n x - u g - a ɾ -	l i m p j - a ɾ -
Italian	t ɛ r ʤ e r e		a ʃ ʃ - u g - a r e	
PortugueseBrazi			ẽ - ʃ - u g - a ɾ -	l ĩ - p - - a ɾ -
Portuguese			ẽ - ʃ - u ɣ - a ɾ -	l ĩ - p - - a ɾ -
Catalan		ə - s t ə r ʒ i - -	ə - ʃ - u g a - - -	
Walloon			- - s - u - w e - -	
Friulian			- - s - u - j aː - -	
Romanian		- - ʃ t e r ʤ e - -	u - s - - k - a - -	

Appendix 3 - Concepts Used

	ToPull	ToPull-Pulsare	ToPull-Trahere	ToPush
Latin	t i r aː r e	p u l s aː r e	t r a h e r e	i m p i n g e r e
French	t i ʁ e - -	p u - s e - -	t ʁ - - ɛ ʁ -	
Spanish	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	i m p i n ʤ e r e
PortugueseBrazi	ʧ i ɾ a - -	p u - ʃ a ɾ -	t ɾ a z e - -	
Portuguese	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	ə m p ɛ ɲ - 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 - -	i m p i n ʤ e - -
	ToThrow	**ToThrow-Lanceare**	**ToThrow-Eruncare**	**ToTie**
Latin	j a k t aː r e	l a n k e aː r e	eː - r u n k aː r e	l i g aː r e
French	ʒ ə - t e - -	l ɑ̃ - s - e - -		l i - e - -
Spanish	- e - ʧ a ɾ -	l a n θ - a ɾ -	a - r a n k a ɾ -	l e g a ɾ -
Italian	ʤ e t t a r e	l a n ʧ a r e -	a r r o n ʧ a r e	l e g 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	x i t a - - -	ʎ ə n s - a - -		ʎ i ɣ a - -
Walloon	ʤ ɛ t e - - -	l a n c - iː - -		l ɔ j iː - -
Friulian		l a n ʧ aː - - -		l e - aː - -
Romanian			a - ɾ u ŋ k a - -	l e g a - -
	ToTie-Aptare	**ToSew**	**ToCount**	**ToCount-Enumerare**
Latin	a p t aː r e	k oː n - s u e r e	k o m p u t aː r e	eː n u m e r aː r e
French		k u - d - - - ʁ -	k õ - - - t e - -	e n u m e ʁ e - -
Spanish	a - t a ɾ -	k o - - s - e ɾ -	k o n - - t a ɾ -	e n u m e ɾ a ɾ -
Italian		k u - - ʧ - i r e	k o n - - t a r e	e n u m e r a r e
PortugueseBrazi	ɐ - t a ɾ -	k u - - z - e ɾ -	k õ - - - t a ɾ -	e n u m e ɾ a ɾ -
Portuguese	ɐ - t a ɾ -	k u - - z - e ɾ -	k õ - - - t a ɾ -	e n u m e ɾ a ɾ -
Catalan		k u - - z - i - -	k u m - - t a - -	e n u m e ɾ a - -
Walloon		k øː - - z - - - -	k õ - - - t e - -	
Friulian		k u - - z i - - -	k o n - - t aː - -	
Romanian		c - - - s - e - -		- n u m a r a - -
	ToSay	**ToSay-Exponere**	**ToSing-AncestralClass**	**ToPlay-Ludere**
Latin	d iː k e r e	e k s p oː n e r e	k a n t aː r e	l uː d e r e
French	d i - - ʁ -		ʃ ɑ̃ - t e - -	
Spanish	d e θ i ɾ -		k a n t a ɾ -	l u d i ɾ -
Italian	d i - - r e	- - s p o r - r e	k a n t a r e	
PortugueseBrazi	d i z - e ɾ		k ẽ - t a ɾ -	
Portuguese	d i z - e ɾ		k ẽ - t a ɾ -	
Catalan	d i - - - -		k ə n t a - -	
Walloon	d iː - - ʁ -		ʧ ɑ̃ - t e - -	
Friulian	d iː - - - -		c a n t aː - -	
Romanian	z i ʧ e - -	- - s p u n e - -	k ɨ n t a - -	

Appendix 3 - Concepts Used

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

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

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

	ToBurn-Flammare	ToBurn-Ardere	ToBurn-Flagrare	ToBurn-Incendere
Latin	f l a m m aː r e	a r d eː r e	f l a g r aː r e	i n k e n d - e r e
French	f l ɑ̃ - b e - -	a ʁ d - ʁ -	f l a g ʁ e - -	ɛ̃ - s ɑ̃ - d j e - -
Spanish	f l a - m e a ɾ	a ɾ d e ɾ -	f l a g ɾ a ɾ -	e n θ e n d - e ɾ -
Italian	f j a m m a r e	a r d e r e	f l a g r a r e	i n ʧ ɛ n d j a r e
PortugueseBrazi		a ʁ d e ʁ -	f l a g ʁ a ʁ -	ĩ - s e n ʤ ɪ a ɾ -
Portuguese		ɐ ɾ d e ɾ -	f l a g ɾ a ɾ -	ĩ - s ẽ - d j a ɾ -
Catalan	f ɫ a m a - - -			ə n s e n d - - ɾ ə
Walloon				
Friulian				
Romanian		a ɾ d e - -		i n ʧ i n d ʒ e - -

Appendix 3 - Concepts Used

	ToBurn-AncestralClass8	All	All-Totus	Many
Latin	u s t u l aː r e	o m n eː s	t oː - t u s	m u l t u s
French			t u - - - -	m u - - - -
Spanish			t o - d o -	m u - ʧ o -
Italian	u s t o l a r e	o ɲ ɲ i -	t u t t o -	m o l t o -
PortugueseBrazi			t o - d u -	m ũ j̃ - t u
Portuguese			t o - ð u -	m ũ j̃ - t u
Catalan			t o - t - -	m o l - - -
Walloon			t ɔ - - - -	
Friulian			d u - t - -	m o l c - -
Romanian	u s t u r a - -		t o - t - -	m u l t - -

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

	Other-Alius	Big	Big-Grandem	Big-Majjorem
Latin	a l i u s	m a g n u m	g r a n d e m	m aj j o r e m
French			g ʁ ɑ̃ - - - -	
Spanish		m a - ɲ o -	g ɾ a n d e -	
Italian		m a ɲ ɲ o -	g r a n d e -	
PortugueseBrazi	a w - - -		g ɾ ẽ - ʤ i -	
Portuguese	a ɫ - - -		g ɾ ẽ - d i̇ -	
Catalan			g r a n - - -	
Walloon			g ʁ ɑ̃ - - - -	
Friulian			g r a n t - -	
Romanian				m a - - - ɾ e

	Long-Longum	Long-Largum	Wide	Wide-Amplum
Latin	l o - n g u m	l a r g u m	l aː t u m	a m p l u m
French	l ɔ̃ - - - - -	l a ʁ ʒ - -	l e - - -	ɑ̃ - p l - -
Spanish	l o - n g o -	l a ɾ ɣ o -	l a t o -	a n ʧ - o -
Italian	l u - n g o -	l a r g o -	l a t o -	a m p j o -
PortugueseBrazi	l õ - g u - -	l a ʁ g u -	l a t u -	ẽ - ʃ - u -
Portuguese	l õ - g u - -	l a ɾ g u -	l a t u -	ẽ - ʃ - u -
Catalan	ʎ o - ŋ - - -	ʎ a ɾ k - -		a m p l ə -
Walloon	l õ - - - - -			
Friulian	l u n k - - -	l a r k - -		
Romanian	l u n g - - -	l a r g - -	l a t - -	

Appendix 3 - Concepts Used

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

	Small-Pittinus	Small-Pitulus	Short	Short-Brevis
Latin	p i t t i n u s	p i - t u l u s	k u r t u s	b r e w i s
French			k u ʁ - - -	b ʁ ɛ f - -
Spanish	p e - k e ɲ o -		k o ɾ t o -	b ɾ e b e -
Italian	p i t ʧ i n o -	p i k k o l o -	k o r t o -	b r ɛ v e -
PortugueseBrazi	p e - k e n u -		k u ʁ t u -	b ɾ ɛ v i -
Portuguese	p ɨ - k e n u -		k u ɾ t u -	b ɾ ɛ v ɨ -
Catalan			k u ɾ t - -	b ɾ e w - -
Walloon			kuː ʁ - - -	b ʁ e f - -
Friulian		p i - ʧ u l - -	k u r t - -	
Romanian	p u - ʦ i n - -			

	Narrow	Narrow-Strictus	Thin	Thin-Delicatus
Latin	a n g u s t u s	- s t r - i - k t u s	m i n uː - t u s	d eː l i k aː t u s
French		e - t ʁ w a - - - - -	m ə n y - - - -	d uː - - ʒ eː - - -
Spanish	a n g o s t o -	e s t ɾ - e - - ʧ o -	m e n u - d o -	d e l - ɣ a ð o -
Italian	a n g u s t o -	- s t r - e - t t o -	m i n u - t o -	d e l i k a t o -
PortugueseBrazi		i s t ɾ - ej - - t u -	m i - u - d u -	d e w - g a d u -
Portuguese		ɨ ʃ t ɾ - ɐj - - t u -	m i - u - ð u -	d ɛ ɬ - ɣ a ð u -
Catalan		ə s t ɾ - ɛ - - t - -	m ə n u - t - -	d ə l i k a t - -
Walloon		- s t ʁ - øː - - - - -	m i n u - - - -	
Friulian		- s t r - ɛ - - t - -	m i n uː - t - -	
Romanian	ɨ ŋ g u s t - -	- s t r - ɨ m - t - -	m ə r u n t - -	

	Thin-Subtilis	Right-Dextrem	Right-Directum	Red
Latin	s u b t iː l e m	d - e k s t r u m	d iː r - eː k t u s	r u b e r -
French			d - ʁ w a - t - -	
Spanish	s u - t i l - -	d j e - s t ɾ o -	d e ɾ - e - ʧ o -	
Italian	s o t t i l e -	d - ɛ - s t r o -	d ɛ s t r a - - -	r u b - r o
PortugueseBrazi	s u - ʧ i w - -	d - ɛ - s t ɾ u -	d i ɾ - ɐj - t ɐ -	
Portuguese	s u - ʧ i w - -	d - ɛ - ʃ t ɾ u -	d i r - ɐj - t ɐ -	
Catalan	s u p t i l - -	d - e - s t ɾ ə -	d ɾ ɛ t - - - - -	
Walloon	s uː - t i - - -		d r øː t - - - - -	
Friulian	s u - t iː l - -		d r ɛ t - - - - -	
Romanian	s u b ʦ i r e -		d ɾ e p t - - - -	

Appendix 3 - Concepts Used

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

	One	Two-Duos	Two-Duae	Two-Duas
Latin	uː n u m	d u oː s	d u - aj	d u a s
French	œ̃ - - -	d - ø -		
Spanish	u n o -	d - o s		
Italian	u n o -		d u - e	
PortugueseBrazi	ũ - - -	d - oj s		d u ɐ s
Portuguese	ũ - - -	d - oj ʃ		d u ɐ ʃ
Catalan	u n - -	d - o s		
Walloon	õ - - -	d - øː -		
Friulian	u ŋ - -	d - oj -		
Romanian	u n u -	d - oj -	d o w ə	

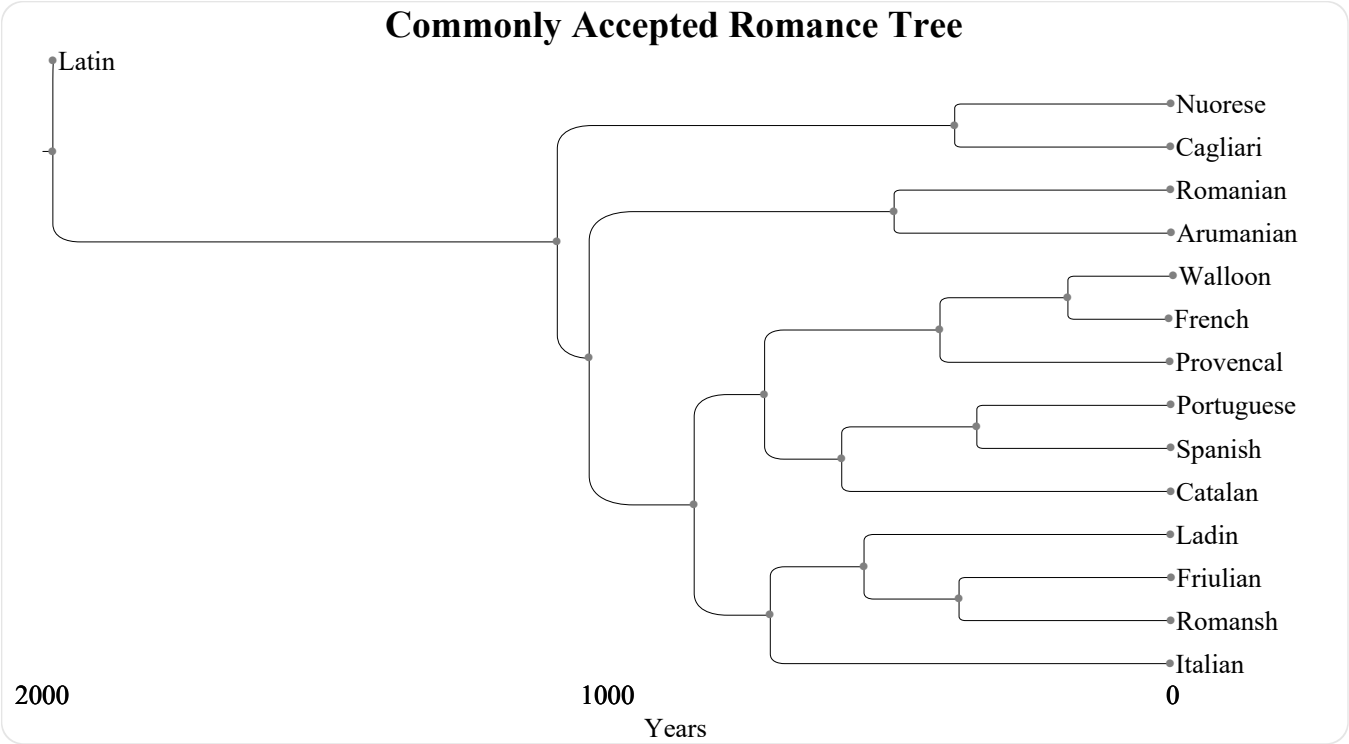
	Three	Four	Five	Here
Latin	t r - eː s	k - a t t w o r -	k iː n k - e	- e k k u m h iː k
French	t ʁ w ɑ -	k - a - t - - ʁ -	s ẽ - k - -	i - - s - - - i -
Spanish	t ɾ - e s	k w a - t - - ɾ o	θ i n k - o	- a - k - - - i -
Italian	t r - e -	k w a t t - - r o	ʧ i ŋ k w e	- - - k w - - i -
PortugueseBrazi	t ɾ - e s	k w a - t - - ɾ u	s ĩ - k - u	- a - k - - - i -
Portuguese	t ɾ - e ʃ	k w a - t - - ɾ u	s ĩ - k - u	- ɐ - k - - - i -
Catalan	t r - ɛ s	k w a - t - - ɾ ə	s i ŋ k - -	- a - k - - - i -
Walloon	t r - øː -	k w a - t - - - -	s ẽ - k - -	
Friulian	t r - eː -	k w a - t - - r i	ʧ i ŋ k - -	- a - k - - - i -
Romanian	t r - ej -	p - a - t - - r u	ʧ i n ʧ - -	

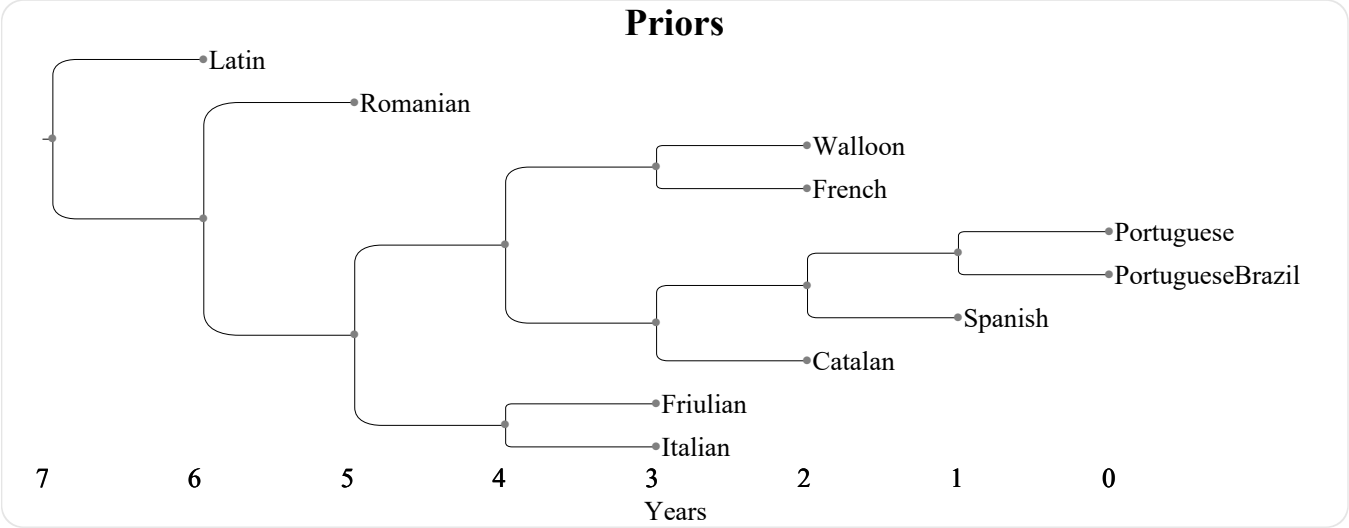
	There	There-Ibi	There-Adlbi	Who-Qui
Latin	i l l aː k	i b iː		k - i s
French	- - l a -			k - i -
Spanish	a - ɟ a -		a i	
Italian	- - l a -	- v i		k - i -
PortugueseBrazi	- - l a -		a i	
Portuguese	- - l a -		ɐ i	
Catalan	ə - ʎ a -			k - i -
Walloon	- - l a -			k - iː -
Friulian				k w i -
Romanian	- - l a -			

Appendix 3 - Concepts Used

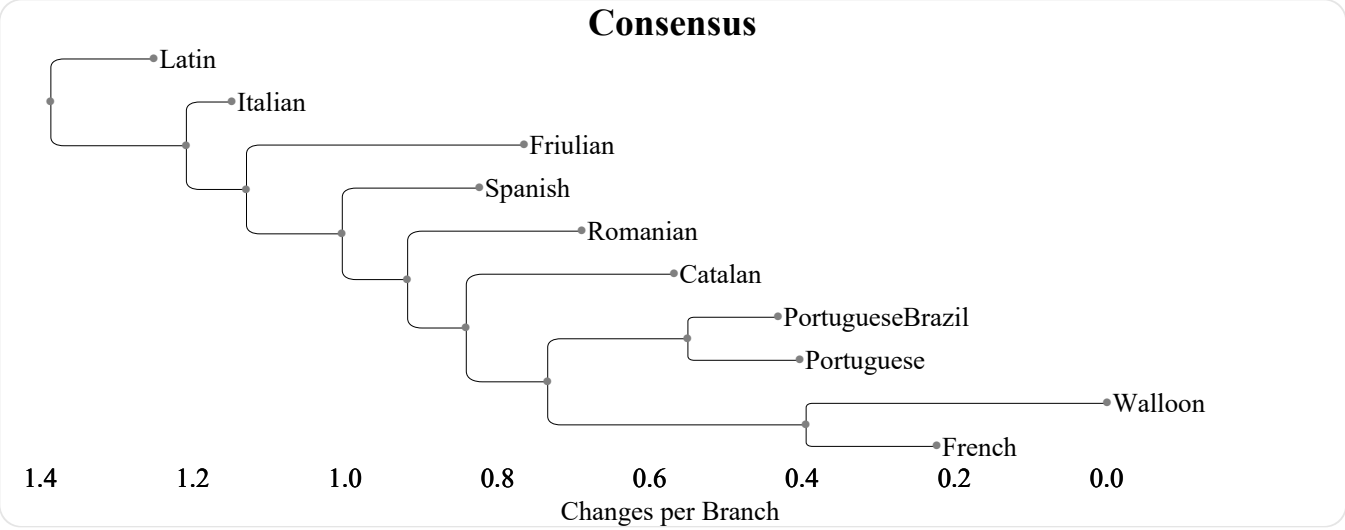
	Who-Quem	What	When-Quando	How-Quomodo
Latin	k - e m -	k - i d	k - a n d oː	k oː m o d o
French		k w a -	k - ɑ̃ - - -	k ɔ m ɑ̃ - -
Spanish	k j e n -	k - e -	k w a n d o	k o m o - -
Italian		k - e -	k w a n d o	k o m e - -
PortugueseBrazi	k - ẽj - -	k - i -	k w ɐ̃ - d u	k o m u - -
Portuguese	k - ɐ̃j -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

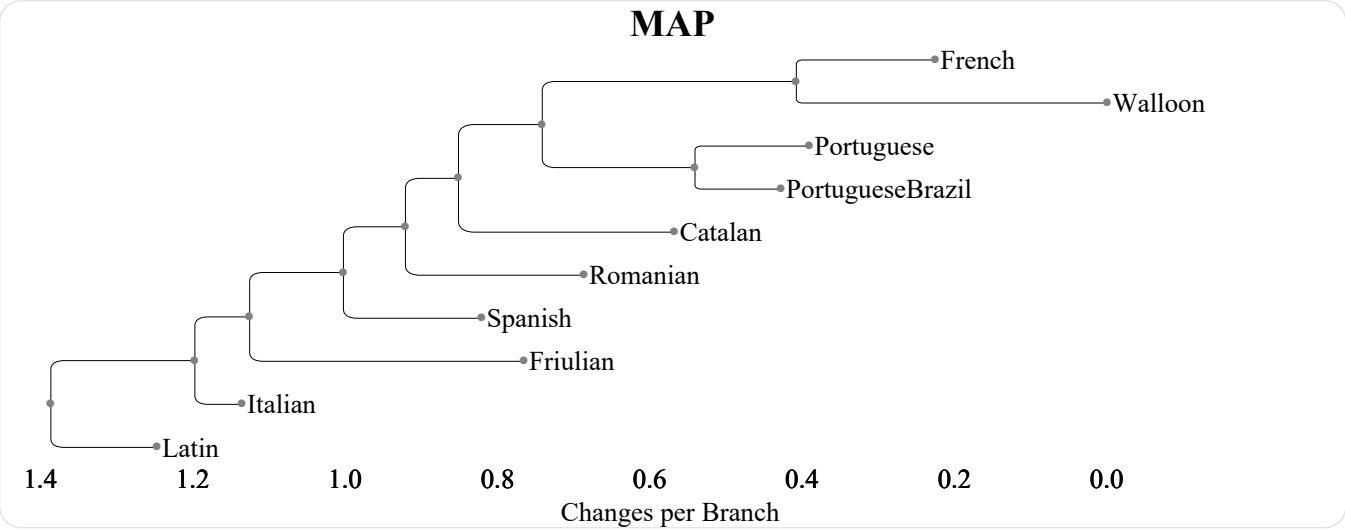
	Not	Not-Nec	And-Et	And-Si
Latin	n oː n	n e k	e t	s iː k
French	n ɔ̃ -	n i -	e -	
Spanish	n o -	n i -	i -	
Italian	n o n	n e -	e -	
PortugueseBrazi	n ɐ̃ -	n ẽj -	i -	
Portuguese	n ɐ̃ -	n ɐ̃j -	i -	
Catalan	n o -	n i -	i -	
Walloon		n ẽ -	ɛ -	
Friulian	n o -		e -	
Romanian	n u -		e -	ʃ i -

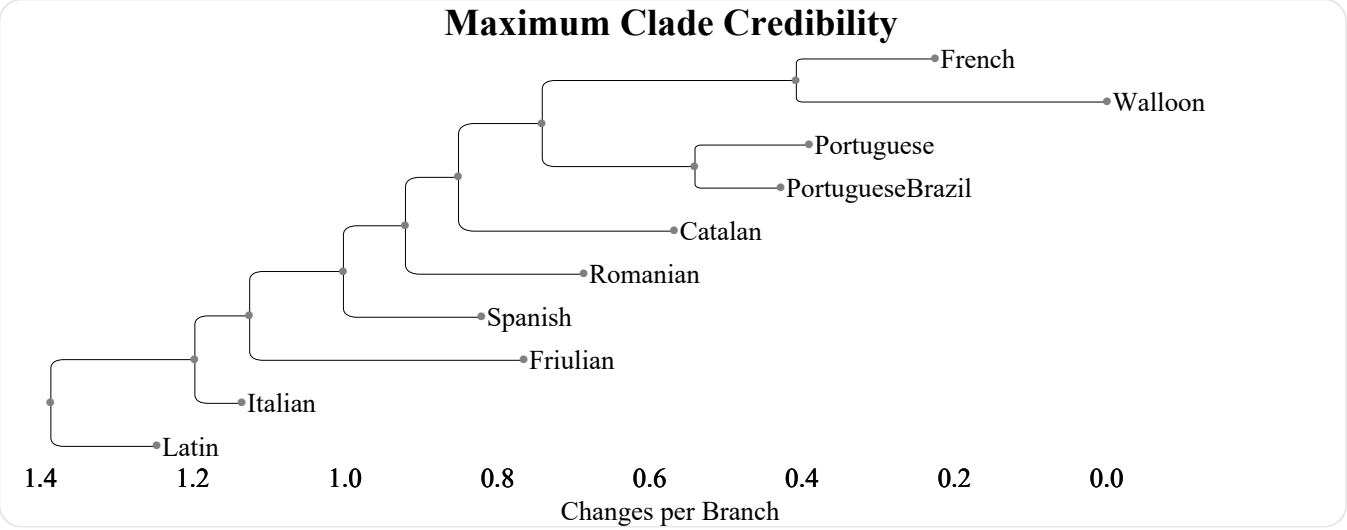

Commonly Accepted Romance Tree
Latin
Nuorese
Cagliari
Romanian
Arumanian
Walloon
French
Provencal
Portuguese
Spanish
Catalan
Ladin
Friulian
Romansh
Italian
2000
1000
0
Years


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