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	ɡ	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	o͡a	41	h	42	ẽj̃				
43	ɔ̃	44	ɑ̃	45	ĩ	46	ɐ̃	47	ʧ	48	ɨ	49	ã	50	p	51	z	52	ð	53	k		
54	ʦ	55	aː	56	ɐ̃j̃	57	ʁ	58	ɒ	59	θ	60	ej	61	ɐj	62	õ	63	ɛː				
64	ɥ	65	øː	66	ɬ	67	c	68	ɛj	69	ø	70	e͡a	71	kʷ	72	ɣ	73	aj				
74	g	75	ẽ	76	ŋ	77	gʷ	78	ẽu͡	79	ɑ	80	β	81	ɟ	82	ɛ̃	83	ʧ̴				
84	ɔː	85	ũ	86	ɻ	87	j̃	88	œ̃	89	au͡	90	w̃										

Appendix 2 - Partition Assignments

Basic Rules

1 **Nasal Vowel**

ɛ̃j̃ ɔ̃ ɑ̃ ĩ ɐ̃ ã ɐ̃j̃ õ ẽ ɛ̃u̯ ɛ̃ ũ œ̃

2 **Vowel**

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

3 **Nasal Consonant**

n m ɲ ŋ j̃ w̃

4 **Non Sylabic Sonorant**

w j l r

5 **Consonant**

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

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 -VostramMercedem	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 o̯a 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 ẽ - t ɨ -	n e n ẽj
Catalan	- ɔ m ə - - - -			n e n -
Walloon	- ɔ m - - - - -		ɛ - f ã - - - -	
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	Fish-Piskem	Fish-Pescion
Latin	s o k i u s	m aː t r e m	p i s k e m	
French		m e - ʁ - -		p w a s õ
Spanish		m a ð ɾ e -	p e θ - - -	
Italian	s ɔ ʧ - o -	m aː d r e -	p e ʃ ʃ e -	
PortugueseBrazi		m ɐ̃j - - - -	p ej ʃ - i -	
Portuguese		m ɐ̃j - - - -	p ɐj ʃ - i -	
Catalan		m a - ɾ ə -	p e ʃ - - -	
Walloon		m e - ʁ - -		p - ɛ h õ
Friulian		m ɒ - r i -	p ɛ s - - -	
Romanian	s o ʦ - - -		p e ʃ t e -	
	Bird-Avem	**Bird-Avicellum**	**Bird-Passerem**	**Fruit**
Latin	a w e m	- a w i - k - e l l u m	p a s s e r e m	f r uː - k t u s
French		w a - - - z - o - - - -		f ʁ ɥ i - - - -
Spanish	a b e -		p a - x a ɾ o -	f ɾ u - - t o -
Italian		- - u - t ʧ - ɛ l l o -	p a s s e r o -	f r u - t t o -
PortugueseBrazi	a v i -		p a - s ɐ ɾ u -	f ɾ u - - t ɐ -
Portuguese	a v ɨ -		p a - s ɐ ɾ u -	f ɾ u - - t ɐ -
Catalan	a w - -	- - u - - s - e - ʎ - -		f ɾ u j - t - -
Walloon		- - uː - - h - ɛː - - - -		f ʁ y - - - - -
Friulian		- - u - - ʧ j ɛ - l - -		f r u - - t - -
Romanian			p a - s ə ɾ e -	f r u - k t - -
	Flower	**Nose**	**Nose-Nares**	**Sun**
Latin	f l oː r e m	n aː s u s		s oː l e m
French	f l œ ʁ - -	n e - - -		
Spanish	f l o ɾ - -	n a s o -	n a ɾ i θ -	s o l - -
Italian	f j oː ɾ e -	n aː s o -	n a r i ʧ e	s o l e -
PortugueseBrazi	f l o ʁ - -		n a ɾ i s -	s ɔ w - -
Portuguese	f l o ɾ - -		n ɐ ɾ i ʃ -	s ɔ ɬ - -
Catalan	f l ɔ - - -	n a s - -	n aː r ɪ s -	s ɔ l - -
Walloon	f l øː ʁ - -	n e - - -		s ɔ l ɔ -
Friulian	f l oː r - -	n aː s - -		
Romanian	f l o̯a ɾ e -	n a s - -		s o̯a ɾ e -
	Sun-Soliculus	**Moon**	**Star**	**Water**
Latin	s o l i c u l u s	l uː n a	- s t - eː l l a	a - kʷ - a
French	s ɔ l ɛj - - - - -	l y n -	e - t w a - l -	o - - - - -
Spanish		l u n a	e s t ɾ e - j a	a - ɣ w a
Italian		l u n a	- s t - e l l a	a k k w a
PortugueseBrazi		l u - ɐ	i s t ɾ e - l ɐ	a - g w ɐ
Portuguese		l u - ɐ	ɨ ʃ t ɾ e - l ɐ	a - g w ɐ
Catalan		ʎ u n ə	ə s t - ɛ - l -	aj - ɣ w ə
Walloon		l ø n -	- s t - øː - l -	ɛː - - w -
Friulian	s o r e - - l i -	l u n e	- s t - ɛ - l e	a - g - e
Romanian		l u n ə	- s t - e̯a - - -	a - p - ə

Appendix 3 - Concepts Used

	Rain	Lake	Sea	Salt
Latin	p l u - w i a	l a k u m	m a r e	s a: l e m
French	p l ɥ - - i -	l a k - -	m ɛ ʁ -	s ɛ l - -
Spanish	ʝ - u - b j a	l a g o -	m a ɾ -	s a l - -
Italian	p j o d ʤ - a	l a g o -	m a r e	s a l e -
PortugueseBrazi	ʃ - u - v - ɐ	l a g u -	m a ʁ -	s a w - -
Portuguese	ʃ - u - v - ɐ	l a ɣ u -	m a ɾ -	s a l - -
Catalan	p l u - ʒ - ə	ʎ a k - -	m a r -	s a l - -
Walloon	p l u: - ʁ - -	l a k - -	m e ʁ -	s e - - -
Friulian	p l o - - j e	l a: t - -	m a: r -	s a: l - -
Romanian	p l o̯a - - j e	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 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 - 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 - ɛ: n - e b r e -	f u m a: 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 - i: ʁ - -
Friulian		f u m a t e		ʧ - i: l - -
Romanian			ʧ e̯a ʧ - ə	ʧ - e ɾ - -

	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	v - ɑ̃ - - - -	f - ø - - -	ɑ̃ - - - -	n ɔ̃ - - -
Spanish	b j e n t o -	f w e g o -	a - ɲ o -	
Italian	v - ɛ n t o -	f w ɔ k o -	a n n o -	n o: m e -
PortugueseBrazi	v - ẽ - t u -	f - o g u -	ɐ - n u -	n o m i -
Portuguese	v - ẽ - t u -	f - o ɣ u -	ɐ - n u -	n o m ɨ -
Catalan	b - e n - - -	f - ɔ k - -	a - ɲ - -	n ɔ m - -
Walloon	v - ẽ - - - -	f - ø: - - -	ã - - - -	n õ - - -
Friulian	v - i n t - -	f - u: k - -	a - ŋ - -	n ɔ ŋ - -
Romanian	v - ɨ n t - -	f - o k - -	a n - - -	n u m e -

Appendix 3 - Concepts Used

	Name-Nominem	Tongue	ToDrink	ToEat
Latin	n o: m i n - e m	l i ng^{w} - a	b i b - e r e	k o m e d e r e
French		l ɑ̃ - g - -	b - - w ɑ ʁ -	
Spanish	n o m - b ɾ e -	l e ŋ g w a	b e b - e ɾ -	k o m e - - ɾ -
Italian		l i n g w a	b e - - - ɾ e	
PortugueseBrazi		l ĩ - g w ɐ	b e b - e ʁ -	k o m e - - - -
Portuguese		l ĩ - g w ɐ	b i̯ β - e ɾ -	k u m - - e ɾ -
Catalan			b ɛ w - - ɾ ə	
Walloon		l ẽu̯ - - - -	b - - - ø: ʁ -	
Friulian		l ɛ n g - ɛ	b e v i - - -	
Romanian		l i m b - ə	b - - - e̯a - -	

	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 ɑ̃ - ʒ - - e - -	m - o ʁ d - ʁ -		s y s e - -
Spanish	m a n d u k a ɾ -	m - o ɾ ð e ɾ -	m o - s - k a ɾ -	
Italian	m a n ʤ - - a ɾ e	m - ɔ r d e r e	m o r s i k a ɾ e	
PortugueseBrazi	m ẽ - ʒ - - a ʁ -	m - o ʁ d e ʁ -	m u - s ə g a - -	s u g a ʁ -
Portuguese	m ɐ̃ - ʒ - - a ɾ -	m - u ɾ ð e ɾ -	m u - s ə g a r -	s u g a ɾ -
Catalan	m ə ɲ ʒ - - a - -		m u - s ə ɣ a - -	
Walloon	m a ɲ - - - i: - -			s y s i: - -
Friulian	m a ŋ ɟ - - a: - -	m w a r d i - -		c u c a: - -
Romanian	m i̯ n - - k a - -		m u r s e k a - -	s u ʤ e - -

	ToSpit	ToSpit-Exconspuere	ToSpit-Sputare	ToKnow
Latin	k o n s p u e r e		- s p u t e r e	s k i: r e
French	k ɔ̃ - s p y e - -			
Spanish		e s k u - p i ɾ	e s p u t a ɾ -	
Italian			- s p u t a ɾ e	
PortugueseBrazi	k u - s p i ʁ - -			
Portuguese	k u - ʃ p i ɾ - -			
Catalan		ə s k u - p i -		
Walloon				
Friulian			s p u d a: - - -	
Romanian		- s k u j p a -		ʃ t i - -

	ToKnow-Sapere	ToKnow-Cognoscere	ToThink	ToThink-Pensare
Latin	s a p - e r e	k o g n o: s k e r e	k - o: g i t a: r e	p e: n s a: r e
French	s a v w a ʁ -	k ɔ - n ɛ - t ʁ - -	k ɥ - - i d e - -	p ɑ̃ - s e - -
Spanish	s a b - e ɾ -	k o - n o θ e ɾ - -	k w - - i d a ɾ -	p e n s a ɾ -
Italian	s a p - e r e	k o - n o ʃ ʃ e r e	k - o ʤ i t a r e	p e n s a ɾ e
PortugueseBrazi	s a b - e ʁ -	k o - ɲ e s - e ʁ -	k - u ʒ i t a ʁ -	p ẽ - s a ʁ -
Portuguese	s ɐ b - e ɾ -	k u - ɲ i̯ s - e ɾ -	k - u ʒ i t a ɾ -	p ẽ - s a ɾ -
Catalan	s ə β - ɛ - -	k u - n ɛ ʃ - ə - -	k - u - j d a - -	p ə n s a - -
Walloon	s a v - ø: ʁ -	k i - n ɔ h - - - -		p ɛ̃ - s e - -
Friulian	s a v - e: - -	k o - ɲ o s - i - -		p e ŋ s a: - -
Romanian		k u - n o̯a ʃ t e - -	k - u ʤ e t a - -	p ə - s a - -

Appendix 3 - Concepts Used

	ToFear	ToFear-Tremere	ToSleep	ToLive
Latin	t i m eː r e	t r e m - e r e	d - o r m iː r e	w iː w e r e
French		k ʁ ẽ - d - ʁ -	d - ɔ ʁ m i ʁ -	v i v - ʁ -
Spanish	t e m e ɾ -	t ɾ e m - e ɾ -	d - o ɾ m i ɾ -	b i b i ɾ -
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 e m e ʁ -	t ɾ e m - e ʁ -	d - o ʁ m i ʁ -	v i v e ʁ -
Portuguese	t ɨ m e ɾ -	t ɾ ɨ m - e ɾ -	d - u ɾ m i ɾ -	v i v e ɾ -
Catalan	t e m ə - -		d - u r m i - -	b i w - ɾ ə
Walloon			d w a ʁ m i - -	
Friulian	t e m i - -	t r i m - aː - -	d - u r m iː - -	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 aː r e		t uː - t aː r i
French	m u ʁ i ʁ -	n w aj e - - -		t - ɥ - e - -
Spanish	m o ɾ i ɾ -		a - n e g a ɾ -	
Italian	m o r i r e		a n n e g a r e	
PortugueseBrazi	m o ʁ e ʁ -			
Portuguese	m u ʁ e ɾ -			
Catalan	m u ɾ i - -	n - ə g a - -		
Walloon	m ɔ ʁ i - -			t u w - e - -
Friulian	m u r iː - -			
Romanian	m u r i - -	n - e k a - -		
	ToKill-Mactare	ToKill-Occidere	ToFight	ToFight-Battuere
Latin	m a c t aː r e	o k k iː d e r e	p u g n aː r e	b a t t u e r e
French	m a - t e - -	ɔ k s i - - ʁ -		b a t - - ʁ - -
Spanish	m a - t a ɾ -		p u - ɲ a ɾ -	b a - t - i ɾ -
Italian		u t ʧ i d e ɾ e	p u ɲ ɲ a r e	b a t t - e r e
PortugueseBrazi	m a - t a ʁ -			b a - t - e ʁ -
Portuguese	m ɐ - t a ɾ -			b ɐ - t - e ɾ -
Catalan	m ə - t a - -	u k s i - - - -	p u - ɲ a - -	b a - t - - ɾ ə
Walloon				b a t - e - - -
Friulian	m a ʧ - aː - -			b a t - i - - -
Romanian		u - ʧ i d e - -		b a t - e - - -
	ToHunt-Captiare	ToHit	ToCut	ToCut-Curtare
Latin	k a p t i aː r e	p u l s aː r e	s - e k aː r e	k u r t aː r e
French	ʃ a - s - e - -	p u - s e - -	s j e - - - -	
Spanish	k a - θ - a ɾ -	p u - x a ɾ -	s - e g a ɾ -	k o ɾ t a ɾ -
Italian	k a t ʧ - a r e	p u l s a r e	s - e g a r e	
PortugueseBrazi	k a - s - a ʁ -	p u - ʃ a ʁ -	s - e g a ʁ -	k o ʁ t a ʁ -
Portuguese	k ɐ - s - a ɾ -	p u - ʃ a ɾ -	s - ɨ ɣ a ɾ -	k u ɾ t a ɾ -
Catalan	k ə - s - a - -		s - ə ɣ a - -	
Walloon	ʧ ɛ - s - iː - -			
Friulian	c a - ʧ - aː - -	p u l s aː - -	s - e - aː - -	
Romanian		p u l s a - -		

Appendix 3 - Concepts Used

	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 ʁ t e - -	t ɑ j - - e - -		s - ɛ̃ - d e - -
Spanish		t a - x - a ɾ -	d i b i d i ɾ -	
Italian	- - s c o r t a r e	t a - ʎ ʎ a: r e	d i v i d e r e	ʃ - i n d e r e
PortugueseBrazi		t a - ʎ - a ʁ -	ʤ i v i ʤ i ʁ -	
Portuguese		t ɐ - ʎ - a ɾ -	d i v i ð i ɾ -	
Catalan		t ə - ʎ - a - -	d i b i d i - -	
Walloon		t ɛ - - j i: - -		
Friulian	- - s c u r t a: - -	t a - - j a: - -	d i v i d 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 ɑ̃ - d - ʁ -	p a ʁ t i ʁ -	s ə - v - - - ʁ e	p w ɛ̃ - d - ʁ -
Spanish	- e n d e ɾ -	p a ɾ t i ɾ -	s e p a ɾ a ɾ - -	
Italian	f ɛ n d e r e	p a r t i r e	s e p a r a r e -	p - u n ʤ e r e
PortugueseBrazi	f ẽ - d e ʁ -	p a ʁ ʧ i ʁ -	s e p a ɾ a ʁ - -	p - ũ - ʒ i ʁ -
Portuguese	f ɐ̃ - d e ɾ -	p ɐ ɾ t i ɾ -	s i p ɐ ɾ a ɾ - -	p - ũ - ʒ i ɾ -
Catalan	f ɛ n d - ɾ ə	p ə r t i - -	s ə p ə ɾ a - - -	p - u ɲ - i - -
Walloon	f ɛ̃ - t - - -	p ɔ: ʁ t i - -		
Friulian		p a r t i: - -	s e p a r a: - - -	
Romanian			s e p a r a - - -	p u n ʤ e - - -

	ToStab-Iugulare	ToScratch	ToScratch-Rasare	ToScratch-Rasicare
Latin	j u g u l a: r e	r a: d e r e		
French	ʒ y g y l e - -		ʁ ɑ z e - -	
Spanish		r a - e ɾ -	r a s a ɾ -	r a s k a ɾ
Italian	j u g u l a: r e	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
Portuguese		ʁ ɐ - e ɾ -	ʁ ɐ z a ɾ -	ʁ ɐ ʃ k a ɾ
Catalan		r a w - ɾ ə	r ə z a - -	r ə s k a -
Walloon				
Friulian		r a d a: - -	r a s a: - -	
Romanian		r a d e - -		

	ToScratch-Coctiare	ToSwim	ToSwim-Navigare	ToFly
Latin		n - a t a: r e	n a v i g a: r e	w o l a: r e
French			n a - - ʒ e - -	v o l e - -
Spanish		n - a d a ɾ -	n a b e g a ɾ -	b o l a ɾ -
Italian		n w o t a ɾ e	n a v i g a r e	v o l a ɾ e
PortugueseBrazi	k o s a ɻ	n - a d a ʁ -	n a v ɨ ɣ a ʁ -	v o - a ʁ -
Portuguese	k u s a ɾ	n - ɐ ð a ɾ -	n ɐ v ɨ ɣ a ɾ -	v w - a ɾ -
Catalan		n - ə d a - -	n ə b ə g a - -	b u l a - -
Walloon			n ɛ - - ʤ i: - -	v ɔ l e - -
Friulian		n - a d a: - -	n a v i g a: - -	
Romanian			n a v i g a - -	

Appendix 3 - Concepts Used

	ToFly-Exvolare	ToWalk	ToWalk-Marcher	ToWalk-Mergere
Latin				m e r g e r e
French		ʃ ə m i n e - - -	m a ʁ ʃ e	
Spanish		k a m i n a ɾ - -		
Italian	z v o l a ɾ e	k a m m i n a ɾ e		m ɛ r ʤ e r e
PortugueseBrazi		k ɐ m i ɲ a ʁ - -		
Portuguese		k ɐ m i ɲ a ɾ - -		
Catalan		k ə m i n a - - -		
Walloon		ʧ i m i n e - - -	m a: ʁ ʧ i:	
Friulian	z v o l a: - -	ʧ j a m i n a - -		
Romanian	z b u ɾ a - -			m e r ʤ e - -
	ToWalk-Ambitare	ToCome	ToLieAsInABed	ToLieAsInABed-Iacere
Latin	a m b i t a: r e	w e n i: r e	e k s t e n d e r e	j a - k e: r e
French		v ə n i ʁ -	e - t ɑ̃ - d - ʁ - -	ʒ e - z i ʁ -
Spanish	a n d - - a ɾ -	b e n i ɾ -	e k s t e n d e ɾ -	ʝ a - θ e ɾ -
Italian	a n d - - a r e	v e n i ɾ e	e - s t ɛ n d e r e	ʤ a - ʧ e: ɾ e
PortugueseBrazi	ẽ - d - - a ʁ -	v - - i ʁ -	i s t ẽ - d e ʁ - -	ʒ ɐ - z e ʁ -
Portuguese	ɐ̃ - d - - a ɾ -	v - - i ɾ -	i ʃ t ẽ - d e ɾ - -	ʒ ɐ - z e ɾ -
Catalan		b ə n i - -	ə - s t e n d - ɾ ə	ʒ a w - - ɾ ə
Walloon		v i n i - -		ʤ e - - r e -
Friulian		v i ɲ i: - -		j e - s i - -
Romanian		v e n i - -	e k s t i n d e - -	z ə - ʧ e̯a - -
	ToSit	ToSit-Sedentare	ToStand	ToStand-Levare
Latin	s - e d e: r e	s e d e n t a: r e	- s t a: r e	l e v a: r e
French	s w a - - ʁ -		ɛ - t - ʁ -	l ə v e - -
Spanish	s - e - - ɾ -	s e - - n t a ɾ -	e s t a ɾ -	j e b a ɾ -
Italian	s - e d e r e		- s t a r e	l e v a r e
PortugueseBrazi	s - e - - ʁ -	s ẽ - - - t a ɾ -	ɨ ʃ t a ɾ -	l e v a ʁ -
Portuguese	s - e - - ɾ -	s ẽ - - - t a ɾ -	ɨ ʃ t a ɾ -	l ɨ v a ɾ -
Catalan			ə s t a - -	ʎ ə b a - -
Walloon			ɛ s - - - -	l ə v e - -
Friulian		s e - - n t a: - -	- s t a: - -	l e v a: - -
Romanian	ʃ - e d e̯a - -		- s t a - -	l - u a - -
	ToStand-Altiare	ToTurnIntransitive	ToTurnIntransitive-Gyrare	ToTurnIntransitive -AncestralClass3
Latin	- a l t i a: r e	t o r n a: r e	g y r a: r e	
French	- o - s - e - -	t u ʁ n e - -	ʒ i ʁ e - -	v i ʁ e - -
Spanish	- a l θ - a ɾ -	t o ɾ n a ɾ -	x i ɾ a ɾ -	b i ɾ a ɾ -
Italian	- a l ʦ a r e -	t o r n a r e	ʤ i r a ɾ e	v i r a ɾ e
PortugueseBrazi	- a ɬ s - a - -	t o ʁ n a ʁ -	ʒ i ɾ a ɾ -	v i ɾ a ɾ -
Portuguese	- a ɬ s - a ɾ -	t u ɾ n a ɾ -	ʒ i ɾ a ɾ -	ʒ i ɾ a ɾ -
Catalan	- ə l s - a - -	t u r n a - -	ʒ i ɾ a - -	b i ɾ a - -
Walloon	h ɔ: - s - i: - -	t u: r n e - -		v i ʁ e - -
Friulian	- a l t ʃ - a: -	t o r n a: - -	ʤ i r a: - -	ʤ i r a: - -
Romanian		t u r n a - -		

Appendix 3 - Concepts Used

	ToTurnIntransitive -Torquere	ToFall	ToFall-Tumbare	ToHold
Latin	t o r kʷ eː r e	k - a d e r e		t e n - eː r e
French	t ɔ ʁ d - ʁ -	ʃ w a - - ʁ -	t õ - b e -	t ə n - i ʁ -
Spanish	t o ɾ θ e ɾ -	k - a - e ɾ -	t u m b a ɾ	t e n - e ɾ -
Italian	t ɔ r ʧ e r e	k - a d e ɾ e		t e n - e ɾ e
PortugueseBrazi	t u r s e r -	k - ɐ - i ɾ -	t õ - b a ʁ	t e - - - ʁ -
Portuguese	t u r s e r -	k - ɐ - i ɾ -	t õ - b a ɾ	t e - - - ɾ -
Catalan	t ɔ r s ə - -	k - a w - r ə	t u m b a -	t ə n - i - -
Walloon		ʧ - ɛː - - ʁ -	t u m - e -	t i n - i - -
Friulian		ʧ j a d e - -		t i n j i - -
Romanian	t o̯a r ʧ e - -	k ə d e̯a - - -	t u m b a -	ts i n - e - -
	ToHold-Segurar	**ToSqueeze**	**ToSqueeze-Serrere**	**ToSqueeze-Serare**
Latin		e k s p r i m - e r e	s e r r e r e	s e - r a r e
French		e - - p ʁ ɛ̃ - d - ʁ -		s e - ʁ e - -
Spanish	s e g u ɾ a ɾ	e k s p ɾ e m - i ɾ -	s e - r a ɾ -	θ e - r a ɾ -
Italian		- - s p r ɛ m - e r e		s e r r a r e
PortugueseBrazi	s ɨ g u ɾ a ʁ	i - ʃ p r ə m - e ʁ -	s e - ʁ a - -	s ɨ - ʁ a ɾ -
Portuguese	s ɨ ɣ u ɾ a ɾ	i - ʃ p r ə m - e r -	s ə - ʁ a ɾ -	s ɨ - ʁ a ɾ -
Catalan		ə - s p ɾ e m - ə - -	s ə - r a - -	
Walloon				s ɛ - ʁ e - -
Friulian		e - s p r i m - i - -		
Romanian		- s k - r e m e - - -		
	ToSqueeze-Appectorare	**ToSqueeze-Stringere**	**ToRub**	**ToRub-Exfricare**
Latin	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		e - t ʁ ɛ̃ - d - ʁ -	f ʁ ɛj e - - -	
Spanish	a - p - - ɾ e t a ɾ -	e s t ɾ e ɲ - i ɾ -	f ɾ e g a ɾ -	
Italian		- s t r i n ʤ e r e	f r e g a r e	
PortugueseBrazi	ɐ - p ɨ - ɾ - t a ɾ -	ə ʃ t r ĩ - ʒ i r -		ɨ ʃ f ɾ ɨ g a ɾ
Portuguese	ɐ - p ɨ - ɾ - t a ɾ -	ə ʃ t r ĩ ʒ i r - -		ɨ ʃ f ɾ ɨ ɣ a ɾ
Catalan		ə s t ɾ ɛ ɲ ə - - -	f ɾ ə g a - -	
Walloon		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 ɨ n ʤ e - - -	f r e k a - -	
	ToRub-Frictare	**ToRub-Frictiare**	**ToWash**	**ToWipe**
Latin	f r i k t aː r e		l a w aː r e	t e r g e 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	t ɛ r ʤ e r e
PortugueseBrazi			l ɐ v a ɾ -	
Portuguese			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 - - - -	

Appendix 3 - Concepts Used

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

	ToPull-Pulsare	ToPull-Trahere	ToPush	ToThrow
Latin	p u l s a: r e	t r a h e r e	i m p i n g e r e	j a k t a: r e
French	p u - s e - -	t ʁ - - ɛ ʁ -		ʒ ə - t e - -
Spanish	p u - x a ɾ -			- e - ʧ a ɾ -
Italian	p u l s a r e	t r a r - r e	i m p i n ʤ e r e	ʤ e t t a r e
PortugueseBrazi	p u - ʃ a ɾ -	t ɾ a z e - -		ʒ ej t a ɾ - -
Portuguese	p u - ʃ a ɾ -	t ɾ ɐ z e ɾ -		ʒ ej t a ɾ - -
Catalan		t ɾ ɛ w - ɾ ə	ə m p ɛ ɲ - ə - -	x i t a - - -
Walloon	p u: s i: - - -			ʤ ɛ t e - - -
Friulian	p u l s a: - -	t r aj - - - -		
Romanian	p u l s a - -	t r a ʤ e - -	ɨ m p i n ʤ e - -	

	ToThrow-Lanceare	ToThrow-Eruncare	ToTie	ToTie-Aptare
Latin	l a n k e a: r e	e: - r u n k a: r e	l i g a: r e	a p t a: r e
French	l ɑ̃ - s - e - -		l i - e - -	
Spanish	l a n θ - a ɾ -	a - r a n k a ɾ -	l e ɡ a ɾ -	a - t a ɾ -
Italian	l a n ʧ a r e -	a r r o n ʧ a r e	l e ɡ a r e	
PortugueseBrazi	l ɐ̃ - s - a - -			ɐ - t a ɾ -
Portuguese	l ɐ̃ - s - a ɾ -			ɐ - t a ɾ -
Catalan	ʎ ə n s - a - -		ʎ i ɣ a - -	
Walloon	l a n c - i: - -		l ɔ j i: - -	
Friulian	l a n ʧ a: - - -		l e - a: - -	
Romanian		a - ɾ u ŋ k a - -	l e g a - -	

	ToSew	ToCount	ToCount-Enumerare	ToSay
Latin	k o: n - s u e r e	k o m p u t a: r e	e: n u m e r a: r e	d i: k e r e
French	k u - d - - - ʁ -	k õ - - - t e - -	e n u m e ʁ e - -	d i - - ʁ -
Spanish	k o - - s - e ɾ -	k o n - - t a ɾ -	e n u m e ɾ a ɾ -	d e θ i ɾ -
Italian	k u - - ʧ - i r e	k o n - - t a r e	e n u m e r a r e	d i - - r e
PortugueseBrazi	k u - - z - e ɾ -	k õ - - - t a ɾ -	e n u m e ɾ a ɾ -	d i z - e ɾ
Portuguese	k u - - z - e ɾ -	k õ - - - t a ɾ -	e n u m e ɾ a ɾ -	d i z - e ɾ
Catalan	k u - - z - i - - -	k u m - - t a - -	e n u m e ɾ a - -	d i - - - -
Walloon	k ø: - - z - - - -	k õ - - - t e - -		d i: - - ʁ -
Friulian	k u - - z i - - -	k o n - - t a: - -		d i: - - - -
Romanian	c o̯a - - s - e - -		- n u m a r a - -	z i ʧ e - -

Appendix 3 - Concepts Used

	ToSay-Exponere	ToSing-AncestralClass	ToPlay-Ludere	ToPlay-Jiocare
Latin	e k s p oː n e r e	k a n t aː r e	l uː d e r e	j o - k aː r e
French		ʃ ɑ̃ - t e - -		ʒ - w - e - -
Spanish		k a n t a ɾ -	l u d i ɾ -	x u - g a ɾ -
Italian	- - s p o r - r e	k a n t a r e		ʤ o - k a r e
PortugueseBrazi		k ɐ̃ - t a ɾ -		ʒ o - g a ʁ -
Portuguese		k ɐ̃ - t a ɾ -		ʒ u - ɣ a ɾ -
Catalan		k ə n t a - -		ʒ u - g a - -
Walloon		ʧ ã - t e - -		ʤ u w - e - -
Friulian		c a n t aː - -		ʤ u j - aː - -
Romanian	- - s p u n e - -	k ɨ n t a - -		ʒ u - k a - -
	ToFloat	**ToFloat-Fluitare**	**ToFlow**	**ToFlow-Colare**
Latin	f l uː k t u aː r e	f l u i t aː r e	f l u e r e	k oː l aː r e
French	f l y k t ɥ e - -		f l y e - -	k u l e - -
Spanish	f l u g t w a ɾ -		f l u i ɾ -	k o l a ɾ -
Italian	f l u t t u a r e	f l u i t a r e	f l u i r e	k o l a r e
PortugueseBrazi	f l u - t u a ʁ -		f l w i ʁ -	k o - a ʁ -
Portuguese	f l u - t u a ɾ -		f l w i ɾ -	k u - a ɾ -
Catalan	f l u k t u a - -		f l u i - -	k u ɫ a - -
Walloon				k ɔ l e - -
Friulian				
Romanian	f l u c t u a - -			
	ToFlow-Excurrere	**ToFlow-Currere**	**ToFreeze**	**ToFreeze-Glaciare**
Latin	e k s k u r r e r e	k u r r e r e	g e l aː r e	g l a - k i aː r e
French		k u - ʁ i ʁ -	ʒ ə l e - -	g l a - s - e - -
Spanish	e - s k u r i ɾ - -	k o - r e ɾ -	- e l a ɾ -	
Italian	- - s k o r r e r e	k o r r e r e	ʤ e l a r e	g j a t ʧ j a r e
PortugueseBrazi	i - ʃ k o - ʁ e ʁ -	k o - ʁ e ʁ -	ʒ ɨ l a ɾ -	
Portuguese	i - ʃ k u - ʁ e ɾ -	k u - ʁ e ɾ -	ʒ ɨ l a ɾ -	
Catalan	ə - s k o - r ə - -	k o - r ə - -	ʒ ə l a - -	g l ə - s - a - -
Walloon			ʤ a l e - -	
Friulian	- - s k o - r iː - -	k o - r i - -		g l a - ʧ - aː - -
Romanian	- - s k u ɾ ʤ e - -	k u ɾ ʤ e - -		
	ToFreeze-Inglaciare	**ToBurn-Brojan**	**ToBurn-Cremare**	**ToBurn-Flammare**
Latin	i n g l a k i aː r e		k r e m aː r e	f l a m m aː r e
French		b ʁ y l e - -	k ʁ a m e - -	f l ɑ̃ - b e - -
Spanish			k - e m a ɾ -	f l a - m e a ɾ
Italian		b r u ʧ a r e	k r e m a r e	f j a m m a r e
PortugueseBrazi			k - ɐj m a ɾ e	
Portuguese			k - ej m a ʁ e	
Catalan			k r ə m a - -	f ɫ a m a - - -
Walloon		b ʁ uː l e - -		
Friulian		b r u z aː - -		
Romanian	ɨ n g - e ʦ - a - -			

Appendix 3 - Concepts Used

	ToBurn-Ardere	ToBurn-Flagrare	ToBurn-Incendere	ToBurn-AncestralClass8
Latin	a r d eː r e	f l a g r aː r e	i n k e n d - e r e	u s t u l aː r e
French	a ʁ d - ʁ -	f l a g ʁ e - -	ɛ̃ - s ɑ̃ - d j e - -	
Spanish	a ɾ d e ɾ -	f l a g ɾ a ɾ -	e n θ e n d - e ɾ -	
Italian	a r d e r e	f l a g r a r e	i n ʧ ɛ n d j a r e	u s t o l 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			ə n s e n d - - ɾ ə	
Walloon				
Friulian				
Romanian	a ɾ d e - -		ɨ n ʧ i n d ʒ e - -	u s t u r a - -

	All	All-Totus	Many	Many-Tantus
Latin	o m n eː s	t oː - t u s	m u l t u s	t a n t u s
French		t u - - - -	m u - - - -	
Spanish		t o - d o -	m u - ʧ o -	t a n t o -
Italian	o ɲ ɲ i -	t u t t o -	m o l t o -	t a n t o -
PortugueseBrazi		t o - d u -	m ũ ʒ̃ - t u	t ɐ̃ - t u -
Portuguese		t o - ð u -	m ũ ʒ̃ - t u	t ɐ̃ - t u -
Catalan		t o - t - -	m o l - - -	t a n t - -
Walloon		t ɔ - - - -		
Friulian		d u - t - -	m o l c - -	t a n c - -
Romanian		t o - t - -	m u l t - -	

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

	Big	Big-Grandem	Big-Majjorem	Long-Longum
Latin	m a g n u m	g r a n d e m	m aj j o r e m	l o - n g u m
French		g ʁ ã - - - - -		l ɔ̃ - - - - -
Spanish	m a - ɲ o -	g ɾ a n d e -		l o - n g o -
Italian	m a ɲ ɲ o -	g r a n d e -		l u - n g o -
PortugueseBrazi		g ɾ ẽ - ʤ i -		l õ - g u - -
Portuguese		g ɾ ẽ - d ɨ -		l õ - g u - -
Catalan		g r a n - - -		ʎ o - ŋ - - -
Walloon		g ʁ ã - - - -		l õ - - - - -
Friulian		g r a n t - -		l u n k - - -
Romanian			m a - - - ɾ e	l u n g - - -

Appendix 3 - Concepts Used

	Long-Largum	Wide	Wide-Amplum	Heavy
Latin	l a r g u m	l aː t u m	a m p l u m	g r a w i s
French	l a ʁ ʒ - -	l e - - -	ɑ̃ - p l - -	g ʁ a v - -
Spanish	l a ɾ ɣ o -	l a t o -	a n ʧ - o -	g ɾ a b e -
Italian	l a r g o -	l a t o -	a m p j o -	g r ɛ v e -
PortugueseBrazi	l a ʁ g u -	l a t u -	ẽ - ʃ - u -	g ɾ a v i -
Portuguese	l a ɾ g u -	l a t u -	ẽ - ʃ - u -	g ɾ a v ɨ -
Catalan	ʎ a ɾ k - -		a m p l ə -	g ɾ e w - -
Walloon				g r a v - -
Friulian	l a r k - -			g r ɛ v i -
Romanian	l a r g - -	l a t - -		g ɾ e w - -

	Heavy-Lurdus	Heavy-Pesant	Small	Small-Pittinus
Latin	l u r d u s	p eː s a n t -	p i t t i t u s	p i t t i n u s
French	l u ʁ - - -	p ə z ɑ̃ - - -	p ə - t i - - -	
Spanish	l e ɾ d o -	p e s a - ð o		p e - k e ɲ o -
Italian	l o r d o -	p e s a n t e		p i t ʧ i n o -
PortugueseBrazi	l e ɾ d o -	p e z a - d u		p e - k e n u -
Portuguese	l e ɾ d o -	p ɨ z a - ð u		p ɨ - k e n u -
Catalan		p ə z a - t -	p ə t i t - - -	
Walloon			p i - t i - - -	
Friulian		p e z a n t -		
Romanian				p u - ʦ i n - -

	Small-Pitulus	Short	Short-Brevis	Narrow
Latin	p i - t u l u s	k u r t u s	b r e w i s	a n g u s t u s
French		k u ʁ - - -	b ʁ ɛ f - -	
Spanish		k o ɾ t o -	b ɾ e b e -	a n g o s t o -
Italian	p i k k o l o -	k o r t o -	b r ɛ v e -	a n g u s t o -
PortugueseBrazi		k u ʁ t u -	b ɾ ɛ v i -	
Portuguese		k u ɾ t u -	b ɾ ɛ v ɨ -	
Catalan		k u ɾ t - -	b ɾ e w - -	
Walloon		k uː ʁ - - -	b ʁ e f - -	
Friulian	p i - ʧ u l - -	k u r t - -		
Romanian				ɨ ŋ g u s t - -

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

Appendix 3 - Concepts Used

	Green	One	Two-Duos	Two-Duae
Latin	w i r i d e m	uː n u m	d u oː s	d u - aj
French	v e ʁ - - - -	œ̃ - - -	d - ø -	
Spanish	b e ɾ - d e -	u n o -	d - o s	
Italian	v e r - d e -	u n o -		d u - e
PortugueseBrazi	v e ɾ - d ɨ -	ũ - - -	d - oj s	
Portuguese	v e ɾ - d ɨ -	ũ - - -	d - oj ʃ	
Catalan	v ɛ ɾ - t - -	u n - -	d - o s	
Walloon	v ɛ ʁ - - - -	õ - - -	d - øː -	
Friulian	v ɛ r - t - -	u ŋ - -	d - oj -	
Romanian	v e ɾ - d e -	u n u -	d - oj -	d o w ə

	Two-Duas	Three	Four	Five
Latin	d u a s	t r - eː s	kʷ - a t t w o r -	kʷ iː n kʷ - 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 - øː -	k w a - t - - - -	s ẽ - k - -
Friulian		t r - eː -	k w a - t - - r i	ʧ i ŋ k - -
Romanian		t r - ej -	p - a - t - - r u	ʧ i n ʧ - -

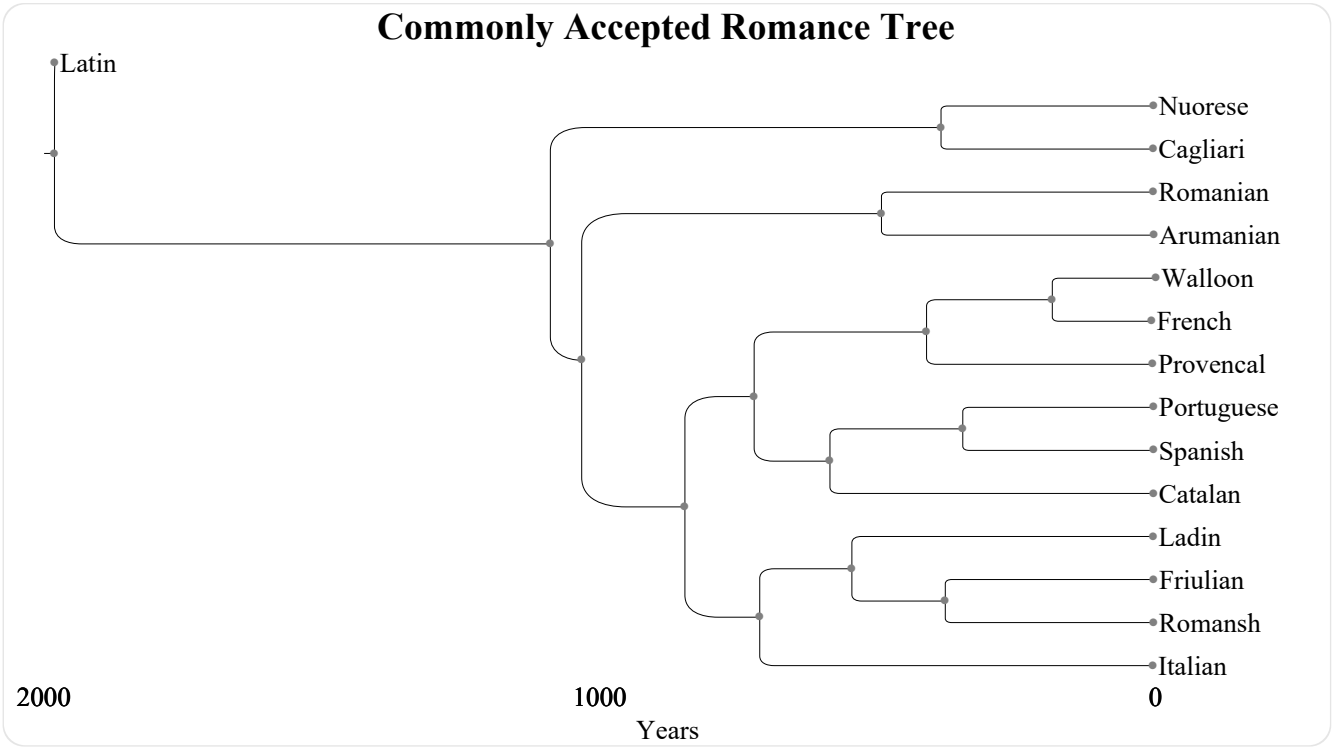
	Here	There	There-Ibi	There-AdIbi
Latin	- e k k u m h iː k	i l l aː k	i b iː	
French	i - - s - - - i -	- - l a -		
Spanish	- a - k - - - i -	a - ɟ a -		a i
Italian	- - - k w - - i -	- - l a -	- v i	
PortugueseBrazi	- a - k - - - i -	- - l a -		a i
Portuguese	- ɐ - k - - - i -	- - l a -		ɐ i
Catalan	-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

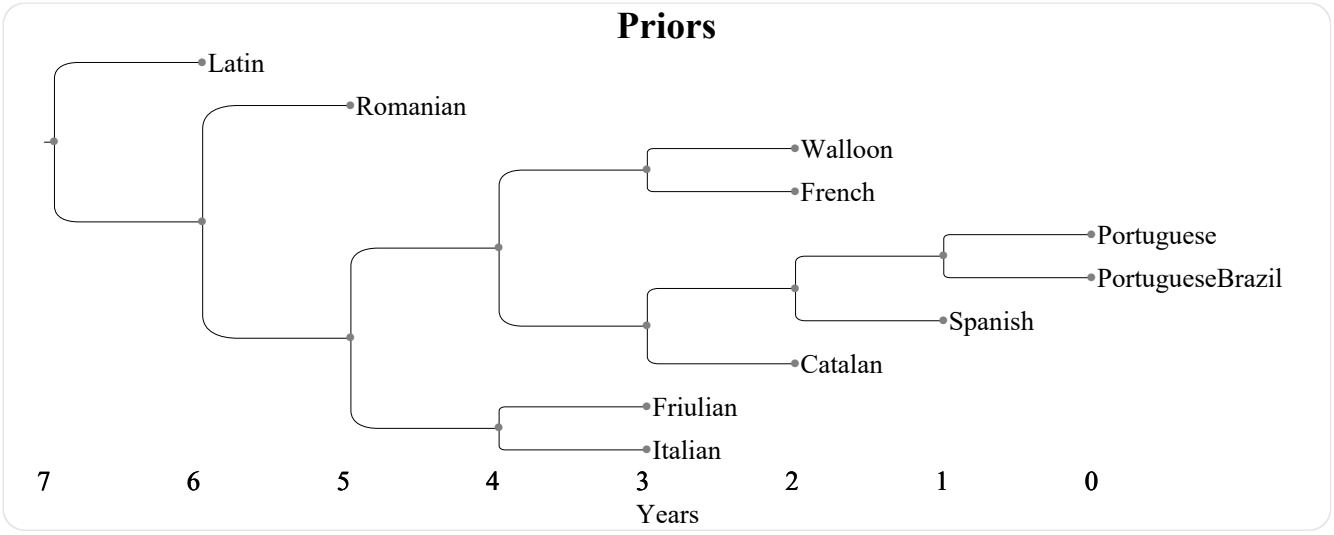
	Who-Qui	Who-Quem	What	When-Quando
Latin	kʷ - i s	kʷ - e m -	kʷ - i d	kʷ - a n d oː
French	k - i -		k w a -	k - ã - - -
Spanish		k j e n -	k - e -	k w a n d o
Italian	k - i -		k - e -	k w a n d o
PortugueseBrazi		k - ẽj - -	k - i -	k w ɐ̃ - d u
Portuguese		k - ɐ̃j - -	k - ɨ -	k w ɐ̃ - d u
Catalan	k - 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 -

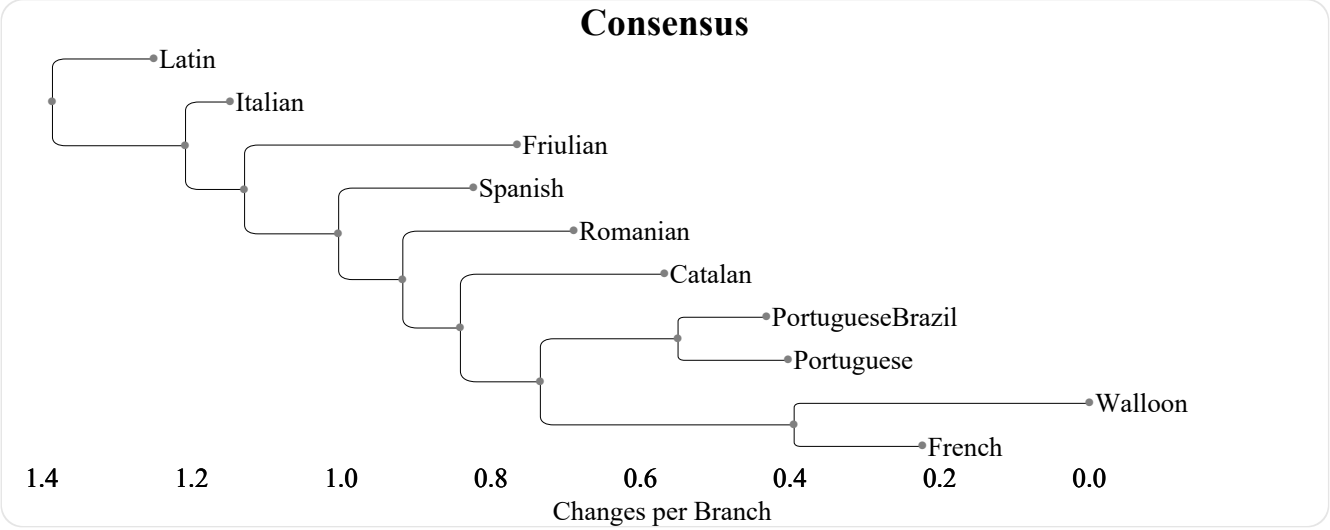
Appendix 3 - Concepts Used

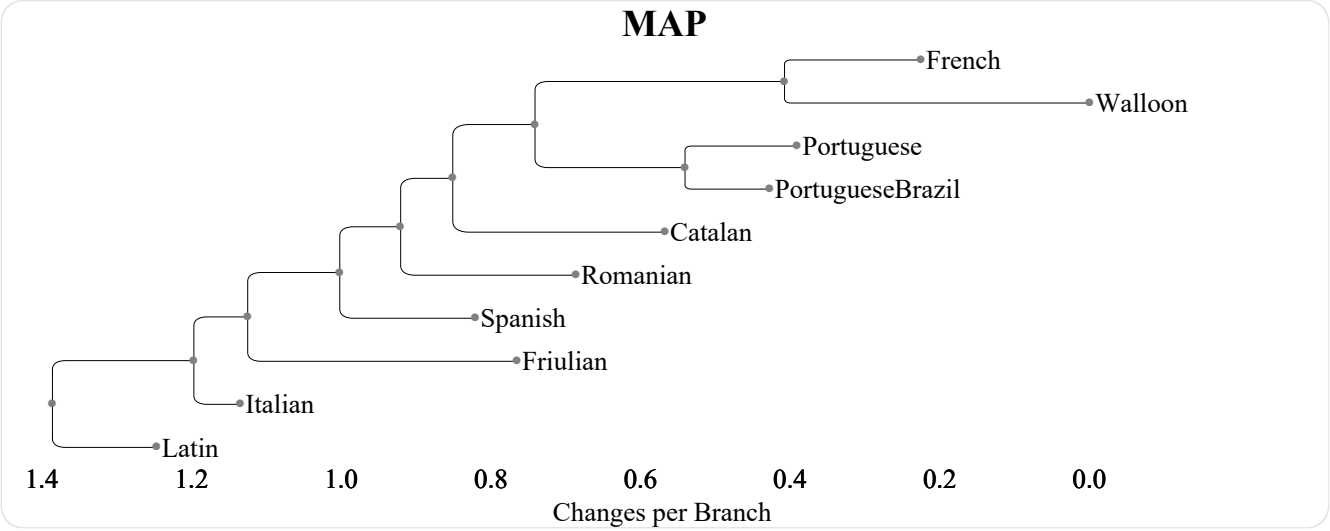
	How-Quomodo						Not			Not-Nec			And-Et	
Latin	kʷ	oː	m	o	d	o	n	oː	n	n	e	k	e	t
French	k	ɔ	m	-	-	-	n	ɔ̃	-	n	i	-	e	-
Spanish	k	o	m	o	-	-	n	o	-	n	i	-	i	-
Italian	k	o	m	e	-	-	n	o	n	n	e	-	e	-
PortugueseBrazi	k	o	m	u	-	-	n	ɐ̃	w̃	n	ɐ̃j̃	-	i	-
Portuguese	k	o	m	u	-	-	n	ɐ̃	w̃	n	ɐ̃j̃	-	i	-
Catalan	k	ɔ	m	-	-	-	n	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	-

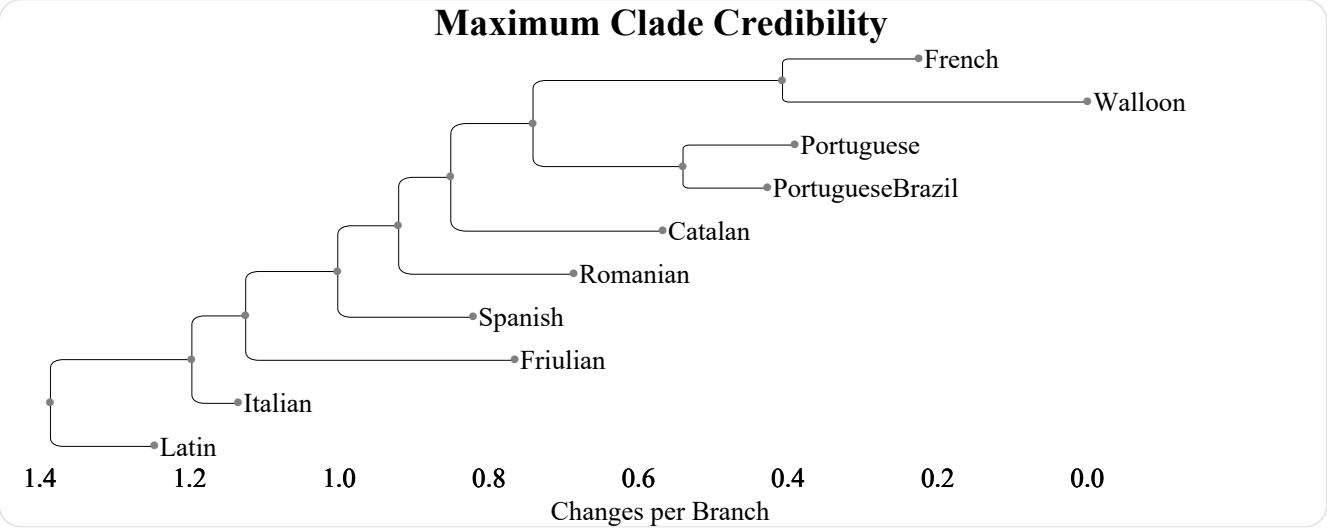
	And-Si		
Latin	s	iː	k
French			
Spanish			
Italian			
PortugueseBrazi			
Portuguese			
Catalan			
Walloon			
Friulian			
Romanian	ʃ	i	-


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


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


MAP
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


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