

# **Historical Linguistics**

그깟뼈 그 ○그뼈 슈○가 战쁘떡, 슈○가 유플떡  
kəkizpæk kwsy ɻatkwjɒ̆ syŋka taktpwtaĕg syŋka ɻawkpwtaĕg  
can-picture I (NOM1) mind-my-inside world (ACC3) war-without world (ACC3) hate-without  
I can picture in my mind a world without war, a world without hate.

뿌끌 그깟뼈 그 깡 끼뻬, 습 ○애시구ter 시뻬

pukət kəkizpæk kwsy kan̄ kiρæ səb ɻæʃikuti? ſiρæ

moreover can-picture I (NOM1) attack we-by because not-expect-EC they (NOM2)

And I can picture us attacking that world, because they'd never expect it.

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--UHL-46

Languages are complicated.

(not just the languages you are  
making up...)

...and, in fact, kids sometimes make mistakes when they're learning them.

- what does 'livid' mean?

...and, in fact, kids sometimes make mistakes when they're learning them.

- what does 'livid' mean?  
white? red? angry?

...and, in fact, kids sometimes make mistakes when they're learning them.

- what does 'livid' mean?  
white? red? angry?
- the verb 'misle': I used to believe in this verb...

...and, in fact, kids sometimes make mistakes when they're learning them.

- what does 'livid' mean?  
white? red? angry?
- the verb 'misle': I used to believe in this verb...but I'd been **misled**.

Sometimes these 'mistakes' catch on,  
in the form of:

- various kinds of semantic drift

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in the form of:

- various kinds of semantic drift  
OE *(ge)bed* 'prayer'  
(cf. German *beten* 'pray')  
> ModE *bead*  
("I'm counting my *beads* on this rosary")

Sometimes these 'mistakes' catch on,  
in the form of:

- various kinds of semantic drift  
OE *(ge)bed* 'prayer' > ModE *bead*

OE *steorfan* 'die'  
(cf. German *sterben*)  
> ModE *starve*

Sometimes these 'mistakes' catch on,  
in the form of:

- various kinds of semantic drift
  - OE *(ge)bed* 'prayer' > ModE *bead*
  - OE *steorfan* 'die' > ModE *starve*

Passamaquoddy *mehcine* ‘he/she died’, cognate with Wampanoag *mâhchuneâw* ‘he/she is sick’

Sometimes these 'mistakes' catch on,  
in the form of:

- various kinds of semantic drift
  - OE *(ge)bed* 'prayer' > ModE *bead*
  - OE *steorfan* 'die' > ModE *starve*

OE *cniht* 'boy, servant'  
(German *Knecht*) > ModE *knight*

Sometimes these 'mistakes' catch on,  
in the form of:

- various kinds of semantic drift
  - OE *(ge)bed* 'prayer' > ModE *bead*
  - OE *steorfan* 'die' > ModE *starve*
  - OE *cniht* 'servant' > ModE *knight*

OE *huswif* 'housewife'  
> ModE *hussy*

Sometimes these 'mistakes' catch on,  
in the form of:

- various kinds of semantic drift
  - OE *(ge)bed* 'prayer' > ModE *bead*
  - OE *steorfan* 'die' > ModE *starve*
  - OE *cniht* 'servant' > ModE *knight*
  - OE *huswif* 'housewife' > ModE *hussy*
  - PAN \**wada* 'there is'
    - > Tagalog *wala* 'there isn't'

Sometimes these 'mistakes' catch on,  
in the form of:

- various kinds of semantic drift

OE *(ge)bed* 'prayer' > ModE *bead*

OE *steorfan* 'die' > ModE *starve*

OE *cniht* 'servant' > ModE *knight*

OE *huswif* 'housewife' > ModE *hussy*

PAN ~~\*wada~~ 'there is'

~~reconstructed~~ > Tagalog *wala* 'there isn't'

Sometimes these 'mistakes' catch on,  
in the form of:

- various kinds of semantic drift
- recuttings (like *misled* > *misle-d*)

ME an ekename >  
ModE a nickname

Sometimes these 'mistakes' catch on,  
in the form of:

- various kinds of semantic drift
- recuttings (like *misled* > *misle-d*)
- sound changes!

# some numbers:

	<i>Skt.</i>	<i>Greek</i>	<i>Latin</i>	<i>Gthc.</i>	<i>O.Ir</i>	<i>Lith.</i>	<i>OCS*</i>	<i>Bsque</i>	<i>Tkish</i>
1.	ékas	hei:s	u:nus	ains	oín	víenas	jedinū	bat	bir
2.	dvaú	dúo:	duo	twai	da	dù	děva	bi	iki
3.	tráyas	trei:s	tre:s	θreis	tri	try:s	tr̄je	hiru	üç

\*Old Church Slavonic

# some numbers:

	<i>Skt.</i>	<i>Greek</i>	<i>Latin</i>	<i>Gthc.</i>	<i>O.Ir</i>	<i>Lith.</i>	<i>OCS*</i>	<i>Bsque</i>	<i>Tkish</i>
1	ékas	hei:s	u:nus	ains	oín	víenas	jedinū	bat	bir
2	dvaú	dúo:	duo	twai	da	dù	děva	bi	iki
3	tráyas	trei:s	tre:s	θreis	tri	try:s	trięje	hiru	üç

cognates

in fact, we can be more systematic than this:

### Grimm's Law (Rasmus Rask, Jakob Grimm)

	<u>Latin</u>	<u>Greek</u>	<u>English</u>
d-t	<u>duo</u>	<u>dúo</u>	<u>two</u>
	<u>ed-o</u>	<u>éd-o</u>	<u>eat</u>
	<u>decem</u>	<u>déka</u>	<u>ten</u>
g-k	<u>genus</u>	<u>gonu</u>	<u>kin</u>
	<u>ager</u>	<u>agrós</u>	<u>acre</u>
b-p	<u>labium</u>	--	<u>lip</u>
	<u>cannabis</u>	<u>kánnabis</u>	<u>hemp</u>
	<u>lubricus</u>	--	<u>slippery</u>

Once we've figured out all the sound laws we need for a bunch of related languages, we posit the 'underlying forms' that underwent the sound changes: protolanguage

Sanskrit

ad-

Latin

ed-

English

eat

....

Sanskrit

ad-

Latin

ed-

English

eat

....

Sanskrit	<u>ad-</u>
Latin	<u>ed-</u>
English	<u>eat</u>

**Grimm's Law (Germanic):**  
d->t (also, b->p, and g->k)

Sanskrit

ad-

Latin

ed-

English

eat

Sanskrit  
Latin  
English

ad-  
ed-  
eat

<u>Sanskrit</u>	<u>Latin</u>	
<u>a</u> d-	<u>e</u> d-	'eat'
<u>d</u> anta	<u>d</u> ent-	'tooth'
<u>a</u> vi-	<u>o</u> vi-	'sheep'
<u>d</u> v <u>a</u> -	<u>du</u> <u>o</u>	'two'
<u>a</u> jra	<u>a</u> ger	'field'

Proto-Indo-European: \*ed- 'eat'

Sanskrit	(*e>a)	ad-
Latin		ed-
English	(G.L...)	eat

Proto-Indo-European: \*ed- 'eat'

Sanskrit	(*e>a)	ad-
Latin		ed-
English	(G.L...)	eat

The proto-form doesn't have to be the same as any daughter form...

w-->gw in Chamorro:

**Tagalog**

asawa

dalawa

wala 'there isn't'

**Chamorro**

asagwa 'spouse'

hugwa 'two'

gwaha 'there is'

...

w-->gw in Chamorro, and...

**Tagalog**

asawa

dalawa

wala 'there isn't'

**Chamorro**

asaggwa 'spouse'

huggwa 'two'

gwaha 'there is'

**PIE**

\*wir

**Welsh**

gwir 'man'

**Proto-Germ.**

\*werra

\*ward-

**Late Latin**

\*gwerra 'war'

\*gward- 'guard'

## Tagalog

asawa

dalawa

wala 'there isn't'

## PIE

\*wir

## Proto-Germ.

\*werra

\*ward-

## Quenya

vendë ‘maiden’

## Chamorro

asagwa 'spouse'

hugwa 'two'

gwaha 'there is'

## Welsh

gwir 'man'

## Late Latin

\*gwerra 'war'

\*gward- 'guard'

## Sindarin

gwend

big discovery:  
sound change is regular.

(Neogrammarian Hypothesis)

big discovery:  
sound change is regular.

-->shifts emphasis away from looking for lists of words that 'look similar'; now what we're looking for is lists of words that can be related by regular sound laws.

"looking similar" is not necessary to prove relationship:

	<u>A</u>	<u>B</u>	<u>C</u>
'two'	er	erku	duo

"looking similar" is not necessary to prove relationship:

	<u>Mandarin</u>	<u>Armenian</u>	<u>Greek</u>
'two'	er	erku	duo

"looking similar" is not necessary to prove relationship:

		<u>Mandarin</u>	<u>Armenian</u>	<u>Greek</u>
'two'	er		erku	duo
'fear'			erki-	dwi-
'long'			erkar	dwa:ron

PIE *\*dw* > Armenian *erk*

"looking similar" is not sufficient to prove relationship:

Mbabaram

English

"looking similar" is not sufficient to prove relationship:

Mbabaram

English  
dog

"looking similar" is not sufficient to prove relationship:

Mbabaram  
dog

English  
dog

"looking similar" is not sufficient to prove relationship:

**Mbabaram**

dog

(<\**gudaga*:

Yidiny *gudaga*,

Dyirbal *guda*)

**English**

dog

(<OE *docga*

'mastiff')

"looking similar" is not sufficient to prove relationship:

Mbabaram  
dog

Persian  
bad

Malay  
mata 'eye'

English  
dog

English  
bad

Greek  
mati 'eye'

<u>Hawaiian</u>	<u>Maori</u>	<u>Tongan</u>	<u>Samoan</u>	
kalo	taro	talo	talo	'taro'
piko	pito	pito	pito	'navel'
moko	moto	moto	moto	'punch'
aka	ata	ata	ata	'dawn'
kai	tai	tahi	tai	'sea'
nuku	ŋutu	ŋutu	ŋutu	'beak'

<u>Hawaiian</u>	<u>Maori</u>	<u>Tongan</u>	<u>Samoan</u>	
<u>kalo</u>	<u>taro</u>	<u>talo</u>	<u>talo</u>	'taro'
<u>piko</u>	<u>pito</u>	<u>pito</u>	<u>pito</u>	'navel'
<u>moko</u>	<u>moto</u>	<u>moto</u>	<u>moto</u>	'punch'
<u>aka</u>	<u>ata</u>	<u>ata</u>	<u>ata</u>	'dawn'
<u>kai</u>	<u>tai</u>	<u>tahi</u>	<u>tai</u>	'sea'
<u>nuku</u>	<u>ŋutu</u>	<u>ŋutu</u>	<u>ŋutu</u>	'beak'

<u>Hawaiian</u>	<u>Maori</u>	<u>Tongan</u>	<u>Samoan</u>	
<u>kalo</u>	<u>taro</u>	<u>talo</u>	<u>talo</u>	'taro'
<u>piko</u>	<u>pito</u>	<u>pito</u>	<u>pito</u>	'navel'
<u>moko</u>	<u>moto</u>	<u>moto</u>	<u>moto</u>	'punch'
<u>aka</u>	<u>ata</u>	<u>ata</u>	<u>ata</u>	'dawn'
<u>kai</u>	<u>tai</u>	<u>tahi</u>	<u>tai</u>	'sea'
<u>nuku</u>	<u>ŋutu</u>	<u>ŋutu</u>	<u>ŋutu</u>	'beak'

**Hawaiian:**  
t → k

<u>Hawaiian</u>	<u>Maori</u>	<u>Tongan</u>	<u>Samoan</u>	<u>P-Pol</u>
<u>kalo</u>	<u>taro</u>	<u>talo</u>	<u>talo</u>	*talo 'taro'
<u>piko</u>	<u>pito</u>	<u>pito</u>	<u>pito</u>	*pito 'navel'
<u>moko</u>	<u>moto</u>	<u>moto</u>	<u>moto</u>	*moto 'punch'
<u>aka</u>	<u>ata</u>	<u>ata</u>	<u>ata</u>	*ata 'dawn'
<u>kai</u>	<u>tai</u>	<u>tahi</u>	<u>tai</u>	*tahi 'sea'
<u>nuku</u>	<u>ŋutu</u>	<u>ŋutu</u>	<u>ŋutu</u>	*ŋutu 'beak'

**Hawaiian:**  
t → k

<u>Hawaiian</u>	<u>Maori</u>	<u>Tongan</u>	<u>Samoan</u>	<u>P-Pol</u>
kalo	taro	talo	talo	*talo 'taro'
piko	pito	pito	pito	*pito 'navel'
<b>kele</b>	<b>kere</b>	<b>kele</b>	<b>kele</b>	'black'
<b>ula</b>	<b>kura</b>	<b>kula</b>	<b>ula</b>	'red'
a <b>ke</b>	<b>ake</b>	<b>hake</b>	<b>ape</b>	'up'
<b>apo</b>	<b>kapo</b>	--	<b>apo</b>	'grasp'
<b>Hawaiian:</b>				
t → k				

<u>Hawaiian</u>	<u>Maori</u>	<u>Tongan</u>	<u>Samoan</u>	<u>P-Pol</u>
kalo	taro	talo	talo	*talo 'taro'
piko	pito	pito	pito	*pito 'navel'
<u>?</u> ele	<u>k</u> ere	<u>k</u> ele	<u>?</u> ele	*kele 'black'
<u>?</u> ula	<u>k</u> ura	<u>k</u> ula	<u>?</u> ula	*kula 'red'
a <u>?</u> e	<u>a</u> ke	h <u>a</u> ke	a <u>?</u> e	*hake 'up'
<u>?</u> apo	<u>k</u> apo	--	<u>?</u> apo	*kapo 'grasp'

### Hawaiian:

t → k

k → ?

<u>Hawaiian</u>	<u>Maori</u>	<u>Tongan</u>	<u>Samoan</u>	<u>P-Pol</u>
kalo	taro	talo	talo	*talo 'taro'
piko	pito	pito	pito	*pito 'navel'
<b>?</b> ele	<b>k</b> ere	<b>k</b> ele	<b>?</b> ele	*kele 'black'
<b>?</b> ula	<b>k</b> ura	<b>k</b> ula	<b>?</b> ula	*kula 'red'
a <b>?</b> e	<b>a</b> ke	hake	a <b>?</b> e	*hake 'up'
<b>?</b> apo	<b>k</b> apo	--	<b>?</b> apo	*hapo 'grasp'

### Hawaiian:

k → ?

t → k

<u>Hawaiian</u>	<u>Maori</u>	<u>Tongan</u>	<u>Samoan</u>	<u>P-Pol</u>
kalo	taro	talo	talo	*talo 'taro'
?ele	kere	kele	?ele	*kele 'black'
aka	ata	ata	ata	'dawn'
ihu	ihu	ihu	isu	'nose'
ao	ao	<u>p</u> aho	ao	'day'
aloha	aroha	<u>p</u> alo <u>p</u> ofa	alofa	'love'
wae	wae	va <u>p</u> e	vae	'leg'
leo	reo	le <u>p</u> o	leo	'voice'
hau	hau	hau	sau	'dew'
wai	wai	vai	vai	'water'

<u>Hawaiian</u>	<u>Maori</u>	<u>Tongan</u>	<u>Samoan</u>	<u>P-Pol</u>
kalo	taro	talo	talo	*talo 'taro'
?ele	kere	kele	?ele	*kele 'black'
aka	ata	ata	ata	*ata 'dawn'
ihu	ihu	ihu	isu	*isu 'nose'
ao	ao	<u>?</u> aho	ao	*?aho'day'
aloha	aroha	<u>?</u> alo <u>?</u> ofa	alofa	*?alo?ofa 'love'
wae	wae	va <u>?</u> e	vae	*va?e'leg'
leo	reo	le <u>?</u> o	leo	*le?o 'voice'
hau	hau	hau	sau	*sau 'dew'
wai	wai	vai	vai	*vai 'water'

<u>Hawaiian</u>	<u>Maori</u>	<u>Tongan</u>	<u>Samoan</u>	<u>P-Pol</u>
kalo	taro	talo	talo	*talo 'taro'
?ele	kere	kele	?ele	*kele 'black'
aka	ata	ata	ata	*ata 'dawn'
ao	ao	<u>?aho</u>	ao	*?aho'day'

### Hawaiian:

k → ? ('black')

t → k ('taro')

? → Ø ('day')

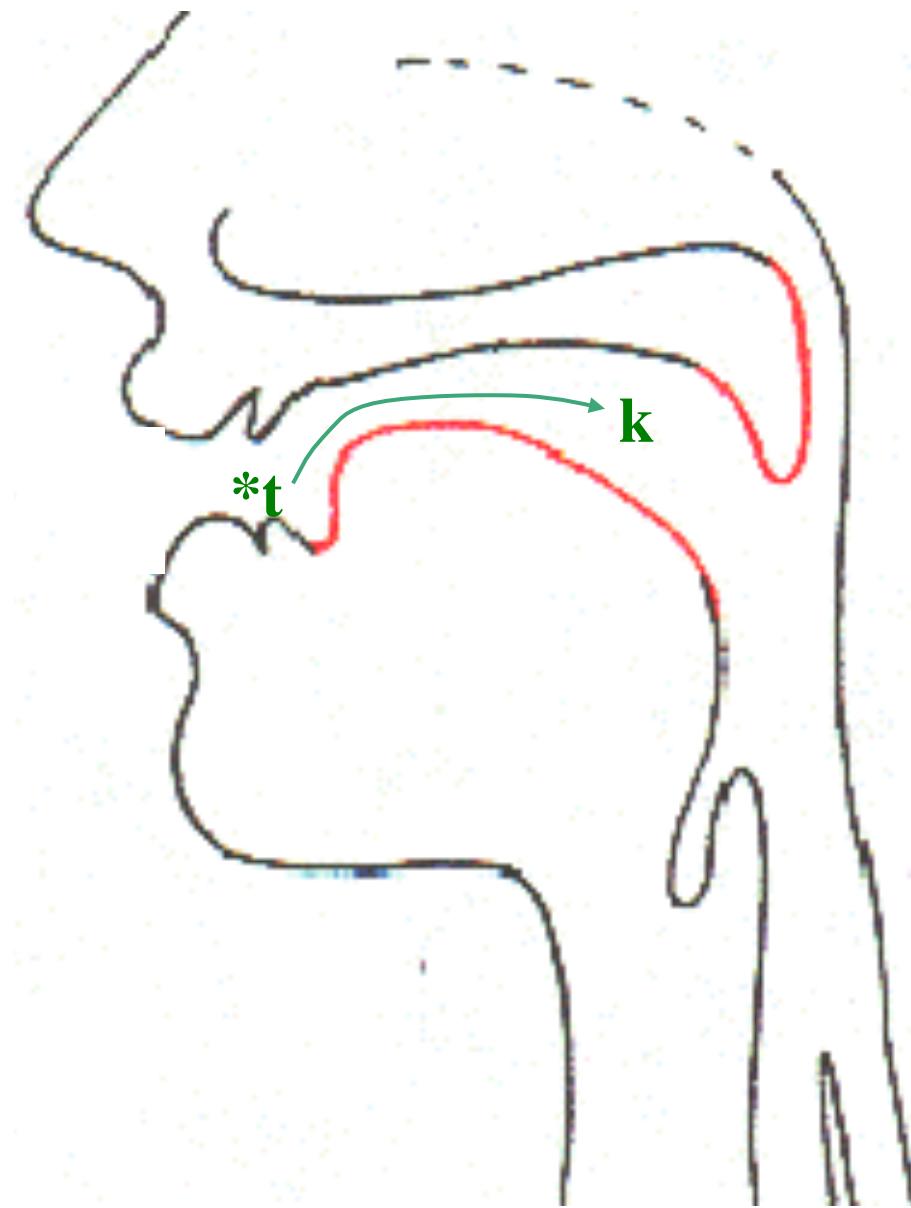
<u>Hawaiian</u>	<u>Maori</u>	<u>Tongan</u>	<u>Samoan</u>	<u>P-Pol</u>
kalo	taro	talo	talo	*talo 'taro'
?ele	kere	kele	?ele	*kele 'black'
aka	ata	ata	ata	*ata 'dawn'
ao	ao	<u>?aho</u>	ao	*?aho'day'

## Hawaiian:

- ?→Ø ('day')
- k→? ('black')
- t→k ('taro')

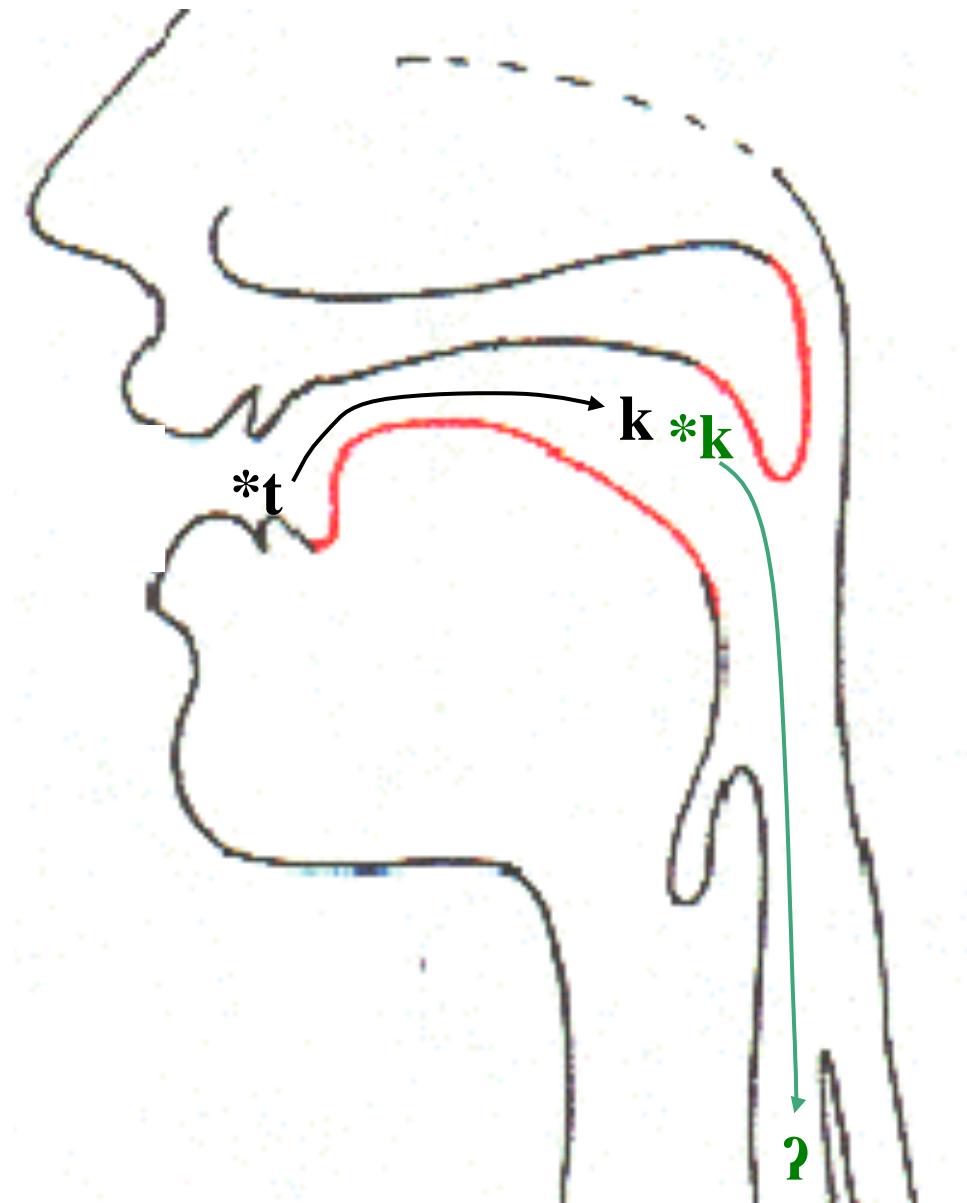
# Hawaiian

\*ata 'dawn'  
aka



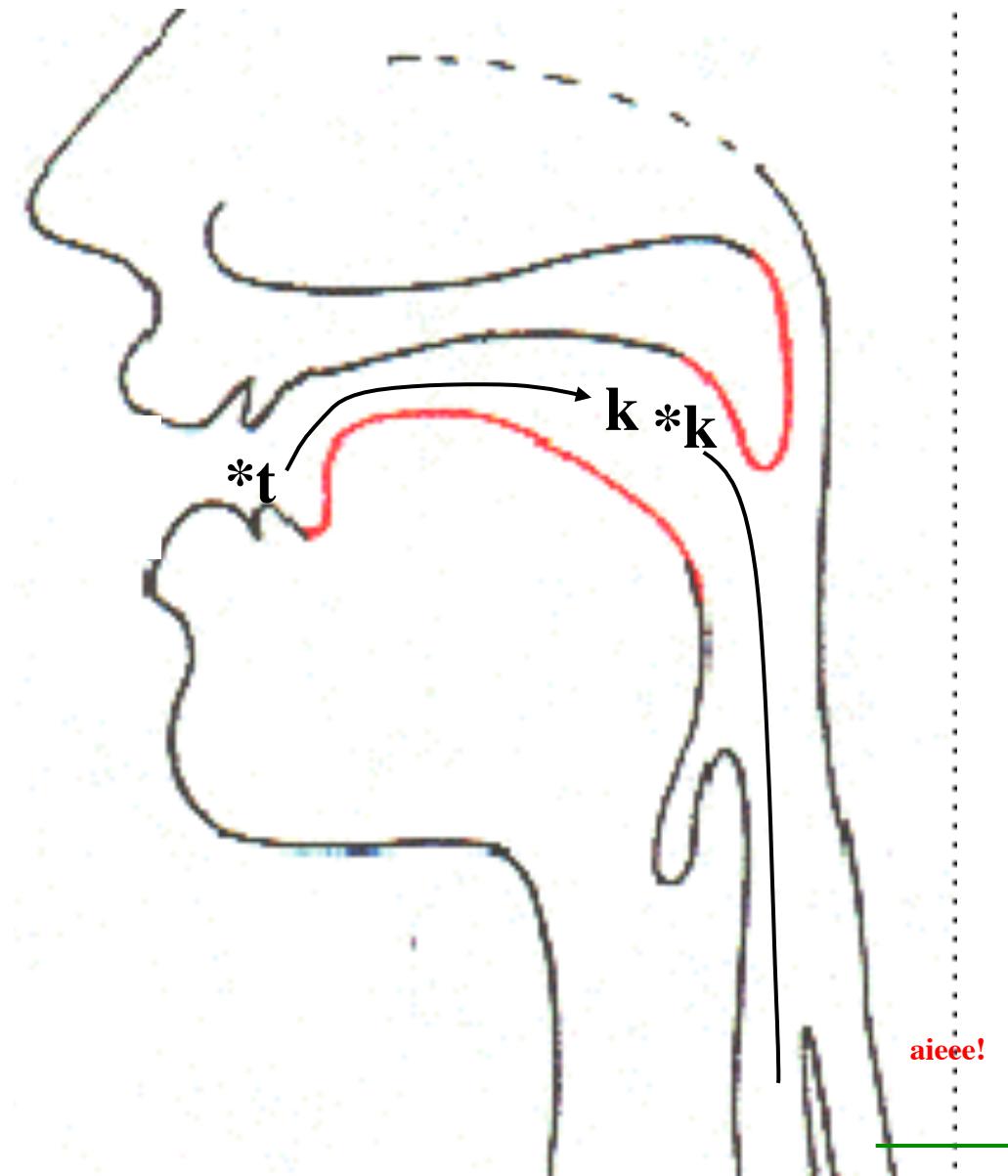
# Hawaiian

- \*ata 'dawn'
  - ~ aka
- \*kula 'red'
  - ~ pula



# Hawaiian

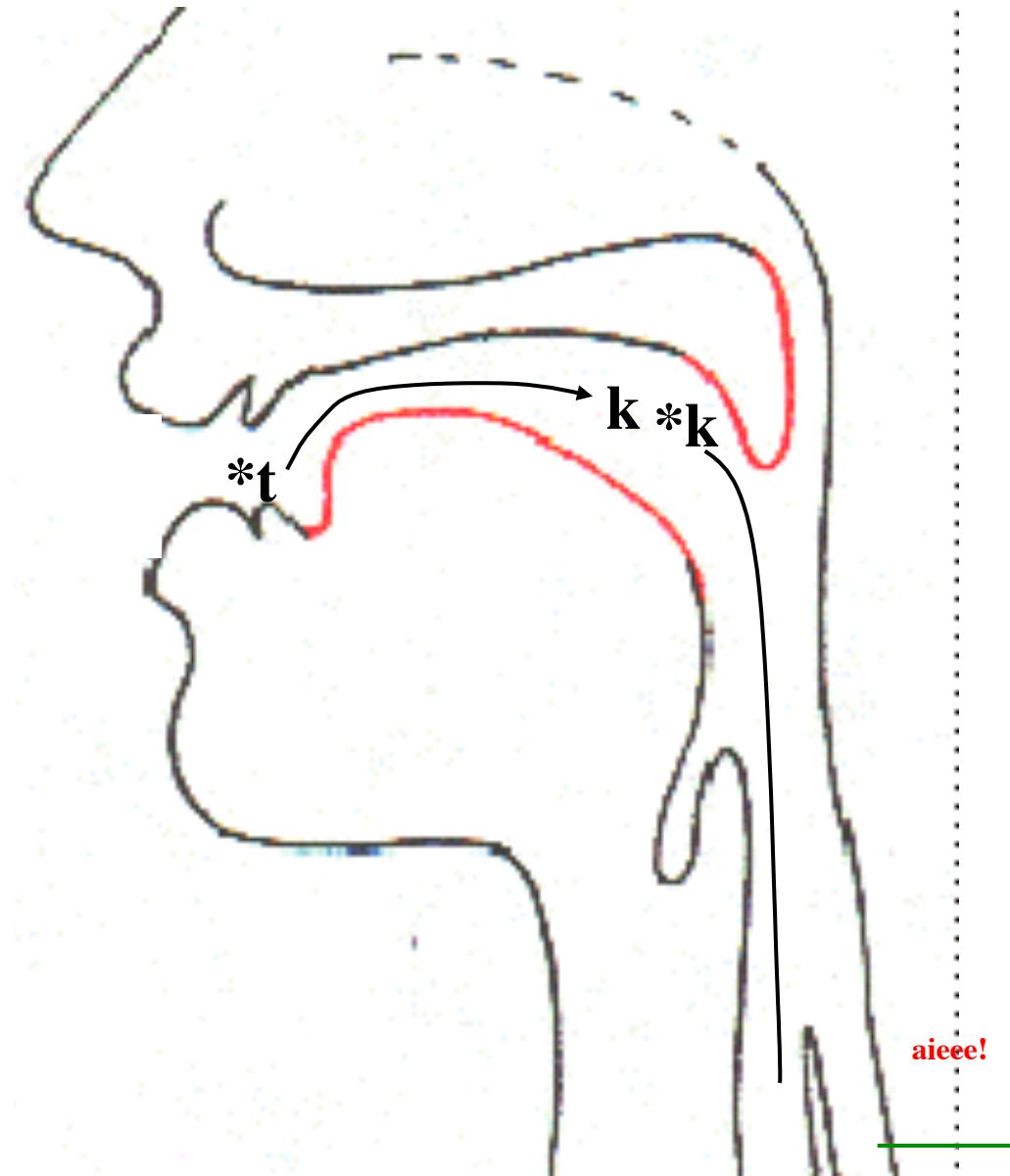
- \*ata 'dawn'
- ~ aka
- \*kula 'red'
- ~ pula
- \*leqo 'voice'



# Hawaiian

- \*ata 'dawn'
- ~ aka
- \*kula 'red'
- ~ pula
- \*le?o 'voice'

Chain S



# Why should you care about this?

- sound change can have effects on the inflectional system of your language
- languages often end up borrowing words from related languages

Sound changes are a common source of ‘irregularity’ in inflectional systems.

Sound changes are a common source of ‘irregularity’ in inflectional systems.

Latin   rex ‘king’        nox ‘night’        vox ‘voice’

Sound changes are a common source of ‘irregularity’ in inflectional systems.

Latin	rex ‘king’	nox ‘night’	vox ‘voice’
	reg-is (GEN)	noct-is (GEN)	voc-is (GEN)
	reg-em (ACC)	noct-em (ACC)	voc-em (ACC)

Sound changes are a common source of ‘irregularity’ in inflectional systems.

Latin   ~~rex~~ ‘king’      ~~nox~~ ‘night’      ~~vox~~ ‘voice’  
\*reg-s ‘king’ \*noct-s ‘night’ \*voc-s ‘voice’  
reg-is (GEN)   noct-is (GEN)   voc-is (GEN)  
reg-em (ACC)   noct-em (ACC)   voc-em (ACC)

Sound changes are a common source of ‘irregularity’ in inflectional systems.

Latin	<del>rex</del> ‘king’	<del>nox</del> ‘night’	<del>vox</del> ‘voice’
	*reg-s ‘king’	*noct-s ‘night’	*voc-s ‘voice’
	reg-is (GEN)	noct-is (GEN)	voc-is (GEN)
	reg-em (ACC)	noct-em (ACC)	voc-em (ACC)

→ plus sound changes that turn final \*gs and \*cts to x (ks).

additional complications...

- reanalysis

<u>English</u>	<u>German</u>	<u>Gothic</u>	<u>O.Norse</u>	
adder	Natter	nadr-	naðra	'adder, snake'

English n--> $\emptyset$  / #   ?

additional complications...

- reanalysis

<u>English</u>	<u>German</u>	<u>Gothic</u>	<u>O.Norse</u>	
adder	Natter	nadr-	naðra	'adder, snake'

no: a nadder --> an adder

# additional complications...

- reanalysis
- analogy

'to choose'   'chose'   'chosen'

OE      ceosan      ceas       gecoren

OHG    kiosan    kaus     gikoran

# additional complications...

- reanalysis
- analogy

	'to choose'	'chose'	'chosen'
OE	ceos <u>an</u>	ceas <u> </u>	gecoren
OHG	kios <u>an</u>	kaus <u> </u>	gikoran
ModE	choose	chose	chosen
ModG	kü <u>ren</u>	kor <u> </u>	gekoren

additional complications...

- reanalysis
- analogy

PIE \*kwetwer-, \*penkwe-:

additional complications...

- reanalysis
- analogy

PIE \*kwetwer-, \*penkwe-:

>English ~~w~~hour, five

f↑

additional complications...

- reanalysis
- analogy

PIE \*newn, \*dekm '9, 10'

> Russian ~~n~~<sup>y</sup>ev<sup>y</sup>at<sup>y</sup>, d<sup>y</sup>es<sup>y</sup>at<sup>y</sup>

d  
↗

additional complications...

- reanalysis
- analogy

Algonquian ‘2, 3, 4’:

Wampanoag: nees, nuhshw, yâw

additional complications...

- reanalysis
- analogy

Algonquian ‘2, 3, 4’:

Wampanoag: nees, nuhshw, yâw

Abenaki: niz, nas, yaw

additional complications...

- reanalysis
- analogy

Algonquian ‘2, 3, 4’:

Wampanoag: nees, nuhshw, yâw

Abenaki: niz, nas, yaw

Passamaquoddy-Maliseet: nis, nihi, new

additional complications...

- reanalysis
- analogy

ME male, femelle--> male, female

additional complications...

- reanalysis
- analogy
- language contact

## Language contact

Eng. *lampshade* > Tagalog *lamsyed* 'lamp'

Tag. *bundok* 'mountain' > English *boondocks*

## Language contact

Eng. *lampshade* > Tagalog *lamsyed* 'lamp'

Tag. *bundok* 'mountain' > English *boondocks*

French *outrage* > English *outrage*

## Language contact

Eng. *lampshade* > Tagalog *lamsyed* 'lamp'

Tag. *bundok* 'mountain' > English *boondocks*

French *outrage* > English *outrage*

\*PAN peDa? > Malay *perah* 'money'

Tagalog *pilak* 'silver'

## Language contact

Eng. *lampshade* > Tagalog *lamsyed* 'lamp'

Tag. *bundok* 'mountain' > English *boondocks*

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Adding these kinds of effects of language change and language contact is one way to add ‘verisimilitude’ to your language.

# Common kinds of sound change to posit:

- VnC >  $\tilde{V}C$ , VVC
- w > gw
- kw > p (PCeltic \**kʷenn-* > Welsh *pen*, Irish *ceann* ‘head’)
- obstruents becoming voiceless finally
- stops becoming fricatives (esp. intervocally)
- unstressed vowels dropping, or reducing to schwa
- consonant clusters simplifying
- palatalization or fricativization before  
front high vowels
- liquids becoming other liquids, or nasals
- vowels becoming nasal, vowels harmonizing...

(also, if you do decide to create cognate words in related language, don't give them all the same meanings! meanings change over time...)

(see, for example, Tagalog *pilak* ‘silver’,  
*pera* ‘money’)

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(also also: even in closely related languages, not all words are cognates...)

Tolkien's Elvish languages are probably the best and most famous case of a constructed language taking historical linguistics seriously...

Data on the following slides are largely from:

Salo, David. 2004. *A gateway to Sindarin*. University of Utah Press.

	<i>Quenya</i>	<i>Sindarin</i>
‘1’	minë	min
‘2’	atta	tad
‘3’	neldë	neledh
‘4’	canta	canad
‘5’	lempë	leben
‘6’	enquë	eneg
‘7’	otso	odo
‘8’	tolto	tolodh
‘9’	nertë	neder
‘10’	cainen	pae

*\*k<sup>j</sup>elepê* ‘silver’ → Quenya *tyelpe*,  
Sindarin *celeb*  
(*i geleb* ‘the silver’)

*\*galadâ* ‘tree’ → Quenya *alda*,  
Sindarin *galadh*

Quenya drops unstressed vowels, initial *g*;  
 $k^j > ty$

Sindarin drops final vowels,  $k^j > c$ ,  
voices voiceless obstruents after vowels,  
makes voiced obstruents fricatives after vowels

Sindarin word-medial NC > NN:

*pent* ‘story’      *pennas* ‘history’  
(Quenya *quenta*)

*nimp* ‘white’      *nimmida-* ‘whiten’  
(Quenya *ninquë*)

Sindarin vowels raise and front before other high front vowels:

*brenn-il* ‘lady’    *brann-on* ‘lord’  
*ceb-i* ‘to leap’    *cab-ed* ‘a leap’  
(Quenya *cap-*)

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