how to use feature_lookup.js

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[nsdawn.dev/linguistics/feature_lookup/]

ABOUT THE NEW JAVASCRIPT VERSION

`feature_lookup.js` is a JavaScript environment that facilitates access and analysis of

phonological features. it is a translation of a previous Python application, available here:

> raw source:
> https://github.com/NSDawn/FeatureLookup2022
> replit (in browser):
> https://replit.com/@NSDawn/FeatureLookup2022?v=1#
> (use the Play button [▶] to run the program.)

the new JavaScript environment:

- makes it easier to interact with the program, with better aesthetics.

- saves progress even if you leave the site

- supports mobile

GETTING STARTED

if this is your first time at the site, the following text should appear.

```
Welcome to feature_lookup.js.
Type 'help' for help.
```

to start, try typing `help` into the program, and hit Enter.

```
$ help
...
```

a large block of text should show up, explaining how the program is to be used. you can use

this to quickly check how a certain command is used, but feel free to use this document

instead.

THE 'CLEAR' COMMAND

the `clear` command allows the user to access lists of phones and features. this command can be abbreviated as `c` for ease of typing.

if you type `clear` and then proceed to click Enter, it will clear everything out of the terminal window.

THE 'LIST' COMMAND

the `list` command allows the user to access lists of phones and features. this command can be abbreviated as `l` for ease of typing.

typing `list` alone will give a list of all phones in the program's dataset. this can be helpful to copy-paste the characters for other uses.

```
$ list
i ɪ u ʊ e ɛ o ɔ
a ɑ æ y ʏ ø œ ɘ
ʌ ɯ ɨ j w ɥ m n
ɳ ɲ ŋ ɴ l ɭ ʎ r
ɾ ʀ t d ʈ ɖ s z
ɬ ɮ θ ð ʃ ʒ c ɟ
ç ɟ tʃ dʒ ts dz pf bv
p b ɸ β f v k g
x ɣ q ɢ χ ʁ ħ ʕ
ʔ h ɦ
```

typing `list` with a phone will give you all the feature values for that phone.

```
$ list œ
syllabic: [+]
vocalic: [+]
high: [-]
low: [-]
back: [-]
round: [+]
atr: [-]
sonorant: [+]
```

```
approximant: [+]
coronal: [0]
anterior: [0]
distributed: [0]
dorsal: [+]
labial: [+]
pharyngeal: [+]
continuant: [+]
strident: [0]
lateral: [-]
nasal: [-]
voice: [+]
aspirated: [-]
glottalized: [-]
```

⚠ due to encoding issues, special characters (ŋ, ɯ, ɲ, etc.) you enter from other documents <u>may not work</u>. to prevent this from occurring, i recommend that you use `list` to get a list of all phones, and copy-paste symbols directly from there.

typing `list` with a feature value will list all phones in the program's dataset of that specification. <u>important: you must type the feature name and then a feature value (+, -, or 0)</u>.

```
$ list sonorant -
t d ʈ ɖ s z ɬ ɮ
θ ð ʃ ʒ c ɟ ç ʝ
tʃ dʒ ts dz pf bv p b
ɸ β f v k g x ɣ
q ɢ χ ʁ ħ ʕ ʔ h
ɦ
```

standard abbreviations can be used for all features. when you use such an abbreviation, the program will let you know what it interpreted your command to be.

```
$ list son -
Interpreted: $ list sonorant -
t d ʈ ɖ s z ɬ ɮ
θ ð ʃ ʒ c ɟ ç ʝ
tʃ dʒ ts dz pf bv p b
ɸ β f v k g x ɣ
```

q ɢ χ ʁ ħ ʕ ʔ h
ɦ

a list of acceptable abbreviations is available at the end of this document.

THE 'COMPARE' AND 'CONTRAST' COMMANDS

the `compare` and `contrast` commands are used to check the features of phones in relation to each other. they can be abbreviated as `com` and `con`, for ease of typing.

the `compare` command lists all phoneme values that are identical between phones. you may compare two features as shown.

```
S compare h s
syllabic: [-]
vocalic: [-]
high: [0]
low: [0]
back: [0]
round: [-]
atr: [0]
sonorant: [-]
approximant: [-]
dorsal: [-]
labial: [-]
pharyngeal: [-]
continuant: [+]
lateral: [-]
nasal: [-]
voice: [-]
aspirated: [+]
glottalized: [-]
```


the `compare` command can use <u>any number of phones</u>, and will give the similarities between all phones listed.

```
$ compare i j k w
high: [+]
low: [-]
anterior: [0]
```

```
distributed: [0]
dorsal: [+]
lateral: [-]
nasal: [-]
aspirated: [-]
glottalized: [-]
```

the `contrast` command gives the feature values that differ between the two phones

listed. this requires exactly two phonemes.

```
$ contrast s l
sonorant: [-/+]
approximant: [-/+]
strident: [+/0]
lateral: [-/+]
voice: [-/+]
aspirated: [+/-]
```

THE 'SET' COMMAND

the `set` command is extremely powerful, allowing the user to hold on to a set of phonemes

between commands, and to add, delete, and filter phonemes from this set.

if you type `set` on its own, it will print your current set. if it's empty, it will tell you so.

```
$ set                        $ set
i ɪ u ʊ e ɛ o ɔ              Set is empty. Enter 'set add all'
a ɑ æ y ʏ ø œ ɘ              to add all phonemes.
ʌ ɯ ɨ j w ɥ m n
ɳ ɲ ŋ ɴ l ɭ ʎ r
ɽ ʀ
```

to add all phonemes into your set, type `set add all`.

```
$ set add all
i ɪ u ʊ e ɛ o ɔ
a ɑ æ y ʏ ø œ ɘ
ʌ ɯ ɨ j w ɥ m n
ɳ ɲ ŋ ɴ l ɭ ʎ r
ɽ ʀ t d ʈ ɖ s z
ɬ ʐ θ ð ʃ ʒ c ɟ
```

ç ɟ tʃ dʒ ts dz pf bv
p b ɸ β f v k g
x ɣ q ɢ χ ʁ ħ ʕ
ʔ h ɦ

you can also use `set add` to add an arbitrary number of particular phonemes, or use it to add all phonemes of a particular feature specification.

```
$ set add i ɨ w ɥ n l
i ɨ w ɥ n l
```

```
$ set add continuant -
m n ɳ ɲ ŋ ɴ t d
ʈ ɖ tʃ dʒ ts dz pf bv
b ʔ
```

you can use `set delete` in the exact same ways as `set add` to delete particular phonemes or classes of phonemes from your set.

in order to quickly empty your set, type `set clear`.

```
$ set clear
Set cleared.
```

finally, `set filter` allows you to filter for all phonemes of a particular feature specification. this is helpful for testing natural classes

```
$ set add vocalic -
m n ɳ ɲ ŋ ɴ l ɭ
ʎ r ɽ ʀ t d ʈ ɖ
s z ɬ ɮ θ ð ʃ ʒ
c ɟ ç ɟ tʃ dʒ ts dz
pf bv p b ɸ β f v
k g x ɣ q ɢ χ ʁ
ħ ʕ ʔ h ɦ
```

```
$ set filter high +
ɲ ŋ ʎ ʃ ʒ c ɟ ç
ɟ tʃ dʒ k g x ɣ
```

ABBREVIATIONS

the following are all abbreviations natively understood by the program.

commands		features			
c	clear	syll	syllabic	dor	dorsal
l	list	voc	vocalic	lab	labial
com	compare	hi	high	phar	pharyngeal
con	contrast	lo	low	cont	continuant
s	set	bk	back	str	strident
set arguments		rd	round	nas	nasal
a	add	son	sonorant	lat	lateral
d or del	delete	approx	approximant	voi	voice
f	filter	cor	coronal	asp	aspirated
c	clear	ant	anterior	glot	glottalized
* or .	all	dist	distributed		