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#Plotting characters in an F1-by-F2 vowel space with their Unicode IPA symbols
#(Edited by M. Oxley from M. Scanlon's (?) plot_characters document to include
#Unicode IPA.)
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```
#Be sure you've set your working directory to wherever you've saved your tab-delimited
#text file containing the vowel data. This document uses vowels.txt from the Socio Lab
#Wiki.)
setwd("C:/Users/Meghan/Documents/R Files")
```

```
#Now read in vowels.txt.
vowels <- read.delim("vowels.txt")
```

```
#Enter F1, F2, and vowel id values.
```

```
f1 <-
c(414,566,468,1112,517,737,478,358,343,348,418,553,397,764,421,1145,907,553)
f2 <-
c(1648,2478,669,1560,2051,1731,1656,1381,1246,609,1922,1986,1419,2469,1167,166
3,1639,2431)
vowelsymbol<-
c("u","i","o","ai","\u026A","\u025B","e","ai","\u025B","e","u","e","u","\u00E6","o","\u00E6",
"\u00E6","e")
```

```
#Where 026A is the Unicode hex number for /i/, 025B is the Unicode hex number for /ɛ/,
#and 00E6 is the Unicode hex number for /æ/)
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```
#You can then do plot (f2, f1) to get a plot with dots for each value
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```
plot(f2,f1)
#or follow that with a text command to tell it to use vowelsymbol instead of dots. Since
#you've already created the plot with points, it will just add Unicode on top of the points.
plot(f2,f1)
text(f2,f1,vowelsymbol)
```

```
#or you can read the f1 and f2 columns in from a tab-delimited text file
```

```
setwd([your directory path here])
vowels <- read.delim("vowels.txt")
f1 <- vowels$f1
f2 <- vowels$f2
vowelsymbol<-
c("u","i","o","ai","\u026A","\u025B","e","ai","\u025B","e","u","e","u","\u00E6","o","\u00E6",
"\u00E6","e")
```

```
#Create plot. xlim and ylim give the ranges for your x and y axes. Type="n" tells R not
#to plot any values yet (so you don't get dots AND vowel symbols at the same time.)
plot(f2, f1, xlim=c(2500,500), ylim=c(1200,200), type="n")
```

```
#Now add the Unicode symbols to your plot.
text(f2, f1, vowelsymbol)
```