

Setup

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1. Miniconda + Modules

transforEmotion uses the *reticulate* package to automatically install a standalone miniconda version on your computer. The first time you run the `transformer_scores` function miniconda will begin installing. By having a standalone miniconda installed through *transforEmotion*, you should not have any conflicts between miniconda and existing Python installations. The miniconda installation takes a few minutes to complete. At some points it might seem like the installer is stuck but give it a few moments and the installer should complete its process in no time.

After installing miniconda, there are several Python modules that need to be installed. Once again, *transforEmotion* will download these modules to your miniconda installation to avoid conflicts with previous Python installations. The modules should install in a few minutes.

2. huggingface Transformers

You can use any number of [huggingface](#) text classification transformers. *transforEmotion* currently implements the zero-shot classification models only. Future updates to the package may include opportunities to train and fine-tune these models but for now there are several options that work well for most classification tasks straight out-of-the-box. You can view different transformers that can be used in *transforEmotion* here: https://huggingface.co/models?pipeline_tag=zero-shot-classification.

3. Using `transformer_scores`

As mentioned in section 1, the first time you run `transformer_scores` miniconda and the necessary modules will be installed. Next, [Cross-Encoder's DistilRoBERTa](#) transformer model will be downloaded. So, the easiest way to get started is by using an example

```
# Load data
data(neo_ipip_extraversion)

# Example text
text <- neo_ipip_extraversion$friendliness[1:5] # positively worded items only

# Run transformer function
transformer_scores(
  text = text,
  classes = c(
    "friendly", "gregarious", "assertive",
    "active", "excitement", "cheerful"
  )
)
```

The downloads will take some time. Once you have miniconda and the modules installed, you won't have to install them again. The same goes for the transformer models: You will only need to download them once.

Assuming all goes well with the above code, you should see output that looks like this

```
$`make friends easily`
friendly gregarious assertive active excitement cheerful
0.579 0.075 0.070 0.071 0.050 0.155

$`warm up quickly to others`
friendly gregarious assertive active excitement cheerful
0.151 0.063 0.232 0.242 0.152 0.160

$`feel comfortable around people`
friendly gregarious assertive active excitement cheerful
0.726 0.044 0.053 0.042 0.020 0.115

$`act comfortably around people`
friendly gregarious assertive active excitement cheerful
0.524 0.062 0.109 0.183 0.019 0.103

$`cheer people up`
friendly gregarious assertive active excitement cheerful
0.071 0.131 0.156 0.190 0.362 0.089
```

If you want to run `transformer_scores` over additional text, then you can simply enter that text into the `text` argument of the function. The transformer models that you've used during your R session will remain in R's environment until you exit R or remove them from your environment.

That's it! You've successfully obtained sentiment analysis scores from [Cross-Encoder's DistilRoBERTa](#) transformer model. Now, go forth and quantify the qualitative!