

Bilingual ease of second language process



**ASSIGN
BUSTER**

Jonczyk, R., Boutonnet, B., Musial, K., Hoemann, K., Theirry, G. (2016). The bilingual brain turns a blind eye to negative statements in the second language. *Cognitive, Affective, & Behavioral Neuroscience, 16: 3, 527-540*

Introduction: This study was designed to examine how bilinguals, when reading their second language process the content of the material and the ease or difficulty they have doing so. There has been minimal prior research that has been done on this topic, which in large part is the reason why this group decided to jump into the topic. Research that has been done in this field has been focused on whether or not bilinguals can accurately express their emotion and feelings, especially negative emotions and feelings, in their second language when it comes to describing difficult and traumatic experiences (Burbridge 2005). This specific study found that bilinguals are limited, or feel limited, in their ability to express themselves in their second language, while these same individuals feel it is easier to express the same emotions even stronger in their native languages. No prior research had been done on determining how mental processing of words differs in the two languages bilinguals speak on an N400 scan when presenting a sentence with adjectives that made the context of the sentence understandable or not understandable. Thus this was the topic this research group decided to work on. They hypothesized that N400 readings would have a larger amplitude and also would possibly be slower for bilinguals reading the sentence in their second language.

Methods: This study compared 19 Polish-English bilinguals to a control group of 21 English speakers. The 19 bilinguals were all from the UK and self reported their own reading and writing abilities in the two languages. All

bilinguals used both languages on a daily basis and the research group made sure all participants had normal vision.(Table 1 pg 529). Each participant was to read 70 sentences while they were sitting 100cm away from a CRT monitor in a quiet dimly lit room. The participants were presented with one of four types of sentences: positive ending in a congruent or incongruent word, negative sentence ending in congruent or incongruent word, neutral sentence ending in a congruent positive or incongruent negative word, or a neutral sentence ending in a congruent negative or incongruent positive word. All the sentences were between 8 and 15 words long and prior to the experiment participants rated how predictable they considered the adjectives that were going to be used were. All participants were to read each sentence and then indicate if the sentence made sense or not by pressing a button if the sentence made sense.

Discussion: The results of this study fall in line with what the researches had predicted when they formulated their hypothesis, that it would take bilinguals more time to process sentences that did not make sense, incongruent ending sentences, compared to sentences that made sense semantically, and that it would take more mental effort, more synaptic neural activity, in order to read the sentences that did not make sense semantically. This studies data also showed that bilinguals reading in their second language process the information they are reading at an equal pace compared to monolinguals reading in their language for when it comes to both sentences they find that make sense and sentences that they don't feel quiet make sense. This current research study greatly contributes to our current understanding of how bilinguals process the information they are

reading, specifically with regards to the amount of time and effort they need to exert in order to understand the information that is being presented to them. This research has been used by at least one other research study from what I have seen online. I definitely feel that it will be an important part of new research studies in bilingualism that come in the following years because as I stated earlier it is the first research project on this specific topic of bilingual sentence context processing.