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Abstract

„How mood influences native and non-native language processing: Behavioural and electrophysiological evidence”

Life is not a neutral experience (Izard 2007). Mood unobtrusively yet pervasively influences our cognitive processes, including those engaged in language comprehension (Naranowicz 2022). Much research has demonstrated that a positive mood can be associated with heuristics-based and assimilative thinking whereas a negative mood with detail-oriented and accommodative thinking (Forgas 2017). Strikingly, while growing research attention has been devoted to cognitive mechanisms engaged in the comprehension of the native language (L1), little is known about if and how a positive and a negative mood affect the comprehension of the non-native language (L2; Kissler and Bromberek-Dyzman 2021). Given that accumulating evidence has pointed to bilingual speakers experiencing decreased sensitivity to emotional content in L2 (Jończyk 2016) as well as increased activation of implicit emotion regulation mechanisms in L2 than L1 (Morawetz et al. 2017), it can be hypothesised that a positive and a negative mood differently interact with L1 and L2 comprehension.

To address this research gap, the present PhD project aimed to investigate whether and how a positive and a negative mood affect behavioural and electrophysiological responses to L1 and L2, paying particular attention to cognitive mechanisms engaged in language comprehension. To address this research question, one behavioural (Research article 1, Naranowicz et al. 2022a) and two electrophysiological (Research article 2, Naranowicz et al. 2022b; Research article 3, Jankowiak et al. 2022) experiments were conducted, supplemented by a critical literature review (Research article 4, Naranowicz 2022).

Research article 1 (Naranowicz et al. 2022a) concentrated on mood effects on emotional word processing in L1 and L2. There was a facilitatory effect of a positive relative to a negative mood on the speed of evaluative judgements in females only, suggesting that females may be more sensitive to mood fluctuations than males (Bianchin and Angrilli 2012). Also, positive words were responded to equally fast in L1 and L2 in a positive but not a negative mood, suggesting that positive content might be encoded in a more assimilative manner than negative content, boosting its meaning retrieval from semantic memory in a positive mood (Faul and LaBar 2022).

Research article 2 (Naranowicz et al. 2022b) explored mood effects on meaningful and meaningless sentence comprehension in L1 and L2. There was a facilitatory effect of a positive

mood on lexico-semantic access to L1 relative to L2, suggesting that bilinguals may be "immune" to mood changes in L2 due to increased activation of emotion regulation mechanisms (Morawetz et al. 2017). Moreover, semantic integration and re-analysis were suppressed in a negative mood in L2 relative to L1, pointing to the activation of a protective suppression mechanism (Wu and Thierry 2012).

Research article 3 (Jankowiak et al. 2022) investigated mood effects on meaningful (literal), meaningless (anomalous), and novel metaphoric sentences in L1 and L2. While the lexico-semantic stage was unaffected by mood changes, the semantic integration and re-analysis of meaningless sentences were more cognitively taxing than of meaningful and novel metaphoric sentences, with no such difference in a negative mood. Such a pattern points to the activation of heuristics-based and assimilative processing in a positive mood, which was suppressed in a negative mood (Vissers et al. 2013).

Research article 4 (Naranowicz 2022) revisited previous research on mood and semantic processes, paying closer attention to theoretical accounts, methodological considerations, and previous behavioural and electrophysiological evidence.

All in all, the findings of the present PhD project offer novel insights into research on affect and bilingualism, suggesting that, in addition to language proficiency levels, mood determines how well bilinguals comprehend semantic meanings in their respective languages.