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| **Studies with keywords: EEG + Words + Emotion + Prosody** | | | | | | |
| Nr. | Authors | Participants | Method | Stimuli | Results | Findings |
| 1. \*  Event-Related Potentials in Humans for Emotional Words versus Pictures | L.Kennedy, S.Dorrance,  T.Stoneham,  et al. (2014) | 21 students  9 males+12 females  Aged 18-23  native English | Reading  EEG  PowerLab 26T  Ground Fp1  Oz & Pz  0.5-50 Hz | 60 pictures and 60 words in positive, neutral, negative each 20 items  eg. Panda, Water, Snake, (House) | pictures generated higher magnitude P300 and LPP peaks as compared to words for all emotional states. | LPP: late positive potential 700-900 ms after stimulus presentation  P300: positive peak 340-500 ms after stimulus presentation |
| 2. \*  Emotion processing in words: a test of the neural re-use hypothesis using surface and intracranial EEG | A.Ponz, M.Montant, C.Leigeois- Chauvel,  et al. (2013) | 21 participants (4 were excluded from further analysis)  11males+10females  Aged 18-33  Right handed  native French  healthy | Reading  EEG with 64 electrodes  *Biosemi ActiveTwo* system  filtered 0.1-30 Hz | emotional words  focus on “disgust”  213 French words  93 neutral words (motivation, giant, statue etc.)  120 disgust-related words (infection, vomit, vermin etc.) | differences between disgust and neutral words as early as 200 ms in insular and orbitofrontal areas.  The early emotion effect in a brain region (insula) that responds to specific emotions in a variety of situations and stimuli clearly challenges classic sequential theories of reading in favor of the neural re-use perspective. | early components:  N100 (63-83 ms)  P100 (113-152 ms)  EPN (207-266 ms)  All no significant!  late event-related components:  P200 (184-277 ms)  no significant  N400 (344-465 ms)  LPC (492-656 ms) |
| 3. --  Language comprehension dependent on emotional context: A magnetencephalography study | A.Ihara, Q.Wei, A.Matani, N.Fujimaki  et al. (2011) | 10 native Japanese  6 males + 4 females  right-handed  no neurological or psychiatric disease | auditive  MEG with 148-channel-whole-head system  4D Neuroimaging | Condition: happy, sad, neutral, pseudo  Tragets: one-word sentences with emotionally neutral content  *“Mr. Aoki + walk (Verb-sad)”* | Effect of emotional context on language processing:  - happy and sad conditions produced less activity than neutral in the right posterior inferior and middle frontal cortices in the latency window from 300-400 ms.  - happy and neutral conditions produced greater activity than sad condition in the left posterior inferior frontal cortex in the latency window from 400-500 ms. | Lp/FC: left posterior inferior frontal cortex  RpIFC/MFC: right posterior inferior frontal and middle frontal cortices |
| 4. ++  A cross-linguistic fMRI study of perception of intonation and emotion in Chinese | J.Gandour,  D.Wong, M.Dzemidzic,  et al. (2003) | 10 adult Chinese  5 males + 5 females  M age = 26.1  10 adult English  5 males + 5 females  M age = 28  right handed  normal hearing sensitivity at frequencies of 0.5, 1, 2 and 4 kHz. | auditive  fMRI  The fMRI paradigm consisted of two *active judg- ment* conditions (I / E) and a *passive listening* condition (S \_ Chinese speech). | stimuli: 36 neutral Chinese sentences  intonation:  declarative, interrogative  combination with  emotion: happy, sad, angry  +I-Emo: 16  -I+Emo:16  +I+Emo:4 | the Chinese group showed left-sided frontoparietal activation for both intonation (I vs. S) and emotion (E vs. S) relative to baseline.  These findings show that some aspects of perceptual processing of emotion are dissociable from intonation, and, moreover, that they are mediated by the right hemisphere. | - the Chinese (96%) was more accurate than the English group (80%) at judging Chinese intonation.  - The intonation task was easier for the Chinese (1.6) than for the English group (3.4).  - Response times were longer for the Chinese (I \_ 590 msec; E \_ 527 msec) than for the English group (I \_ 450 msec; E \_ 376 msec) across tasks. |
| 5. ++  What do you mean by that?!  An electrophysiological study of emotional and attitudinal prosody | S.Wucjebs,  C.Perry  (2015) | 15 adults  9 males + 6 females  aged 18-25  native Australian English  healthy | auditive  EEG | 150: neutral head *“he has”*+ prosodically neutral, angry or sarcastic ending *“a serious face”*  100 filler (neutral tone) + 10 practice sentences | the results suggest that angry and sarcastic prosodic expectancy violations follow a similar processing time-course under- pinned by similar neural resources. |  |
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| **Studies with keywords: EEG + prosody + sentence types** | | | | | | |
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