**Supplementary Material B**

Table S3: Overview of the 116 research articles in the review corpus.

| Author(s)       | Title                                                                 | Year | Measuring Method | Figurative mean | Language Stimuli          |
|-----------------|-----------------------------------------------------------------------|------|------------------|-----------------|---------------------------|
| Ahrens et al.   | Functional MRI of conventional and anomalous metaphors in Mandarin Chinese | 2007 | fMRI             | Metaphor        | Chinese (Mandarin)        |
| Adamczyk et al. | On the role of bilateral brain hypofunction and abnormal lateralization of cortical information flow as neural underpinnings of conventional metaphor processing impairment in schizophrenia: an fMRI and EEG study | 2021 | fMRI & EEG       | Metaphor        | Polish                    |
| Arzouan et al.  | Brainwaves are stethoscopes: ERP correlates of novel metaphor comprehension | 2007 | EEG              | Metaphor        | Hebrew                   |
| Arzouan et al.  | Dynamics of hemispheric activity during metaphor comprehension: electrophysiological measures | 2007 | EEG              | Metaphor        | Hebrew                   |
| Arzouan et al.  | Big words, halved brains and small worlds: complex brain networks of figurative language comprehension | 2011 | EEG              | Metaphor        | Hebrew                   |
| Aziz-Zadeh et al. | Congruent embodied representations for visually presented actions and linguistic phrases describing actions | 2006 | fMRI             | Metaphor & Idiom | English                  |
| Bambini et al.  | Decomposing metaphor processing at the cognitive and neural level through functional magnetic resonance imaging | 2011 | fMRI             | Metaphor        | Italian                  |
| Bambini et al.  | Disentangling metaphor from context: an ERP study                     | 2016 | EEG              | Metaphor        | Italian                  |
| Beaty et al.    | Brain networks underlying novel metaphor production                   | 2017 | fMRI             | Metaphor        | NA (likely English, otherwise German) |
| Benedek et al.  | Creating metaphors: the neural basis of figurative language production | 2014 | fMRI             | Metaphor        | NA (likely German, otherwise English) |
| Bottini et al.  | The role of the right-hemisphere in the interpretation of figurative aspects of language - a positron emission tomography activation study | 1994 | PET              | Metaphor        | English                  |
| Boulenger et al.| Grasping ideas with the motor system: semantic somatotopy in idiom comprehension | 2009 | fMRI             | Idiom           | English                  |
| Boulenger et al. | When do you grasp the idea? MEG evidence for instantaneous idiom understanding | 2012 | MEG              | Idiom           | English                  |
| Canal et al.    | Basic composition and enriched integration in idiom processing: an EEG study | 2017 | EEG              | Idiom           | Italian                  |
| Author(s)            | Title                                                                 | Year | Measuring Method | Figurative mean | Language | Stimuli       |
|---------------------|-----------------------------------------------------------------------|------|------------------|-----------------|----------|--------------|
| Cardillo et al.     | From novel to familiar: tuning the brain for metaphors                | 2012 | fMRI             | Metaphor        | English  |              |
| Chen et al.         | Functional-anatomical organization of predicate metaphor processing   | 2008 | fMRI             | Metaphor        | English  |              |
| Chouinard et al.    | Neurological evaluation of the selection stage of metaphor comprehension in individuals with and without autism spectrum disorder | 2017 | fMRI             | Metaphor        | English  |              |
| Citron et al.       | Conventional metaphors in longer passages evoke affective brain response | 2016 | fMRI             | Metaphor        | German   |              |
| Citron et al.       | Metaphorical language processing and amygdala activation in L1 and L2 | 2020 | fMRI             | Metaphor        | German   |              |
| Citron et al.       | Idiomatic expressions evoke stronger emotional responses in the brain than literal sentences | 2019 | fMRI             | Idiom           | German   |              |
| Coulson & Van Petten| Conceptual integration and metaphor: an event-related potential study | 2002 | EEG              | Metaphor        | English  |              |
| Coulson & Van Petten| A special role for the right hemisphere in metaphor comprehension? ERP evidence from hemifield presentation | 2007 | EEG              | Metaphor        | English  |              |
| Couto et al.        | Effective connectivity study guiding the neuromodulation intervention in figurative language comprehension using optical neuroimaging | 2020 | fNIRS            | Metaphor        | Chinese  |              |
| Deckert et al.      | Electrophysiological correlates of conventional metaphor, irony, and literal language processing? An event-related potentials and eLORETA study | 2021 | EEG              | Metaphor & Irony | German   |              |
| De Grauwe et al.    | Electrophysiological insights into the processing of nominal metaphors | 2010 | EEG              | Metaphor        | English  |              |
| Desai et al.        | The neural career of sensory-motor metaphors                          | 2011 | fMRI             | Metaphor        | English  |              |
| Desai et al.        | A piece of the action: modulation of sensory-motor regions by action idioms and metaphors | 2013 | fMRI             | Metaphor & Idiom | English  |              |
| Diaz & Hogstrom     | The influence of context on hemispheric recruitment during metaphor processing | 2011 | fMRI             | Metaphor        | English  |              |
| Diaz et al.         | The influence of sentence novelty and figurativeness on brain activity | 2011 | fMRI             | Metaphor        | English  |              |
| Eviatar & Just      | Brain correlates of discourse processing: an fMRI investigation of irony and conventional metaphor comprehension | 2006 | fMRI             | Metaphor & Irony | English  |              |
| Fondevila et al.    | Counterintuitive religious ideas and metaphoric thinking: an event-related brain potential study | 2016 | EEG              | Metaphor        | Spanish  |              |
| Forgács et al.      | Neural correlates of combinatorial semantic processing of literal and figurative noun noun compound words | 2012 | fMRI             | Metaphor        | German   |              |
| Author(s) | Title | Year | Measuring Method | Figurative mean | Language Stimuli |
|-----------|-------|------|------------------|----------------|-----------------|
| Forgács et al. | Metaphors are physical and abstract: ERPs to metaphorically modified nouns resemble ERPs to abstract language | 2015 | EEG | Metaphor | English |
| Forgács | An electrophysiological abstractness effect for metaphorical meaning making | 2020 | EEG | Metaphor | French |
| Goldstein et al. | Killing a novel metaphor and reviving a dead one: ERP correlates of metaphor conventionalization | 2012 | EEG | Metaphor | Hebrew |
| Hartung et al. | Context matters: novel metaphors in supportive and non-supportive contexts | 2020 | fMRI | Metaphor | English |
| Hillert & Buračas | The neural substrates of spoken idiom comprehension | 2009 | fMRI | Idiom | English |
| Iakimova et al. | ERPs of metaphoric, literal, and incongruous semantic processing in schizophrenia | 2005 | EEG | Metaphor | French |
| Ibáñez et al. | Gesture influences the processing of figurative language in non-native speakers: ERP evidence | 2010 | EEG | Metaphor | German |
| Ibáñez et al. | High contextual sensitivity of metaphorical expressions and gesture blending: a video event-related potential design | 2011 | EEG | Metaphor | German |
| Ji et al. | The role of animacy in metaphor processing of Mandarin Chinese: an Event-Related Potential (ERP) study | 2020 | EEG | Metaphor | Chinese |
| Jonczyk et al. | Engineering creativity: prior experience modulates electrophysiological responses to novel metaphors | 2020 | EEG | Metaphor | English |
| Joue et al. | Metaphor processing is supramodal semantic processing: the role of the bilateral lateral temporal regions in multimodal communication | 2020 | fMRI | Metaphor | German |
| Kazmerski et al. | ERP and behavioral evidence of individual differences in metaphor comprehension | 2003 | EEG | Metaphor | English |
| Kessler et al. | Activation of literal word meanings in idioms: evidence from eye-tracking and ERP experiments | 2020 | EEG | Idiom | German |
| Kim et al. | Aberrant neural activation underlying idiom comprehension in korean children with high functioning autism spectrum disorder | 2018 | fMRI | Idiom | Korean |
| Kircher et al. | Neural correlates of metaphor processing in schizophrenia | 2007 | fMRI | Metaphor | German |
| Kircher et al. | Neural interaction of speech and gesture: differential activations of metaphoric co-verbal gestures | 2009 | fMRI | Metaphor | German |
| **Author(s)**       | **Title**                                                                 | **Year** | **Measuring Method** | **Figurative mean** | **Language Stimuli** |
|---------------------|---------------------------------------------------------------------------|----------|----------------------|---------------------|---------------------|
| Klepousniotou et al.| Pathways to lexical ambiguity: fMRI evidence for bilateral fronto-parietal involvement in language processing | 2014     | fMRI                 | Metaphor            | English             |
| Lacey et al.        | Metaphorically feeling: comprehending textural metaphors activates somatosensory cortex | 2012     | fMRI                 | Metaphor            | English             |
| Lacey et al.        | Engagement of the left extrastriate body area during body-part metaphor comprehension | 2017     | fMRI                 | Metaphor            | English             |
| Lachaud             | Conceptual metaphors and embodied cognition: EEG coherence reveals brain activity differences between primary and complex conceptual metaphors during comprehension | 2013     | EEG                  | Metaphor            | Norwegian           |
| Lai & Curran        | ERP evidence for conceptual mappings and comparison processes during the comprehension of conventional and novel metaphors | 2013     | EEG                  | Metaphor & Simile   | English             |
| Lai & Desai         | The grounding of temporal metaphors                                        | 2016     | fMRI                 | Metaphor            | English             |
| Lai et al.          | Comprehending conventional and novel metaphors: an ERP study               | 2009     | EEG                  | Metaphor            | English             |
| Lai et al.          | Familiarity differentially affects right hemisphere contributions to processing metaphors and literals | 2015     | fMRI                 | Metaphor            | English             |
| Lai et al.          | Concrete processing of action metaphors: evidence from ERP                  | 2019     | EEG                  | Metaphor            | English             |
| Laurent et al.      | On understanding idiomatic language: the salience hypothesis assessed by ERPs | 2006     | EEG                  | Idiom               | French              |
| Lauro et al.        | Idiom comprehension: a prefrontal task?                                    | 2008     | fMRI                 | Idiom               | Italian             |
| Lee & Dapretto      | Metaphorical vs. literal word meanings: fMRI evidence against a selective role of the right hemisphere | 2006     | fMRI                 | Metaphor            | English             |
| Lorusso et al.      | Processing sentences with literal versus figurative use of verbs: an ERP study with children with language impairments, nonverbal impairments, and typical development | 2015     | EEG                  | Metaphor & Idiom    | Italian             |
| Lu & Zhang          | Event-related potential evidence for the early activation of literal meaning during comprehension of conventional lexical metaphors | 2012     | EEG                  | Metaphor            | Chinese (Mandarin)  |
| Ma et al.           | Neural correlates of multimodal metaphor comprehension: evidence from event-related potentials and time-frequency decompositions | 2016     | EEG                  | Metaphor            | Chinese             |
| Mashal et al.       | The role of the right hemisphere in processing nonsalient metaphorical meanings: application of Principal Components Analysis to fMRI data | 2005     | fMRI                 | Metaphor            | Hebrew              |
| Author(s)        | Title                                                                 | Year | Measuring Method | Figurative mean | Language Stimuli |
|-----------------|------------------------------------------------------------------------|------|------------------|-----------------|-----------------|
| Mashal et al.   | An fMRI investigation of the neural correlates underlying the processing of novel metaphoric expressions | 2007 | fMRI             | Metaphor        | Hebrew          |
| Mashal et al.   | An fMRI study of processing novel metaphoric sentences                  | 2009 | fMRI             | Metaphor        | Hebrew          |
| Mashal et al.   | Enhanced left frontal involvement during novel metaphor comprehension in schizophrenia: evidence from functional neuroimaging | 2013 | fMRI             | Metaphor        | Hebrew          |
| Mashal et al.   | The role of the precuneus in metaphor comprehension: evidence from an fMRI study in people with schizophrenia and healthy participants | 2014 | fMRI             | Metaphor        | Hebrew          |
| Mashal et al.   | An fMRI investigation of the neural correlates underlying the processing of novel metaphoric expressions | 2008 | fMRI             | Idiom           | Hebrew          |
| Mejia-Constain et al. | When metaphors go literally beyond their territories: the impact of age on figurative language | 2010 | fMRI             | Metaphor        | French          |
| Morid et al.    | Capturing the multi-determined nature of idiom processing using ERPs    | 2021 | EEG              | Idiom           | English         |
| Obert et al.    | Differential bilateral involvement of the parietal gyrus during predicative metaphor processing: an auditory fMRI study | 2014 | fMRI             | Metaphor        | French          |
| Ojha et al.     | Similarities and differences between verbal and visual metaphor processing: an EEG study | 2019 | EEG              | Metaphor        | NA (English or Japanese) |
| Pomp et al.     | Lexical olfaction recruits olfactory orbitofrontal cortex in metaphorical and literal contexts | 2018 | fMRI             | Metaphor        | German          |
| Prat et al.     | An fMRI investigation of analogical mapping in metaphor comprehension: the influence of context and individual cognitive capacities on processing demands | 2012 | fMRI             | Metaphor & Irony | English         |
| Proverbio et al.| The role of left and right hemispheres in the comprehension of idiomatic language: an electrical neuroimaging study | 2009 | EEG              | Idiom           | Italian         |
| Pynte et al.    | The time-course of metaphor comprehension: an event-related potential study | 1996 | EEG              | Metaphor        | French          |
| Raposo et al.   | Modulation of motor and premotor cortices by actions, action words and action sentences | 2009 | fMRI             | Idiom           | English         |
| Rapp et al.     | Neural correlates of metaphor processing                                | 2004 | fMRI             | Metaphor        | German          |
| Rapp et al.     | Laterality in metaphor processing: lack of evidence from functional magnetic resonance imaging for the right hemisphere theory | 2007 | fMRI             | Metaphor        | German          |
| Author(s)            | Title                                                                 | Year | Measuring Method | Figurative mean     | Language | Stimuli     |
|---------------------|-----------------------------------------------------------------------|------|------------------|---------------------|----------|-------------|
| Romero Lauro et al. | She runs, the road runs, my mind runs, bad blood runs between us: literal and figurative motion verbs: an fMRI study | 2013 | fMRI             | Metaphor & Idiom    | Italian  |            |
| Rommers et al.      | Context-dependent semantic processing in the human brain: evidence from idiom comprehension | 2013 | EEG              | Idiom               | Dutch    |            |
| Rüschemeyer et al.  | Comprehending prehending: Neural correlates of processing verbs with motor stems | 2007 | fMRI             | Metaphor            | German   |            |
| Rutter et al.       | Can clouds dance? Neural correlates of passive conceptual expansion using a metaphor processing task: Implications for creative cognition | 2012 | fMRI             | Metaphor            | German   |            |
| Samur et al.        | Emotional context modulates embodied metaphor comprehension            | 2015 | fMRI             | Metaphor            | Dutch    |            |
| Schmidt & Seger     | Neural correlates of metaphor processing: The roles of figurativeness, familiarity and difficulty | 2009 | fMRI             | Metaphor            | English  |            |
| Schmidt-Snoek et al.| Auditory and motion metaphors have different scalp distributions: an ERP study | 2015 | EEG              | Metaphor            | English  |            |
| Schneider et al.    | Beyond the N400: complementary access to early neural correlates of novel metaphor comprehension using combined electrophysiological and haemodynamic measurements | 2014 | EEG & NIRS       | Metaphor            | German   |            |
| Schuil et al.       | Sentential context modulates the involvement of the motor cortex in action language processing: an fMRI study | 2013 | fMRI             | Metaphor & Idiom    | Dutch    |            |
| Shibata et al.      | Neural mechanisms involved in the comprehension of metaphoric and literal sentences: an fMRI study | 2007 | fMRI             | Metaphor            | Japanese |            |
| Shibata et al.      | Does simile comprehension differ from metaphor comprehension? A functional MRI study | 2012 | fMRI             | Metaphor & Simile   | Japanese |            |
| Solomon & Thompson-Schill | Finding features, figuratively                                       | 2017 | fMRI             | Metaphor            | English  |            |
| Sotillo et al.      | Neural activity associated with metaphor comprehension: spatial analysis | 2005 | EEG              | Metaphor            | Spanish  |            |
| Straube et al.      | The differentiation of iconic and metaphoric gestures: common and unique integration processes | 2011 | fMRI             | Metaphor            | German   |            |
| Straube et al.      | Neural integration of speech and gesture in schizophrenia: evidence for differential processing of metaphoric gestures | 2013 | fMRI             | Metaphor            | German   |            |
| Author(s)         | Title                                                                 | Year | Measuring Method | Figurative mean | Language Stimuli |
|------------------|------------------------------------------------------------------------|------|------------------|-----------------|-----------------|
| Straube et al.   | Superior temporal sulcus disconnectivity during processing of metaphoric gestures in schizophrenia | 2014 | fMRI             | Metaphor        | German          |
| Stringaris et al.| How metaphors influence semantic relatedness judgments: the role of the right frontal cortex | 2006 | fMRI             | Metaphor        | English         |
| Stringaris et al.| Deriving meaning: distinct neural mechanisms for metaphoric, literal, and non-meaningful sentences | 2007 | fMRI             | Metaphor        | English         |
| Subramaniam et al.| The Repetition Paradigm: enhancement of novel metaphors and suppression of conventional metaphors in the left inferior parietal lobe | 2012 | fMRI             | Metaphor        | English         |
| Subramaniam et al.| Positively valenced stimuli facilitate creative novel metaphoric processes by enhancing medial prefrontal cortical activation | 2013 | fMRI             | Metaphor        | English         |
| Tang et al.      | Comprehension of scientific metaphors: complementary processes revealed by ERP | 2017 | EEG              | Metaphor        | Chinese         |
| Tang et al.      | The temporal dynamics underlying the comprehension of scientific metaphors and poetic metaphors | 2017 | EEG              | Metaphor        | Chinese         |
| Tartter et al.   | Novel metaphors appear anomalous at least momentarily: evidence from N400 | 2002 | EEG              | Metaphor        | English         |
| Uchiyama et al.  | Distinction between the literal and intended meanings of sentences: a functional magnetic resonance imaging study of metaphor and sarcasm | 2012 | fMRI             | Metaphor & Sarcasm | Japanese |
| Vespignani et al.| Predictive mechanisms in idiom comprehension | 2010 | EEG              | Idiom           | Italian         |
| Wang et al.      | The roles of familiarity and context in processing Chinese xiehouyu: an ERP study | 2021 | EEG              | Metaphor & Idiom | Chinese         |
| Weiland et al.   | The role of literal meaning in figurative language comprehension: evidence from masked priming ERP | 2014 | EEG              | Metaphor & Metonymy | German         |
| Yang et al.      | Differences in task demands influence the hemispheric lateralization and neural correlates of metaphor | 2009 | fMRI             | Metaphor        | English         |
| Yang et al.      | Figurative language processing after traumatic brain injury in adults: a preliminary study | 2010 | fMRI             | Metaphor        | English         |
| Yang et al.      | Contextual effects on conceptual blending in metaphors: an event-related potential study | 2013 | EEG              | Metaphor        | English         |
| Author(s)         | Title                                                                 | Year | Measuring Method | Figurative mean    | Language Stimuli |
|------------------|------------------------------------------------------------------------|------|------------------|-------------------|-----------------|
| Yurchenko et al. | Metaphor is between metonymy and homonymy: evidence from event-related potentials | 2020 | EEG              | Metaphor & Metonymy | Russian         |
| Zane & Shafer    | Mixed metaphors: electrophysiological brain responses to (un)expected concrete and abstract prepositional phrases | 2018 | EEG              | Metaphor & Idiom   | English         |
| Zeev-Wolf et al. | Magnetoencephalographic evidence of early right hemisphere overactivation during metaphor comprehension in schizophrenia | 2015 | MEG              | Metaphor          | Hebrew          |
| Zempleni et al.  | Evidence for bilateral involvement in idiom comprehension: an fMRI study | 2007 | fMRI             | Idiom             | Dutch           |
| Zhang et al.     | ERP correlates of compositionality in Chinese idiom comprehension      | 2013 | EEG              | Idiom             | Chinese         |
| Zhou et al.      | Spatiotemporal analysis of ERP during chinese idiom comprehension      | 2004 | EEG              | Idiom             | Chinese         |