

An event-related potential study of the English resultative construction

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We examined the neurocognitive mechanisms engaged in processing the English resultative construction using event-related brain potentials (ERPs). ERPs were recorded as 28 participants read sentences containing adjectival resultatives following either real or false direct objects. The real objects were consistent with the preceding verb's selection restrictions ('Bill wiped the table...'), and therefore constrained for many possible upcoming constructions, including resultatives ('Bill wiped the table...clean...'). The false objects were inconsistent with the verb's selection restrictions and therefore constrained strongly for a resultative construction ('The team ran their shoes..thin ...'). Incoherent resultatives were also included, yielding a fully-crossed design (Bill wiped the table clean/*thin; The team ran their shoes thin/*clean). There were no differences in ERPs evoked by the real and false objects. However, coherent resultatives following false objects evoked a smaller N400 than those following real objects, suggesting that the false objects cued comprehenders to predict a resultative event structure (as opposed to other types of structures) with relatively high probability. This led to facilitated processing of adjectives whose semantic features were consistent with this prediction. Moreover, incoherent resultatives following false objects elicited a larger anterior negativity than those following real objects, which we interpret as reflecting costs of suppressing the predicted resultative construction. These data suggest that comprehenders are able to use verb-argument relationships to anticipate upcoming structure and constrain semantic expectations of upcoming words.