

Verbal insults trigger a 'mini slap to the face', finds new research

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Hearing insults is like receiving a "mini slap in the face", regardless of the precise context the insult is made in. That is the conclusion of a new paper published in *Frontiers in Communication*. The researchers used electroencephalography (EEG) and skin conductance recordings to compare the short-term impact of repeated verbal insults to that of repeated positive or neutral evaluations. The results provide us with a unique opportunity to research the intersection between emotion and language.

Humans are a highly social species. We rely on ever-changing cooperation dynamics and interpersonal relations to survive and thrive. Words have a big role to play in these relations, as they are tools used to understand interpersonal behavior. As such, [words](#) can hurt, but we know little about how the impact of words comes about as someone processes an [insult](#).

"The exact way in which words can deliver their offensive, emotionally negative payload at the moment these words are being read or heard is not yet well-understood," said corresponding author

Dr. Marijn Struiksma, of Utrecht University.

Because insults pose a threat against our reputation and against our 'self', they provide a unique opportunity to research the interface between language and emotion. Struiksma continued:

"Understanding what an insulting expression does to people as it unfolds, and why, is of considerable importance to psycholinguists interested in how language moves people, but also to others who wish to understand the details of social behavior."

EEG and skin conductance

Struiksma and her colleagues wanted to examine whether processing verbal insults is less sensitive to repetition than compliments, and if so, which cognitive stages are implicated in the adaptation, and which aren't.

"We assume that verbal insults trigger a cascade of rapidly consecutive or overlapping processing effects, and that different parts of that cascade might be differently affected by repetition, with some of them rapidly wearing off, and others remaining strongly responsive for a long time," explained Struiksma.

EEG and skin conductance electrodes were applied to 79 [female participants](#). They then read a series of repeated statements that realized three different speech acts: insults (for example, "Linda is horrible"), compliments (for example, "Linda is impressive"), and neutral, factually correct descriptive statements (for example, "Linda is Dutch").

To examine whether the impact of the words depended on who the statement was about, half of the three sets of statements used the participant's own name, and the other half used somebody else's. The experiment involved no real interaction

between the participants and another human. The participants were told that the statements were being said by three different men.

Provided by Frontiers

Mini slaps to the face

The researchers found that even under unnatural conditions—a lab-setting, no real human interactions, and statements coming from fictitious people—verbal insults can still "get at you", no matter who the insult is about, and continue to do so even after repetition.

Specifically, the EEG showed an early insult effect in P2 amplitude that was very robust over repetition and did not depend on who the insult was about. P2 is a waveform component of the event-related potential (ERP) measured at the human scalp.

In the setting of the experiment, the insults were perceived as mini slaps to the face, explained Struiksma: "Our study shows that in a psycholinguistic laboratory experiment without real interaction between speakers, insults deliver lexical 'mini slaps in the face', such that the strongly negative evaluative words involved that a participant reads, automatically grab attention during lexical retrieval, regardless of how often that retrieval occurs."

Yet the study only shows the effects of insults in an artificial setting. The participants will have recognized the insults as such, but as decontextualized statements the actual emotional effects of insults lose power. Studying insults in a real setting remains ethically challenging.

Even so, the results show an increased sensitivity of our brains to negative words compared to positive words. An insult immediately captures our brain's attention, as the emotional meaning of insults is retrieved from long-term memory. The compliments elicited a less strong P2 effect, showing a negativity bias in the amount of attention that is automatically allocated to negative versus positive interpersonal situations.

More information: Do People Get Used to Insulting Language? *Frontiers in Communication* (2022). [DOI: 10.3389/fcomm.2022.910023](https://doi.org/10.3389/fcomm.2022.910023)

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