

## Teens' brains: Social processing fails when they hear mom's criticism

We all know that teen-parent relations can be a tricky business. Now neuroscientists from several leading US universities think they've found some [new brain evidence](#) that helps explain why.

The group from the Universities of Pittsburgh, California-Berkeley and Harvard, and led by Kyung Hwa Lee, invited 32 healthy pre-teens and teens – average age 14 and including 22 girls – into their brain imaging lab. The adolescents lay in the scanner as they listened to two 30-second clips of their own mother criticizing them.

The researchers focused on three particular brain networks in the teenagers' brains: areas previously associated with processing negative emotion (e.g. in the limbic system); areas involved in regulating emotion (e.g. in the prefrontal cortex); and finally, neural areas involved in understanding other people's perspective (e.g. the junction of the temporal and parietal lobes). They looked to see how much activity occurred in these areas as the teens listened to their Moms' nagging, as compared with when they listened to their Moms talking about irrelevant boring stuff like grocery shopping. They also looked to see if any brain activity changes lingered afterwards.

Here's the main take-away: when listening to Moms' criticism, and for a period afterwards, the teens' brains showed more activity in areas involved in negative emotions (no surprise there), but they actually showed reduced activity in regions involved in emotional control and in taking other people's point of view. This suggests, the researchers said, that in response to maternal criticism: "youth shut down social processing [and] possibly do not think about their parents' mental states." They add: "... the decrement in brain activity in regions involved in mentalizing or perspective taking could help to explain the high frequency of maladaptive conflict resolution in parent-adolescent dyads."

**Read full, original article:** [The Teen Brain 'Shuts Down' When It Hears Mom's Criticism](#)