

Did children of Holocaust survivors really inherit trauma in genes?

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There are now several examples of modifications of an individual's appearance and behavior by the environment, and of those modifications affecting the individual's genes, usually by attaching methyl bases to specific nucleotides in the DNA sequence. This is a form of environmentally induced *epigenetic modification*.

So while environmental epigenetic modification of genes is known to exist, and even to be passed on for one or two more generations, this is not a common phenomenon, and is not known to be the basis of any adaptations that have evolved in organisms. It *couldn't be*, in fact, since genetic changes involved in evolution must be passed on *permanently*. Environmentally-induced DNA changes, since they are "reset" and disappear within one to three generations, cannot in principle be responsible for adaptive evolution.

[A new paper in *Biological Psychiatry* by Rachel Yehuda et al.](#) appears to show not only epigenetic inheritance in humans caused by environmental influences, but that the environmental influence was the Holocaust, which induced trauma.

The authors are pretty careful in their statements, but others have jumped at the chance to draw premature conclusions, particularly science journalists, who either don't read the paper or lack the expertise to evaluate it. Check out, for instance, [this Guardian piece](#) about the Yehuda et al. paper. Its author seems completely unaware of the many problems with the study, and presents no caveats. It's an example of bad science reporting.

Read full, original post: [Holocaust trauma: is it epigenetically inherited?](#)