

# COUGHING IN FORMAL SOCIAL SETTINGS

*Research about social constraints on coughing*

*compiled by Stephen Drew, Improbable Research staff*

## The Economics of Coughing in Concert Halls

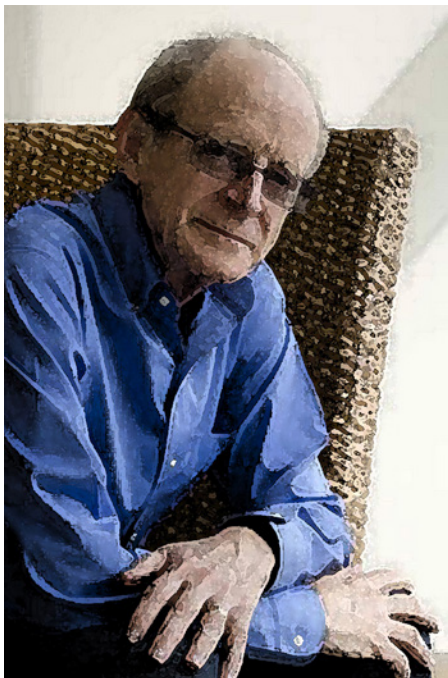
“Why Do People (Not) Cough in Concerts?: The Economics of Concert Etiquette,” Andreas Wagener, Association for Cultural Economics International, Working Paper Series, 2012. The author, at the Institute of Social Policy at Leibniz Universität, Hannover, Germany, explains:

Concert etiquette demands that audiences of classical concerts avoid inept noises such as coughs. Yet, coughing in concerts occurs more frequently than elsewhere, implying a widespread and intentional breach of concert etiquette....

The likelihood that an individual will cough during a five-minute interval then is  $1 - \exp(-0.05555) = 0.05404$ , and the probability that nobody in an audience of  $N$  people will cough during a five-minute interval equals  $(1 - 0.05404)^N$ . For a small concert hall with  $N=200$  people (the Golden Hall in Vienna’s Musikverein or New York’s Carnegie Hall seat well above 2,000 people), this amounts to 0.0015 percent, making the undisturbed performance even of a short piece of music extremely unlikely.



*Andreas Wagener, author of the study “Why Do People (Not) Cough in Concerts?: The Economics of Concert Etiquette.” Drawing by Nan Swift, Improbable Research staff.*



*James W. Pennebaker, author of the study “Perceptual and Environmental Determinants of Coughing.” Drawing by Nan Swift, Improbable Research staff.*

## They Studied Coughing in Classrooms

“Perceptual and Environmental Determinants of Coughing,” James W. Pennebaker, *Basic and Applied Social Psychology*, vol. 1, no. 1, 1980, pp. 83-91. The author, at the University of Texas at Austin, reports:

Several studies were conducted on coughing behavior in naturalistic classroom settings. The major findings include: (1) the larger the group, the more coughs per person; (2) people are more likely to cough if they hear others cough; (3) the closer a person is to a cougher, the greater the probability that they will also emit a cough; (4) coughing varies as a function of external stimulus demands (i.e., when subjects viewed a movie that had previously been rated for its interest value every 30 seconds, subjects were more likely to cough during the uninteresting portions); and (5) high instructor evaluations were related to fewer coughs during lectures.