

“Killing me softly with his (Country) song”

Stack and Gundlach began a controversy with their analysis of Country music and suicide

There are a number of genres in which there is a high preponderance of songs that deal with negative themes, for example the Blues (by definition), Goth, Emo and Country. Do songs in these genres influence suicide rates?

Stack & Gundlach carried out a study in 1992 which explored the link between Country music and suicide. These authors were not proposing that Country music causes suicide *per se*. However, an analysis of the themes expressed in 1,400 Country songs shows that these are often negative (Rogers, 1989), for example, relationship problems, alcohol abuse, financial strain and exploitation at work. Stack & Gundlach cite research that shows that these factors are themselves associated with an increased risk of suicide and so the recurring themes promote audience identification with these conditions, thereby increasing suicide risk by reinforcing pre-existing suicidal moods in vulnerable individuals.

Using data on radio play and suicide rates for 1984/1985 in 49 large US cities, Stack & Gundlach found that the larger the amount of radio airtime devoted to Country music the higher the suicide rates. However, airtime devoted to Country music was also related to divorce and a southern location (Country music being more popular in the southern states, at least in the mid 80s), both of which were also related to suicide rates. Because all these factors correlate with each other it is difficult to identify which (if any) are the true associations. For example, listening to Country music might correlate with an increased risk of suicide but only because divorced people might be drawn to the negative themes in Country music and that it is divorce, not Country music, that is causally related to suicide.

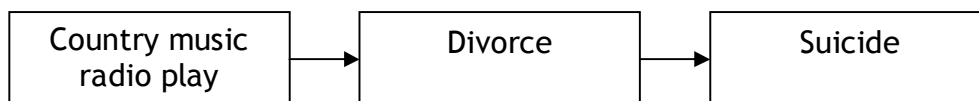
To avoid identifying such a spurious relationship, researchers often use a statistical technique called regression analysis which controls for these shared associations and can identify whether the link between airtime devoted to Country music and suicide is independent of its links with divorce and southern location.

In their analysis it was. In fact, airtime devoted to Country music, being divorced and being in a southern location were all independently related to suicide rates. In other words, the highest suicide rates were in those who were divorced, lived in the south **and** listened to Country music.

However, the paper that Stack & Gundlach published is not uncontroversial and it has received a good deal of criticism. Each time, Stack & Gundlach have been allowed to publish a reply in the same journal immediately following the

article that criticises their analyses. This makes for some fascinating reading and, at the risk of disillusioning any reader who assumes that academics are objective and above such petty squabbling, I'll summarise the key aspects of this gain-saying.

In 1994 MacGuire & Snipes repeated Stack & Gundlach's (1992) original analyses using what they thought were the same data sets (based on Stack & Gundlach's [1992] description of the data) but found no significant association between airtime devoted to Country music and suicide. They suggested that the reason for the non-replication was that Stack & Gundlach had misrecorded the country music data. However, because they were so puzzled by the fact that they had been unable to replicate the results, they even included a table of the raw data in their article. Stack & Gundlach (1994) then commented that the suicide rates they had used were different from those of Maguire & Snipes (1994) and criticised these authors for using incorrect population data to determine suicide rates. Snipes & Maguire (1995) replied that this was irrelevant and that Stack & Gundlach (1994) had side-stepped their main criticism that the Country music data had been misrecorded. They even reported that, in a personal communication, Stack & Gundlach had admitted that the data they used for airtime devoted to Country music had not come from the source they had claimed but never actually stated where they did get their data from. However, Stack & Gundlach (1995) subsequently wrote another paper in which they glossed over this issue (presumably because they had no answer to it) but ran another analysis using their own suicide rates in conjunction with Maguire & Snipes' (1994) Country music data. In this analysis, airtime devoted to Country music was correlated with suicide rates but, in a regression analysis, was no longer related to suicide rates independently of divorce. In other words although Country music was related to suicide rates, this was due entirely to a shared association with divorce. They concluded, therefore, that listening to Country music may still play a role in suicide but indirectly, as represented in the figure below.



Stack & Gundlach (1995) also presented an interesting analysis in which they identified an interaction between Country music radio play and divorce in predicting suicide rates. What this means is that airtime devoted to Country music was correlated highly with suicide rates in those cities with high divorce rates but not so highly in cities with low divorce rates.

In both analyses, therefore, Stack & Gundlach (1995) are defending a position that states there is an association between Country music and suicide, albeit that it's a different position from the one they started out with.

As far as I can ascertain, there has been no subsequent criticism of these later analyses although they are also problematic. I won't go into the technical details here since I imagine that most readers won't be interested. But if you are interested you can read about it in the Note below.

In the meantime, you'll just have to take my word for it that doubt still remains about the association. The Snipes & Maguire (1995) analysis remains, for me, the most convincing:

Country music is popular in cities with high divorce rates and poverty rates (for whatever reason). When we control for divorce rates and poverty rates, airtime devoted to Country music is no longer correlated with suicide rates.

Note:

Stack & Gundlach (1995) only included the product term in their regression analysis and not the main effects. They claim that they did this to avoid problems of multi-collinearity caused by the correlations between the main effects and the product term. However, according to Baron & Kenny (1986) as well as subsequent texts on testing for interaction (moderator) effects, a moderator can only be said to exist when the product term is a significant predictor of the dependent variable over and above the main effects. So Stack & Gundlach (1995) had to include them to be able to test for a moderator but they didn't.

References:

Stack, S. & Gundlach, J. (1992). The effect of Country music on suicide. *Social Forces*, 71, 211-218.

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