

## Claim

The Leibovici study is one that had to fail from the start. It is seeking evidence for an hypothesis that is so structured as to be immune to evidential support by the method employed.

## Argument

The hypothesis is that "...remote, retroactive intercessionary prayer...has an effect on outcomes..." (p.1450) with the implicit understanding that the relationship between the prayer and the healing is sufficiently regular that it "should be considered for use in clinical practice."

To begin, set aside the "retroactive" part.

The hypothesis tells us that an individual prayer has a definite healing effect. We know that multiple prayers do not have limitless healing powers, for illness persists and some patients are never healed. Therefore there must be some point of diminishing returns at which extra prayers have no extra healing effect. Since the sick are being prayed for, all the time across the world, one would surely expect that this point of diminished returns has already been reached. That means that the prediction of the hypothesis ought to be that an additional prayer will have no additional healing effect. Hence the hypothesis is so set up that that this test must fail. Indeed, if it gives a positive result, we can be sure it has arisen spuriously.

The escape from this self-defeating effect is to assume that the particular prayer of the test was effective, but that others are not, so the point of diminishing returns has not been reached. That escape is still self-defeating since it now gives up the idea that the experiment has found a regular effect of the type that "should be considered for use in clinical practice."

Retroactive intercessionary prayer faces an additional mode of self-defeat peculiar to its retroactive character. If we assume that a regular effect has been identified, then we must allow that subsequent prayer for the control group will also have an effect. This means that a demonstration today of a retroactive healing effect can be undone by praying tomorrow for the control group. Tomorrow's experiment will thus have no essential difference in treatment between the two groups, so that we must conclude that any difference of outcomes is a spurious effect. Since we don't know today whether the control group will be prayed for tomorrow, we must suspend any inference from today's prayer to the healing outcomes.

More simply, any result we may recover today, no matter how strongly it appears to favor the hypothesis, can arise as an artifact and thus has no evidential weight.

An analogous case is a controlled study of the efficacy of homeopathic medicines. It is impossible to have an untreated control group since they will be inadvertently "treated" by almost everything they touch.

John D. Norton