The problem (or one of them) is that it’s incredibly rare for scientists, including statisticians, to explicitly think about that conditions underlying their models, beyond “checking” higher level assumptions in a stale and automatic fashion.

I had many conversations in very different contexts with scientists about what the average calculated from the data (or mean in a model) could reasonably represent and whether that was really what the scientist was after.

The primary research method of averagarianism is aggregate, then analyze: First, combine many people together and look for patterns in the group. Then, use these group patterns (such as averages and other statistics) to analyze and model individuals.(21) The science of the individual instead instructs scientists to analyze, then aggregate: First, look for pattern within each individual. Then, look for ways to combine these individual patterns into collective insight.

Pg 69, The End of Average by Todd Rose, HarperCollins, Reference 21 is given in Notes as Rose et al. Science of the Individual, pg 152-158.

If you could not use averages to evaluate, model, and select individuals, well then … what could you use?

This practical retort underscores the reason that averagarianism has endured for so long and become so deeply ingrained throughout society…

Pg 66 The End of Average by Todd Rose, HarperCollins. Reference 16 is given in Notes as “Molenaar, interview, 2014.”

The above quote is consistent with my experiences. Methods based on averages are available, easy, convenient, and take little creativity — and they are expected in our scientific culture. **Justification for using averages is simply not demanded — though justification for use of anything but averages is incredibly difficult to sell.**

In 2011, for example, the average income of the 7,878 households in Steubenville, Ohio, was $46,341. But if just two people, Warren Buffett and Oprah Winfrey, relocated to that city, the average household income in Steubenville would rise 62 percent overnight, to $75,263 per household.

Does the fact that on average married people are happier mean that we should promote marriage?

The vast majority of people that Mr. Mancini and his colleagues studied — almost 80 percent — already reported high levels of well-being before getting married, with no significant increase afterward. More often, marriage seems to be a reward for having a high level of well-being than a route to attaining it.

A small group — 5 percent — experienced increasing well-being in the years before the marriage, then sustained that afterward. But 6 percent demonstrated a sharp decrease in well-being in the years following their marriage.

Only 10 percent found that getting married cured their unhappiness. These individuals had experienced decreasing well-being in the years before their marriage but became happier afterward.

But given the variety of circumstances that exist in the messy real world, we ought to think twice before doling out one-size-fits-all advice to individuals on the basis of averages.