The cross-over trial: a subtle knife
Thinning a knife involves reducing the width of the blade behind the Primary Edge from a cross sectional geometry perspective. Thinning a knife is not sharpening, although the same principles are used. We are not working at the primary edge, even though, as Jon explains in the video, one can thin a knife until the primary edge is reached and the result is a zero grind. However, over time, as we use the knife and sharpen it, the edge moves up into the thicker part of the blade because as we sharpen we remove metal from the edge. Although the amount of metal removed is very small, in time, knives get thicker and that has an impact on the cutting performance. So we thin to regain control of knife as Jon puts it and that is exactly what the goal is. Crossover trials are generally restricted to the study of short term outcomes in chronic diseases or processes because the disease or process needs to persist long enough for the investigator to expose the subject to each of the experimental treatments and measure the response. Also the treatment must be one that does not permanently alter the disease or process under study. The principal drawback of the crossover trial is that the effects of one treatment may “carry over” and alter the response to subsequent treatments. The usual approach to preventing this is to introduce a washout (no treat...  Cross-over trials in clinical research. Chichester: John Wiley, 1993. 3.