intercept). One can therefore remedy the mismatch of these lines by simply correcting for the variance inflation. However, this discussion is very closely tied to this particular situation: Variance correction is by no means a panacea, and its effects away from the normal design are (a) less considerable and (b) not necessarily beneficial (Jones, 1991) in other cases (such as the remainder of C&M's Figure 11).

5. CONCLUSIONS

It is not so long ago that the version of the "folklore" that I was contented with (without much thought!) was that one used G-M for fixed designs and N-W in the random case (e.g., Cheng, 1990). This now seems somewhat dubious.

I have a particular liking for (1) in the fixed uniform design context. So far as N-W and G-M go, however, I am happy that one could afford to use either of these instead in this case without really changing anything. A verdict on the fixed but nonuniform design case is given in Jones and Davies (1991). But none of the existing versions of kernel regression are the last word in the random design case. There, both N-W and G-M/P-C have disadvantages, as C&M make clear, yet it does not appear to be impossible to get the best of both internal and external estimation worlds with new—but not overly sophisticated—methods; it is also sensible to apply such estimators back to the fixed design case. Hopefully, the authors might agree that thinking in such a framework helps to clarify the issues involved and illuminate a way forward.

I am very pleased to have been afforded the opportunity to append some comments on this most interesting paper.

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Comment: Should We Use Kernel Methods at All?

B. W. Silverman

I would like first of all to thank the authors for a most interesting, thoughtful and provocative paper. I think it is important to broaden out the discussion to consider other possible estimators in more detail. The authors' attempt to be even-handed is particularly to be welcomed, and if my own contribution does not immediately appear to be in the same vein it is only because the authors have already themselves dealt with the two kernel estimators.

1. SOME PHILOSOPHICAL REMARKS

The authors have set out an interesting dichotomy between two different viewpoints, P1 and P2, that might be adopted. I wonder, though, whether a synthesis of these approaches gives the real clue to what smoothing methods might ideally be aiming at. Certainly my own view would be more like a philosophy *P4*: *We are looking for structure in this set of numbers, without imposing rigid parametric assumptions, but still within a statistical framework of some sort.*

The statement P1 is very much along the lines of the "exploratory data analysis" approach of Tukey (1977). This was a very welcome reaction to the overemphasis on uncritical model fitting as exemplified by P2, and in order to clear the air it needed to turn its back on several decades of statistical thinking. For example, Tukey's original book—always intended as an introductory text—nowhere even mentioned the idea of calculating the average of the data set. But, of course, the classical statistics that had become so constraining had itself originally developed in order to answer questions raised by data analytic approaches. Thus, in setting out a dichotomy of the P1/P2 kind, we can either give ourselves two different extremes between which to oscillate or else two different ingre-

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