where PP actually misinforms. Some examples are given in the last chapter of the paper. Are there any really bad ones? CT wasn't really accepted by radiologists until the existing counterexamples and artifacts were well understood and this was only achieved (I think) because the set of things one might want to place in the aperture of a CT scanner is severely limited. Not so for PP because of its great generality. Somehow the universe of possible data set candidates for PP should be defined and limited by a mathematical model.

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Huber has given us an organized and well-classified account of diverse problems in statistics which may be approached from the point of view of projection pursuit. He also has brought to light certain connections which are not immediately obvious and indicated a number of important and challenging areas for further research. Very appropriately Huber warns us of the need for benchmarks and stopping criteria especially where iterative or stepwise searches are used to get at ever finer data structures. What follows are elaborations of several topics raised in the Huber paper.

Location, scale and structure. Huber has clearly pointed out the connection between the invariance structure of the projection index and the kind of problem which gets solved. For many interesting multivariate problems, global location and global scale questions are incidental and one might deal with orthonormalized data to begin with. At least the location and scale should be handled separately from the search for other structure. It seems that the same should also be true for density estimation although it is not clear whether or not Huber would agree.

Search methods. It seems worthwhile to distinguish between reconnaissance and pinpoint searches. Reconnaissance means that the p-dimensional orthonormalized data space is scanned unguided by jumping quickly through all orthants. A reasonable procedure might select interesting data projections from the class of $3^p/2$ projections of the form

$$\sum c_i x_i, \quad \text{where} \quad c_i = -c, 0, +c \quad \text{for} \quad i = 1, \cdots, p,$$

and c is a suitable constant such as 1.0 or 2.0. Some of the interesting projections may then be refined by a guided localized interactive pinpoint search. Reconnaissance of this kind is important if there may be multiple but well-separated projections of interest. Thus reconnaissance is limited to $p < 10$ or 15 and for larger p one must be resigned to having large unexplored possibilities.

Sometimes one may be interested in finding any interesting projection as opposed to all interesting projections or even a globally optimized projection.