

STAT 400

Data Analysis

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5. Factor & Response  
11. Level plots

16-Nov  
16-Nov

### Ch 5: Hypervariate Data

Nothing really new in this chapter except Fig 5.2 p 277

Some questions you need to know how to answer:

1. Why are there **not** approximately equal numbers of points in each panel? (compare the trivariate coplot p 185, which does have approx. equal numbers of points in each panel.)
2. How do you look for a two-way interaction? a three-way interaction?
3. How could this be extended to an example with 4 or more predictor variables?

### Ch 6: Multiway Dot Plots

General principal at work here: when a graph has features that are arbitrarily imposed, consider whether a non-arbitrary assignment would improve the visualization?

e.g. ordering of countries  
ordering of panels  
conditioning on animals or on countries  
transformations of variables (log?)

Use of additive fits to summarize data (and to confirm model by examining residuals).

Another principal: is there useful data available that is not already in the data set?

e.g. spatial position of countries – GIS – see p 319.

End of Cleveland Material!