

## **Puny Perennials: An extended metaphor for contrasting static and dynamic risk factors**

Imagine a large perennial that is very desirable but difficult to raise. Suppose the plant produces a nut that, in men, lengthens and widens the penis while having a viagra-like effect and, in women, transforms metabolism such that chocolate becomes a health-inducing and figure-enhancing substance. One can make a lot of money by successfully growing such a plant.

Unfortunately, however, the plant requires expensive fertilizer and soil aeration, takes ten years to become fruitful, and is killed by a day or more of frost or a week or more of sleet or snow. We need to figure out where to plant. Clearly, we need to estimate the probability of at least one day of frost or one week or more of sleet or snow in particular locations over a 10-year period. This probability would be obtained from local weather statistics over the previous 5 or 10 years. We might incorporate an adjustment to reflect global warming.

We could crunch the financial numbers and decide what probability of frost or snow we would be willing to accept before planting in a particular location. Depending on the profit margin, we might be able to reduce the probability of crop failure in cold and wet locations to zero by confining our plants in big, very expensive, greenhouses.

In some locations, the probability of frost or snow might be nonzero but low enough for us to accept. Using greenhouses under these conditions would not make economic sense. We might, however, be able to intervene in the relatively rare circumstances when frost or cold precipitation threatens. Imagine vast batteries of hair dryers that could be used to warm the plants or enormous sheets of saran-wrap that could

protect their delicate leaves. Because these are expensive and cumbersome interventions, we would be required to anticipate their use in advance. We could use meteorological indicators, such as changes in barometric pressure, moving fronts of weather, big winds from Winetka, and so forth, to make these short-term prognostications.

Note that knowing the probability of a bad outcome occurring in the next few days does not help us in deciding where to plant or whether greenhouses are warranted. Note that the reverse is also true; knowledge of the ten-year probability of dire outcomes does not help us decide when to call in staff to turn on the hair dryers. These ten-year probabilities would, however, help us figure out where to station the most hair dryers and how much saran wrap to buy for each cultivated field. An average of dynamic meteorological indicators over an extensive time period would produce a static predictor identical to one developed by examining previous weather records.

So, that's it in a nutshell. In the metaphor, the plants stand for offenders in one sense, and the localities for offenders in another; dying signifies crime; fertilizer and aeration stand for parental and societal investment (making hardier plants); hair dryers and saran wrap are treatment and supervision, respectively; prisons are greenhouses; static predictors are long-term records of particular aspects of weather (i.e., sleet, snow, and frost) in particular locales; dynamic predictors are local short-term indicators of such weather in particular locales. Apportioning hair dryers and saran wrap in accordance with the fields' long-term probabilities of frost embodies the Risk Principle. Using hair dryers (instead of, say, plant psychotherapy) embodies the Need Principle. To make the analogy a little more precise, death due to frost signifies violent non-sexual crime and death due to sleet or snow, sexual crime. Clearly, for most purposes, it makes sense to predict the

combined probability of either sort of event occurring, rather than the probability of just one of them.

To make the metaphor fit even more precisely, we must imagine that the plants have all died before from frost, snow, or sleet at least once and we are dealing with potential recidivism among reincarnated (or more accurately, recellulosed) plants.