Take a digital photo of a natural outdoor scene. For simplicity, convert the photo from color to black and white. The photo can be reduced, or scaled, by tiling the pixel array with nxn (disjoint) pixel blocks, and replacing each block by its average intensity. This makes a new (smaller) picture. The original image has been “scaled by n”, and the objects in the new image all look twice as far away as they did in the original image. This “stretching” is artificial in the sense that it does not correspond to any movement of the camera in the real world. Nevertheless, the local spatial statistical structure (e.g. the distribution of values of horizontal derivatives) of the scaled image is largely indistinguishable from the local spatial statistical structure of the original. “Images of natural scenes are scale invariant.” This is a mystery, since spatial processes are never scale invariant, unless they are trivial (constant gray level, i.e. blank pictures) or exotic (not living in any function space). I will propose some odd explanations of scaling, including: “The earth is flat”, “Boundaries are scale invariant”, “Object sizes are distributed like one-over-size-cubed”, “It takes more bits to describe bigger objects than smaller ones”, and others.