Decision-Making and the Law: 
A View from the Grid*

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The theme of this talk is an exploration of the relationship between decision-making and law, perceived as that existing between an observation point and an observation. This places it somewhere in the domain of philosophy of science. The presentation will rely on the metaphor of a grid. The idea is borrowed from Tversky and Kahneman (1986).

Grid Arguments

Students of perception are familiar with the Mülller-Lyer visual illusion, perhaps the most famous of all visual illusions. In this illusion, two straight and parallel line segments of equal length are embedded in a “context” that makes one of them appear longer than the other (Figure 10.1 a). There are several ways to become convinced that the two lines are in fact of equal length. One is to measure them. We shall call this the analytical way. Another is to impose an appropriate grid upon the figure (Figure 10.1 b). Note that this does not alter our perception of the two line segments when the grid is removed again (neither does the measurement), yet it provides an argument for why the two lines “must” be of equal length, and the argument retains its force even when the grid is removed.

A third method is to remove the interfering “context” (Figure 10.1 c). This method has some properties in common with the second one (e.g., it does not alter the original perception; it provides an overriding argument, but – like the illusion itself – it is visual rather than analytical). For present purposes, the second one is the purest example of what I have in mind, because it leaves the original figure untouched and affects our perceptions merely by showing

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it to us through a grid. In any case, I am content to call both these methods grid arguments.

Grid arguments are used in many contexts, with greater or lesser success. Consider, for example, the famous Piagetian question regarding which of two containers has more water in it (Figure 10.2a). For most adults, the fact that both containers were filled from identical containers constitutes a grid argument that the two containers contain the same amount of water (Figure 10.2b). Although the argument is not analytical (the volumes have not been measured), and although it does not alter the original perception, adults find it overriding. Not so children.

In the final example, the grid argument does not even convince most adults. I refer to the famous choice problem first devised by Allais, and simplified to its bare essence by Tversky and Kahneman (1981), whose version I will use here. Suppose you are given a choice between 500 DM outright, and the toss of a coin that will give you 1000 DM on heads and nothing on tails (or, if you prefer, vice versa) (Figure 10.3a). Most people firmly prefer the former. Sup-