In his book The Origin of Species by Means of Natural Selection or the Preservation of Favored Races in the Struggle for Life, in a chapter ominously called “Difficulties of the Theory,” Charles Darwin wrote a section with the heading “Organs of extreme Perfection and Complication” (Darwin 1872). It begins: “To suppose that the eye with all its inimitable contrivances for adjusting the focus to different distances, for admitting different amounts of light, and for the correction of spherical and chromatic aberration, could have been formed by natural selection, seems, I freely confess, absurd in the highest degree.”

Today we know, and Darwin knew, that such an organ as the eye is not formed complete and whole in one stroke. Rather, such an organ begins in organisms living very long ago as a simple structure or process. Just being able to determine whether light is present can be of considerable advantage to an organism allowing it, for example, to tell “up” from “down.” Perhaps the next step might be the development of a bit of dark pigment at one side of the light sensitive spot. This would allow gathering at least some information about the direction from which the light is coming. Next, depressing the light sensitive area into a bowl shape allows a still better determination of the direction of the light. A lens across the top of the bowl yields the possibility of image formation, etc. Indeed, animals with such organs are extant. A similar process can be envisioned for the evolution of complex molecules. An enzyme need not be created in its full-blown, highly efficient, modern version. In the absence of a superior competitor, even a simple, small molecule that slightly speeds up a useful reaction is an immense improvement over having no catalytic activity available.

This line of thought hits at much of the argument behind the creationist position, especially the recent variety known as intelligent design theory. The basic argument put forth is that molecules,