

Essays of a Peripheral Mind

By K. M. Havstad

Faith

My oldest son, when he was about 12, asked his mother a question that prompted her, despite being an accomplished professional, to respond “Why don’t you ask your father?” He quickly replied “I don’t want to hear that much.”

OK, I admit it. On occasion, when asked a question in my fields of interest, I might respond at length. Primary examples of personal questions that could trigger too many words from me would include “Were the 1962 New York Yankees really better than the 1962 San Francisco Giants?” “What are the best features of the 2007 Ducati S2R 1000 motorcycle (Fig. 1)?” and “Should you add a bit of water to a single malt scotch or drink it neat?” Really, though, like most of us, this behavior of expression bordering on wordiness, or even ranting, is an act of faith. By definition, faith is the cherished values, beliefs, or ideals of an individual (or of a group). The key word in this is *cherish*, meaning to care for, tend, cultivate, or nurture. When we cherish something, and it is questioned, queried, or challenged, we rise to the occasion. It is our nature and at least enough of my nature for my son to have been wary even at an early age.

Given the world strife and suffering in the name of faith, cherishing the baseball of my youth, Italian motorcycles, and a good drink seems to be a harmless expression of my personal values. Yet, it is faith that also permeates and clouds my professional beliefs, and I often forget this. This problem deserves more words.

My professional beliefs and values and their resulting faith are built on rhetoric, which is basically our discussions about experiences, our literature, and the teachings that have been generated from that literature. It might be a bit naïve to de-



Figure 1. An illustration of an article of the author’s personal faith that may require further testing and evaluation—the 2007 Ducati S2R 1000 motorcycle.

fend this professional faith and its fundamental rhetoric as supported by the best science. It is doubtful that our science, in a field so subjected to the vagaries and whims of nature, is truly inductive, that is, informed from logical inference or reasoned conclusions. Years ago, Sir Peter Medawar, the biologist and winner of 2 Nobel Prizes, wrote that scientific papers, the foundation of our professional rhetoric, are misrepresentations because the observer is always biased. Everyone interprets observations based on faiths, whether or not those faiths are admitted. In a sense, our rhetoric, our literature, the scientific basis of our faith and the underpinnings of our profession, are really based on “methods of making plausible

guesses" (see P. Medawar, 12 September 1963, "Is the scientific paper a fraud," *The Listener*, p. 377–378). Granted, the ramblings within this essay are often confined to graduate courses in philosophy taught within ivory towers. Yet, the biases of our faith are often evident within our profession, and these biases deserve discussion in more open forums. When I pick up any issue of our journal from the first issue in 1948 to the most recent, I find repeated expressions of faith. By this, I mean ideas that may have been first proposed decades ago and are held tightly today in spite of conflicting evidence or little initial supporting evidence, but which, over time, have become ingrained into the rhetoric.

Recent discussions within our Society and profession concerning the advantages and disadvantages of rotational livestock grazing have demonstrated this point to me. These discussions have become arguments of faith, of beliefs that have been built up from selected plausible guesses. And, as with any arguments about faith among the faithful, the discussion becomes one of challenges from those with newly surfaced beliefs or defenses, and skepticisms from those with long-held beliefs. To illustrate, in 1961, Harold Heady reviewed some of his data and the state of the literature on the advantages and disadvantages of rotational grazing systems (see Heady, 1961, *Journal of Range Management* 14:182–193) and stated that advantages lay with the continuous systems. He concluded that there was little chance that specialized systems would be either feasible or lead to overall improvements. But, in that article, Heady observed that most studies did not contain adequate measures nor had there been sufficient numbers of studies conducted. More than 40 years later, I think we have reached similar conclusions that stocking rates and weather, and not stock rotations, are the primary effects on grazed rangelands (I can draw from many examples in support of this statement, but for one illustration, see Gillen et al., 1998, *Journal of Range Management* 51:139–146). Yet, I know that faith in a myriad of specialized systems persists

within the profession despite this long history of conflicting evidence, and the resulting arguments are passionate. And, I also know that the above interpretations are the guesses originating from my beliefs.

What I really need to remember is to maintain a willingness to let my beliefs stand up to review. Not that I have ever added a bit of water to a well-aged single malt scotch, but I do need to try it once, some day. My professional beliefs certainly do need a routinely applied dash of water and subsequent scrutiny and review. In 1979, Medawar (in his book *Advice to a Young Scientist*, Harper and Row Publishers, 109 p.) wrote: "I can not give any scientist of any age better advice than this: The intensity of the conviction that a hypothesis is true has no bearing on whether it is true or not. The importance of the strength of our conviction is only to provide a proportionately strong incentive to find out if the hypothesis will stand up to critical evaluation."

I consistently fail to heed this advice. Yet, a value of this Society to this profession and its science is to provide the means to critically evaluate. I often overlook this value and think that practicing my profession is about convictions in my hypotheses, or my faith. It isn't faith in my beliefs that I should hold so tightly, but the faith that those beliefs should constantly be evaluated and challenged. That scrutiny is hard to accept and tolerate. Fortunately, I have faith and many data points that suggest my friends and colleagues will readily share their criticisms of my rhetoric. I also have faith, though, that, on many subjects, my son would still think I may have said too much. However, now that he is older, he may be willing to sit through a faithful discourse on Italian motorcycles. Better yet, maybe I should buy one and subject it to more critical evaluation. I'll see.

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