Essays of a Peripheral Mind

By K. M. Havstad

Framing a Story

On occasion, usually on a sunny, warm Friday afternoon in the spring, Father Keane would knock on the door to our eighth-grade classroom. Sister Helen Loretta would answer and appear quite pleased to see that our parish priest had come calling. Father would ask her if she would allow Jim Sweeney and me to assist him with some chores in the chapel in advance of upcoming weekend events. Allowing her students to leave class early usually took an act of God, but Father Keane qualified as an approved substitute in this regard. Jim and I were altar boys who could recite our Latin responses fast enough for Father Keane to move quickly through his Mass duties on the fall Sundays when the San Francisco 49ers had a home game he would be attending later that day. So, asking for 2 altar boys to assist him did not appear out of the ordinary. We would be excused from class, and Jim and I would quickly head out of the school building toward the gym that served as both church and chapel on Sundays and for special events such as weddings and funeral services. However, we knew enough not to bother stopping yet at the chapel but would proceed beyond the gym to the far side of the ball fields behind the gym. There we would sit and wait. Soon Father Keane would appear directly behind the gym, out of sight of the school, with his golf clubs and a bucket of range golf balls. As he launched short iron golf shots high across the field, Jim and I would retrieve golf balls and throw them back for his next round of practice. When Father Keane sensed he was suitably ready for his approaching tee time, we would retreat to the chapel for a few minutes of work and then return to the classroom. We could honestly report to Sister Helen Loretta that the chapel was now ready for the weekend, but we would obviously leave out certain other details involving Father Keane's back swing and his improving accuracy with his 9 iron. We just stayed with the facts that were most relevant to maintaining into the future our retrieval services for our parish's senior priest. We sensed that describing the whole story would have confused the issue and may have jeopardized our opportunities to escape the classroom on other sunny, Friday afternoons.

Several years ago Gary Paul Nabhan, the noted scientist who has written wonderful accounts of desert ecology, forgotten pollinators, and the need for consumers to return agricultural production to its local roots, stated that the natural resources science community has done a disservice to the American public by consistently oversimplifying descriptions of nature and nature's processes. Nabhan (see *Arid Lands Newsletter*, 1995, 37:2–5) correctly pointed out that we live within complex systems, and we need to work to describe that complexity in understandable manners but not simplified to the extent that explanations serve little value in contributing to either management practices or resource policies. In other words, we need to greatly improve our abilities to tell the whole story or, at least, what we think we understand.

This plea has recently resurfaced but restructured to today's realities of information access if not overload. In a recent issue of *Science* (see Nisbet and Mooney, 2007, 316:56), the authors argue that scientists cannot just resort to conveying technical information on complex subjects, but they need to frame their information in both relevant and personal ways to capture the public's attention. Without that attention, there will be little interest in our stories and little opportunity to effectively communicate information. An example Nisbet and Mooney provide is on the embryonic stem-cell issue. Advocates frame their information on this

complex topic within messages of "social progress" and "economic competitiveness," whereas opponents frame their information around the moral implications of "playing God." These messages capture the initial attention of the reader for the subject. A key point, though, is that within that framing, the scientists still have to effectively convey the complexity.

I struggle with these same framing and complexity issues in rangeland science. For example, I have been a proponent of the framing of the status of rangelands within a message of "health." Many in our profession decry this ploy because the term "health," certainly when applied to rangeland landscapes, lacks definition. Yet, even when applied to an individual organism, the term can lack definition. We have many indicators of an individual's health, and it can be difficult integrating all of these different indicators into an overall assessment of a person's health. In addition, a person can be physically healthy yet be quite emotionally unhealthy. Irrespective of this definitional uncertainty, the framing of rangelands as healthy or unhealthy easily communicates to the public the issue that these lands are somehow important. This has always been our bane for land that is often seen simply as wasteland or land unsuitable for uses that are more productive. The issue is not whether we should frame this discussion within the concept of "health," but whether we are effectively capturing the complexity of this topic within that framework.

Another framing that is being used recently is the concept of "tipping points," or the existence of acute thresholds in systems where, once passed, the system is significantly changed, and it is then extremely difficult to restore prior states. Again, it is very difficult (impossible?) to actually quantify specifics of a tipping point in nature, and the use of this concept to frame ideas about transitions that do occur over time has been criticized in scientific circles. However, I find that this framing mechanism, which I have now seen used widely by the public and by policy makers, usefully communicates the idea that systems can go through transitions that lead to significant changes. This is an important and useful concept. Again, the real pressure, I find, is then trying to communicate the complexity of states and transitions within nature. Irrespective, the opportunity to try to communicate this complexity has been enhanced by framing the ideas within a concept of "tipping points," which capture people's attention and interest.

As I write this essay, it is a very nice Friday afternoon, though I doubt Father Keane will be dropping by. In recalling eighth-grade memories, I now see this event of my youth in a different light. I realize that there was just no way Sister Helen Loretta would not have known what was going on in the school yard that was nearly her entire world. She and Father Keane had to have known that he couldn't ask in front of our classmates whether Jim and I could leave class to fetch golf balls. Father Keane and Sister Helen Loretta needed to frame this afternoon activity as a religious chore. Their challenge was the need to provide our services in pursuit of Father Keane's recreation but not at the expense of Sister Helen Loretta's classroom authority. They framed their actions in a way that worked for them and us and maintained the respect we had for them and they had for each other.

For me, the unsettling part in revisiting this memory is wondering how I can frame and explain the complexity of rangeland systems, even if only to myself, when I'm still learning lessons from eighth grade.

Author is Supervisory Scientist, USDA/ARS Jornada Experimental Range, PO Box 30003, MSC 3JER, New Mexico State University, Las Cruces, NM 88003-8003, khavstad@nmsu.edu.