Sleeping Beauty
Research Fables from the Sisters Grinn, No. 9

By Jeanne Grace, PhD, RN

Abstract: I started writing the fables in 1996, when I took over teaching the undergraduate research course. At first, they were "buried treasures" hidden in the on-line course materials (it was a hybrid course, and we were trying to get the students to develop internet surfing skills) for students to find. Then, as there were more of them, I started explicitly assigning them for student reading. As I've had time, I've written fables for areas where students seem to get "stuck" on basic concepts in research. Two of the fables have "readers' theater" versions that I use in class for traditional students. Casting the parts is always fun. Enjoy!

The entire series of Dr. Grace’s research fables are available in this repository. Patrons may access the series by clicking on Dr. Grace’s name in the item record.

Long ago in the distant kingdom of Inquiry, there was a time of great rejoicing. After many years, a child had finally been born to the wise and popular King Nicholas and his beloved queen, Melissa. The blessed baby was a girl, and her parents decided to name her Aurora Dawn, because she was as beautiful and full of promise as the sunrise. As was the custom of the time and place, King Nicholas decreed that a royal festival be held to celebrate Aurora's birth and naming. Representatives of all worthy activities in the kingdom would be invited as guests. In Inquiry, scholarship and enchantment were closely aligned.

The asking and answering of empirical questions was the business of the various classes of magicians, whose scope of practice was carefully defined by law and regulation. Although the magic profession had grudgingly accepted the right of learning institutions to employ unlicensed assistive personnel to investigate routine questions and invoke the simplest spells 1 under the direct supervision of licensed professional magician/scholars, magicians were vigorous and vocal in the protection of their professional prerogatives. Licensed practical mages (LPMs) were educationally prepared to identify the characteristics of a phenomenon of interest and invoke descriptive spells. Registered professional mages (RMs) looked for linkages among the already-identified characteristics of a phenomenon and cast relationship spells. Seers or mage practitioners (APMs) were registered professional mages with additional education that prepared them to establish temporal relationships between events and thus cast spells to predict the future. At the top of the magic hierarchy were sorcerers (DMSs), whose scholarship established causal relationships that they employed in spells to make things happen.

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1. Simplest spells refer to the most straightforward and basic spells used by magicians to address routine questions.
King Nicholas respected scholarship and was clear that magicians were important people who should be invited to Aurora's festival. His understanding of the differences among the levels of magician, however, was somewhat hazy, since he had little personal involvement with enchantment or the systematic investigation of phenomena. He had studied the categories of magician and inquiry with the royal tutor but had never been quite clear about the difference between prediction and causality.

Thus, when the list of invited magicians included licensed practical mages, registered professional mages and seers, but no sorcerers, he failed to recognize a protocol blunder. The day of Aurora's naming festival was sunny and clear, and the public gathered early to watch the invited guests arrive at the castle. There was feasting and ceremony and music and dance. Many fabulous presents were bestowed upon the tiny Aurora Dawn as she lay peacefully in her cradle -- the center of all attention. The entire kingdom had waited long for this day and joined the celebration. The entire kingdom, that is, except Sourapple the senior sorcerer. Whereas the other sorcerers had dismissed King Nicholas' slight in not including them with the resignation that comes from being chronically misunderstood, Sourapple's wrath grew greater as the festival approached. Personal pride and professional loyalty bubbled in the cauldron of Sourapple's psyche.² The sorcerer decided to crash the party and teach a lesson in causality that no one would ever forget.

And thus it was, as the festival neared its conclusion, that Sourapple appeared in front of the king and queen and their tiny daughter. "How could you fail to invite me to attend your daughter's naming? My magician colleagues can describe and relate and predict, but only sorcerers like myself can establish causality by rejecting alternate explanations for two events related in time. Do you not understand? Seers can predict what will happen, but only sorcerers have the knowledge to make things happen! We represent inquiries that go beyond mere relationship, or even prediction, to address the outcomes of manipulating independent variables. What I bring your daughter on her naming day is a curse that will make causality clear to all: Aurora Dawn will prick her finger on a spinning wheel and that injury will make her die!" Sourapple whirled three times and disappeared, leaving stunned and somber festival guests. As murmurs of disbelief began, another magician stepped into the space before the royal family. It was Serena, a seer, who had not yet presented her gift to the baby. "Your Highnesses, I cannot undo Sourapple's spell, but perhaps I can make it stray from the mark. I cast a predictive spell as my gift: Should Aurora prick her finger on a spinning wheel, she will not die, but will simply sleep, instead." The festival ended abruptly as the shaken king and queen took their precious daughter and fled to their private chambers.

In the days and weeks that followed, King Nicholas attended to the study of levels of inquiry with unmatched fervor. Convinced that the threat to their daughter was real, Nicholas and Melissa sought to overcome it by any means possible. They sent
emissaries to locate Sourapple and offer an apology for their insensitivity and ignorance. They appealed to the state licensing board for magicians and the kingdom's research subjects review board. These efforts were to no avail: Sourapple could not be found, so neither persuasion nor force could be brought to bear to compel the sorcerer to revoke the spell. Attempts by other sorcerers to undo the spell simply conjured up clouds of copyright wraiths and intellectual property demons.

Meanwhile, the royal philosophic advisors attempted to make the curse disappear in a puff of logic. They reasoned that the independent variable, whether or not Aurora pricked her finger on a spinning wheel, would cease to be either manipulable or a variable if there were no spinning wheels. The guild of spinners and weavers argued that their industry, an important source of international trade for Inquiry, would not survive the ban and argued for the adoption of needle-less technology to avoid fingerstick injuries. A vocal minority supported maintaining the spinning status quo and simply explaining the problem to Aurora, once she reached the age of understanding. The king and queen were determined, however, not to burden Aurora with that knowledge, lest fear of the spell condemn her to a life of anxiety. With the support of royal technology utilization grants, the spinning industry converted to spinning wheels without sharp spindles and managed to expand their export markets in the process. By the time Aurora entered school, all of Inquiry's old spinning wheels had been destroyed. King Nicholas issued a royal decree against the import of any spinning machinery, and he and Melissa rejoiced in the belief that the threat to their precious daughter had been removed.

As the years passed, Aurora Dawn grew in wisdom and stature and character and strength. She was kind and clever and adventurous, but she was also obedient to her father's peculiar insistence that she master the categories of scholarly inquiry and enchantment. Factor-isolating questions were easy to identify: They were usually, "What is it like?" questions where no relationships between variables were proposed. Factor-relating questions were a little tougher to identify, until Aurora figured out that they were all those questions where variables were related to each other, (for instance, "are taller people heavier?") but no claim was made that one came before another or that one caused another. Once she sorted that out, Aurora really enjoyed factor-relating questions, because she didn't have to decide which variables were independent and which were dependent. Situation-relating and situation-producing questions were the ones with independent and dependent variables, and Aurora knew that they had temporal precedence in common: the independent variable always started before the dependent variable. What made situation-producing questions unique (and at the top of the Inquiry feeding chain) was the notion of causality, that you could change the independent variable and the result would be a change in the dependent variable.
This was so clear to her that she rolled her eyes in embarrassment whenever her father ordered the court musicians to play the oldies jive classic, "Relationship is the Necessary but not Sufficient Condition for Prediction" or the country ballad, "I Can't Get No Causality Unless There's Prediction, Too." As a matter of fact, it was the desire to avoid hearing those songs ("They're totally lame, Dad!") that sent Aurora Dawn off on an exploration of the furthest reaches of the castle one day. She was nearing adulthood, and she welcomed the chance to consider her life choices as she walked the halls and climbed the stairs of unused portions of her royal home. After much random exploration, she was attracted by a steady, whirring sound. Following it, she came upon an ancient person, producing thread on an antique spinning wheel. Aurora was entranced, and clearly still enchanted, despite all the intervening years. She had never seen such a person or such a contraption, and she suddenly felt her whole knowledge of life would be inadequate without this experience. "What are you doing?" she asked. "May I try?" Without a word, the spinner motioned Aurora to sit down at the wheel. Hesitantly at first, Aurora set the wheel to spinning and began to twist the fiber. And as she gained confidence, the inevitable occurred: Aurora drew her hand too close to the spindle and pricked her finger.

It was as though the world was holding its breath. The air grew still and the color of the sunlight changed. Aurora had barely noticed the prick when she slipped, unconscious, to the floor. But Aurora was not the only one affected: throughout the castle, the activity of all living things stopped, and the sentient fell into deep sleep. From the cattle and milkmaids in the stable to King Nicholas and Queen Melissa in the great hall, stillness and silence fell. The only motion was a wizened creature sailing away from a remote castle tower on a hang-glider emblazoned with the sorcerers' crest. Perhaps the spell spread further than the castle walls, because the surrounding villagers displayed no curiosity whatsoever about the sudden lack of activity in their midst. The sorcerers, of course, understood immediately what had happened, and were both appalled and impressed by the durability of Sourapple's spell. The seers were hopeful that Serena had managed to turn aside death, but noted that she had always had some problems with overgeneralization of her predictive spells. The RMs and LPMs prepared to conduct relational and descriptive studies of the phenomenon, but discovered that it was impossible to cross the shimmering air around the castle or to see clearly beyond it to collect data. The castle and its inhabitants faded from memory as a great, thorny hedge grew up around the walls. Lacking a vital, downtown core and proactive local government, the village succumbed to urban sprawl and the residents moved away.

And thus it was that -- many years later -- a young research botanist seeking plant sources of new drugs rode through abandoned and overgrown land until his way was blocked by a dense growth of forbidding shrubbery. Intrigued, he stopped to look
more closely and identified the plants in his field guide as Ilex Enchanticus. Here, indeed, was a potentially valuable find! The field guide noted that this hedge grew only in areas of strong scholarship or magic: surely a fertile area for the botanist, whose name was Wort, to explore. But all the plants within view were disappointingly ordinary, and Wort could find no way through the dense hedge to whatever might lie beyond. Determined to solve the problem, he made camp in the shadow of the shrubbery.

After a night of restless sleep and vivid dreams, Wort awoke to an early morning mist. As he prepared his breakfast, he caught glimpses of two large animals rooting in the undergrowth nearby, and he heard the sound of a nightingale singing overhead. When he approached the hedge, the animals challenged him, moving between Wort and the shrubbery and snorting ominously. They were wild hogs, with dangerous tusks and sharp hooves. As Wort stood motionless, the nightingale landed on his shoulder. "I", chirped the nightingale "am Florence and those hogs are named James and Dick. They are theorists -- the keepers of this scholarly magic place -- and in order to pass beyond the hedge you must correctly answer three questions for them." Wort was astounded to hear the bird speak.

"How is it that I can understand you, Nightingale?" he asked.

"All of my kind are accustomed to translating theory for practical use. It is part of our professional obligation. Now do you want to hear the questions or not?" Florence hopped impatiently as she spoke. Wort was thinking fast. "What's on the other side of the hedge? Could you fly over and tell me what you see?" "Florence ruffled her feathers with growing annoyance. "Been there, done that. It's your standard enchanted castle, complete with sleeping princess and spell-bound court." Wort looked unconvinced.

"Well, I guess I'll give it a try." "Okay, here's question one." Florence pulled herself up to her full height as the hogs watched attentively. "What is your name?" "That's easy. My name is Wort, son of St. John, younger brother of Prince Valium." The hogs snorted their approval. "Question two," chirped Florence. "What is your quest?" "I seek to improve health through teaching, learning, and the discovery of pharmacologically active plants." The hogs shuffled their hooves and snorted softly, then shrugged their shoulders and indicated their approval. "Question three," announced Florence. "What is the level of inquiry of the spell associated with this hedge?" Wort looked concerned. "How am I supposed to know? That's not a fair question. It's too hard for me to answer, and botanists shouldn't be expected to know about scholarly theory. It's not relevant to what we do. Besides, I always use SpellChek for things like that."

Florence fluttered into the air as the hogs started pawing the ground. "There are some interesting botanicals in the gardens, and I happen to know that the copyright on the
spell has expired, so that particular bit of magic is now public domain. Come on, you can figure out the right answer!" "Well," reasoned Wort, "if the spell is related to the hedge, then it has to be at least at the factor-relating level of inquiry. And if the spell was cast before the hedge grew, then it's at least situation-relating. So the question is whether or not the spell made the hedge grow. If so, it's situation-producing, not situation-relating. The field guide says *Ilex Enchanticus* only grows when a spell is cast by a sorcerer, not a seer or mage, so I guess that rules out alternative explanations. We have association, temporal precedence, and non-spuriousness -- the requirements for a cause and effect relationship. I'll go with situation-producing as the answer."

Amid roars of hog approval, the hedge began to wither and a passage opened in front of Wort. Throughout the palace, the residents awoke, none the worse for their extended sleep. The royal musicians resumed the second chorus of the children's song "Here We Climb Up the Inquiry Ladder" and Nicholas and Melissa extended cordial greetings to Wort. King Nicholas thanked the young botanist profusely for his efforts and enthusiastically pronounced them causal and worthy of the finest sorcerer. Aurora was found, and after a brief explanation of the situation, she was sent to guide Wort to the royal herb gardens. She was angry at her parents for not trusting her with knowledge of Sourapple's spell, but as a well-bred person she knew it was inappropriate to present whines before their thyme. All the enchantment-affected residents of Inquiry lived out their natural lives with reasonable happiness. Wort did identify two plants with pharmacologic potential -- an antibiotic and a romance-sustainer; however, both failed to fulfill their promise in randomized clinical trials. In the course of his many visits to the Inquiry gardens, he and Aurora became good friends. It was through her acquaintanceship with Wort that Aurora chose her career path, first as a clinical trials auditor and later as a health care administrator and accreditation council visitor. Although she and her parents reluctantly admitted they found the scholarship of James and Dick somewhat, well, boaring, they held the pair in great respect. And they never underestimated the contributions of Florence the nightingale to scholarly practice in her field.

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1 For example, the spell to cast out waxy yellow buildup on kitchen floors. (back)

2 Sourapple had endured a particularly vexing experience supervising an unlicensed assistant and had expended a millennium's supply of patience and resignation when the incident was incorporated into a feature-length animated film starring a rodent. (back)

3 Except by a NUR 301 student preparing for an applications exam (back)
more commonly known as Magic Holly Bush, in honor of the galaxy-renowned basketball and guitar playing former President (back)

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