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## Making Better Farm Management Decisions

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# Cornhusker Economics

## Making Better Farm Management Decisions

Traditionally, producer education efforts around farm management are directed at understanding the academic topics of business operations and management including, accounting, law, human resources, marketing, production, risk, finance, etc. The information, techniques and tools taught are often concrete and focus on measurement, analysis, and data. For instance, a traditional grain marketing education program would generally include topics in forward contracts, options, futures, hedge to arrive, basis contracts, storage, and seasonality. While these programs can be quite powerful in developing quantitative skills and knowledge, they neglect a key element needed by all farm managers to make objectively clear decisions. This key is a recognition, understanding and maintaining control of their individual behaviors and natural filters that affect their decision-making processes. Decision-makers must be able to recognize and understand their own foibles and take measures to nullify potential bias and errors in their thinking process. This valuable element in education and training can be acquired through the study and use of behavioral science, in this case, behavioral economics. An understanding of the relationship between the individual making the decisions and the challenges and tendencies they have as a human being in making objective choices positions them to make improved decisions that are better suited for their desired outcomes and goals. By recognizing

one's own behavior, adjustments and compensating actions can be taken. Understanding behavior, along with its application, is a powerful foundation upon which all the other quantitative tools, methods and knowledge may be leveraged. This short, introductory exposé on the relationship between farm management and behavioral economics is far from exhaustive. The hope is that readers will see value in the topic and desire to learn more. If acted upon, this desire can help them pursue knowledge and skills which will propel them to a higher level of decision-making performance. Ultimately, this improved ability to make decisions will benefit both their business and personal endeavors.

It is impossible to capture all the effects of human behavior corresponding to when and how decisions related to farm operations and business could or should be made. Since each individual is unique, it is expected that the possible applications of behavioral economics could not be discussed in such a short format. However, it is also true that there are common behavioral consistencies or drivers among each of us. We are, after all, human and can benefit from a general discussion.

Cognitive Bias is an error in thinking that affects the decision process. The "verywellmind" website describes it as "a systematic error in thinking that occurs when people are processing and interpreting infor-

mation in the world around them and affects the decisions and judgments that they make.” <https://www.verywellmind.com/what-is-a-cognitive-bias-2794963>. Cognitive bias can often be attributed to the use of heuristics. “*Heuristics* are mental shortcuts that can facilitate problem-solving and probability judgments. These strategies are generalizations, or rules-of-thumb, reduce cognitive load, and can be effective for making immediate judgments, however, they often result in irrational or inaccurate conclusions.” <https://thedecisionlab.com/biases/heuristics>. The last part of this definition critical to the discussion here, is that heuristics “often result in irrational or inaccurate conclusions.” As human beings, we tend to want to simplify complexity, conserve time, and focus on things we find interesting. Sometimes we are forced into situations where quick decisions must be made. As a result, people tend to naturally create and use heuristic methods.

One of the best ways to understand how *Heuristic Biases* affect the decision outcome is to discuss them and provide several examples. We have probably all suffered from the Dunning-Kruger Effect. “The *Dunning-Kruger effect* occurs when a person’s lack of knowledge and skills in a certain area causes them to overestimate their own competence. By contrast, this effect also causes those who excel in a given area to think the task is simple for everyone and underestimate their relative abilities” <https://thedecisionlab.com/biases/dunning-kruger-effect>.

With this effect, a producer who had great success in selling grain in the market in year X faces the possibility of being overconfident in the next year’s market season, or a farm manager working with employees may have a difficult time seeing why they don’t understand their assigned task. Another common error is the *Availability Heuristic* which “describes our tendency to use information that comes to mind quickly and easily when making decisions about the future.” <https://thedecisionlab.com/biases/availability-heuristic>. To demonstrate, think about the following question. Which cause of death is most frequent in the U.S., homicide or stroke? Those of you who recall instances of homicide, perhaps watch a lot of news, are

likely to answer homicide. The fact is that in 2020 the United States FBI statistics report 21,570 deaths by homicide versus nearly 150,000 deaths due to stroke (CDC). A closely related bias is the *Negativity Bias*. Negativity bias is where the “results in adverse events having a more significant impact on our psychological state than positive events.” <https://thedecisionlab.com/biases/negativity-bias>. A decision is made where more weight is placed on the possible negative impact of the decision rather than the probability of that negative event occurring, where the added attention is not justified. This could result in over-buying unneeded or overly costly insurance. Another related trap is called *Gambler’s Fallacy*, which quote, “describes our belief that the probability of a random event occurring in the future is influenced by previous instances of that type of event.” <https://thedecisionlab.com/biases/gamblers-fallacy>. A fair coin is flipped five times successively and lands showing the heads side, knowing this, what is the chance that the sixth toss will land showing heads? If you think less than 50% you would be exhibiting the effect of Gambler’s Fallacy. The key is to remember that each of the coin tosses is independent of the previous toss, thus the statement fair coin implies a 50% chance of each toss ending in heads. The last bias discussed here is *Anchoring Bias*, *this heuristic error in thinking* “causes us to rely too heavily on the first piece of information we are given about a topic.” For instance, during a sales call, an insurance seller might start by quoting a very expensive price for some lavish policy knowing that the buyer is likely to purchase a lower-priced policy. However, once the higher price is planted in the buyer’s mind, other offered policies may seem like a good deal in comparison. When the buyer purchases a lower-priced policy, they may not recognize its true value. There are many more types of biases and nearly a hundred cognitive/heuristic biases listed, described, and discussed at <https://thedecisionlab.com/biases>. From the foregoing information, one might think that heuristic tools are all bad, nothing could be further from the truth. At times, they are what keep us safe, or allow us to make good decisions when the heuristic is accurate.

Heuristics are valuable tools that can help us make good choices. It is when heuristic and rational thoughts are properly combined and used that our best decisions are consistently made. The bottom line is that decision-makers need to beware of biased tendencies and understand when they might be affecting them. The most critical factor in success on any farm is making the best choices possible. There are two additional links listed below that provide some interesting insight into decision-making.

<https://www.youtube.com/watch?v=ReFqFPJHLhA> -

A 3-to-4-minute presentation describing more about Heuristics titled “What Are Heuristics?”

<https://www.youtube.com/watch?v=-Lg7G8TMeA>

- A 19-minute-long presentation that suggests both rational thought and heuristics have their place in making decisions. Heuristics perform well under uncertainty, while rational thought does better with risk, title “How Smart People Make Smart Decisions”

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