A COMPLEX LOOK AT SIMPLICITY

A few nights ago, I came across my daughter reading The Fellowship of the Ring. She's a voracious reader, but this was really her first full-fledged effort with Tolkien. I noticed she was nearing the end of the book. I inquired on how it was going. "Ugh. I just want to be done," she said. When I asked why, she told me that the book was moving too slowly for her—the writing too thick, too cumbersome in spots. "I'm interested in the story," she said, "but I just want to get back to the kind of books I like." She just turned 12 about a minute ago, so perhaps we can forgive her for wanting to toss Frodo and Sam to the Nazgûl. She thoroughly enjoyed the movies, thankfully. You and I, however, aren't so far off from where she is. We also prefer simpler stories at times. This is particularly true when we receive a complicated story as an explanation that follows our simple question. "I just didn't do it" is a preferable explanation over some long tale about one's canine masticating previously written and completed work that was assigned for effortful exertion to take place at one's homestead on the day prior. Who needs all of that? As lawyers, we usually appreciate the ruthless efficiency of a simple explanation. However, as trial lawyers, we aren't often so good at offering simple stories for the sake of simple explanations.

That brings me to a study hot off the November presses. It involves 7 experiments, among a host of others preceding them, to further explore the human preference for simplicity. Our friend and colleague, Justin Berstein, has long attributed the Giza pyramid of trophies his mock trial teams are building to UCLA's practice of paring down case packets to the most digestible stories that come from them. He's carved those building blocks with Occam's razor, shaving off peripheral pieces of evidence and the unnecessary pounds of thicker theories.[1] As litigators and coaches, it's worth meditating on this study to learn more about why simplicity seems to be our brain's default preference.

This study is comprised of 7 different experiments and each experiment is fairly involved. I could summarize each experiment and make this blog longer than anyone would want it to be. Instead, I will summarize the themes running through the 7 experiments and discuss some of the findings that would be important for litigators or coaches. It's important to note here that the study attempts to add another layer of explanation to the well-proven fact that our brains gravitate toward simplicity. Toward simplicity in explanation, certainly. While we might all like to hear Stephen Hawking explain the mysteries of black holes to us, most of us would prefer a 5-minute Ted talk on it as opposed to a 2-hour lecture. However, the authors of the study set out to prove whether our preference for simplicity might also arise from a desire to complete goals in efficient ways.[2] For our present purpose, it seems a worthwhile question to ask: How might a juror's goal-directed search for an explanatory verdict be led by a desire to complete that goal efficiently?

The authors summarize their methods as follows:

> …we had participants read about simple and complex methods for producing an outcome. In one condition, the outcome had already been produced and

[1] Occam's razor is a philosophical tool attributed to the work of William of Ockham, a 14th century theologian and author. Jody Foster's character in the 1997 alien movie "Contact" popularly summarized the principle, saying, "All things being equal, the simplest explanation tends to be the right one." However, a still-usable and more precise definition would probably go something like this: When trying to explain a single event or phenomena, it is not necessary to multiply causes or contributing factors, because one should pursue simpler explanations first. To put that another, simpler way, Occam's razor should be used to shave away complicating causes in favor of finding the simplest plausible explanation. The tool is discretionary and prescriptive, however, and not exactly hard science. To that end, Foster's character says that the simplest explanations "tend to be" right, rather than saying that they are always right.

[2] Claudia G. Sehl et al., Doing things efficiently: Testing an account of why simple explanations are satisfying, 154 COGNITIVE PSYCHOLOGY 101692, November, 2024, https://doi.org/10.1016/j.cogpsych.2024.101692

> participants made retrospective judgments about which explanation was more appealing. But in another condition, the outcome had not yet been produced, and participants instead made prospective judgments about which method would be a more appealing way of producing [the outcome].[3]

In a few of the experiments, the authors not only position explanation of past phenomena against methods for producing the same outcome prospectively, they also introduced probability data for explanation conditions and the process conditions. I'll share some of their test questions to better illustrate the experiments. The following was from their first experiment, which didn't involve a probability component:

> Gozo flies are usually gray. But they turn purple if they eat certain minerals.
> They turn purple if they eat both alion and balion.
> They also turn purple if they eat calion.
>
> Participants then answered a test question, which varied across two between-subject conditions. In the flies version of the explanation condition, participants were asked:
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> You are trying to understand why a certain Gozo fly is purple. What is the most appealing explanation for why it is purple?
> (Forced choice: It ate alion and balion; It ate calion).
>
> In the process condition, participants were asked:
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> You want to cause a certain Gozo fly to turn purple. What is the most appealing way to make it turn purple?
> (Forced choice: Feed it alion and balion; Feed it calion).[4]

The following is from one of the explanation conditions which included probability data:

> Tulver rocks are typically gray and smooth. But they become purple and rough if they are exposed to certain molecules.
> If they are exposed to ancon, they become purple 90% of the time.
> If they are exposed to bancon, they become rough 90% of the time.
> If they are exposed to cancon, they become purple and rough 65% of the time.[5]

So, the authors of the study predicted that test subjects would show similar preferences when it came to explanations for an outcome and for prospectively producing that outcome later. Using the first example above, that would mean test subjects were predicted to choose the explanation for a Gozo fly's purpleness as resulting from it having eaten "calion" and to likewise choose to feed it "calion" in order to turn it purple.[6] Thus, if the simple explanation is preferable, the simple process would be preferable as

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[3] *Id.* at 2.
[4] *Id.* at 3.
[5] *Id.* at 8.
[6] *See id.* at 2.

well. However, the experiments were more sophisticated than I can spell out in the small space of this blog. Part of this sophistication involved experiments which tied preferences to efficient goal completion and not merely to a preference for simplicity.

The authors conclude the study, saying:

> We suggest that in both judgments, preferences for simplicity reflect a tendency to prefer accomplishing goals efficiently. With explanations, the goal is to describe what caused an outcome, and so it is more efficient to invoke fewer causal factors. With processes, the goal is to produce an outcome, and so it is more efficient to use fewer causal factors.[7]

However, in the experiments where probability data was introduced, things didn't always follow the lines of simplicity. The authors found that test subjects were willing to "violate" Occam's razor and multiply causes when certain kinds of probability data were present. So, for instance, if test subjects heard a simple cause produced an effect 65% of the time but that a complex set of causes produced the same outcome 80% or 90% of the time, the subjects were more likely to choose both the complex explanation of the outcome and the complex process for producing the outcome.[8] The higher probability had more explanatory and productive power than the simpler, but less-likely operations.

It's probably true that we've thought that our cases, our theories, and our arguments need to be as simple as the evidence allows. I'm sure we've linked that simplicity to the idea of plausibility—believing that jurors will find both the simplest and most plausible explanation for a "case event" to be the right version of the case event. Apart from a juror seeking an explanation, however, it seems to be worth pondering whether our evidence, jury instructions, verdict forms—and our arguments about all of these things—lend themselves toward a preference for an efficient, goal-oriented process.

As we always do this time of year, Jules and I wish you and your loved ones a happy, healthy, and safe holiday season. We will see you in the new year!

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[7] *Id.* at 13.

[8] *Id.* at 11-12.