Arbitrators, Mediators, and Heuristics --- The Search for Antidotes to Potential Distortions in Our Thinking

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I. Introduction

In recent years, it has become increasingly clear from the scientific and technical literature that the physical and psychological make-up of our brains can have important and sometimes distorting effects upon our judgment and decision-making.

Specifically, the construction of our minds, including the chemistry of the functioning of our minds, potentially affects our judgment and decision-making, as humans – and, by extension, as arbitrators, mediators, judges and lawyers in arbitrations, mediations and court cases – in significant ways. The same thing is true of the internal processing of our minds, where it appears that much more activity occurs on an unconscious, or perhaps a "preconscious," basis than we are aware.

Numerous leading commentators, including, most notably, Daniel Kahnemann of Princeton University, in his recent bestseller "Thinking Fast and Thinking Slow" have suggested that our minds have essentially two systems, System 1 and System 2.[2]

System 1, as described by Kahnemann and others, is essentially our automatic, largely unconscious, mental apparatus that makes snap judgments, quick judgments, early decisions, and instinctual resolutions of matters that come to our attention.[3] This part of our brain is often very

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[1] I acknowledge the considerable assistance of Michael Krenicky in preparing this review of the heuristics literature and suggested solutions to the problems presented.
[2] Daniel Kahneman, Thinking Fast and Slow 20-21 (2011).
[3] *Id.*

accurate and very reliable. Indeed, it is our primary survival mode, which includes the flight or fight phenomena and the like. In short, our System 1 instinctual mental processes serve us very well.

System 2, in turn, is the deliberative part of our minds, the part of our minds that processes information and reasons from point to point.[4] This part of our minds enables us to override our System 1 and potential distortions it can introduce by imposing judgments on our instinctive responses to stimuli. Just as our System 1 is generally quite reliable and generally works quite well, System 2 is quite a fine piece of equipment, including the aspect of it that involves overriding System 1. This ability to impose judgments is often invaluable and is seen as distinguishing us from creatures that possess only instinct.

Nonetheless, scholars have concluded, based on what appear to be quite reliable objective psychological tests – that that our System 1 is prone to certain identifiable errors that our System 2 typically tends to overlook or ignore, absent intervention (such as this article might make possible).

Specifically, experts in this field have shown that our System 1 is prone to numerous types of misjudgment that can put us as arbitrators, mediators and judges at risk of making erroneous judgments and decisions grounded in fallacy or mistake.

The importance of the impact of System 1 on our decision-making processes is not lost on the legal world or the world at large, as several popular books have been written on this topic, including "Blink" by Malcolm Gladwell and, as mentioned, the recent comprehensive tome by Daniel Kahnemann, "Thinking Fast and Thinking Slow," supported by an impressive array of high level psychological research. Professor Jeffrey Rachlinski of Cornell Law School and

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[4] *Id.*

others have reviewed this subject in the context of judicial decisions, conducting extensive studies concerning the impact of systematic errors that are prevalent in System 1 on judges and their decisions.

However, other than a few articles[5], the impact of System 1 on arbitrators has largely been ignored by the academic world. This is despite the fact that arbitrators are presumably at least as prone to such errors of judgment and indeed, in some respects, may be more so, since arbitrators, by definition, function in a regime that is more flexible and less "rules-bound" than judges. For instance, arbitrators, unlike judges, are generally not bound by detailed Federal Rules of Civil Procedure or New York Civil Practice Law and Rules or the like.[6] The Federal Arbitration Act, the New York Arbitration Law, and leading arbitration rules, such as the Rules of the American Arbitration Association, JAMS, and the ICC, tend to be less specific than comparable court rules and processes, leaving far greater discretion to arbitrators.

Additionally, arbitration takes place behind closed doors, in private. Thus, the awards of arbitrators are not subject to the same level of scrutiny as the decisions of judges (although there is some overview of arbitrators' findings by the marketplace and, of course, by the courts, to a limited extent).

Therefore, for us as arbitrators and counsel in arbitrations, it is important to identify the main patterns of misjudgment and erroneous decision-making that are prevalent in our System 1, so we can identify steps we can take to correct for such potential errors.

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[5] *See, e.g.*, Christopher R. Drahozal, *Mandatory Arbitration: A Behavioral Analysis of Private Judging,* 67 Law and Contemp. Prob. 105 (2004).
[6] *See, generally*, FED. R. Civ. P.; N.Y. C.P.L.R.

II. ANALYSIS of HEURISTIC BIASES

A. Overview

This article focuses on seven key heuristics that appear to have the potential to affect the thinking of arbitrators, and goes on to propose potential solutions for mitigating the effects of such heuristics. While this article gives individual proposed solutions for each heuristic, it is important to note that there is also a common thread through each of the solutions offered. Several of the possible solutions for mitigating the effects of System 1 biases discussed in this article involve expanding the decision-making process in arbitration to broaden the arbitrator's perspective as to and understanding of the matters at issue.

B. Heuristics

1. Representative Heuristic

a. Overview

A representative heuristic is when an individual makes judgments about the probability that a person or event falls into a particular category based on the fact that that person or event has similar characteristics to people or events in that category as a whole. The most well-known study done on representative heuristics is Daniel Kahneman's study involving "Tom W."[7] In this study, individuals were asked to guess the major of a fictional student, "Tom," after hearing a description of his personality traits.[8] "Tom" lacked creativity and had little sympathy for or interest in interacting with others.[9] Despite being told that humanities and education were the most common majors at his school and computer science was the least common major, the

[7] Kahneman, *supra* n. 2 at 146-48.
[8] *Id.*
[9] *Id.*

majority of people guessed that "Tom" was a computer science major.[10] Most of the survey subjects based their decision on the personality traits that were given to them.[11] This study showed that individuals often choose less probable outcomes rather than a more probable outcome because of assumptions made about certain people or events.

b. Solutions

There are a number of solutions that arbitrators and mediators can use to limit the negative effect of the representative heuristic during their decision-making or other processes. One such solution that applies to arbitrators was explained in Chris Guthrie, Jeffrey Rachlinski, and Andrew J. Wistrich's article about the mental processes of judges titled *Inside the Judicial Mind.*[12] The authors suggested that while the representative heuristic can be helpful for making efficient decisions, it can also lead judges in the wrong direction.[13] For example, "… Judges should regard a litigant's efforts to prove that a highly unlikely event occurred with great suspicion. A rare event … is more likely to be the extraordinary product of a common cause (non-negligence) than the ordinary product of an extraordinary cause (negligence). Rare events should not be attributed to extraordinary causes without powerful evidence."[14] Like judges, arbitrators should look closely at a party's explanations that include extraordinary causes of events. Parties may attempt to exaggerate their position or sensationalize an event to draw sympathy from the arbitrator. It is important for the arbitrator to think rationally, based on the evidence, about the probabilities of various events in a case without being affected by language of the parties.

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[10] *Id.*
[11] *Id.*
[12] 86 Cornell L. Rev. 777, 823-24 (2001).
[13] *Id.*
[14] *Id.*

2. The Law of Small Numbers

a. *Overview*

The Law of Small Numbers is a type of representative heuristic that can also affect arbitrators. The Law of Small Numbers is a logical fallacy that occurs when someone assumes that a small sample is representative of a much larger population.[15] This assumption can cause problems for arbitrators and mediators when attempting to assess the facts of a case. Dave Finch gives a relevant example for arbitrators and mediators in his article *Heuristics, Fallacies, and Biases,* "A plaintiff who suffered a whiplash though given a prognosis of complete recovery in a few months, based upon the large numbers of accident victims who recover at that rate, but whose friend had a similar injury two years before and continues to suffer, is likely to resist the prognosis, even despite obvious differences between her age and anatomy and that of her friend."[16] Therefore, a party that is involved in a personal injury arbitration may overlook the much larger sample size of all accidents because of a past experience with a similar accident.

b. *Solutions*

Like parties to arbitration or mediation, arbitrators and mediators can also be affected by the Law of Small Numbers. Arbitrators must avoid relying solely on their past experiences in similar arbitrations to determine what an appropriate result should be for a particular arbitration because often one's personal experiences (even for an experienced arbitrator) may not be based on a large enough sample size to evaluate the particular situation at hand.

Finally, it is important for arbitrators and mediators to be aware of irrelevant things that might come up in a case, and how they might seem to affect relevant and significant matters in

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[15] Kahneman, *supra* n. 2 at 112-13.
[16] Dave Finch, *Heuristics Fallacies, and Biases,* Dave Finch Mediation Services 5 (2008) available at http://mediationserv.com/?page_id=28

the case. As Dave Finch says in his article, "The mediator aware of this small numbers fallacy will diplomatically inquire of the party relying on limited data whether she believes it is sufficient in quantity to match the data on the opposing side, not by way of coercing her to accede to the opposition proposal, but by way of inviting her to reassess a position that may be based on inadequate data. In most cases there is a region in which no one can say with certainty that a particular number is too high or too low; above or below a probable verdict; unrealistic or spot on. But, the mediator can guide both parties toward that zone of possibilities where both sides are likely to take refuge in settlement."[17] Again, the role of the mediator is to act as an unbiased decision-maker. By forcing parties to assess their own personal biases, it helps to get all sides, including the arbitrator, on the same page as to what an appropriate settlement might be for a particular case.

3. The Availability Heuristic

a. Overview

The availability heuristic is when one readily remembers something or some event and the individual believes the event must be important because they remember the event. This availability heuristic often overinflates the importance or relevance of a particular fact or event in a case in the mind of an individual.

For example, an individual is likely to exaggerate the frequency of both Hollywood divorces and political sex scandals because they attract extensive news coverage and easily come to mind.[18] Other examples of this type of bias include situations where personal experiences are more "available" than incidents that happened to others or statistics that one has heard second-

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[17] *Id.*
[18] Kahneman, *supra* n. 2, at 130.

hand. For example, a judicial error that affects a person directly may undermine her faith in the justice system more than a similar incident that she reads about in a newspaper.[19]

b. Solutions

As arbitrators, it is very important that we look outside our personal experiences when coming to a decision in a particular arbitration. When making decisions, it is important not to assume the current proceeding requires the same outcome as a previous proceeding with similar facts that we remember. In addition, as arbitrators we should consider pausing and thinking about why we are making a particular decision. It is important for us as arbitrators to avoid making decisions based solely on personal anecdotes that easily come to mind. In addition to avoiding personal biases, it is important that we as arbitrators and mediators be aware of potential biases of the parties. As Robert Adler discussed, "One should be particularly alert to the availability heuristic as a confound in negotiation. An opponent who refuses to consider a truly generous offer may do so because he or she has had a bad memory triggered that creates unreasonably negative feelings towards the offer. Things as trivial as using a particular facial expression or phrasing words in a particular way might remind an opponent of a previous bad experience in such a way that he or she refuses to bargain further to reach a deal."[20] Awareness of these potential biases can help a mediator bridge the gap between the parties to create a palatable settlement for both parties and can help make the arbitrator aware of any personal biases that he or she might have.

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[19] *Id.*

[20] *See* Robert S. Adler, *Flawed Thinking: Addressing Decision Biases in Negotiation*, 20 Ohio St. J. on Disp. Resol. 683, 702 (2005).

4. Anchoring Bias

a. Overview

Anchoring is the common human tendency to rely too heavily, or "anchor", on one trait, number, or piece of information during the decision-making process. One well-known study on anchoring that has particular relevance to arbitrators involved a group of 265 judges who were put into two groups to determine an appropriate settlement for a personal injury case.[21] One group of judges was told that the plaintiff's lawyer was asking for 175,000 dollars while the other group was told that the plaintiff's lawyer was asking for 10 million dollars.[22] The group of judges that were given the 10 million dollar amount awarded a much higher settlement in the hypothetical than the other group of judges.[23] The difference in results occurs because individuals are often affected by the higher base number and adjust their estimates accordingly. It thus appears that, unless we, when acting as arbitrators, are alert to this heuristic risk and take countermeasures, we may be inclined to mis-evaluate a situation, based on how it is presented to us.

b. Solutions

Guthrie, Rachlinski, and Wistrich's article, *Inside the Judicial Mind,* discusses how judges can limit the effect of the anchoring bias through consciously differentiating between useful and meaningless anchors.[24] As suggested in their article, anchors can sometimes provide

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[21] Andrew J. Wistrich, Chris Guthrie & Jeffrey J. Rachlinski, *Can Judges Ignore Inadmissible Information, The Difficulty of Deliberately Disregarding*, 153 U. Pa. L. Rev. 1251, 1288-89 (2005).
[22] *Id.*
[23] *Id.*
[24] Wistrich, Guthrie, & Rachlinski, *supra*, note 6, at 823.

useful information that can improve the quality of a decision.[25] However, misleading anchors can negatively affect the decision-making process.[26] Arbitrators should examine the evidence and use their experience to evaluate when they must limit the effect of certain anchors.

5. Framing Bias

a. Overview

The framing bias is the idea that different ways of presenting the same information often evoke different emotions within individuals. There are a number of examples and studies that have been done on the effect that framing has on how individuals interpret various statistics. For example, the statement that the odds of survival one month after surgery are 90 percent is more reassuring than the equivalent statement that the mortality rate within one month of surgery is 10 percent.[27] Arbitrators should be aware that parties may try to influence them by manipulating numbers to make a situation appear better or worse than the actual numbers may deserve.

b. Solutions

There are several ways for arbitrators to limit the framing bias within the decision-making process. Studies have shown that judges are less likely to be influenced by framing effects during settlement decisions than the average population, potentially because of their ability to look at multiple angles of a case.[28] Arbitrators also should rely on their ability and skills to consider the facts in a case from multiple angles to avoid the effects of the framing

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[25] *Id.*
[26] *Id.*
[27] *See, e.g.*, Kahneman and Tversky, *Rational Choice and the Framing of Decisions,* The Journal of Business, Vol. 59, No. 4, Part 2: The Behavioral Foundations of Economic Theory. (Oct., 1986), pp. S251, S254, available at http://www.cog.brown.edu/courses/cg195/pdf_files/fall07/Kahneman&Tversky1986.pdf (explaining how people choose different treatment options based on the language that is used).
[28] Guthrie, Rachlinski, and Wistrich, *supra* note 12, at 822-23.

bias.[29] Like judges, arbitrators have a potential ability to re-frame the discussion because they are able to hear both sides of an argument without having a stake in the outcome. As with the anchoring bias, an arbitrator should strive to bridge the gap between the two sides' framing of the issues in a case. As attorneys often use colorful language to frame their arguments in cases, it is important for arbitrators to use their wealth of experience to distinguish between factual arguments and language and statistics that can be misleading.[30]

6. Hindsight Bias

a. Overview

Hindsight bias is the concept that "you knew all along" that something or some event was going to happen. This bias can cause arbitrators to potentially miscalculate the predictability of past events. The ability to calculate the predictability of past events is something that can be very important to arbitrators. Therefore, it is important that arbitrators mitigate the effect that this bias can have on them.

Several studies have been conducted on the effect that this bias can have on the decision-making process. One study, completed by Baruch Fischoff analyzed the effect of hindsight bias on undergraduate subjects using the results of a war between the British and the Nepalese Gurkhas in the nineteenth century.[31] The account listed four possible outcomes for the war. The students were then separated into five groups, four of which were told the outcome of the war while one group was not given the results.[32] The four groups of subjects that were told the outcome were asked to give the probability they would have assigned to each outcome if they

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[29] *Id.*
[30] *Id.*
[31] Behavioral Economics, Law and Psychology, 79 Or. L. Rev. 61 (2000).
[32] *Id.*

had not been given the results.[33] The last group was asked to estimate the probability of each outcome without being given the result of the war.[34] The results showed that there was significant hindsight bias.[35] The groups that had been given the results rated the probability of that result higher than the groups did that were given a different outcome and the group that was given no outcome at all.[36]

b. Solutions

To overcome hindsight bias, arbitrators must avoid assuming a potential event was necessarily likely to occur just because it actually did occur. This is of particular concern in events involving negligence or foreseeability because the arbitrator's decision may turn on whether the actions a party took were reasonable considering the circumstances.

7. Overconfidence Bias

a. Overview

Overconfidence bias provides different concerns for arbitrators than some other cognitive biases. One reason is that arbitrators do and should rely on confidence in their abilities to make a decision on particular issues. Nonetheless, overconfidence bias can negatively affect an arbitrator's decision-making process as well. One of the major problems in professional fields is the tendency to be overconfident. An example of the overconfidence bias of professionals was explained in Daniel Kahneman's Thinking Fast and Thinking Slow.[37] A study was done by Duke University in which the CFO's of large corporations estimated the returns of the S&P

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[33] *Id.*
[34] *Id.*
[35] *Id.*
[36] *Id.*
[37] Kahneman, *supra* n. 2 at 261-62.

index over the following years.[38] The correlation between their estimates and the true value was slightly less than zero.[39] Despite this, CFO's gave 90% certainty of certain numbers for S&P returns that would turn out to be too high or too low.[40] Thus, their confidence was much higher than their actual success rate. Similarly to CFO's, arbitrators also tend to be experts within their own field and therefore can be prone to overconfidence bias.[41]

b. Solutions

Overconfidence bias affects arbitrators (as it affects all individuals) but it is extremely difficult to determine the proper solutions for limiting the effect of this bias because it is difficult to determine the line between confidence and overconfidence. Guthrie, Rachlinski, and Wistrich discussed this issue in their article *Inside the Judicial Mind*, "Among the five illusions we tested, the egocentric bias and the hindsight bias are essentially impossible to avoid. Egocentric beliefs are closely connected to good mental health, especially in instances where those abilities are important to one's personal or professional life. Inflated beliefs in one's personal and professional abilities allow people to enjoy a high sense of self-esteem; in fact, only people who are depressed appear to possess an accurate portrait of their abilities. Not only would it be difficult for judges to learn to avoid egocentric biases, it might be inadvisable for them to try. On balance, the social benefits of having confident, decisive judges likely outweigh the costs associated with an occasional erroneous decision caused by such self-assurance."[42]

This explanation demonstrates the conundrum that arbitrators face in their work. Arbitrators should try to temper their overconfidence by proceeding with caution and searching

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[38] *Id.*
[39] *Id.*
[40] *Id.*
[41] *Id.*
[42] Guthrie, Rachlinski, and Wistrich, *supra* n. 12 at 824.

for independent sources of judgment, if possible. Obviously, a three-person panel can help in this regard, as having three persons look at the situation may serve to compensate for misperceptions of individual members of the panel.[43]

Where we are acting as sole arbitrators, perhaps we need to submit our initial impressions to deeper assessment to make sure we are confident they are correct. As arbitrators we are often working alone and may need to make a special effort to make sure we consider all aspects of a situation before us. It may help for us to reflect on and analyze how other decisions or solutions might also be plausible. This is especially important, given the limited review of our arbitral awards.

Thus, it is important for us when acting as arbitrators to strive for a reasonable balance between being confident of our abilities and aware of our limitations, including our possible misperceptions and misjudgments. We need to maintain confidence in our ability to make good decisions while being careful to consider various ways of looking at the fact patterns before us.

C. Benefits of Arbitration

While arbitrators may be particularly susceptible to the foregoing heuristics, there are also benefits that come from years of experience as an arbitrator that can positively affect the decision-making process. The key thing would appear to be that we be aware of the possible pitfalls of our System 1 and take corrective actions along the lines of the approaches outlined here as we strive to make most appropriate decisions in the circumstances of the particular cases that come before us.

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[43] *See Id.*

III. Conclusion

Heuristics are a natural part of the decision-making process. However, it is important that we be aware of them and look for ways to limit the negative effects these shortcuts can have on our mental processes. Arbitration continues to be a favored alternative to litigation for many parties because of the assumption that arbitrators are experts in their particular field and can make efficient and fair decisions. Therefore, it is critical that arbitrators continue to maintain this edge by not taking the mental shortcuts that often plague decision-making and lead to inconsistent and incorrect decisions. The approaches suggested above can hopefully be helpful to us in avoiding the negative effects of heuristics biases. However, more research and studies need to be conducted in this field to enable us to further understand how we can best make critical decisions.

The challenge would appear to be that we, on as expeditious a basis as possible, raise our consciousness of these mental shortcuts and work to overcome them. Because of the nature of the beast here, it would appear that this effort will not be automatic, even though we are now aware of at least some of what may be at play in our System 1, since we are talking about the very structure and instinctive functioning of our minds. However, it seems clear that we can make progress on this effort if we train our System 2 to intervene when necessary, which, afterall, is its job.