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Far Beyond Baker: Heuristics and the Inadequacy of the Reasonable Apprehension of Bias Analysis

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Abstract

When we consider bias in an adjudicative setting, we think about cases such as *Baker v. Canada* where the interviewing officer's emphasis on the applicant's number of children, economic status, and mental health is glaring. It is easy to become accustomed to thinking about bias in clear examples such as prejudice against people of a disadvantaged group. However, bias can also be subtly present in the subconscious mind, even when a person appears to be acting objectively. The development of cognitive psychology research has revealed that the mind relies on heuristics, or mental shortcuts, to make quick decisions. Heuristics research divides the mind into two systems of operation: The first operates automatically, while the second operates methodically. Heuristics are a function of the former and are consequently difficult to clearly observe and readily identify. Subconscious reliance on heuristics when approaching tasks that demand objectivity can result in decisions that are unintentionally guided by bias, rather than evidence.

A reasonable apprehension of bias (RAB) claim is advanced when a party suspects bias on the part of an adjudicator. The question is whether an informed reasonable person would reasonably perceive bias on the part of the adjudicator. The onus is not to prove bias, but merely an appearance of bias. The test is an appeal to the maxim that justice must not only be done but should be seen to be done. The analysis is designed to protect not only the parties but also the public perception of the legal system. In this sense, the RAB test is overinclusive. Conversely, consideration of the RAB test, in light of cognitive biases and heuristic reasoning, reveals that the test is also underinclusive. The driving force behind the RAB analysis appears to be that justice must be seen to be done. Neither the informed reasonable person's knowledge of the law nor the community can help discover veiled or subtle cognitive biases. We are left with a conundrum: The original premise that justice must be done may be violated covertly without triggering the prevailing test for a RAB, leaving an unintentional blind spot.

In order to address the shortcomings of the RAB analysis, I propose the implementation of preventative measures to decrease adjudicators' vulnerability to cognitive biases. These measures can be established by increasing adjudicators' understanding of heuristics and counteracting potential intuitive predispositions. Development of remedial measures should consider scarce judicial and adjudicative resources.

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Far Beyond *Baker*: Heuristics and the Inadequacy of the Reasonable Apprehension of Bias Analysis

ARASH NAYERAHMADI*

When we consider bias in an adjudicative setting, we think about cases such as *Baker v. Canada* where the interviewing officer's emphasis on the applicant's number of children, economic status, and mental health is glaring. It is easy to become accustomed to thinking about bias in clear examples such as prejudice against people of a disadvantaged group. However, bias can also be subtly present in the subconscious mind, even when a person appears to be acting objectively. The development of cognitive psychology research has revealed that the mind relies on heuristics, or mental shortcuts, to make quick decisions. Heuristics research divides the mind into two systems of operation: The first operates automatically, while the second operates methodically. Heuristics are a function of the former and are consequently difficult to clearly observe and readily identify. Subconscious reliance on heuristics when approaching tasks that demand objectivity can result in decisions that are unintentionally guided by bias, rather than evidence.

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In order to address the shortcomings of the RAB analysis, I propose the implementation of preventative measures to decrease adjudicators' vulnerability to cognitive biases. These measures can be established by increasing adjudicators' understanding of heuristics and counteracting potential intuitive predispositions. Development of remedial measures should consider scarce judicial and adjudicative resources.

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WHEN WE THINK ABOUT BIAS in an adjudicative setting, we may think about *Baker v. Canada (Minister of Citizenship and Immigration)*.¹ Bias can be inferred from the interviewing officer's undue emphasis on Ms. Baker's eight children, economic status, and mental health.² It is easy to become accustomed to thinking about bias when it manifests obviously and aggressively. However, bias can also be subtly present in the subconscious mind even when it is not objectively apparent in the person's actions. Moreover, seasoned adjudicators are not impermeable to these veiled or subtle cognitive biases, which may be derived from heuristics—simple procedures for the mind to solve difficult problems, albeit with often imperfect answers.³ Heuristics belong to the automatic processing compartment of the mind, which has significant influence on our daily decision making.⁴ It works in stark contrast to our active or concentrated mind, which is characterized by methodical analysis and a sense of agency.⁵

While cognitive biases and the mind's automatic function make our lives easier, they can also materially bias our decisions. Subconscious reliance on heuristics when approaching tasks that demand objectivity can result in decisions that are unintentionally guided by bias rather than evidence. This is a fundamental concern in adjudicative settings, where the “existence of an open mind or a weighing of the particular circumstances of the case free from stereotypes” is vital.⁶

In this article, I consider whether the reasonable apprehension of bias (RAB) test can effectively detect cognitive bias on the part of a judge or an adjudicator in a quasi-judicial setting. By considering the constitutive elements of the RAB test, I posit that the current legal framework captures only obvious and observable instances of bias, not subtle cases of cognitive bias. The scope of the

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1. [1999] 2 SCR 817 [*Baker*].
 2. *Ibid* at para 5.
 3. For an informal and accessible summary of heuristics, see Daniel Kahneman, *Thinking, Fast and Slow* (Farrar, Straus and Giroux, 2013) at 98; Justin Fox, “Instinct Can Beat Analytical Thinking,” *Harvard Business Review* (20 June 2014), online: <hbr.org/2014/06/instinct-can-beat-analytical-thinking>.
 4. Daniel Kahneman & Shane Frederick, “Representativeness Revisited: Attribute Substitution in Intuitive Judgement” in Thomas Gilovich, Dale Griffin & Daniel Kahneman, eds, *Heuristics and Biases: The Psychology of Intuitive Judgement* (Cambridge University Press, 2002) 49.
 5. See Steven A Sloman, “Two Systems of Reasoning” in Gilovich, Griffin & Kahneman, *supra* note 4, 379 at 383. Sloman notes that the rule-based system is responsible for “[d]eliberation,” “[e]xplanation,” and “[f]ormal analysis” (*ibid*). Anecdotally and relying on our own experience, we know that these functions are fundamental parts of any learned task.
 6. *Baker*, *supra* note 1 at para 48.

RAB analysis is, therefore, overinclusive, in that it captures the apprehension of bias where there may be no actual bias, and underinclusive, in that it does not capture all instances of cognitive bias. In order to address the shortcomings of the RAB analysis, I propose preventative measures that address an adjudicator's vulnerability to cognitive biases.

This article proceeds in five Parts. Part I examines the structure of the RAB analysis with a focus on the knowledge of the informed reasonable person. Part II presents an overview of heuristic reasoning, the two schools of heuristic research, and a selection of cognitive biases that can affect adjudicative reasoning. Part III considers the extent to which the RAB test can capture instances of cognitive bias. Part IV argues that the scope of the RAB test inadvertently overlooks symptomless cognitive biases by focusing exclusively on the overt; it concludes by providing a series of recommendations to reduce adjudicators' susceptibility to inappropriate intuitive reasoning.

This article relies on established scholarship on cognitive biases to analyze the adequacy of the common law's response to potential bias on the part of the adjudicator. The field of psychology and the law is vast. To that end, I do not present an exhaustive summary of the literature on cognitive biases, nor on its intersection with the RAB analysis. Instead, I focus on heuristics and present a high-level discussion of the relevant schools of thought and basic tenets that allow for an evaluation of the RAB analysis from a legal perspective.

I. THE RAB ANALYSIS AND THE INFORMED REASONABLE PERSON

A. THE GENERAL TEST FOR RAB

The RAB analysis is the mechanism available in the dispute process to address the appearance of bias on the part of the adjudicator. In order to assess the applicability of the RAB test to situations where the presence of cognitive bias is alleged, it is necessary to understand the structure and elements of the analysis. The current test has remained relatively unchanged since Justice de Grandpré's 1978 dissenting judgment in *Committee for Justice and Liberty et al v. National Energy Board et al.* ("*Committee for Justice*"), which contemplates that an informed reasonable person must reasonably perceive bias on the part of the decision maker.⁷ This articulation of the test has garnered general acceptance and approval.⁸

7. [1978] 1 SCR 369 at 394-95 [*Committee for Justice*].

8. See *Canadian Pacific Ltd v Matsqui Indian Band*, [1995] 1 SCR 3 at para 81; *Baker, supra* note 1 at para 46.

The RAB analysis is highly fact specific and contextual.⁹ This is perhaps the greatest barrier that must be overcome when relying on indications of cognitive bias as evidence. The Supreme Court of Canada (SCC) has noted that “[t]here are no shortcuts” and has warned against “peremptory rules” and “textbook’ instances.”¹⁰ The facts that give rise to the RAB analysis “must be addressed carefully in light of the entire context.”¹¹ Consequently, it is not enough to extrapolate merely from an adjudicator’s past decisions, actions, or behaviour.¹² The analysis must be specific to the context and events that give rise to the allegations.

A party claiming the existence of a RAB must meet a high threshold to successfully rebut the presumption of impartiality,¹³ and the burden of proof is on them.¹⁴ The standard or threshold to rebut the presumption of impartiality and to establish a RAB is one of serious and substantial grounds, which Justice de Grandpré noted must not “be related to the ‘very sensitive or scrupulous conscience.’”¹⁵

The availability and efficacy of cognitive bias research as evidence of RAB are constrained by the type of decision making and the degree of independence required of the decision maker. Administrative boards are held to varying standards depending on their function. Consideration of cognitive bias and the RAB test is, therefore, limited to those cases dealing with truly adjudicative functions.¹⁶ Boards that are primarily adjudicative and quasi-judicial attract a

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9. See *Wewaykum Indian Band v Canada*, 2003 SCC 45 at para 77 [*Wewaykum*].
 10. *Ibid.*
 11. *Ibid.*
 12. See *Turoczi v Canada (Minister of Citizenship and Immigration)*, 2012 FC 1423 [*Turoczi*]. In *Turoczi*, the Federal Court dismissed an appeal that relied on the statistical acceptance and rejection rate of the board member. The court noted that “the statistics provided by the applicants are not, without more, sufficiently informative. Furthermore, one must question what the ‘informed person’ would take from them” (*ibid* at para 13). However, the court did leave room for the use of statistical evidence in future, more compelling, cases (*ibid* at para 18).
 13. The level of impartiality prescribed will vary depending on the decision maker (e.g., a judge at trial compared to an elected official serving on a panel for a commission). See e.g. *Newfoundland Telephone Co v Newfoundland (Board of Commissioners of Public Utilities)*, [1992] 1 SCR 623 at 638-39 [*Newfoundland Telephone*]. The degree of impartiality will not be a material point of analysis in this article.
 14. See *R v S (RD)*, [1997] 3 SCR 484 at 532 [*S (RD)*]. On the presumption of impartiality, see *Zündel v Citron*, [2000] 4 FC 225 at para 37 (FCA), leave to appeal to SCC refused, [2000] SCCA No 322.
 15. *Committee for Justice*, *supra* note 7 at 395; *Wewaykum*, *supra* note 9 at para 76.
 16. Justice Cory in *Newfoundland Telephone* noted that the “great diversity of administrative boards” affects the necessary level of neutrality and restraint in the conduct of the decision maker. *Supra* note 13 at 638.

standard comparable to that of the courts.¹⁷ On the other hand, boards composed of elected officials, such as those in *Newfoundland Telephone Co. v. Newfoundland (Board of Commissioners of Public Utilities)* (“*Newfoundland Telephone*”) and *Old St. Boniface Residents Assn. Inc. v. Winnipeg (City of)* (“*Old St Boniface*”), or those that deal primarily with policy matters, are held to a more lenient standard.¹⁸ Ultimately, the level of leniency is determined based on the function, and not just the identity, of the panel. Elected officials acting in an adjudicative, as opposed to a legislative, capacity have traditionally been held to a stricter standard.¹⁹ This article concerns itself with the standard applicable to judges and members of quasi-judicial boards, not with the standard applicable to an administrative board serving a legislative function.

The “open mind” test is the more lenient standard applicable to the spectrum of administrative boards serving a legislative function. As held by Justice Sopinka in *Old St Boniface*, this threshold is met when the court concludes that the appearance of bias has reached the level of a “final opinion” that “cannot be dislodged.”²⁰ In *Newfoundland Telephone*, the SCC required a claimant to establish prejudice at a level where “representations to the contrary would be futile.”²¹ Adjudicators are able to hold and vocalize strong opinions in favour of one outcome, so long as they have not definitively prejudged the case. Accordingly, adjudicators are merely required to hear the case without a closed mind, which makes it difficult to argue that they were subconsciously biased.

B. WHO IS THE INFORMED REASONABLE PERSON OR OBSERVER?

The applicability of the RAB test in the context of cognitive biases rests on the interpretation of the informed reasonable person and their knowledge. The characteristics of the informed reasonable person go beyond those of the reasonable person *simpliciter*. The Court of Appeal for Ontario has described the latter, in the context of negligence, as “a mythical creature of the law”:²²

He is not an extraordinary or unusual creature; he is not superhuman; he is not required to display the highest skill of which anyone is capable; he is not a genius who can perform uncommon feats, nor is he possessed of unusual powers of foresight. He is a person of normal intelligence who makes prudence a guide to his

17. *Ibid.*

18. *Ibid.* See also *Old St Boniface Residents Assn Inc v Winnipeg (City of)*, [1990] 3 SCR 1170 [*Old St Boniface*].

19. See *Beaverford v Thorbild (County No 7)*, 2013 ABCA 6 at paras 26-30.

20. *Supra* note 18 at 1197.

21. *Supra* note 13 at 638.

22. *Arland v Taylor*, 1955 CarswellOnt 44 (WL Can) at para 29 (CA).

conduct. He does nothing that a prudent man would not do and does not omit to do anything a prudent man would do.²³

In contrast, the informed reasonable person, while not rising to superhero levels, can be attributed knowledge of the applicable law and judicial process as well as the contextual background of the case.²⁴ This specialized knowledge can be necessary to assess the presence of bias.

For the purposes of the RAB analysis, the reasonable person is “informed, practical, and realistic” and will “[consider] the matter in some detail.”²⁵ In *R v. S (RD)* (“*S (RD)*”), the SCC clarified the qualities of the informed reasonable person.²⁶ Justices L’Heureux-Dubé and McLachlin (as she then was) recognized that the informed reasonable person “is not a ‘very sensitive or scrupulous’ person, but rather a right-minded person familiar with the circumstances of the case.”²⁷ Justices L’Heureux-Dubé and McLachlin went on to emphasize the need for a contextual approach and a recognition of “the impossibility of judicial neutrality.”²⁸

The UK House of Lords took a slightly different view in its formulation of the RAB test in *R. v. Gough* (“*Gough*”).²⁹ Lord Goff of Chieveley concluded that the court “personifies” the reasonable person in cases of apparent bias.³⁰ As discussed in Part I(C), below, the practical application of the test articulated by Lord Goff is not dissimilar to the standard developed in Canadian jurisprudence. Nevertheless, when the House of Lords revisited the RAB test in 2001, it reintroduced the “informed observer” (the English equivalent of the informed reasonable person) to the analysis.³¹ The modified articulation of the test under English law is now more aligned with the test applied in Canada: “The question is whether the fair-minded and informed observer, having considered the facts, would conclude that there was a real possibility that the tribunal was biased.”³²

23. *Ibid.*

24. See *S (RD)*, *supra* note 14 at 505.

25. *Ibid.* See also *Committee for Justice*, *supra* note 7 at 386.

26. *Supra* note 14 at 505-09.

27. *Ibid.* at 505.

28. *Ibid.* at 509.

29. [1993] AC 646 (HL (Eng)) [*Gough*].

30. *Ibid.* at 670.

31. *Magill v Porter*, [2001] UKHL 67 at para 103.

32. *Ibid.*

C. KNOWLEDGE OF THE INFORMED REASONABLE PERSON

The knowledge of the informed reasonable person has been determined, both in Canada and in England, to include knowledge of judicial process, the law, and the context specific to the case. The SCC has considered two factors: “knowledge and understanding of the judicial process,” including “the nature of judging,” and knowledge of the claimant’s community.³³ The House of Lords has also recognized that the court must “ascertain the relevant circumstances from the available evidence.”³⁴

1. THE INFORMED REASONABLE PERSON’S KNOWLEDGE OF JUDICIAL PROCESS

The reasonable person “expects [adjudicators] to undertake an open-minded, carefully considered, and dispassionately deliberate investigation of the complicated reality of each case before them.”³⁵ Justices L’Heureux-Dubé and McLachlin recognized that judges may be influenced by, and rely on, their individual perspectives and backgrounds in adjudication.³⁶ However, in applying the law to the facts, it is the law, and not an adjudicator’s individual beliefs, that governs.³⁷ Therefore, the informed reasonable person is cognizant of the adjudicators’ inability to be fully neutral. They recognize that, while the adjudicator’s perspective may be an asset, the proper application of the law to the facts requires a rigorous, dispassionate, and open-minded process.

With respect to the specific details of court process and knowledge of relevant laws, courts have occasionally attributed strong, or even full, knowledge to the informed reasonable person. In *R. v. Lippé*, Chief Justice Dickson attributed the “full knowledge of the Quebec Municipal Court System, including all of its safeguards” to the informed reasonable person.³⁸ Similarly, in England, the fair-minded and informed observer has been given detailed knowledge of the law and legal customs, including courtroom practices and procedures.³⁹ For instance, in *Sengupta v. Holmes*, Lord Justice Laws of the England and Wales Court of Appeal found that the fair-minded observer should have knowledge that a judge

33. *S (RD)*, *supra* note 14 at 505.

34. *Gough*, *supra* note 29 at 670.

35. *S (RD)*, *supra* note 14 at 506.

36. *Ibid* at 505.

37. *Ibid* at 506.

38. [1991] 2 SCR 114 at 152.

39. See Simon Atrill, “Who Is the ‘Fair-Minded and Informed Observer’?: Bias after *Magill*” (2003) 62 Cambridge LJ 279 at 280.

may, at the start of the hearing, have a strong preference for a particular result, but change their minds:

That judges in fact change their minds under the influence of oral argument is not an arcane feature of the system; it is at the centre of it. Knowledge of it should, in my judgment, be attributed to the fair-minded and informed observer; otherwise the test for apparent bias is too far distant from reality. It is a commonplace for a hearing to start with a clear expression of view by the judge or judges, which may strongly favour one side; it would not cross the mind of counsel on the other side then to suggest that the judge should recuse himself; rather, he knows where he is, and the position he has to meet.⁴⁰

In practice, the attribution of legal knowledge to the informed reasonable person is similar to the approach adopted by Lord Goff in *Gough*.⁴¹ The test can demand such specialized knowledge of the law and legal procedure that it effectively requires the court to substitute its own knowledge, or that of a capable lawyer, for the knowledge of an informed reasonable person.

The informed reasonable person should also appreciate that finders of fact must be aware of the context of the case.⁴² In *S(RD)*, Justices L'Heureux-Dubé and McLachlin recognized that a conscious and contextual inquiry into fact-finding is a step towards impartiality, specifically emphasizing the “factual, social and psychological context” that gives rise to litigation.⁴³ In applying this contextual inquiry, a court may place itself in the position of the complainant in order to experience the incident giving rise to litigation from their perspective.⁴⁴ To comprehend the contextual background, it is appropriate, and may be necessary, to rely on testimony from expert witnesses, academic studies, and adjudicators’ personal experience of the society in which they live and work.⁴⁵

2. THE INFORMED REASONABLE PERSON’S KNOWLEDGE OF THE NATURE OF THE COMMUNITY

The informed reasonable person embodies Canadian values, has knowledge of Canadian history, and is a member of the local community in which the case arises. The reasonable person not only “supports the fundamental principles entrenched in the Constitution by the Canadian *Charter of Rights and Freedoms*”

40. [2002] EWCA Civ 1104 at para 38 [*Sengupta*].

41. *Supra* note 29.

42. *S(RD)*, *supra* note 14 at 506.

43. *Ibid.*

44. *Ibid* at 507, citing *R v Bartle*, [1994] 3 SCR 173.

45. See *S(RD)*, *supra* note 14 at 507.

but also has knowledge of discrimination within the local community.⁴⁶ The nature of the community thus encompasses Canadian values, supplemented by specific elements of local communities that may be crucial to understanding the complainant's perspective and the adjudicator's decisions throughout a hearing.

II. UNDERSTANDING HEURISTICS AND COGNITIVE BIAS

In November of 1951, the Princeton University football team played Dartmouth College in the last home game of the season.⁴⁷ It was a heated affair that left Princeton's star player, Dick Kazmaier, injured. The game's significance to psychology was not the score, but rather the supporters' perception of the events. A survey of local newspapers and campus publications revealed the dichotomy in the supporters' reactions. Princetonians judged the game as "rough and dirty" and believed that the Dartmouth team's attitude was antagonistic.⁴⁸ In fact, when students were presented with a video of the game, the Princeton fans saw Dartmouth make twice as many infractions as observed by the Dartmouth fans.⁴⁹ One Princeton alumnus, who was unable to find the alleged infractions, believed he had received incomplete footage and even asked to receive the "missing part[s]" of the game.⁴⁹

Albert H. Hastorf and Hadley Cantril noticed that "the 'game' actually was many different games and that each version of the events that transpired was just as 'real'" to the observer.⁵⁰ The authors determined that people "behave according to what [they] bring to the occasion."⁵¹ A similar and more elaborative study was conducted in the legal setting, where participants were shown an altered video of an actual protest.⁵² Kahan et al. found support for their initial hypothesis that "culturally motivated cognition would influence individuals' perceptions of facts essential to distinguishing 'speech' from 'conduct' for the purpose of the First Amendment."⁵³ By way of introduction to the topic of cognitive bias, these

46. *Ibid* at 507-508.

47. See Albert H Hastorf & Hadley Cantril, "They Saw a Game: A Case Study" (1954) 49 *J Abnormal & Soc Psychology* 129.

48. *Ibid* at 130.

49. *Ibid* at 130, 132.

50. *Ibid* at 132.

51. *Ibid* at 133.

52. See Dan M Kahan et al, "'They Saw a Protest': Cognitive Illiberalism and the Speech-Conduct Distinction" (2012) 64 *Stan L Rev* 851 at 870-74.

53. *Ibid* at 883. The authors define "culturally motivated cognition" as "a species of motivated reasoning that promotes congruence between a person's defining group commitments, on the one hand, and his or her perceptions of risk and related facts, on the other" (*ibid* at 859).

studies show people's susceptibility to not only interpret, but to actually see, the same events differently. Cognitive biases also have an effect on our judgement and decision making, which are the focus of this Part of the article.

The following subsections present a background on cognitive biases and heuristics. It is not the purpose of this Part, nor of the article as a whole, to persuade you, one way or another, about the susceptibility of adjudicators to this form of thinking. The following subsections provide an overview of some of the established literature and findings in order to properly assess the constitutive elements of the RAB analysis in light of cognitive biases. An understanding of these biases also helps to address the blind spot left by the common law and judicial processes.

A. UNDERSTANDING HEURISTICS

In an ideal world, everyone, including adjudicators, would approach all cases methodically and objectively,⁵⁴ similar to traditional economic or statistics-based decision-making frameworks that focus on optimization and leave little room for shortcuts. These frameworks assume that the rational person acts to maximize their utility. In order to do so, they are advised to follow an objective, multi-step, and linear decision-making framework: (1) identify the problem, (2) gather relevant information, (3) develop and weigh alternatives, (4) decide on a course of action and follow through, and (5) reflect on the decision.⁵⁵ While such a framework is ideal in a hypothetical world, it would be exhausting to routinely implement.

The problem with rational decision-making frameworks is not that they yield poor results, but that they are impractical and often unworkable. When time is constrained, it may be impossible to gather information or develop a system to weigh alternatives. Similarly, where knowledge is limited, any weighing of alternatives will be merely speculative. Where both constraints are present, applying a methodical framework may be impossible, and heuristic reasoning may be the only solution.⁵⁶

Heuristics research hypothesizes the mind divided into two systems of operation, where heuristics would be enabled by the brain's automatic, as opposed

54. See e.g. Erik Larson, "A Checklist for Making Faster, Better Decisions," *Harvard Business Review* (7 March 2016), online: <hbr.org/2016/03/a-checklist-for-making-faster-better-decisions>.

55. See "Decision-making process," online: *UMass Dartmouth* <www.umassd.edu/fycm/decisionmaking/process> [UMass].

56. See Gerd Gigerenzer, "Heuristics" in G Gigerenzer & C Engel, eds, *Heuristics and the Law* (MIT Press & Dahlem University Press, 2006) 17 at 17.

to methodical, operations. The systems are “distinguished by their speed, controllability, and the contents on which they operate”; the former operates automatically, while the latter operates methodically.⁵⁷ Within the two-system metaphor, heuristics are a function of “System 1,” which “quickly proposes intuitive answers to judgement problems as they arise.”⁵⁸ On the other hand, “System 2” is rule based and operates slowly.⁵⁹ It is the ideal mindset to learn new skills or solve difficult problems, where time and information are available to develop an understanding of a field.⁶⁰ As we learn and develop proficiency, cognitive operations that were once operated by System 2 migrate to System 1.⁶¹

The two systems of our minds function cooperatively, despite at times being in active competition.⁶² System 1 continuously analyzes information and proposes intuitive responses to problems.⁶³ System 2 acts as a gatekeeper, monitoring the responses of System 1 and, where necessary, correcting or overriding them.⁶⁴ When the two systems work in harmony, the suggestions of System 1 are implemented with little modification by System 2, and there is no need to undertake a methodical analysis of the problem.⁶⁵ However, the speed and efficiency of System 1’s responses may precede and neutralize the responses of System 2;⁶⁶ in these cases, our actions are purely reactionary.

B. THE TWO SCHOOLS OF HEURISTIC RESEARCH

Heuristics research has converged to the two-system model of cognition.⁶⁷ Nevertheless, leading researchers have approached the topic from two opposing

57. Kahneman & Frederick, *supra* note 4 at 51.

58. *Ibid.*

59. *Ibid* at 58. See also Sloman, *supra* note 5 at 383.

60. See Kahneman & Frederick, *supra* note 4 at 51, 58.

61. *Ibid* at 51.

62. See Sloman, *supra* note 5 at 391.

63. See Kahneman & Frederick, *supra* note 4 at 51.

64. See *ibid*; Sloman, *supra* note 5 at 391.

65. See Sloman, *supra* note 5 at 391.

66. See *ibid.*

67. This has been the system settled and adopted by a number of psychologists, with varying schools of thought and backgrounds. See generally Sloman, *supra* note 5; Kahneman & Frederick, *supra* note 4; Gigerenzer, *supra* note 56; Keith E Stanovich & Richard F West, “Individual Differences in Reasoning: Implications for the Rationality Debate?” in Gilovich, Griffin & Kahneman, *supra* note 4, 421.

fronts^{3/4}heuristics as the solution and heuristics as the problem.⁶⁸ The former school, referred to as Fast and Frugal (F&F), is led by Gerd Gigerenzer and the Adaptive Behavior and Cognition (ABC) group, whose research focuses on the use of heuristics as an approach to solving problems that are incomplete due to environmental or informational constraints.⁶⁹ Under the F&F school, heuristics are considered indispensable because the alternative optimization regime is confined to only a small subset of problems^{3/4}those where information and resources are adequately available.⁷⁰ On the other hand, there is the Heuristics and Bias (H&B) school that includes the work of Daniel Kahneman and Amos Tversky, who explore the potential risk of systematic errors resulting from inappropriate reliance on heuristics.⁷¹ According to Gigerenzer, the H&B school defines heuristics and biases interchangeably because both are the genesis of the problem.⁷² Despite the differences between the F&F and H&B schools, both approaches are relevant to the law and, specifically, to adjudication.

1. F&F HEURISTICS AND THEIR NECESSITY TO THE APPLICATION OF LAW

System 2 is ordinarily the ideal mindset for learning complex tasks and solving difficult problems. However, much like the economic decision-making framework, it too can be impractical. Even though System 2 excels in complex decision making in a controlled environment, it struggles to function efficiently when confronted by uncertainty in many real-world dilemmas.⁷³ The F&F school studies heuristics as decision-making models; these F&F heuristics are appropriate, and may be the only solution, in an environment constrained by time and knowledge.⁷⁴

F&F heuristics help us solve problems efficiently and with greater accuracy than guesswork. In fact, researchers have found that F&F heuristics can be

68. See Douglas A Kysar et al, “Group Report: Are Heuristics a Problem or a Solution?” in Gigerenzer & Engel, *supra* note 56, 103 at 106; Gigerenzer, *supra* note 56 at 17-18. See also Mark Kelman, *The Heuristics Debate* (Oxford University Press, 2011). Kelman presents a thorough explanation of the interaction between the two schools and their opposing approaches to heuristics.

69. See Kelman, *supra* note 68; Kysar et al, *supra* note 68 at 103-05.

70. See Gigerenzer, *supra* note 56 at 17.

71. “Judgement Under Uncertainty: Heuristics and Biases” (1974) 185 *Science* 1124 at 1124 [Tversky & Kahneman, “Judgement Under Uncertainty”].

72. *Supra* note 56 at 18.

73. *Ibid* at 17.

74. See Gerd Gigerenzer, Jean Czerlinski & Laura Martignon, “How Good Are Fast and Frugal Heuristics?” in Gilovich, Griffin & Kahneman, *supra* note 4, 559 at 580.

equally accurate to linear models of reasoning.⁷⁵ For example, people can make predictions based on the “take the best” heuristic, which operates by using the most valid cue or indicator of the potential answer to discriminate between alternative solutions.⁷⁶ Gigerenzer, Czerlinski, and Martignon illustrate the application of this heuristic by predicting the cities in the United States with the greatest homeless population based on an available set of factors for each state.⁷⁷ In comparing two cities, they begin by looking for the presence of rent control, which is the most accurate signal of a greater homeless population.⁷⁸ If neither city employs it (or if both cities employ it and cancel each other out), they move on to the next best factor^{3/4}in this case, vacancy rates^{3/4}and, if necessary, other factors thereafter.⁷⁹ This process stops when one factor discriminates between the options.⁸⁰ The use of heuristics in this manner, as a means to improve the accuracy of predictions based on incomplete information, can be a reliable form of decision making.

In the legal context, Gigerenzer argues that the H&B school’s influence on behavioural law has resulted in misplaced wariness of heuristics.⁸¹ I agree with this notion, and my concerns in this article are not with heuristics in general, but rather with those specific forms of heuristic reasoning that result in judgement errors at crucial points in adjudication. Gigerenzer rightly illustrates that judges and jurors rely on and require some F&F heuristics in order to accomplish their duties; they “make decisions with limited time and knowledge, and under degrees of uncertainty where optimization is typically out of reach.”⁸² Therefore, to explore how the specific heuristics may bias adjudication, it is necessary that we understand the utility of heuristics in law and how they can help us make better decisions under uncertainty.⁸³

In the context of litigation, heuristics are already implemented in the structure of our legal rules. Legal presumptions operate similarly to heuristics^{3/4}by starting out with a preference for one side or another that must be rebutted, the

75. *Ibid* at 565.

76. *Ibid* at 563.

77. *Ibid* at 563-66.

78. *Ibid* at 561-64.

79. *Ibid*.

80. *Ibid* at 563-64.

81. *Supra* note 56 at 18.

82. *Ibid* at 40.

83. *Ibid* at 41.

presumption simplifies and speeds up the decision-making process.⁸⁴ Piperides et al. use the example of the rule against hearsay and, similarly, the exceptions to the basic hearsay rule to illustrate this form of reasoning.⁸⁵ Hearsay evidence, out-of-court statements proffered for the truth of their content and absent the opportunity for contemporaneous cross-examination of the declarant,⁸⁶ is presumptively inadmissible⁸⁷ unless it satisfies an exclusionary rule or is admitted through the principled approach.⁸⁸ In administrative law, this presumption works in the reverse, as hearsay is presumptively admissible before a tribunal.⁸⁹ The RAB analysis also has embedded elements of heuristic reasoning; it begins with a starting presumption of impartiality on the part of the adjudicator that must be rebutted by the party advancing the claim.⁹⁰

One goal of research into the application of F&F heuristics to the law is to “reduce reliance on naturally occurring heuristics by devising appropriate cognitive aids.”⁹¹ While we see benefits of heuristic reasoning at certain stages of litigation, it cannot replace methodical and impartial analyses required at other stages.⁹² The misuse of heuristics, which will be the focus of Part II(B)(2), below, poses real dangers for the administration of justice and the principles of law. For example, the use of F&F in the determination of probative value compared to prejudicial effects of potential evidence at the admissibility stage may result in mistaken admittance or exclusion of evidence.⁹³ In the ideal case, these errors would be either immaterial to the outcome of the decision or errors of law that are easier to reverse on appeal. Where F&F heuristics result in errors of fact or mixed fact and law, which do not rise to the palpable and overriding error standard on appeal, judges are left with a potential dilemma. In these instances,

84. See Callia Piperides et al, “Group Report: What is the Role of Heuristics in Litigation?” in Gigerenzer & Engel, *supra* note 56, 343 at 374.

85. *Ibid* at 358.

86. See David M Paciocco & Lee Stuesser, *The Law of Evidence*, 7th ed (Irwin Law, 2015) at 113; *R v Khelawon*, 2006 SCC 57 at para 35.

87. See *R v Baldree*, 2013 SCC 35 at para 2; Paciocco & Stuesser, *supra* note 86 at 113.

88. The principled approach to hearsay based on necessity and reliability was set out by the SCC in *R v Khan* and was affirmed in *R v Smith* and *R v Starr*. See *R v Khan*, [1990] 2 SCR 531; *R v Smith*, [1992] 2 SCR 915; *R v Starr*, 2000 SCC 40.

89. See *Statutory Powers Procedure Act*, RSO 1990, c S.22, s 15(1). However, tribunals do have the power to set their own rules, subject to section 25.0.1 (*ibid*, s 25.0.1).

90. See *e.g. S (RD)*, *supra* note 14 at 532; *EA Manning Ltd v Ontario (Securities Commission)* (1995), 23 OR (3d) 257 (CA).

91. Piperides et al, *supra* note 84 at 374.

92. *Ibid*.

93. *Ibid* at 362.

Piperides et al. are concerned that adjudicators “may stretch the law to find a legal error” so that they can order a new trial.⁹⁴

2. H&B HEURISTICS AND THE DANGERS THEY POSE TO THE APPLICATION OF LAW

While System 1 can be appropriate for approaching complex problems, it is susceptible to cognitive biases that affect decision making; it can also bias the operations of System 2.⁹⁵ In specific circumstances, these biases manifest in systemic errors, such as seeking out only confirming evidence or answering an easier substituted question instead of the question at issue.⁹⁶ Our judgements are intuitive where System 1’s initial proposal is affirmed without significant modification by System 2.⁹⁷ For example, an investigator may rely on interrogative techniques to frame questions in order to solicit a desired response. Research has revealed that interrogators may use “accusatory techniques of interrogation to elicit a confession that confirms their prejudgment of guilt.”⁹⁸ In the same vein, the “pre-interrogation biases of ‘guilt’ on the part of investigators may lead to the use of heavy-handed interrogation tactics that are more likely to produce false confessions—a process that results in confirmation bias in the evaluation of confession evidence.”⁹⁹

The H&B school’s approach to heuristic research has formed the basis of the “intuitive-override” model of judicial decision making, which is regularly cited and is effectively a modern hybrid of the two dominant models of realism and formalism.¹⁰⁰ It is “‘realist’ in the sense that it recognizes the important role of the judicial hunch and ‘formalist’ in the sense that it recognizes the importance of deliberation in constraining the inevitable...influence of intuition.”¹⁰¹ The model “views judges as ordinary people who tend to make intuitive, System 1 decisions, but who can override their intuitive reactions with

94. *Supra* note 84 at 369.

95. See Sloman, *supra* note 5 at 391.

96. See Tversky & Kahneman, “Judgement Under Uncertainty,” *supra* note 71 at 1124; Kahneman & Frederick, *supra* note 4 at 54.

97. See Kahneman & Frederick, *supra* note 4 at 51.

98. See Richard A Leo, “Why Interrogation Contamination Occurs” (2013) 11 Ohio State J Crim L 193 at 202.

99. Fadia M Narchet, Christian A Meissner & Melissa B Russano, “Modeling the Influence of Investigator Bias on the Elicitation of True and False Confessions” (2011) 35 L & Human Behavior 452 at 452-53.

100. Chris Guthrie, Jeffrey J Rachlinski & Andrew J Wistrich, “Blinking on the Bench: How Judges Decide Cases” (2007) 93 Cornell L Rev 1 at 2-3, 8.

101. *Ibid* at 3.

complex, deliberative thought.”¹⁰² It is in practice neither “purely deductive,” as envisioned by the formalist theorists, nor intuitive rationalization, as proposed by realists.¹⁰³ Guthrie, Rachlinski, and Wistrich’s research shows that “judges rely heavily on their intuitive faculties not only when they confront generic problems...but also when they face the kinds of problems they generally see on the bench.”¹⁰⁴ While judges are capable of overriding intuitive responses, their experience in adjudication does not leave them impermeable to heuristic-based cognitive biases.¹⁰⁵

C. COGNITIVE BIASES THAT CAN AFFECT ADJUDICATION

1. ANCHORING HEURISTIC

Judges show a susceptibility to anchoring—the tendency for people to rely on or migrate towards an initial value available to them, which unnecessarily pulls subsequent estimates towards it.¹⁰⁶ Tversky and Kahneman argue that the problem with anchoring is that the subsequent adjustments made after the initial value tend to be insufficient.¹⁰⁷ In the adjudicative setting, anchoring has been shown to factor into judges’ determination of appropriate damages.¹⁰⁸ This was tested in two studies, each comparing a control group presented with only a factual scenario and a test group presented with information about either a large pre-settlement offer (ten million dollars) or an unsuccessful motion to dismiss based on damages not meeting a minimum amount (seventy-five thousand dollars).¹⁰⁹ In both studies, the average amounts awarded by the judges were skewed in the direction of the anchor.

2. REPRESENTATIVENESS HEURISTIC

The representativeness heuristic is present where the probability that a subject belongs to a particular group or category is determined by the degree to which its traits are representative of, or similar to, our stereotypical understanding of the group.¹¹⁰ The representativeness heuristic breeds a series of consequences,

102. *Ibid* at 9.

103. *Ibid* at 8.

104. *Ibid* at 27.

105. *Ibid* at 18.

106. *Ibid* at 19; Tversky & Kahneman, “Judgement Under Uncertainty,” *supra* note 71 at 1128.

107. See *supra* note 71 at 1128.

108. See Guthrie, Rachlinski & Wistrich, *supra* note 100 at 20.

109. *Ibid* at 20-21.

110. See Tversky & Kahneman, “Judgement Under Uncertainty,” *supra* note 71 at 1124.

including neglect of or insensitivity to prior probabilities and sample sizes, illusions of validity, errors in predictability, and misconceptions of chance and of regression.¹¹¹ Representativeness effectively makes the individual violate statistical rules that should otherwise be applied. For example, in considering illusions of validity, where the confidence of a person's response is primarily dependent on the degree of representativeness (the quality of a match), Tversky and Kahneman suggest that people are more confident in predicting the future average grade of an undergraduate student where the student has all Bs in the first year as opposed to a mix of As and Cs.¹¹² The redundancy of the previous output has the effect of decreasing the accuracy of predictions while simultaneously increasing the confidence of the predictor.

Guthrie, Rachlinski, and Wistrich's research supports a finding that judges are susceptible to this form of heuristic reasoning.¹¹³ In their study, the judges were given a fact pattern based on an old English case about a barrel that fell and struck the plaintiff as it was being hoisted by rope.¹¹⁴ The question was whether the incident was the result of negligence on the part of the workers or the failure of the rope. The government safety inspectors assessed the probability of the alternatives and presented them in the following manner: The likelihood of the barrel falling if it was secured negligently was 90 per cent; the likelihood of the rope failing was 1 per cent; and workers negligently secure barrels 1 in 1,000 times.¹¹⁵ While unintuitive, the answer is that the likelihood of the rope failing (1 per cent) is greater than negligence (0.09 per cent). Most judges answered the question incorrectly, likely as a result of the representativeness heuristic. I have some reservation about extending the findings from this particular study to the real-world setting. The inspector's assessment was presented in incomparable forms, *i.e.*, 1 per cent compared to 90 per cent of 1 in 1000 times, which in an adversarial system would face the scrutiny of the opposing counsel who would seldom allow misinterpretation in this manner. In fact, the F&F school of heuristics is critical of the H&B scholars because the F&F school posits that the genesis of "the gap between good real-world performance and the bad lab performance" is a result of the H&B school's use of misleading or poorly constructed experiments.¹¹⁶ Despite my reservations relating to this particular

111. *Ibid* at 1124-26.

112. *Ibid* at 1126.

113. *Supra* note 100 at 23.

114. *Ibid* at 22.

115. *Ibid* at 23.

116. Kelman, *supra* note 68 at 232.

study, the underlying theory is relevant to understanding the potential influence of the representativeness heuristic on adjudicative decision making.

3. HINDSIGHT BIAS

The final scenario tested by Guthrie, Rachlinski, and Wistrich's judicial decision-making questions focused on hindsight bias—the “tendency to overestimate the predictability of past events.”¹¹⁷ The judges in the study were presented with a fact pattern to be considered on appeal. Each judge was randomly given one of three possible decisions of the court of appeal: “‘affirmed,’ ‘vacated,’ or ‘lesser sanction.’”¹¹⁸ They were then asked which of the three possible outcomes was the most likely to occur based on all of the information presented. The results show that “[l]earning an outcome clearly influenced the judges’ ex post assessment of the ex ante likelihood of various possible outcomes.”¹¹⁹ However, the authors note that judges are able to mitigate and overcome, to a certain degree, the effects of hindsight bias. In another study involving a “highly intricate, rule-bound” analysis, the effects of hindsight were significantly lower, possibly because the nature of the analysis demands System 2 deliberative thinking.¹²⁰ Moreover, the authors believe that it is possible for intricate areas of the law to signal to judges that potential inconsistencies between intuition and the governing law require careful deliberation.¹²¹

4. AVAILABILITY HEURISTIC

The availability heuristic applies where “people assess the frequency of a class or the probability of an event by the ease with which instances or occurrences can be brought to mind.”¹²² The reliance on availability results in a number of biases related to, for example, our ability to retrieve or imagine similar instances.¹²³ One of the clearest demonstrations of the availability heuristic is a person's temporary increase in the subjective probability of an event occurring after recently witnessing or experiencing one such incident—*e.g.*, a person may have an higher subjective probability of a car accident after driving by the aftermath of

117. *Supra* note 100 at 24.

118. *Ibid* at 25.

119. *Ibid* at 26.

120. *Ibid* at 27.

121. *Ibid.*

122. Tversky & Kahneman, “Judgement Under Uncertainty,” *supra* note 71 at 1127.

123. *Ibid.*

a collision.¹²⁴ In these cases, people often arrive at an exaggerated perception of the likelihood of a car accident occurring.

These biases should also be of real concern to parties in adjudication, especially in the context of specialized adjudication commonly occurring in public law. Where adjudicators are likely to experience similar facts in a reoccurring manner, they may be susceptible to misjudging the credibility of parties or positions, based on the availability of past experience. In the adjudicative setting, particularly in administrative law, decision makers may specialize in one niche area of the law or its governing statutes. For example, in the immigration setting, an investigating officer may focus on one or two countries or regions. There are obvious benefits to developing knowledge about the specific region and its peoples. However, these specializations increase adjudicators' susceptibility to heuristic-based reasoning and the availability heuristic in particular.

5. CONFIRMATION BIAS

Confirmation bias is the tendency for a person to discriminate in the collection and weighing of information and evidence to confirm an initial hypothesis or preference.¹²⁵ It is similar to anchoring in the sense that "decision makers examine evidence expected to confirm the hypothesis rather than evidence that could disconfirm the hypothesis."¹²⁶ Confirmation bias is relevant in adjudication because it affects the process embarked on by a decision maker. It operates by increasing the confidence of the adjudicator in their decision, thereby creating a general overconfidence that an answer is correct: "The stronger and more numerous the reasons that are recruited, the greater is the confidence expressed in the selected answer."¹²⁷ In the adjudicative setting, the pronounced effects of confirmation bias may manifest in decisions to arbitrarily ignore or discredit otherwise credible evidence. In subtle instances, where information does not naturally lend itself to one conclusion or another, the symptoms of confirmation bias will be veiled.

124. See Amos Tversky & Daniel Kahneman, "Availability: A Heuristic for Judging Frequency and Probability" (1973) 5 *Cognitive Psychology* 207 at 230.

125. See Gretchen B Chapman & Eric J Johnson, "Incorporating the Irrelevant: Anchors in Judgements of Belief and Value" in Gilovich, Griffin & Kahneman, *supra* note 4, 120 at 133; Raymond S Nickerson, "Confirmation Bias: A Ubiquitous Phenomenon in Many Guises" (1998) 2 *Rev General Psychology* 175 at 175. See also Kahneman, *supra* note 3 at 81.

126. Chapman & Johnson, *supra* note 125 at 133.

127. Derek J Koehler, Lyle Brenner & Dale Griffin, "The Calibration of Expert Judgement: Heuristics and Biases Beyond the Laboratory" in Gilovich, Griffin & Kahneman, *supra* note 4, 686 at 692.

Confirmation bias has the potential to prejudice the evidence-gathering process for decision making. An objective actor seeks to discover a solution by openly considering evidence in favour of, and against, a hypothesis similar to a rational decision-making model.¹²⁸ Under the influence of confirmation bias, however, the actor may disregard contrary evidence and over rely on evidence that supports their hypothesis.¹²⁹ Alternatively, the actor may disproportionately seek confirming or validating evidence, which creates a circular process that undermines an objective approach.¹³⁰ Finally, the techniques used by an inquisitor, either a judge or an administrative decision maker, in an investigative setting may elicit confirmatory responses from an inquisitee, or the techniques may influence the inquisitee's responses in another manner.¹³¹

Despite its potential to prejudice the results against a party, confirmation bias is difficult to identify. The conclusion of a person affected by confirmation bias is typically supported by evidence and may appear well researched and convincing.¹³² In the context of determining the admissibility of evidence, confirmation bias may result in overemphasizing the probative value or prejudicial effects of proffered evidence. This is precisely the area that Piperides et al. warn may result in the admittance of "irrelevant evidence while excluding relevant evidence."¹³³ This stage of decision making is discretionary and, in the absence of clear errors, would be difficult to overturn on appeal. To raise a suspicion of confirmation bias, a reviewer must re-evaluate the merit of the initial conclusion in order to find that evidence contrary to the hypothesis was ignored or underweighted. These nuanced implications of cognitive bias are precisely where a test, such as the RAB test, would be helpful, especially if appellate review on the merits may not provide a sufficient remedy.

128. For an example of a rational decision-making framework, see UMass, *supra* note 55.

129. See Chapman & Johnson, *supra* note 125 at 133.

130. *Ibid.*

131. See Narchet, Meissner & Russano, *supra* note 99 at 453.

132. See generally Christine M Venter, "The Case Against Oral Argument: The Effects of Confirmation Bias on the Outcome of Selected Cases in the Seventh Circuit Court of Appeals" (2017) 14 Leg Communication & Rhetoric: JAWLD 45. In a judicial setting, all parties, including the judges, are well versed in the case and the law. However, Venter posits that preparation does not prevent confirmation bias or its influence on decisions.

133. *Supra* note 84 at 362.

III. THE DIFFICULTY IN APPLYING THE RAB ANALYSIS IN CASES OF COGNITIVE BIAS

The nature of cognitive biases makes the application of the RAB analysis to certain facts difficult, if not impossible. Heuristics belong to the part of the mind responsible for intuition. However, decisions are not made in silos; rather, they involve collaboration between System 1 and System 2.¹³⁴ Consequently, most decisions have an element of intuitive reasoning. That System 1 is always active means that decisions are void of intuition only when System 2 completely overrides the former. Moreover, even tasks that attract System 2 override are prone to System 1 reasoning through persistent repetition and increased proficiency. Decisions that were previously purely deliberative may become intuitive and heuristic-reliant in the future.

The cognitive biases identified in the previous section are extremely difficult to prove. In order to establish a RAB claim, we would likely require patterns of behaviour or a set of sufficiently similar past cases. Nevertheless, merely relying on an analysis of an adjudicator's past decision making would likely be insufficient to rebut the presumption of impartiality in the RAB analysis.¹³⁵ Each case must be reviewed based on the facts and circumstances that give rise to the bias claim;¹³⁶ correlation cannot be taken as evidence of causation.

It may be possible, however, to identify the representativeness heuristic and confirmation bias on a case-by-case basis as both can manifest in reasoning. The representativeness heuristic is present where the probability that a subject belongs to a particular group or category is determined by the degree to which its traits are representative of, or similar to, our stereotypical understanding of the group.¹³⁷ The representativeness heuristic can be identified where reasoning is dependent only on the similarities of a subject to a group, as opposed to direct evidence. Confirmation bias is the tendency for a person to discriminate in the collection and weighing of information and evidence to confirm an initial hypothesis or preference.¹³⁸ In the context of oral hearings, confirmation bias can be identified

134. See Kahneman & Frederick, *supra* note 4 at 51.

135. See *Turoczi*, *supra* note 12 at para 13.

136. See *Wewaykum*, *supra* note 9 at para 77.

137. See Tversky & Kahneman, "Judgement Under Uncertainty," *supra* note 71 at 1124.

138. See Chapman & Johnson, *supra* note 125 at 133; Nickerson, *supra* note 125 at 175. See also Kahneman, *supra* note 3 at 81.

by analyzing the adjudicator's treatment of parties; the relative volume, tone, and framing of questions can foreshadow the fate of the applicant.¹³⁹

The following subsections use a hypothetical scenario to assess whether the indicators of representativeness or confirmation bias can be caught by the RAB analysis. The first two subsections test subtle manifestations of cognitive biases. The next two subsections test more identifiable manifestations of bias. Overall, the analyses of the hypothetical scenario show that the RAB analysis is responsive to cognitive biases only when their manifestation is observable and identifiable. Take a moment to review the following hypothetical scenario:

Imagine a civil trial where a physiotherapist allegedly sexually assaulted a patient. The case turns on credibility. Early on in the proceeding, the judge allowed an adjournment so that the plaintiff could fix certain defects with their claim.

Throughout the hearing, the judge was dismissive. However, the judge was more critical of the defence counsel's answers to questions than the plaintiff counsel's responses, at one point even waving to the physiotherapist's lawyer to stop and saying "blah, blah, blah" in an attempt to speed up the response. During the proceeding, when the defence counsel was arguing for the reform of a certain law, the judge noted a preference for the law as it currently is and warned that the lawyer was facing an uphill battle.

The transcript of the proceeding showed that the judge asked the physiotherapist's lawyer over twice as many questions. It further showed that the judge used more hostile language when speaking with defence counsel.

The judge ultimately ruled in the complainant's favour. In the reasons for the decision, the judge also took note of the complainant's religious conviction and conservative attire in the courtroom.

A. THE VOLUME OF QUESTIONS

The relative number of questions that a party faces can foreshadow, with accuracy, the result of the adjudication. Christine M. Venter posits that an adjudicator who is asking a high volume of questions may be "seeking out information to support their innate hypothesis of the case."¹⁴⁰ In the context of appellate courts and appellate tribunals, adjudicators may ask more questions in order to analogize a case to a previously established precedent.¹⁴¹ Where information is not

139. See Venter, *supra* note 132 at 49.

140. *Ibid* at 61.

141. *Ibid*.

confirmatory, they may overlook the challenging or contradictory information and continue pressing on different issues.¹⁴²

Research on the United States Supreme Court has also shown that the party facing the most questions in oral argument typically loses.¹⁴³ In a further study of the United States Seventh Circuit, 90 per cent of the cases followed this rule.¹⁴⁴ In the latter study, not only was the losing side asked more questions, but the judges asked almost twice as many questions of the party that ultimately lost, representing a noticeable difference in treatment.¹⁴⁵ Based on these statistics, the fact that the judge asked the defendant nearly twice as many questions seems to make the result of our hypothetical trial inevitable.

The volume of questions on its own, however, is not necessarily an indicator of confirmation bias. It is not uncommon for one side to present a stronger case. Decision makers who are either not persuaded by the arguments of one party or who find the arguments to be inconsistent or contradictory will need to ask more questions to clarify their understanding. This is precisely what we would expect of a methodical and objective adjudicator. As discussed in Part I, above, Justices L'Heureux-Dubé and McLachlin in *S (RD)* noted that “a conscious, contextual inquiry has become an accepted step towards judicial impartiality.”¹⁴⁶ It is unlikely that the informed reasonable person, as described by Justice de Grandpré, would consider a disproportionality of questions as indicative of bias without further context. Therefore, while frequency of questions may indicate cognitive bias, it is unlikely to prove bias in the eyes of the informed reasonable person.

B. THE MODE OF ADJUDICATOR INTERVENTIONS

Beyond the volume of questions faced, the timing and frequency of an adjudicator's interventions can signal a RAB.¹⁴⁷ The focus here is on the treatment of the parties—*e.g.*, being cut off repeatedly and treated dismissively—rather than the number of questions asked. In our hypothetical scenario, the trial judge was dismissive of the defence. At one point, counsel was even interrupted and waved to speed up the response.

At first glance, these facts may demonstrate elements of confirmation bias, that the judge had already made up their mind. However, these instances again

142. *Ibid* at 62.

143. *Ibid* at 57.

144. *Ibid* at 71.

145. *Ibid*.

146. *Supra* note 14 at 506.

147. See *R v Corby*, 2016 BCCA 76 at para 40.

must be considered in light of the overall case. The Court of Appeal for Ontario found that there was no RAB in a case where a judge, in reference to a party's evidence, said "blah, blah, blah."¹⁴⁸ Rather than signalling a disregard for the evidence being presented, a thorough analysis of the transcript revealed that the phrase was being used as a substitute for "et cetera" in multiple instances.¹⁴⁹

Based on our understanding of the RAB analysis in Part I, above, it can be argued that the informed reasonable person would have sufficient knowledge of the decision-making process and past cases to appreciate that adjudicators should not be held to the standard of perfection with respect to body language, tone, or diction.¹⁵⁰ The understanding and flexibility of the informed reasonable person affords a high level of deference to adjudicators. It also means that veiled cognitive biases, such as confirmation bias, whose presence may be seen in the use of impolite or dismissive behaviour would not reach the threshold required by the RAB analysis.

C. THE TONE AND LANGUAGE CHOICE OF THE ADJUDICATOR

The tone of the adjudicator has the potential to attract behavioural confirmation, and it may identify the presence of confirmation bias.¹⁵¹ In the judicial context, studies have shown that judges use a more hostile tone in exchanges with losing counsel.¹⁵² Venter identifies hostility by analyzing the choice of words, the "willingness to interrupt and disagree," and the level of unfriendliness.¹⁵³ Moreover, she notes that the presence of scepticism in the tone can also signal the presence of confirmation bias.¹⁵⁴ In *Stuart Budd & Sons Ltd. v. IFS Vehicle Distributors ULC* ("*Stuart Budd*"), the fact that the "judge repeatedly criticized appellants' counsel on matters including their advocacy skills, knowledge of the law, and handling of the matter" was a factor in the Court of Appeal for Ontario's decision to set aside the previous order.¹⁵⁵

Alertness to an adjudicator's tone and hostility can be used by a lawyer to identify potential confirmation bias. A party can identify signs of confirmation bias by measuring the relative use of unpleasant words against an established

148. See *Clayson-Martin v Martin*, 2015 ONCA 596 at paras 111-13.

149. *Ibid* at para 112.

150. See *Sengupta*, *supra* note 40 at para 38.

151. See Venter, *supra* note 132 at 58.

152. *Ibid* at 72.

153. *Ibid*.

154. *Ibid* at 48.

155. 2016 ONCA 60 at para 74 [*Stuart Budd*].

norm.¹⁵⁶ A lawyer can assess the relative frequency of these exchanges by codifying unpleasant words, *i.e.*, those “reflecting strong emotional content,” such as “idiotic.”¹⁵⁷ A comparison of the treatment of the two parties, along with analyses of previous hearings presided over by the adjudicator, may give rise to a RAB claim.

In our hypothetical example, the judge was more hostile towards the defence. It may be possible to use the prevalence of unpleasant or offensive language on the part of the adjudicator to argue an appearance of bias that can be caught by the RAB test, even when no confirmation bias or actual bias exists. This is an example of where behaviour that can indicate the presence of cognitive biases can also be caught by the RAB analysis. Unfortunately, this is possible only because the bias manifests in such a way that it is clear and observable.

D. CHOICE OF PROCEDURE FOLLOWED BY THE ADJUDICATOR

Knowledge of the law and legal process can be helpful in demonstrating the existence of a RAB where an adjudicator, influenced by confirmation bias, follows only certain procedures or conventions (or parts of certain procedures or conventions) that confirm their hypothesis. This is because the informed reasonable person would have the requisite and complete knowledge of the rules and past decisions of the court or administrative body and would be able to identify when the applicable process is not followed.

In the hypothetical scenario, the trial judge ordered an adjournment so that the plaintiffs could correct their claim. This is similar to the facts of *Stuart Budd*, where the judge adjourned the case, at their own initiative, to allow the respondents to correct a flaw fatal to their case.¹⁵⁸ The Court of Appeal for Ontario determined that the procedural deviations contributed to a RAB.¹⁵⁹ This is another example of a potential manifestation of cognitive bias that could be caught by the RAB analysis; the bias is overt and identifiable.

Adjudicators in the administrative setting who fail to follow prescribed procedures are more commonly in violation of the legitimate expectations doctrine, potentially undermining the principles of procedural and natural justice, which obviates the need to engage the RAB analysis and link the conduct to cognitive biases. Legitimate expectations are formed based on official practices and communications, assurances that certain procedures are to be followed or

156. See Venter, *supra* note 132 at 58.

157. *Ibid* at 58, 69.

158. *Stuart Budd*, *supra* note 155 at paras 54, 56.

159. *Ibid* at paras 53, 55, 88.

that a particular result will be reached, and past practices followed voluntarily by the tribunal.¹⁶⁰ They may also arise from the conduct of the decision maker.¹⁶¹ Legitimate expectations must be “clear, unambiguous and unqualified” and do not require reliance on the part of the claiming party.¹⁶² Justice Binnie likened the necessary precision of legitimate expectations to private law, where a contract must be “sufficiently certain to be capable of enforcement.”¹⁶³

Remedies for breach of procedural fairness based on the legitimate expectations of parties capture obvious cases of confirmation bias affecting a tribunal’s process. The argument that confirmation bias has risen to the level of a RAB will likely be used only in addition to—and will be secondary to—a challenge based on the violation of procedural justice and the parties’ legitimate expectations. In such circumstances, the ability to tailor remedies to the specific injustice suffered makes it unlikely that courts will entertain a RAB challenge grounded in confirmation bias. The RAB test has a greater likelihood of success where the bias is alleged to have occurred in a courtroom setting, similar to the facts in *Stuart Budd*.

IV. THE SCOPE OF THE RAB ANALYSIS AND ALTERNATIVE REMEDIES

The intuitive override model of judicial decision making recognizes the susceptibility of adjudicators to heuristic reasoning and, in certain cases, their ability to override intuition. When intuition is not resisted, the RAB analysis is an inadequate and inappropriate tool to protect parties against veiled cognitive biases affecting an adjudicator’s decision making. Part II of this article identified instances where adjudicators are, or could be, susceptible to heuristics and cognitive biases that may result in systemic bias in judgement and decision making. Part III presented the difficulty of identifying cognitive biases in a particular case or decision. These findings indicate that cognitive biases, to the extent that they have not risen to obvious cases of bias, are beyond the scope of the RAB analysis and that the test is effectively underinclusive.

160. See *Agnaira v Canada (Public Safety and Emergency Preparedness)*, 2013 SCC 36 at para 95.

161. *Ibid.*

162. *Canada (AG) v Mavi*, 2011 SCC 30 at para 68.

163. *Ibid* at para 69.

A. THE SCOPE OF THE RAB ANALYSIS

The RAB test is an appeal to the guiding principle that “justice should not only be done, but should manifestly and undoubtedly be seen to be done.”¹⁶⁴ The SCC has underscored that this “maxim applies whenever the circumstances create the danger of an injustice.”¹⁶⁵ The RAB analysis seeks to address circumstances where bias on the part of the adjudicator may have affected the decision. It casts a wide net by recognizing that the appearance of bias, regardless of the existence of actual bias, is sufficient to show a RAB.¹⁶⁶ Proving actual bias is, for the most part, a fruitless pursuit.¹⁶⁷ It is for this reason that parties often concede at the outset that there has been no actual bias.¹⁶⁸ At first blush, the RAB test appears to be intentionally overinclusive. We want observers and participants in the legal system to see that justice is done; it promotes confidence in the legal system. However, the RAB analysis relies on a simple, yet outdated, assumption that bias can be seen.

As discussed in Part II, cognitive biases are part of our automatic function and are often extremely difficult to isolate and identify in the decision-making process. A complainant who submits that cognitive bias rises to the level of a RAB has the daunting task of persuading a reasonably informed bystander to reasonably perceive cognitive bias on the part of the adjudicator. In effect, the difficulty in identifying cognitive biases, along with the presumption of impartiality and the high threshold for proving bias, appears to limit the scope of the RAB analysis to instances of overt cognitive biases.

The desire to promote the perception of justice, the second part of the *R. v. Sussex Justices* (“*Sussex Justices*”) maxim,¹⁶⁹ is the very element that increases the likelihood of false negative errors: instances where bias has affected the decision, but its hand is invisible, and the RAB test is not met. In the criminal justice context, jurors are more concerned with the risk of false positive errors. In Blackstone’s ratio, a false negative, the acquittal of ten guilty persons, is preferred to a false positive, the conviction of a single innocent person. A similar preference to deter false positive errors in the context of bias is inappropriate. The preoccupation with avoiding false positives in the RAB analysis makes the system vulnerable

164. *R v Sussex Justices* (1923), [1924] 1 KB 256 at 259.

165. *Iwa v Consolidated-Bathurst Packaging Ltd.*, [1990] 1 SCR 282 at 333 [*Consolidated-Bathurst*].

166. See *Wewaykum*, *supra* note 9 at para 64.

167. See *Newfoundland Telephone*, *supra* note 13 at 636.

168. See *Wewaykum*, *supra* note 9 at para 62.

169. *Supra* note 164.

to real bias and results in the inevitable violation of the *Sussex Justices* maxim by delivering the perception of justice but failing to deliver justice itself.

The RAB test appears more attuned to our conventional sense of bias than to the development of heuristics science. The starting presumption of impartiality is not easily reconcilable with the override model of judicial decision making and the finding that judges are susceptible to cognitive biases. Moreover, the requirement of an apprehension of bias precludes that which we cannot apprehend—for instance, the exact workings and thought process of an adjudicator’s mind. Cognitive biases that influence decisions to the extent that they rise to our ordinary understanding of bias, “a predisposition or prejudice,”¹⁷⁰ can be reconciled with the RAB analysis. There is a blind spot, however, where the effects of cognitive bias are veiled or subtle.

The effects of the blind spot in the RAB analysis may be remedied on appeal. Where heuristic reasoning results in an error of law by way of misapplication or overextension of the law, it is subject to a correctness standard and can be remedied by the error-checking function of appellate courts.¹⁷¹ Unfortunately, where heuristic reasoning results in errors categorized as questions of fact or questions of mixed fact and law, complainants and appellate judges face a more difficult task. First, on appeal, complainants bear the burden of overcoming the more demanding “palpable and overriding error” standard.¹⁷² In these situations, the trial judge or administrative adjudicator is afforded significant deference in their findings, and relief absent clear prejudice is unlikely. Second, and as a consequence of the deference afforded to first-level decision makers, appellate judges who are not satisfied that a palpable and overriding error has been made face a potential dilemma: to deny relief or to “stretch the law to find a legal error.”¹⁷³

Finally, it is possible for the judiciary and the legislature to build mechanisms to prevent certain types of reasoning that are likely informed by cognitive biases. Consider, for example, the judge’s comments on attire and religious conviction in the hypothetical scenario in Part III, above. These comments may suggest a series of underlying biases such as the representativeness or the availability heuristics. However, this form of reasoning, in this particular context, does not

170. Katherine Barber, ed, *Canadian Oxford Dictionary*, 2nd ed (Oxford University Press, 2004) sub verbo “bias.”

171. See *Housen v Nikolaisen*, 2002 SCC 33 at para 8 [*Nikolaisen*]. See also *Canada (Minister of Citizenship and Immigration) v Vavilov*, 2019 SCC 65 [*Vavilov*]. The more recent *Vavilov* decision upholds the appellate standards of review as set out in *Nikolaisen*.

172. *Nikolaisen*, *supra* note 171 at paras 25, 37.

173. Piperides et al, *supra* note 84 at 369.

require a RAB claim to provide a remedy. Reliance on a person's attire or religious conviction to determine their credibility in a sexual assault case is prohibited.¹⁷⁴

This part of the hypothetical scenario was loosely based on *R. v. Santhosh* (“*Santhosh*”), which, like the hypothetical scenario, dealt with a physiotherapist who was alleged to have sexually assaulted his patient.¹⁷⁵ In *Santhosh*, the trial judge took note of the complainant's conservative attire in the courtroom and her religious conviction.¹⁷⁶ The Court of Appeal for Ontario dismissed the appeal, finding that the trial judge had not placed material weight on attire or religious conviction.¹⁷⁷ However, it warned that placing weight on such factors is impermissible and runs close to the prohibited stereotypes.¹⁷⁸ Rules against the prohibited stereotypes have been developed to prevent prohibited reasoning and dispel certain prejudicial myths that can impact the admissibility and evaluation of evidence.

B. ALTERNATIVE WAYS TO ADDRESS THE BLIND SPOT IN THE RAB ANALYSIS

The concerns advocated by the H&B school suggest that safeguards should be in place to prevent systematic errors caused by cognitive biases. Where these biases manifest in clear and conventional forms, the RAB analysis has the potential to do just that. However, alternative measures may be necessary in cases that fall within the blind spot. In these circumstances, we must identify ways to manage the reliance on intuition.

Potential recommendations must go beyond fine-tuning intuition. While intuitive decision making has the potential to provide accurate and timely predictions, it is also the pathway for undesirable influences.¹⁷⁹ Guthrie, Rachlinski, and Wistrich warn that “the capacity to use intuitive thinking successfully may require years of ‘effortful study’ as well as accurate and reliable feedback on earlier judgments”; such a process is not readily available to adjudicators.¹⁸⁰ They suggest that judges do not exist in an environment that allows them to perfect their intuitive decision-making processes.¹⁸¹ For example, while appeals may be an avenue for another court to remedy bias in the initial trial, it is too removed

174. See *R v Ewanchuk*, 1999 SCC 711 at paras 82, 88-89.

175. See generally *R v Santhosh*, 2016 ONCA 731.

176. *Ibid* at paras 13, 55.

177. *Ibid* at paras 19, 55-56.

178. *Ibid* at para 17.

179. Guthrie, Rachlinski & Wistrich, *supra* note 100 at 31.

180. *Ibid* at 31-32.

181. *Ibid* at 32.

from the adjudicator of first instance to provide timely and effective feedback.¹⁸² Moreover, it is unlikely and uncomfortable for parties in litigation to provide such feedback; in certain cases, they may face sanctions where their feedback is not carefully worded.¹⁸³

Fortunately, if we accept the intuitive override model of decision making, adjudicators are capable, in certain settings, of overriding intuitive decision making. Therefore, it is possible to address, to a certain extent, the blind spot associated with the RAB analysis through preventative measures premised on increasing adjudicators' knowledge of heuristics and their operation. Some scholars have also advised on potential intervention-based techniques that affect the adjudicative process. While these solutions have merit, there remain concerns about their effectiveness and whether the benefit outweighs the cost of implementation.

1. INTERVENTION-BASED MEASURES TO REDUCE SUSCEPTIBILITY TO COGNITIVE BIASES

Guthrie, Rachlinski, and Wistrich offer the possibility of judicial deliberation as a way to reduce cognitive bias in adjudication.¹⁸⁴ Deliberation would allow adjudicators to discuss crucial issues or findings with a panel of their peers. This method of adjudication is currently available in administrative law, where, in certain tribunals, decision makers may deliberate with members who are not adjudicating. These deliberations, however, do not fully prevent cognitive biases and instead, may invite groupthink mentality and systemic bias. The same RAB analysis is applied in cases where deliberation is available.¹⁸⁵ Moreover, such an implementation would place a heavy demand on the justice system and would be contrary to how the court currently operates.

There is an additional risk that deliberated decisions could implicitly be given additional weight. An appellate judge reviewing a deliberated trial decision may feel added pressure to arrive at a concurring decision. Similarly, a lawyer may incorrectly influence an adjudicator to place additional weight on deliberated decisions over non-deliberated decisions from the same level of tribunal. Furthermore, there is a risk of regional power imbalance within the

182. *Ibid.*

183. See generally *Doré v Barreau du Québec*, 2012 SCC 12 [*Doré*]. *Doré* may be an exaggerated example and it is likely that criticism of judges will be more cautiously worded.

184. *Supra* note 100 at 33.

185. See generally *Consolidated-Bathurst*, *supra* note 165.

same jurisdiction if, between regions, there is inequality of adjudicative resources that limit certain regions' abilities to deliberate decisions.

A second recommendation proffered by Guthrie, Rachlinski, and Wistrich is to increase the amount of time available to judges when they are facing "cognitive overload" and to increase the number of written opinions, as opposed to oral judgments.¹⁸⁶ Increasing the time available to decision makers has the added benefit of improving the conditions of decision making—alertness to emotional or mental states that increase the likelihood of snap, heuristic-driven decisions.¹⁸⁷

However, this recommendation also raises concerns about the allocation of scarce judicial resources. The justice system needs to balance the resource limitations of the courts and tribunals with the severity of issues. Increasing the number of written judgments will likely reduce the number of cases heard. Moreover, it may mean that justice is delayed for the cases that are heard. Perhaps most significantly, delays in the criminal context may mean that perpetrators are able to walk free if the delay violates the framework in *R. v. Jordan*:

At the heart of the new framework is a ceiling beyond which delay is presumptively unreasonable. The presumptive ceiling is set at 18 months for cases going to trial in the provincial court, and at 30 months for cases going to trial in the superior court (or cases going to trial in the provincial court after a preliminary inquiry).¹⁸⁸

In the alternative, the buildup of decisions that need to be written may on their own overwhelm judges and adjudicators, which poses its own concerns.

2. PREVENTATIVE MEASURES TO REDUCE SUSCEPTIBILITY TO COGNITIVE BIASES

The first step in reducing adjudicators' vulnerability to improper, intuitive decision making is to break the link between bias and behaviour.¹⁸⁹ While most of the judges studied by Faigman et al. believe themselves to be within the highest quartile of objectivity, these blanket and strong beliefs create a real risk for "behaving in ways that belie our self-conception."¹⁹⁰ Holding onto an initial belief or presumption that one is objective increases susceptibility to biases.¹⁹¹ These findings are consistent with the notion that System 2 fulfills a

186. *Supra* note 100 at 35-36.

187. See David L Faigman et al, "Implicit Bias in the Courtroom" (2012) 59 UCLA L Rev 1124 at 1177.

188. *R v Jordan*, 2016 SCC 27 at para 46.

189. See Faigman et al, *supra* note 187 at 1172.

190. *Ibid* at 1173.

191. *Ibid*.

gatekeeping or supervisory role over the proposals of System 1.¹⁹² If adjudicators believe that they are objective, it can affect the degree to which they scrutinize their intuitive judgements. Faigman et al. argue that adjudicators should actively remind themselves³/₄despite their position, role, and status³/₄that they are “human and fallible.”¹⁹³

After challenging the presumption of superior objectivity, the next step must be to increase our understanding of how heuristics “can...help the law make better choices.”¹⁹⁴ The following suggestions to reduce adjudicators’ susceptibility to bias are premised on advancing this objective. Both schools of heuristics research, F&F and H&B, agree that “if we are worried about ‘bad decisions,’ it is usually preferable to change the cues the decision maker confronts or to delegate decisions.”¹⁹⁵ While delegation is not a viable option in adjudication, it is possible to change the way adjudicators view heuristics and rely on cues. Moreover, Faigman et al. argue that the justice system should find ways to motivate adjudicators to better understand unconscious biases, heuristics, and implicit reasoning in order to modify their behaviour accordingly.¹⁹⁶ They find that when parties are motivated to understand cognitive biases, they are also likely to engage in self-learning and to approach decision making with an increased alertness to intuitive reasoning.¹⁹⁷

Beyond improving adjudicators’ basic understanding of heuristics, cognitive biases can be combatted with “countertypical associations.”¹⁹⁸ This operates in cases where we hold a negative attitude towards a group.¹⁹⁹ Countertypical association occurs where increased exposure to members of a group that we would hold a positive attitude towards reduces our implicit negative association.²⁰⁰ In the ideal case, exposure would be achieved through direct contact with members of the group; however, serious diversification of the bench and bar would take enormous resources—both economically and politically—to achieve, and even diversification alone may have only a slight effect.²⁰¹ In the absence of direct

192. See *Kahneman & Frederick*, *supra* note 4 at 51.

193. *Supra* note 187 at 1173.

194. Christoph Engel & Gerd Gigerenzer, “Law and Heuristics: An Interdisciplinary Venture” in Gigerenzer & Engel, *supra* note 56, 1 at 14.

195. Kelman, *supra* note 68 at 230.

196. *Supra* note 187 at 1176.

197. *Ibid.*

198. *Ibid.* at 1169.

199. *Ibid.*

200. *Ibid.*

201. *Ibid.* at 1170.

exposure, vicarious exposure to the group and indirect inferences stand as an alternative.²⁰² To satisfy indirect exposure, Faigman et al. suggest, for example, providing adjudicators with a questionnaire that involves positive members of the target group and negative members of the majority group to even out the perceived associations.²⁰³ Ultimately, this form of recommendation is limited in effect and exposure. It is also difficult to determine the possible success rates. In the context of attribute substitution, Kahneman and Frederick note that it is also possible to reduce the susceptibility to attribute substitution by “alerting the respondents to the possibility that their judgement could be contaminated by an irrelevant variable.”²⁰⁴

Finally, adjudicators can create systems of accountability and tracking. Guthrie, Rachlinski, and Wistrich recommend that adjudicators implement a checklist-style error test in order to add an element of rule-based thinking to decisions that are more intuitive.²⁰⁵ They propose an analytical approach similar to the way doctors query an initial diagnostic hunch, rather than a complete dismissal of intuition.²⁰⁶ In a similar vein, Faigman et al. recommend the use of the “count” concept, which effectively involves asking adjudicators to quantitatively reflect on their patterns of decision making.²⁰⁷ This sort of accountability system would allow adjudicators to recognize patterns in their decision making that are otherwise undetectable by viewing a single case.²⁰⁸

V. CONCLUSION

The driving force behind the RAB analysis appears to be that justice must be seen to be done. The test relies on a detectable apprehension of bias because we are unable to examine the adjudicator’s precise state of mind. The ultimate question that we must ask is whether the informed reasonable person is capable of detecting bias that cannot reasonably be seen. The answer is likely “no.” Neither the reasonable person’s knowledge of the law nor of their community can help discover veiled or subtle cognitive biases. We are left with the conundrum that the original premise—that justice must be done—may be violated covertly without triggering the current test for bias, leaving a blind spot in the RAB analysis

202. *Ibid* at 1170-71.

203. *Ibid* at 1171.

204. *Supra* note 4 at 58.

205. *Supra* note 100 at 33.

206. *Ibid*.

207. *Supra* note 187 at 1178.

208. *Ibid*.

unaddressed. As it stands, the structure of the RAB analysis is too vested in the conventional understanding of bias to be extended to encompass cognitive biases. While some cases can be properly appealed as errors of law, the appeal process may be unresponsive in cases where cognitive bias results in factual errors. At this time, the best remedies available are preventative. We should prioritize decreasing adjudicators' vulnerability to cognitive biases by increasing their understanding of heuristics and counteracting against potential intuitive predispositions.

