

Behavioural Analysis of

Civil Procedure Rules

Factor Overload and Interim
Remedies Affirmation

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Abstract

Much academic literature regarding how judges interpret and apply civil procedure rules is based on speculation about human behaviour and legal practitioners' personal intuition. I seek to apply cognitive psychology research to a number of procedural arrangements in order to create a more accurate picture of the decision-making processes of judges in our civil justice system. My project investigates the implications of findings derived from empirical behavioural psychology for legal reasoning and practice. The thesis is divided into three main parts. The first two parts address different cognitive effects that influence judicial decision making in the course of civil litigation: cognitive overload in relation to 'Laundry List' rules and confirmation bias in relation to interim remedies. Finally, the third part speaks to the general question of judicial intuition and serves as a link between the first two parts of the dissertation.

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Introduction

1. General Introduction

Procedural rules are designed to help judges apply the substantive law and to ensure that judges are in a position to reach the best possible decisions. In that respect, it seems natural to expect that procedural rules will be based upon theories of human behaviour and decision making. Psychological research may help reveal how procedural rules are implemented in reality, and in that way contribute to the administration of justice.¹ Despite this obvious potential, behavioural theories are not used frequently or consistently in the procedural scholarship in England.² This kind of interdisciplinary investigation, which is the subject of the current thesis, may influence many practical aspects of civil litigation and promote procedural fairness.

The purpose of my research is to explore the effect of human behaviour and human tendencies on the implementation of certain civil procedure rules, with the

¹ One of the main challenges of procedural scholarship is to reduce the gap between 'law in books' and 'law in action'. For a general discussion see Roscoe Pound, 'Law in Books and Law in Action' (1910) 44 American Law Review 12.

² This kind of scholarship is more common in the United States. See for example: Gerd Gigerenzer, 'Heuristics' in Gerd Gigerenzer and Christoph Engel (eds), *Heuristics and the Law* (MIT in cooperation with Dahlem University Press 2006), Terry Connolly, Hal R Arkes and Kenneth R Hammond (eds), *Judgment and Decision Making: An Interdisciplinary Reader* (2nd edn, Cambridge University Press 2000), Cass R. Sunstein (ed) *Behavioral Law and Economics* (Cambridge University Press 2000), Jeffrey John Rachlinski (ed) *Behavioral law and economics* (Edward Elgar 2009).

aim of suggesting rules that are compatible with theories of cognitive psychology. The thesis will attempt to uncover how judges in our civil justice system interpret and apply certain procedural rules, and, according to the result of this behavioural analysis, will propose changing the structure of these rules in order to encourage effective exercise of judicial discretion.

The importance of analysing the law through psychological theories of decision making was described by Jeffrey Rachlinski in his article about law and psychology. Rachlinski explains that psychology and law share the purpose of predicting and controlling human behaviour and that the extension of psychology to a broader array of legal issues is inevitable:

Law has historically relied on ad hoc accounts of human behavior that are motivated by ideology, anecdote and historical accident. Economics provided law with a behavioral theory that is rigorous and precise, but lacks an empirical foundation. Psychology offers an empirical, scientific source for theories of human behavior. We have only begun to see how the scientific study of human behavior will reshape the study of law.³

As a preliminary comment, it is important to mention that the approach presented in this thesis is based on Tversky and Kahneman's descriptive theory of decision making as opposed to rational choice theory.⁴ Explanations and

³ Jeffrey J Rachlinski, 'The "New" Law and Psychology: A Reply to Critics, Skeptics, and Cautious Supporters' (2000) 85 Cornell Law Review 739, 766.

⁴ Amos Tversky and Daniel Kahneman, 'Rational Choice and the Framing of Decisions' (1986) 59 Journal of Business S251. See also Rachlinski (n 3). Rachlinski explains that legal scholars have become interested in new theories of human decision making that promise to predict people's reactions to law more accurately than either law and economics or traditional legal scholarship. He mentions that this field of the 'new' law and psychology consists largely of psychologists,

predictions of people's choices are often founded on the assumption of human rationality. Rational choices are generally characterised by some elementary requirements of consistency and coherence. But, as Tversky and Kahneman show, people systematically violate the requirements of consistency and coherence. Because of imperfections of human perceptions and decisions, changes in perspective often reverse the relative desirability of options.⁵ Individuals who face a decision and have a definite solution preference might have a different preference in a different presentation of the same problem.⁶ Tversky and Kahneman introduce psychological considerations in order to enrich the analysis of choice. They deny the assumption of rationality and show that the process of decision making is affected by 'framing', ie the context of choice, the language of presentation, the nature of the display and so on.⁷ My premise is that judges' decision making should be analysed from a similar point of view and not under the assumption that judges are rational agents.

such as Amos Tversky and Daniel Kahneman. Rachlinski refers to the field by the name 'behavioral decision theory' (BDT), and in the paper he highlights the value of the application of BDT to law.

⁵ Amos Tversky and Daniel Kahneman, 'The Framing of Decisions and the Psychology of Choice' (1981) 211 Science 453, 453.

⁶ *ibid* 457.

⁷ Tversky and Kahneman (n 4).

2. Chapters Overview

The dissertation will be divided into three main parts. The first two parts will each deal with a procedural situation that is subject to certain cognitive processes that may interfere with the administration of justice. The final part will connect the first two parts and will offer a general analysis of judicial intuition that could be used to explore similar questions of judicial decision making in the future.

In Part 1, I will discuss the need to simplify legal decisions. More specifically, Part 1 will deal with a situation I refer to as Factor Overload. Procedural rules are sometimes set in the form of ‘Laundry Lists’; that is, long sets of stipulated considerations that the judge must weigh. My argument is that judges encounter difficulty when trying to implement these checklist clauses. This difficulty is linked to our human cognitive limitations. Behavioural studies demonstrate that people struggle with the task of integrating a large number of factors. For example, a product-marketing experiment showed that people are more likely to purchase jam or chocolate when offered a limited array of choices; for instance, when they were presented with a display of only six flavours of jam rather than 24.⁸

Moreover, studies showed that even people who are considered to be experts in their field are only good at choosing the relevant factors to reach a decision and are poor at then integrating all factors together and giving the optimal

⁸ Sheena S Iyengar and Mark R Lepper, ‘When Choice Is Demotivating: Can One Desire Too Much of a Good Thing’ (2000) 79 *Journal of Personality and Social Psychology* 995.

weight to each factor.⁹ In other words, there is nothing in the research to suggest that trained experts – such as judges – act differently than non-experts when making decisions that involve integrating various considerations.¹⁰

This difficulty occurs in the situation of ‘Laundry List’ procedural rules that include many factors that the judge must consider. In this situation, the long list of factors leads, in my opinion, to a problem of Factor Overload.

In order to examine this phenomenon in the context of civil procedure, I performed an experiment using the factual framework of a real case in which judges had to implement a ‘Laundry List’ rule. I used rule 3.9 of the Civil Procedure Rules (CPR) in the England and Wales in order to demonstrate the unproductive complexity of checklist rules and the effects of Factor Overload, by comparing decisions made when taking into account nine factors, three factors and no factors at all. CPR 3.9 read as follows up until recently and is merely one example of a greater pattern of rules that are set in this form of a large number of considerations:

⁹ Robyn M Dawes, ‘The Robust Beauty of Improper Linear Models in Decision Making’ (1979) 34(7) *American Psychologist* 571.

¹⁰ For example, in the context of a medical decision, it was shown that physicians were less likely to prescribe a medication when deciding between two medications than when deciding about only one medication, meaning the difficulty in deciding between the two medications led some physicians to recommend not starting either. This study shows that the introduction of additional options can increase decision-making difficulty even in the case of experts. Adding new options can increase the probability of choosing a previously available alternative or maintaining the status quo. See Donald A Redelmeier and Eldar Shafir, ‘Medical Decision Making in Situations that Offer Multiple Alternatives’ (1995) 273 *JAMA* 302. This is not to say that judicial expertise does not exist. See Daniel Kahneman, *Thinking, Fast and Slow* (Allen Lane 2011), 240. See also the discussion in Part 3 of the dissertation.

Relief from Sanctions

3.9

(1) On an application for relief from any sanction imposed for a failure to comply with any rule, practice direction or court order the court will consider all the circumstances including –

- (a) the interests of the administration of justice;
 - (b) whether the application for relief has been made promptly;
 - (c) whether the failure to comply was intentional;
 - (d) whether there is a good explanation for the failure;
 - (e) the extent to which the party in default has complied with other rules, practice directions, court orders and any relevant pre-action protocol;
 - (f) whether the failure to comply was caused by the party or his legal representative;
 - (g) whether the trial date or the likely trial date can still be met if relief is granted;
 - (h) the effect which the failure to comply had on each party; and
 - (i) the effect which the granting of relief would have on each party.
- (2) An application for relief must be supported by evidence.

In Part 2, I will discuss the influence of confirmation bias on legal decisions, and specifically on the jurisdiction of interim injunctions. The confirmation bias entails the tendency of individuals to favour information that confirms their preconceptions or hypotheses, regardless of whether that information is true or

false.¹¹ In this part, I seek to examine whether the jurisdiction of interim remedies involves an inherent problem of confirmation bias. An interim remedy is an order given by the court during the litigation as a temporary measure to preserve the interests of the parties until the final decision is made. In England and Wales, in order to grant an interim remedy the court is required to apply the 'balance of convenience' test, the purpose of which is to determine the extent to which each party is exposed to 'irreparable harm' in the event of her succeeding at the trial. While deciding whether to grant the interim injunction, the court has no choice but to embrace a certain opinion regarding the probability of success of each party.¹² This kind of decision that favours one of the parties in the interim stage of the litigation may lead, in my opinion, to an exaggerated preference of this party's version due to the confirmation bias effects.

Part 2 will discuss another bias called the 'status quo bias'. The status quo bias entails people's tendency to prefer the current state of the world, all other things being equal. The status quo bias will be used to analyse situations in which the tendency to confirm early decisions occurs not only when the interim injunction and the final decision are given by the same judge, but also when the interim injunction and the final decision are given by different judges.

¹¹ Raymond S Nickerson, 'Confirmation Bias: A Ubiquitous Phenomenon in Many Guises' (1998) 2(2) Review of General Psychology 175. See also Chris Guthrie and Tracey E George, 'The Futility of Appeal: Disciplinary Insights into the "Affirmance Effect" on the United States Courts of Appeals' (2005) 32 Florida State University Law Review 357.

¹² It is still unclear what exactly the applicant is required to show in order to prove his advantage on the merits. See: AAS Zuckerman, *Zuckerman on Civil Procedure: Principles of Practice* (2nd edn, Sweet & Maxwell 2006), ch 9.

Here, as well, I carried out a small-scale experiment in order to test whether an exposure to a previous interim remedy decision affects the final decision. In the experiment I compare decisions made in a specific case with a previous interim injunction decision and without it, and under different variations of the legal test to grant an interim order.

Finally, Part 3 will discuss the question of judicial intuition in order to connect the first two parts of the dissertation and to provide further tools for analysing similar questions of procedure and psychology in future research. In Part 3, questions such as how judges make decisions and whether judicial intuition could be trusted will be examined. The discussion in Part 3 is important in order to place the specific issues discussed in Part 1 and Part 2 of the dissertation under the same general topic, as well as to contribute to the understanding of other situations of judicial decision making that may involve cognitive difficulties.

3. 'Legal Bias' and 'Psychological Bias'

Lastly, in order to discuss the issue of judicial cognitive biases, it is necessary to elucidate the term of bias and to draw a distinction between the legal definition of bias and the psychological definition of bias. 'Psychological Bias' is a result of our limited cognitive capacities and the human tendency to use heuristics (mental shortcuts). As explained by Rachlinski in his paper on heuristics and biases, even

though the human brain is extremely efficient, it is not a computer. And, while the brain must manage a complex array of stimuli, it has a limited ability to process information. Therefore, it relies on shortcuts to ease complex problem solving. However, these shortcuts sometimes lead to errors:

In response to its natural constraints the brain uses shortcuts that allow it to perform well under most circumstances. Reliance on these shortcuts, however, leaves people susceptible to all manner of illusions: visual, mnemonic, and judgmental. For example, people process scenes in motion pictures as if the images actually move, mis-remember the occurrence of events that never happened, and treat outcomes as having been more predictable than they were.¹³

‘Legal Bias’, on the other hand, refers to an entirely different concept of the right to an independent and impartial tribunal. The right to an independent and impartial tribunal, under Article 6 of the European Convention on Human Rights (ECHR), reflects a long held position of English Law that requires the court to be neutral towards the parties.¹⁴ The general principle was described by Zuckerman in his book:

A judge must evaluate the dispute by reference to general rules (whether of law or of factual reasoning), which are accepted independently of the particular case, without being influenced by personal preference or animosity concerning the parties.

¹³ Jeffrey J Rachlinski, ‘Heuristics and Biases in the Courts: Ignorance or Adaptation?’ (2000) 79 Oregon Law Review 61, 61.

¹⁴ Adrian Zuckerman, *Zuckerman on Civil Procedure: Principles of Practice* (3rd edn, Sweet & Maxwell 2013), para 3.54.

In addition, in the case of ‘Legal Bias’, the law requires not only the absence of bias, but also the absence of any appearance of bias, as it is important not only that justice would be done, but also that it would be seen to be done. English law attributes great meaning to the appearance of impartiality in order to maintain public trust in the administration of justice.¹⁵ More specifically, as explained by Zuckerman, there are two separate heads of disqualification for bias:

One is concerned with the presence of a real possibility, or a reasonable apprehension, of bias and the other is described as automatic disqualification due to an interest that the judge has in the outcome of the litigation. Where the judge is found to be biased on one or other of these tests, a litigant has a right to insist that a judge should step down or else that the judge’s decision should be set aside.¹⁶

As the foregoing suggests, while the ‘Psychological Bias’ is concerned with our limited human cognitive capacities, ‘Legal Bias’ refers to prejudice that is derived from personal interest or animosity towards a party. Also, as opposed to the ‘Psychological Bias’ literature that only deals with the actual existence of cognitive biases and their effects on our decision-making processes, the ‘Legal Bias’ puts considerable emphasis on the *appearance* of impartiality, due to the element of public trust that is crucial in the legal context in order to maintain public confidence in the administration of justice.

¹⁵ *ibid*, paras 3.55– 3.56.

¹⁶ *ibid*. However, according to Zuckerman it is ‘open to doubt whether there is a meaningful difference between the two tests and whether the distinction between them serves a useful purpose.’

Despite the differences between the 'Legal Bias' point of view and the 'Psychological Bias' point of view, generally it is possible to claim that both 'biases' have similar aims: namely, the need to make sure that decisions are not affected by any irrelevant factors. In this dissertation I will primarily deal with 'Psychological Bias' and its effect on judicial decision making.

Part 1

Simplifying Legal Decisions:

Factor Overload in Civil Procedure Rules

1. Preface

Procedural rules are sometimes set in the form of 'Laundry Lists'; that is, long sets of stipulated considerations that a judge must weigh. In this part, I will argue that judges in the common law system encounter difficulty when trying to implement these checklist exercises. This difficulty is directly related to a psychological aspect of the human mind. Human behaviour experiments show that too much information, too much choice or too many decision factors might do more harm than good. Product-marketing experiments demonstrate that limited options facilitate the consumer's purchase decisions: Studies showed that people were more likely to purchase jam or chocolate when offered a limited array of choices; for example, when they were presented with a display of only six flavours of jam rather than 24. People were also more willing to undertake optional class essay assignments under a limited range of choice and were more likely to write an essay

for extra credit when they were provided with a list of only six potential essay topics, rather than 30.¹⁷

Clearly, there is a difference between choosing a jam or essay topic and integrating relevant considerations in legal decision making. But, it has also been shown that even people who are established experts in their field are only good at choosing the relevant considerations to reach a decision, and are quite poor at then integrating the relevant considerations, that is, giving the most accurate weight to each factor in the decision-making process.¹⁸

According to human behaviour theories a judge will recognise the relevant factors in the 'Laundry List' but having done so will fail to give the optimal weight to each factor in the integration process.¹⁹ The more considerations, the more confusion caused. This problem exists in the instance of long checklist rules in civil procedure, where the considerations in a rule might be relevant but are simply too numerous for a non-rational decision maker to weigh and integrate. I will use the term Factor Overload to describe this situation of procedural rules that include too many considerations (Factor Overload is one form of cognitive information overload).

More generally, this part deals with the question of rule complexity and calls for the simplification of procedural rules. Indeed, sometimes the complexity in

¹⁷ Iyengar and Lepper (n 8).

¹⁸ Dawes (n 9).

¹⁹ Assuming that there is an optimal weight, which might not always be the case, as will be explained later.

the rules is unavoidable since certain life situations require a more complex legal treatment. However, in other situations there are procedural rules that are unnecessarily complex. In those situations the complexity leads to an unhelpful exercise that does not contribute to the goal of reaching the best result in a certain legal case, nor does it contribute to reducing the administrative costs of the legal system as a whole. When the complexity is counterproductive, there are ways to simplify the rule or the decision-making process in order to reach a better and a more efficient result.

Not only that, it could be argued that simple procedure should be promoted, even at the price of having less sophisticated rules, since judges cannot implement complex rules due to their limited human cognitive abilities, as will be shown in the case of 'Laundry List' rules.

In his book *Simple Rules for a Complex World*, Richard Epstein observes that the world has become more complex, and that there has been a vast increase in the frequency and complexity of the legal rules that govern society:

As a matter of individual self-survival, there is ample reason to become accustomed, perhaps inured, to the raft of complex legal rules that govern any aspect of human behavior. As a practical matter, the situation is not likely to change suddenly or soon. But the current situation is neither inevitable nor desirable.²⁰

²⁰ Richard A Epstein, *Simple Rules for a Complex World* (Harvard University Press 1995) 21.

Epstein presents the crucial but often overlooked point that the proper response to a more complex world should be an ever greater reliance on simple legal rules.²¹ This idea could not be emphasised enough. As Epstein explains in the following paragraph:

The proper response to more complex societies should be an ever greater reliance on simple legal rules, including older rules too often and too easily dismissed as curious relics of some bygone horse-and-buggy age. Yet these rules have been cast aside in favor of approaches that at every turn frustrate the very human talents and initiatives they are supposed to protect and foster.²²

Epstein notes that it has been claimed that there is no workable definition of simplicity and that legal complexity is an unavoidable necessity. Epstein argues that even though no definition will capture the subject of simplicity with perfect accuracy, it is unwise to 'take the sceptical view that simple rules are a romantic pipe dream because of our collective inability to translate ordinary intuitions about simple rules into testable propositions'.²³

Epstein therefore offers a definition of simplicity that we can work with. Since the opposite of simplicity is complexity, he starts by identifying some of the critical elements that mark a set of legal rules as complex. Epstein refers to Peter Schuck's definition of the four markers of a complex set of legal rules: *density* (dense legal rules are numerous and cover in minute detail all aspects of a given

²¹ *ibid* 21.

²² *ibid*.

²³ *ibid* 23–24.

transaction); *technicality* (technical rules are those which require a certain level of expertise to understand and to apply); *differentiation* (differentiation refers to the number of different sources of law that could be brought to bear in a given situation, often in an overlapping or inconsistent manner; and *indeterminacy* (indeterminacy is the level of uncertainty that is generated in the effort to apply a given rule).²⁴

One could argue that there is some contradiction in Schuck's definition of the four markers of a complex set of legal rules. This is because Schuck identifies both detailed and uncertain rules as complex, and it is probable that the more general (and less detailed) a rule is, the more uncertain its application is likely to be. However, Schuck's markers still provide a helpful tool for analysing questions of legal complexity.

Interestingly, Epstein specifically mentions rules that are structured in the form of a 'Laundry List' while discussing the variables of complexity. He particularly discusses these types of rules in relation to Schuck's marker of *uncertainty*. Epstein explains that the simplest rules by the test of *uncertainty* are those in which the answer to a single question of fact determines the legal outcome. On the other side of the spectrum are 'those rules that are ever so much more common today: in order to decide whether a given product has a defective design, it is necessary to review a list of six, ten, or fifteen factors, all of which are relevant

²⁴ *ibid* 24–25.

to the decision but none of which is decisive'.²⁵ Epstein criticises the form of inquiry that results from these multifactor rules and calls it massive and costly:

Litigants therefore must seek to milk each factor for all that is it worth, and must recognize that an impressive victory scored on factor 4 could be wiped out by a calamitous defeat on factor 7. In essence, a question that necessarily has a yes/no answer – is the defendant liable to the plaintiff – is not governed by some simple on/off switch, but by a massive, costly and uncertain inquiry.²⁶

The above segment from Epstein's book shows that legal scholars have criticised 'Laundry List' rules in the past. Legal scholars recognised that 'Laundry List' rules could be overly complex and unproductive. Part 1 will confirm this insight and will present psychological studies in support of the thesis that legal policy makers should avoid 'Laundry List' rules when possible, as well as present an experiment that demonstrates the effect of these type of rules.

It should be mentioned that one of the reasons that complexity occurs is the commitment to treating like cases alike,²⁷ which leads to increasingly nuanced rules or to a growing body of precedent or both. And indeed, Epstein does not argue that simplicity is the most important thing. As explained by Epstein, the objective of a sound system of legal rules is to maximise social utility. In establishing ideal legal rules there is a trade-off between social incentives and administrative costs. Administrative costs include all costs necessary to run the

²⁵ *ibid* 25.

²⁶ *ibid* 25.

²⁷ See chapter 3(III) of this Part.

legal system, and the more complicated the legal rules, the greater the administrative costs are likely to be. The administrative costs should be balanced against the beneficial effects of the rule on human action. For that reason, simplicity cannot be the sole goal – simple legal rules should be a presumption that can be disregarded for a good cause. Epstein’s simple rule of thumb is: ‘When in doubt, choose the simpler of two alternatives’.²⁸

In the second chapter the theoretical background of the argument will be presented. This background will primarily include a literature review of psychological experiments that reveal the disadvantages of a broad range of choices and a vast amount of information. Naturally, the studies that will be presented in this chapter deal with a wider context than the legal one and are not necessarily inspired by judicial decision making. But, as will be demonstrated later, such studies can be shown to be pertinent in the context of civil procedure as well.

In the third chapter the importance of the simplicity issue to civil procedure will be discussed. I will argue that complex procedural rules undermine the very goal of procedure. Since one of the main purposes of civil procedure is to help the judge apply the substantive law, there is special significance in setting procedural rules that are clear, simple and straightforward. In addition, inapplicable procedural rules lead to uncertainty and arbitrariness and, consequently, to an undesirable outcome of different judicial decisions in similar cases. Simple

²⁸ Epstein (n 21) 32–33.

procedural rules with a limited number of variables will create greater consistency and contribute to fairness.

In the fourth chapter court decisions analysis will be performed. Decisions from England and Wales cases in which rule 3.9 of the CPR was implemented will be examined. CPR rule 3.9 is a good example for a potential situation of information overload since until last year it included a non-exhaustive list of nine different factors that the judge had to weigh in order to reach a decision. The analysis of the decisions that implemented rule 3.9 is important notwithstanding that rule 3.9 was amended, since the rule is only an example for a more general phenomenon of legal rules that include many factors. In addition to the doctrinal analysis, an experiment I performed will be presented in order to demonstrate the cognitive outcomes of Factor Overload. The experiment will simulate a case that utilises rule 3.9 and will then compare decisions made under three different possible forms of the rule structure: a list that consists of nine factors, a list that consists of a limited number of factors (three), and a form with no factors at all, namely full judicial discretion.

Since the phenomenon described in this paper is general in terms of human behaviour, the assumption will be that the analysis is relevant for other rules that are structured in a similar form, including rules that belong to other legal systems. There are other instances of legal rules that include many factors, while the effects of cognitive overload are derived from general insights about the human mind. Rule 3.9 is therefore used here merely as one example out of a whole range of rules

and in order to demonstrate a wide psychological phenomenon. In other words, my argument is not limited to a specific rule or a certain legal system; rather, it is universal.

The fifth chapter will be dedicated to a discussion of Ronald Dworkin's thesis of 'one right answer' to legal questions and his metaphor of a Judge Hercules. According to Dworkin, Hercules is an ideal judge, required to consider the law as a whole in order to decide a particular case and to always come to the one right answer. Dworkin's metaphor of Judge Hercules seems inconsistent with the cognitive findings regarding information overload. While Dworkin supports taking a wide range of principles into account in order to reach a specific decision, the phenomenon of information overload suggests that excessive information would confuse the judge and damage the decision-making process.

Finally, in the sixth chapter the question of whether any practical conclusions can be drawn from the analysis presented in this Part will be discussed. I will deal with the issue of judicial discretion and will look into the questions of whether a limited number of considerations in the structure of procedural rules limits or expands judicial discretion and whether it is appropriate, in light of the behavioural findings presented in the paper, to limit the exercise of judicial discretion in order to effectively enforce compliance with process requirements. As a practical tool, I will suggest the possibility of using computational linear models (mathematical models that fit a linear equation to data) to help the judge reach a decision. And, in order to complete the picture, I will also discuss the more general

question of rules versus standards, as the choice between rules and standards is directly related to the different solutions suggested in this chapter.

Lastly, it is interesting that the need to simplify procedural rules has arisen recently in relation to the issue of litigants in person. Recent changes to legal aid and litigation funding in England and Wales has resulted in many people no longer being in a position to secure legal representation. Self-representation is therefore likely to increase over time and to present significant challenges to the litigants in person and to the courts.²⁹ One of the proposals that has been made in order to enable litigants in person to litigate effectively was to simplify procedure and litigation.

Such recommendation has been made by Lord Dyson who said that access to justice requires ensuring that the law is genuinely accessible so that it can play its normative role. This entails a number of steps, including the following:

We have to, for instance, consider how we simplify the law, and at the very least ensure that new laws are well-drafted and readily accessible. As Lord Woolf noted in his now rightly famous Access to Justice report, this rendered “the court system and its procedures...(all) too often inaccessible and incomprehensible to ordinary people”.³⁰

This recent debate demonstrates the importance of the simplicity discussion in relation to the law and to procedural rules in particular. Even though complexity is

²⁹ ‘Litigants in Person: What Can Courts Do?’ (UCL Judicial Institute & The UCL Center for Access to Justice, Special Event Background Papers, London, 18 June 2014) 4.

³⁰ Dyson MR, *Advances in Open Justice in England and Wales* (18 October 2013).

sometimes inevitable, simplifying 'Laundry List' rules may be a right step towards the desired simplicity mentioned by Lord Woolf and Lord Dyson.

2. Theoretical Background

I. When Choice Is Too Much

I.I Introduction

It is popular to praise the benefits of endless opportunities, possibilities and choice.

More choices, it has been argued, are always preferable to fewer.³¹ This view is

³¹ John Rawls classifies liberty as a primary good, ie one that any rational person will prefer more of to less. His reasoning is that individuals are not compelled to accept more if they do not wish to, nor does a person suffer from a greater liberty. Gerald Dworkin claims that this reasoning made by Rawls shows that Rawls accepts the thesis that more choices are preferable to fewer. See Gerald Dworkin, 'Is More Choice Better than Less' (2008) 7(1) *Midwest Studies in Philosophy* 47, 48–49. However, this interpretation of Rawls might not be accurate, as it assumes that liberty means choice, while that is not necessarily the case. Removing choice could mean more autonomy. For example, Joseph Raz seems to adopt an ideal of liberal autonomy that is not tied to voluntaristic choice. He believes that autonomy is valuable only if exercised in pursuit of the good. Therefore, it looks like the value of choice depends on the value of personal autonomy, and the value of personal autonomy depends upon the value of the options perused, according to Raz. See Katrin Flikschuh, *Freedom: Contemporary Liberal Perspectives* (Cambridge: Polity 2007) 161– 166. In Raz's words (see Joseph Raz, *The Morality of Freedom* (Oxford University Press 1988) 394, 398):

It would be a mistake to think that those who believe, as I do, in the value of personal autonomy necessarily desire the extension of personal choice in all relationships and pursuits. They may consistently with their belief in personal autonomy wish to see an end to this process, or even its reversal. The value of personal autonomy is a fact of life. Since we live in a society whose social forms are to a considerable extent based on individual choice, and since our options are limited by what is available in our society, we can prosper in it only if we can be successfully autonomous. We may do so to various degrees. Some people may base more of their lives on those aspects, such as parenthood, where choice is more limited. Others may improvise in their own lives and vary common forms to minimize the degree of choice in them. But ultimately those who live in an autonomy-enhancing culture can prosper only by being autonomous. ...

manifest in various aspects of peoples' lives, from idioms such as 'the more the merrier' to an attractive marketing of America as 'a land of endless possibilities'. But, in the past few years scholars from different disciplines have questioned this basic assumption that more choice is better. Recent research has shown that contrary to common belief, a large number of options may cause a 'choice overload' or an 'overchoice'.

The common supposition that the more choices, the better, faces a mounting challenge from recent psychological scholarship. The belief that more choice is better pervades our institutions, norms and customs, from classic economic theories to marketing practices.³² Indeed, psychological theory and research have demonstrated a link between the provision of choice and increase in intrinsic motivation, perceived control, task performance and life satisfaction.³³ But psychological research also suggests that people can have difficulty managing complex choices.

Autonomy is exercised through choice, and choice requires a variety of options to choose from. To satisfy the conditions of the adequacy of the range of options the options available must differ in respects which may rationally affect choice. If all the choices in a life are like the choice between two identical-looking cherries from a fruit bowl, then that life is not autonomous. Choices are guided by reasons and to present the chooser with an adequate variety there must be a difference between the reasons for the different options. Furthermore, as was argued above, the options must include a variety of morally acceptable options. So the morally acceptable options must themselves vary in the reasons which speak in favour of each of them. There are, in other words, more valuable options than can be chosen, and they must be significantly different or else the requirements of variety which is a precondition of the adequacy of options will not be met.

³² Iyengar and Lepper (n 8) 995.

³³ *ibid.*

Studies show that the selection, evaluation and integration of information are all clearly affected by the available number of options, while as the complexity of making choices rises, people tend to simplify their decision-making processes by relying on simple heuristics (mental shortcuts).³⁴ People use simplifying operations to reduce the complexity of information that must be integrated to yield a decision (for example by using a rule of thumb). These simplifying strategies often lead to errors in judgements.³⁵ The growing number of alternative choices is therefore classified as a situation of information overload.³⁶ Legal policy makers should be worried about information overload because it leads to the use of heuristics that may lead to errors. Constructing rules in a clear and a simple manner could prevent the use of these mental simplifying strategies and lead to better decisions.

I.II Alternatives and Attributes

The negative effects of a growing number of alternatives have been demonstrated in numerous studies. Results concerning information selection show that although the total amount of information processed increased with the number of

³⁴ *ibid.*

³⁵ Michael J Saks and Robert F Kidd, 'Human Information Processing and Adjudication: Trial by Heuristics' (1981) 15(1) *Law & Society Review* 123, 127.

³⁶ This effect is less pronounced when one has a very specific taste or when it is possible to use filters to refine the initially wide choice field. In those cases the decision maker is able to determine which of the possibilities is best for his personal need by screening the options in advance according to general features. This method is used, for example, by online shopping websites such as Amazon that offer categorisation of their items.

alternatives, the average number of attributes on which the alternatives were evaluated decreased per alternative.³⁷ In a study performed by Timmermans, subjects were asked to make a decision concerning the selection of a candidate for a job opening of an associate professor while the complexity of the problem was manipulated by the number of alternatives and attributes.³⁸ The number of alternatives (potential candidates for the job) was 3, 6 or 9, and the number of attributes (age, research experience, organizational skills and so on) was 5 or 12. Analysis of the decision-making process revealed that with an increase in the number of alternatives, the total number of attributes used to make the decision increased, but the average number of attributes used per alternative decreased.³⁹ Therefore, in fact, as the complexity of the problem rose, people used less of the available information.⁴⁰ This result of decreasing use of available information due to an excessive number of alternatives is considered to be a negative effect, given the assumption that attention to more relevant attributes will yield a better decision.

An argument could be made that the number of candidates and the number of relevant attributes should be treated differently when reducing the information load: a small number of attributes should be used for choosing the right person,

³⁷ Danielle Timmermans, 'The Impact of Task Complexity on Information Use in Multi-attribute Decision Making' (1993) 6 *Journal of Behavioral Decision Making* 95, 107.

³⁸ *ibid* 96.

³⁹ *ibid* 100. The means of the number of attributes used per alternative were 5.1, 3.8 and 3.9 for the three, six and nine alternatives, respectively.

⁴⁰ *ibid* 101.

but the more candidates the better. This could be true in certain cases where a few attributes are sufficient in order to reach a decision; for instance, when a small number of attributes is enough to select a candidate for a position. If the employer were to care *only* about two attributes, say, the research experience and the organizational skills of the candidate, it might be possible to consider many candidates for the job and in that way to increase the chances of finding a suitable employee while simultaneously reducing the information load.

However, in other cases there could be a large number of relevant attributes (for example if the employer were to consider twelve factors in relation to each candidate). But even in the situation where there are many pertinent attributes, it could be claimed that it is preferable to choose the most important ones and to ignore some relevant information since otherwise, because of the limitations of the human mind, most of the attributes would not be taken into account at all. Alternatively, when there are many relevant attributes, the use of computers may be a helpful tool in the factors integration process. This solution will be discussed in the last chapter of this Part.

Another phenomenon that is related to information overload is the use of elimination strategy. An alternative is eliminated when one or more relevant aspects are negatively evaluated and the sooner it is eliminated, the fewer attributes one needs to consider. Further analysis of the data in the experiment described above (of a selection of a candidate for a job opening) revealed that the increase in the number of alternatives was accompanied by an increase in the

percentage of people who used an elimination strategy.⁴¹ The use of elimination strategy is another manifestation of information overload since the outcome of the elimination strategy is a lower percentage of information used. The increase in the use of an elimination strategy therefore reflects the higher information load as the number of alternatives grows.⁴²

I.III Chocolate, Jam and Essay Topics

In an important study, Iyengar and Lepper performed three experiments examining the possibility that there may be differential motivational consequences of encountering a limited versus extensive number of choices.⁴³ The first experiment showed that although more consumers were attracted to a tasting booth when the display included 24 flavours of jam rather than six, consumers were much more likely to purchase jam if they had encountered the display of only six jams.⁴⁴ The second experiment revealed that students in an introductory college-level course were more likely to write an essay for extra credit when they were provided with a list of only six potential essay topics, rather than 30. In addition, students wrote higher quality essays if their essay topic had been chosen from a smaller rather than a larger choice set. Finally, the third experiment showed two opposing effects: participants reported more enjoyment from the process of

⁴¹ *ibid* 109.

⁴² *ibid* 107.

⁴³ Iyengar and Lepper (n 8).

⁴⁴ *ibid* 1003.

choosing a chocolate from a display of 30 than from a display of six; however, the same participants proved more dissatisfied and regretful of the choices they made and were subsequently less likely to choose chocolates rather than money as compensation for their participation. The conclusion of these results was, among others, that participants in the extensive choice condition feel more responsible for the choices they make, resulting in frustration and dissatisfaction with their choices.⁴⁵

It is important to note that Iyengar and Lepper's findings demonstrate the effects of choice overload in relatively trivial decision-making contexts. There are other contexts in which the cost associated with making the 'wrong' choices are much more prominent and not necessarily a function of personal preference (for example sentencing a person to ten years in prison as opposed to choosing a favourite chocolate flavour). In those contexts substantial time and effort would be required for decision makers to make truly informed choices.⁴⁶ Decisions made by judges in the legal context fall into the category that includes more meaningful and difficult choices, which has not been investigated by Iyengar and Lepper.

I.IV Bounded Rationality

Research of such consequential choices exists in the economic literature, where the idea of 'bounded rationality' was originally developed. The term 'bounded

⁴⁵ *ibid.*

⁴⁶ *ibid* 1004.

rationality' was coined by Herbert Simon and refers to the inability of individuals to solve complex problems (ie their difficulty to compute the expected cost and utility of every action). According to Simon, individuals are limited in their ability to process information due to cognitive limitations, limited available information, limited time to make decisions and so forth. Simon emphasised that minds are adapted to real-world environments and argued that information-processing systems typically need to '*satisfice*' rather than optimise.⁴⁷ Simon used the word *Satisfice* (a blend of *suffice* and *satisfy*) to describe mental processes that deal with conditions of limited time, knowledge, or computational capacities.⁴⁸ In the words of Gigerenzer and Goldstein:

His concept of satisficing postulates, for instance, that an organism would choose the first object (a mate, perhaps) that satisfies its aspiration level—instead of the intractable sequence of taking the time to survey all possible alternatives, estimating probabilities and utilities for the possible outcomes associated with each alternative, calculating expected utilities, and choosing the alternative that scores highest.⁴⁹

According to the bounded rationality theory, the complexity of situations generates the use of heuristics by decision makers.⁵⁰ Economists have incorporated the bounded rationality theory into economic models, and instead of modelling all economic agents (actors that have an influence on the economy) as possessing

⁴⁷ Gerd Gigerenzer and Daniel G Goldstein, 'Reasoning the Fast and Frugal Way: Models of Bounded Rationality' (1996) 103(4) *Psychological Review* 650, 652, citing Herbert Simon.

⁴⁸ *ibid* 651.

⁴⁹ *ibid*.

⁵⁰ Herbert A Simon, *Models of Bounded Rationality* (MIT Press 1982).

rational expectations, they present a quasi-rational expectation model in which economic agents have restricted rationality.⁵¹

The tendency to '*satisfice*' rather than optimise is also manifested in empirical studies that show that decision makers tend to use a core attributes heuristic whereby they stop acquiring and analysing information once the last in their set of most important, determinant attributes has been acquired and analysed.⁵² The empirical data demonstrates that the essential decision in sequential choice is not which alternative to choose but when to stop acquiring additional information and commit to the leading alternative. This evidence contradicts the economic tradition that its guiding principle is to search as long as the perceived marginal benefits of acquiring additional information exceeds the perceived marginal costs.⁵³

I.V Time and Complexity

Later studies examined other effects of choice complexity. For instance, it has been demonstrated that a person's estimation of the time spent making a decision is affected by the number of options available in a choice set. Participants in one study who were asked to choose one of 24 mobile phones tended to underestimate

⁵¹ Saang J Baak, 'Tests for Bounded Rationality with a Linear Dynamic Model Distorted by Heterogeneous Expectations' (1999) 23 Journal of Economic Dynamics & Control 1517.

⁵² Barton Beebe, 'An Empirical Study of the Multifactor Tests for Trademark Infringement' (2006) 95 California Law Review 1581, 1601.

⁵³ Gad Saad and J Edward Russo, 'Stopping Criteria in Sequential Choice' (1996) 67 Organizational Behavior and Human Decision Processes 258.

the time spent, whereas participants confronted with the choice of six mobile phones tended to overestimate the actual time spent. When the task includes an extensive number of items choice takes longer but feels shorter.⁵⁴ The results show that complex choice conditions extend the time spent in order to reach a decision, despite the opposite impression of the decision maker. This finding is relevant to the discussion because it is important to remember that even if judges are of the view that 'Laundry List' rules are easy to implement, their impression is not necessarily correct, and policy makers should not usually rely only on estimations given by members of the judiciary as a measure for choosing the right rule structure. Being aware of this effect is valuable in order to reduce litigation time – simplifying the rules will not only lead to better decisions but could also shorten the decision-making process and contribute to efficiency.

In fact, heavier regulation of dispute resolution has generally been associated with higher expected duration of judicial proceedings and less judicial efficiency. A study conducted in cooperation with Lex Mundi, purportedly the world's leading association of independent law firms, examined the procedures used to solve two simple, specific disputes in 109 countries: the collection of a check returned for non-payment and the eviction of a residential tenant for non-payment of rent. The analysis of the data revealed that the expected duration of dispute resolution is systematically higher in countries with more formalised

⁵⁴ Barbara Fasolo, Floriana A Carmeci and Raffaella Misuraca, 'The Effect of Choice Complexity on Perception of Time Spent Choosing: When Choice Takes Longer but Feels Shorter' (2009) 26(3) *Psychology & Marketing* 213.

proceedings, namely civil law countries in comparison to common law countries.⁵⁵

This study may indicate that 'Laundry List' rules with a large number of considerations extend the duration of the litigation in the same manner as heavier regulation extends the duration of the proceedings. However, the implications of this study may be limited, as the study was performed with very simple disputes whereas many legal disputes involve more complex questions and therefore may sometimes require more detailed rules.

I.VI Satisfaction and Choice

An extensive number of choices not only causes information overload but also negatively affects the psychological state of the decision maker and leads to frustration and dissatisfaction. One of the implications of having a number of choices is the possibility to choose an alternative but to keep open the option to change the choice. Even though people are often advised to leave their options open, constantly re-examining decisions and looking for new information without losing sight and control of the old decisions, might in fact cause a great deal of anxiety and distress.⁵⁶ People prefer to make changeable decisions rather than unchangeable decisions because they do not realise that they may be more

⁵⁵ Simeon Djankov and others, 'Courts: The Lex Mundi Project' NBER working paper series no w8890 <www.nber.org/papers/w8890> accessed 8 September 2012.

⁵⁶ Shmuel I Becher and Tal Z Zarsky, 'Open Doors, Trap Doors and the Law' (2011) 74 Law and Contemporary Problems 63.

satisfied with permanent decisions.⁵⁷ Gilbert and Ebert found that photography students wanted the opportunity to change their minds about which prints to keep. However, those who were given that opportunity liked their prints less than those who were not.⁵⁸

The failure to anticipate the psychological costs of changeability can lead people to behave in ways that do not optimise their well-being.⁵⁹ Since judges in the common law system are human, they too might suffer from this problem and prefer to make decisions using an extensive number of choices or under flexible conditions without realizing the negative consequences of these preferences. This point is mentioned here merely as a descriptive remark about the effects of having an extensive number of options and not in order to claim on a normative level that judicial satisfaction is ought to be regarded as a goal when designing civil procedure rules.⁶⁰ Nevertheless, it would be a positive secondary effect of simplifying rules such as the old CPR rule 3.9.

As mentioned above, Gilbert and Ebert showed that photography students who were given the opportunity to change their minds about which prints to keep

⁵⁷ Daniel T Gilbert and Jane EJ Ebert, 'Decision and Revisions: The Affective Forecasting of Changeable Outcomes' (2002) 82 *Journal of Personality and Social Psychology* 503.

⁵⁸ *ibid.*

⁵⁹ *ibid* 511.

⁶⁰ It is not a coincidence that interviews with High Court Judges, barristers and solicitors in England showed that being suited to the Bench is associated with decisiveness. The research, analysing the reasons why senior practitioners apply or do not apply for a judicial position, found that some practitioners are averse to the idea of being responsible for making the final decision and prefer the challenge of advocacy. See Hazel Genn, *The Attractiveness of Senior Judicial Appointment to Highly Qualified Practitioners: Report to the Judicial Executive Board* (Directorate of Judicial Offices for England and Wales 2008).

were less satisfied with their prints.⁶¹ An interesting objection in relation to the dissatisfaction with the prints may be that objectively the participants made bad choices and should have chosen different prints; that is, the fact that people are not satisfied with their choices should raise a flag, as it may indicate that they made the wrong choices. However, this would not explain why participants who cannot change their choices feel more satisfied. Presumably, making a 'bad' choice should cause dissatisfaction whether the choice could have been changed or not. Therefore, dissatisfaction does not seem like a good measure to test the quality of the decision, as the photography study shows that dissatisfaction is associated with other psychological factors that are not related to the decision itself, such as whether there was an option to change the decision along the way.

I.VII The Relationship to CPR Rule 3.9

Rule 3.9 of the CPR,⁶² titled 'Relief from Sanctions', included until last year nine factors that the judge had to weigh in order to decide whether to grant 'relief from any sanction imposed for a failure to comply with any rule, practice direction or court order'. The judge was obligated to consider 'all the circumstances', including the factors explicitly mentioned in rule 3.9(1): (a) the interests of the administration of justice; (b) whether the application for relief has been made promptly; (c) whether the failure to comply was intentional; (d) whether there is a

⁶¹ Gilbert and Ebert (n 57).

⁶² Civil Procedure Rules 1998.

good explanation for the failure; (e) the extent to which the party in default has complied with other rules, practice directions, court orders and any relevant pre-action protocol; (f) whether the failure to comply was caused by the party or his legal representative; (g) whether the trial date or the likely trial date can still be met if relief is granted; (h) the effect which the failure to comply had on each party; and (i) the effect which the granting of relief would have on each party.

Rule 3.9 included numerous factors that the judge was obliged to weigh in order to reach a decision. According to the psychological experiments presented previously the structure of rule 3.9 might lead to information overload and to an unproductive complexity. The studies regarding information overload suggest that the negative effects of the growing number of alternatives or attributes exist even when the number of alternatives is only six (in comparison with three) and certainly when the number of alternatives is nine, such as in the case of rule 3.9. These studies therefore imply that the number of considerations in rule 3.9 should be reduced and that the rule should be simplified. In the final chapter of this Part I will examine the option of eliminating some of the considerations in the case of 'Laundry List' rules. As part of the examination I will explore whether striking out some of the considerations would necessarily mean that the judges would not take them into account and whether simply taking considerations off the list would realistically solve the problem of information overload. I will also address the problem of eliminating considerations that seem plausible and relevant to the decision and the advantages and disadvantages of constructing rules with a limited number of considerations.

II. How Much Is Too Much Information?

Many of the studies mentioned so far dealt with the situation of too many possibilities and the choice between a few options. However, a distinction should be drawn between more or fewer *options* and more or fewer *factors* or considerations. In the case of choice tasks the decision maker is required to choose *only one* of the options, while in the case of Factor Overload the decision maker must take *all* of the factors into consideration in order to reach a binary decision; for example, to grant an injunction or not according to a list of considerations, rather than to choose a flavour of jam out of a long list of options. Indeed, even in the case of a choice between options the decision maker must consider each and every option in order to make his decision. In that sense there is a resemblance between the psychological mechanisms manifested in the choice tasks and in the Factor Overload tasks, since in both cases a large number of attributes must be considered as part of the decision-making process.⁶³

However, it seems that CPR rule 3.9 is a representative example for a case of Factor Overload, since the judge is not required to choose one of the considerations mentioned in the rule, but to take all of them into account, such as in the professor

⁶³ Also, it is possible to argue that even rules that require the judge to consider numerous factors are basically choice tasks, since theoretically the judge has the discretion to give a low weight (and sometimes zero weight) to some of the considerations, when she thinks they are irrelevant or insignificant considering the special circumstances of the case.

appointment study mentioned above. Therefore, and despite the similarities between options and factors, it is important to discuss other studies that deal with task complexity and show that information overload is likely to have an effect in the specific case of Factor Overload and 'Laundry List' rules.

The effects of information overload have been demonstrated in numerous situations of task complexity that may be relevant to the analysis of legal rules with too many factors. There are several task qualities that were identified in the psychological literature as contributing to complexity: tasks that include uncertain consequences of action, inexact or unknown means-ends connections and tasks that are composed of a number of subtasks.⁶⁴ Particularly relevant to our discussion is the finding that tasks that require multiple performance dimensions are considered to be complex. The complexity derives from the need to determine which configuration represents the optimal performance while the different dimensions are interrelated in complicated or conflicting ways. A complex task was therefore defined as having several interrelated and conflicting elements to satisfy or as having a number of 'rules' that needed to be satisfied. The latter definition seems precisely equivalent to legal rules that have a number of factors that need to be satisfied and considered. In these cases, the interrelated and conflicting elements place high cognitive demands on the individual and create difficulty.⁶⁵

⁶⁴ Donald J Campbell, 'Task Complexity: A Review and Analysis' (1988) 13 *Academy of Management Review* 40, 42, citing several studies.

⁶⁵ *ibid.*

Imagine for example a young couple trying to decide whether to buy a car or not. There are many considerations involved and some of them might be conflicting. On the one hand a car could be a more pleasant and convenient way to travel, it could potentially save time and it can be used when there is no public transportation. On the other hand it may be more expensive than public transportation, it is bad for the environment and it requires finding parking spaces. There are also some uncertain or unknown factors that contribute to the complexity. The young couple may decide to have children, an event that would perhaps make the car more useful, they might move to the city centre where there is a lot of traffic, the petrol or insurance prices might go up dramatically and so on. In addition, not all cars are alike and the couple would also have to consider which car to buy. Which of the factors are more important? How should the couple perform the comparison between different dimensions of each consideration (monetary, environmental, emotional and so forth)? What is the best way to reach a decision in this case? Some people choose to deal with these day-to-day decisions using a list of pros and cons, which is designed to simplify and sort the conflicting factors. Perhaps legal policy makers should consider ways to simplify complex decisions in the legal context as well.

There are other definitions of task complexity that also relate to the nature of legal decisions in general and to the situation of Factor Overload in particular. Derick Steinmann defined complexity as a combination of the absolute amount of information involved in a task, the internal consistency of this information, and the variability and diversity of the information. He enumerated at least seven sources

that lead to complexity, including these six: the number of information sources, source inter-correlations, source reliabilities, source and criterion variability, and the principle underlying the integration of the information.⁶⁶ An examination of CPR rule 3.9 and other similarly structured rules in light of Steinmann's definition leads to the conclusion that decisions that are based on legal rules with extensive numbers of factors are complex. Legal decisions include at least two sources of information (the evidence from the claimant and the defendant), the sources are generally conflicting, the reliability of the information is usually under disagreement and the principle underlying the integration of the information is unclear, as the judge is required to consider all of the factors without further guidance and depending on the circumstances of each case.

It is important to notice that the complexity of essentially similar tasks varies as a function of each task's mode of representation. Therefore, two very similar tasks could be classified as different in terms of level of complexity.⁶⁷ For example, it was found that accountants achieve better results when their bond rating judgements are based on faces used to represent numerical data, rather than on the numerical data itself.⁶⁸ This demonstrates that different presentation of the task can reduce its complexity for human decision makers. The analogy to the legal field derived from the above observation is that legal rules could be structured differently in order to create a more 'simple' task for judges while maintaining the

⁶⁶ *ibid* 43.

⁶⁷ *ibid* 41, citing Kenneth Hammond.

⁶⁸ *ibid* 42, citing Stock & Watson.

original purpose of the rule. In other words, psychological studies suggest that sometimes we *should* judge a book by its cover and that contrary to common belief – appearance does matter. Suggestions to improve ‘Laundry List’ rules accordingly will be discussed in chapter 6 of this Part.

III. The Coherence Effect

Another related cognitive effect is the ‘coherence effect’ or as described in the cognitive psychology literature ‘coherence-based reasoning’.⁶⁹ This effect is manifested in a cognitive process in which the decision maker perceives the chosen alternative to be supported by strong considerations while the considerations that support the other alternatives are perceived as weak, despite high levels of ambiguity.⁷⁰ The coherence effect causes the decision maker to look at the considerations leading to the decision differently, in a way that justifies his choice. Using this mechanism he feels that his decision is coherent, hence the name ‘coherence effect’. In other words, according to the coherence-based reasoning literature, premises and facts both determine the conclusions and are affected by them in return so that the decision maker believes his decision is fair even in

⁶⁹ The theory of coherence-based reasoning differs from the bias and heuristics research since it presents a general model of judgement and decision making in conditions of complexity. While the biases and heuristics research usually deals with specific tasks of judgement and choice, the coherence-based reasoning literature offers a more cohesive theory of the cognitive mechanism of complex processing tasks. See Dan Simon, ‘A Third View of the Black Box: Cognitive Coherence in Legal Decision Making’ (2004) 71 *University of Chicago Law Review* 511, 517.

⁷⁰ *ibid* 516.

complicated situations.⁷¹ The decision itself affects the way the information that led to the decision is perceived while conflicting facts are turned into coherent arguments in order to support the decision. Unsurprisingly, the coherence effect arises in cognitively complex tasks and legal cases are often of a complex nature:

Tasks are said to be complex when their constitutive considerations are numerous, contradictory, ambiguous, and incommensurate. Most legal cases that are litigated and appealed are of this nature, in that the facts can be ambiguous, incomplete, and contradictory; different rules, values, and principles can be invoked to support opposite conclusions; and the case at hand can be somewhat analogous to more than one previous decision.⁷²

By perceiving the considerations leading to the decision as strong and the considerations supporting the other alternatives as weak the decision maker is able to reach confident conclusions (in his mind) even in difficult situations. The research reveals that the human mind unconsciously transforms the way decisions are mentally represented, ultimately leading to a seemingly straightforward choice between a compelling alternative and a weak one. This is an unconscious process in which complex decisions are cognitively reconstructed into easy ones.⁷³ The problem with this mental process is that it creates an illusionary picture of reality. The coherence effect makes the decision maker perceive complicated questions as simpler than they are so that he can feel at ease with his decision. The high level of confidence of the decision maker in these situations is not a result of a clear-cut

⁷¹ *ibid* 511.

⁷² *ibid* 516.

⁷³ *ibid* 513.

choice but rather a result of a mental process in which the decision maker is justifying his decision.

In an experiment performed by Dan Simon, participants were asked to play the role of a judge and decide a civil case. The two parties involved in the case each made six plausible arguments, and the facts of the case were ambiguous in order to create a complex decision. The participants were asked to render a verdict and to rate their level of confidence in their decision.⁷⁴ They were then asked to rate their agreement with the 12 arguments made by the parties.⁷⁵ The key finding to the discussion was that subjects who voted for party 1 reported strong agreement with the arguments that supported the verdict in favour of party 1 and disagreement with the arguments that supported party 2 and also reported a high level of confidence in their decision.⁷⁶ Similarly, subjects who voted for party 2 reported strong agreement with the arguments that supported their party, as well as a high level of confidence, ie there was symmetry between the two groups of subjects. This finding would not be surprising without an additional piece of information: the subjects in the experiment were also asked to rate the parties' arguments, in the same context, before reaching a decision. In that preliminary stage subjects rated the arguments in a moderate way and did not show a strong

⁷⁴ *ibid* 525.

⁷⁵ *ibid* 526.

⁷⁶ *ibid* 526–527.

conviction in any of the parties' arguments. The results of this experiment show that the rating of the arguments had shifted to polarised states of coherence.⁷⁷

The contribution of the 'coherence effect' studies to the analysis of rules with numerous factors is the realization that even when judges express certainty in their decisions and in the weight given to each factor in the decision-making process, it is not necessarily the case that the decisions were straightforward – on the contrary – in complex tasks the tendency of the decision maker is to justify the decision-making process and to present the question as simpler than it really is. This cognitive process creates a situation in which judges might justify their opinions using the factors instead of using the factors to produce their decisions. Therefore, complex procedural rules should be simplified as much as possible even when judges are confident in the outcomes and in the decision-making process.

IV. Thinking under Uncertainty

In 1992 Tversky and Shafir published a pioneering study that constitutes the basis for the understanding of human behaviour in numerous fields to this day. Tversky and Shafir showed that in situations that involve uncertainty people do not make choices in a logical manner.⁷⁸ People do not appropriately consider possibilities and the potential implications of their actions. Rather, they are affected by the

⁷⁷ *ibid* 527.

⁷⁸ Eldar Shafir and Amos Tversky, 'Thinking through Uncertainty: Nonconsequential Reasoning and Choice' (1992) 24 *Cognitive Psychology* 449.

existence of uncertainty and make decisions that they would not have made under any other scenario. Tversky and Shafir demonstrated this effect by performing the following experiment:

Imagine that you have just taken a tough qualifying examination. It is the end of the semester, you feel tired and run-down, and you find out that you [passed the exam/failed the exam. You will have to take it again in a couple of months – after the Christmas holidays]. You now have an opportunity to buy a very attractive 5-day Christmas vacation package to Hawaii at an exceptionally low price. The special offer expires tomorrow. Would you:

- (x) buy the vacation package
- (y) not buy the vacation package
- (z) pay a \$5 nonrefundable fee in order to retain the rights to buy the vacation package at the same exceptional price the day after tomorrow⁷⁹

The results showed that more than half of the students chose the vacation package when they knew they had passed the exam *or* when they knew they had failed it. However, when students did not know whether they had passed or failed, they preferred to postpone the decision until the following day, when the results would be known.⁸⁰ This result is, in Tversky and Shafir's words, 'nonconsequential' because if a student prefers going on vacation both if he passes and if he fails the exam, then he should decide about going on vacation even when the exam's outcome is not known,⁸¹ since both outcomes ultimately favour the same course of

⁷⁹ Amos Tversky and Eldar Shafir, 'The Disjunction Effect in Choice under Uncertainty' (1992) 3(5) *Psychological Science* 305.

⁸⁰ *ibid* 305–306.

⁸¹ Shafir and Tversky (n 78) 450–451.

action.⁸² The reasoning behind this logic proceeds as follows: Having passed the exam, the vacation is seen by the decision maker as a time of celebration. Alternatively, having failed the exam, the vacation becomes a consolation prize. But, not knowing the outcome of the exam, the decision maker lacks a clear reason for going and thus may prefer to wait and learn the outcome before making his decision.⁸³

This effect has been repeated in other situations as well, such as in the 'prisoner's dilemma' game. The classic one-shot prisoner's dilemma yields better outcomes for the players if they both cooperate with each other than if they both compete with each other, but regardless of the opponent's choice, each player fares better by competing rather than by cooperating.⁸⁴ A typical prisoner's dilemma is presented as follows:

Two men are arrested, but the police do not possess enough information for a conviction. Following the separation of the two men, the police offer both a similar deal – if one testifies against his partner (defects / betrays), and the other remains silent (cooperates / assists), the betrayer goes free and the cooperator receives the full one-year sentence. If both remain silent, both are sentenced to only one month in jail for a minor charge. If each "rats out" the other, each receives a three-month sentence. Each prisoner must choose to either betray or remain silent; the decision of each is kept quiet. What should they do?⁸⁵

⁸² Tversky and Shafir (n 79) 306.

⁸³ Shafir and Tversky (n 78) 451.

⁸⁴ *ibid* 453.

⁸⁵ <http://en.wikipedia.org/wiki/Prisoner's_dilemma> accessed 3 October 2011.

In this problem the logical decision leads both players to betray the other even though their individual outcome would be greater if they cooperated. This is because regardless of what the other player chooses, one will always gain a greater payoff by betraying the other.⁸⁶

A numerical example of the prisoner's dilemma is as follows (higher points are desirable): If both players cooperate, each receives 75 points; if one cooperates and the other competes, the collaborator receives 25 points while the competitor receives 85 points; and if both players compete, they each receive 30 points.⁸⁷ The best strategy is to compete since under the competition strategy the possible payoffs are 85 points and 30 points while under the collaboration strategy the possible payoffs are only 75 points and 25 points. But, since both players choose to compete they end up with the low payoffs of 30 points in the latter example.

Even though, as expected, Tversky and Shafir found that competition was the most popular strategy, they discovered an interesting pattern in the next frequent strategy: a participant would compete when the other prisoner competed and compete when the other one cooperated, but the participant would cooperate when the other's strategy was not known.⁸⁸ As in the Hawaiian vacation example, here too the result is nonconsequential because if a player chooses to compete both if his counterpart's strategy is to compete or to cooperate, then he should choose to compete even when his opponent's strategy is unknown. Tversky and

⁸⁶ *ibid.*

⁸⁷ Shafir and Tversky (n 78) 453.

⁸⁸ *ibid* 455–456.

Shafir suggest an analysis similar to the one in the Hawaiian vacation example for the prisoner's dilemma game and conclude that the presence of uncertainty makes it difficult to focus sharply on any single option. In other words, people are reluctant to consider all of the outcomes or to formulate a clear preference in the presence of uncertainty about those outcomes.⁸⁹ This finding is relevant to our discussion since legal proceedings are often characterised by uncertainty. Tversky and Shafir's study indicates that this uncertainty might be an additional factor that negatively influences judges in the already complex situation of multiple considerations rules.⁹⁰

Furthermore, Tversky and Shafir showed that the result of nonconsequential decision making is that people will sometimes seek information that has no impact on their decisions. This information, according to Tversky and Shafir's interpretation, merely serves to clarify the people's reasons for choosing but would not change their choices.⁹¹ This result was discovered in the relatively simple scenarios that Tversky and Shafir studied. Cases of multiple outcomes are more difficult to analyse and are more likely to encourage an unnecessary information search.⁹² This is especially true in regard to complex legal questions

⁸⁹ *ibid* 457. It is important to note that this is a cognitive point and not a motivational issue (as the difficulty to focus sharply on any single option shadows the motivation to win the prisoner's dilemma game and choose 'compete' as in the two other scenarios).

⁹⁰ Although it should be stressed that the legal uncertainty differs from the uncertainty in the aforementioned studies, as it does not refer directly to the judge but more to the parties and their representatives. Therefore, the implications of uncertainty may be different in the legal context.

⁹¹ Shafir and Tversky (n 78) 466–467.

⁹² *ibid* 469.

and 'Laundry List' rules, where there are numerous factors and several possible outcomes. It should be stressed that awareness to situations of nonconsequential reasoning is important because it might enable the legal system to control the phenomenon by drawing the judges' attention to the problem. Tversky and Shafir tried asking subjects to first indicate their preferred course of action under each outcome and only then to make a decision. Under these conditions the majority of subjects who chose the same option under every outcome also chose that option when the precise outcome was not known.⁹³

V. Decisions Prediction Using Fewer Variables

Other studies that are relevant to the understanding of information overload are those that use real data. These studies demonstrate that while certain decision makers claim to consider a large number of factors, their decisions can actually be explained according to only some of the factors on their lists of considerations. In

⁹³ *ibid.* Interestingly, the implications of thinking under uncertainty have been studied by the legal scholarship in other contexts. For example, it was found in psychological studies that people are more confident and more willing to take risks when the uncertainty exists in the future rather than the past (for instance, people playing a game with probabilistic outcomes took more risk and bet more money if they initially wagered and then played than if they played first and then wagered, in both cases without knowing the results before placing the wager). Thus, in order to encourage law enforcement, Guttel & Harel claim that it is preferable to choose an enforcement method in which a fact that precedes the committing of the offence, rather than succeeding the committing of the offence, determines whether the offender will be detected or not. For example, in the context of tax evasion, the tax authorities should announce that they will select in advance the identities of the taxpayers whose files will be examined in a random auditing process, instead of selecting the small number of files for the random auditing process only after the individuals file their tax return. See Ehud Guttel and Alon Harel, 'Uncertainty Revised: Legal Prediction and Legal Postdiction' (2008) 107 Michigan Law Review 468.

other words, much time and effort are spent in order to examine a large number of considerations; but the decision can be predicted from only a few of those considerations, making the rest practically irrelevant to the final decision. Implementing the same logic in the legal context may indicate that time and money are wasted and contribute to increasing litigation costs.

The attempt to predict decisions using fewer variables has been manifested in several contexts. Below are a few examples. The first one is an empirical legal study that deals with attorney fee rate in class action law suits in the United States. As a preliminary comment it should be mentioned that in the United States' class action suits the attorney fee is set by the court, which is required to determine the reasonable fee in order to protect the interests of the class members. The study, analysing class action case data sets covering 1993–2002, showed that the single most important factor determining the attorney fee is the size of the client's recovery, even in cases in which the courts engaged in the long calculation of reasonable hours and a reasonable hourly rate. The mean fee award in common fund cases (non fee-shifting cases) was found to be 21.9% of the recovery across all cases, which is below the one-third figure that was widely quoted as the benchmark in private contingent fees cases; a scaling effect was also found: 'fees constitute a lower percent of the client's recovery as the client's recovery increases.'⁹⁴

⁹⁴ Theodore Eisenberg and Geoffrey P Miller, 'Attorney Fees in Class Action Settlements: An Empirical Study' (2004) 1(1) *Journal of Empirical Legal Studies* 27. See also Eyal Zamir and Ilana

The second example deals with judgements regarding alleged child abuse and neglect. As part of the study, 28 experienced social workers were presented with 120 case vignettes based on combinations of 10 variables. They assessed risk and suggested an appropriate intervention for each simulated case. The results indicated that certain cues had more predictive power than did others. For example, in the case of intervention selection, the three most predictive cues were the mother's relationship with the child, parents' cooperation during previous interventions, and signs of abuse and neglect.⁹⁵

As in those examples, 'Laundry List' rules, such as rule 3.9, could also result in an unproductive exercise in which judges seemingly consider all the factors on the checklist rule but in fact only take a few of the factors into consideration in the decision-making process.⁹⁶ Judicial decision making is uniquely sensitive to the risk of engaging in unproductive legal exercises due to the possibility of appeal. Since judges would like to protect their decisions from being challenged in an appeal they sometimes deliver what seem to be overly detailed reasoning for their decisions. In order to make the ruling 'appeal-proof' judges generally discuss each and every factor mentioned in the relevant rule,⁹⁷ even though their decisions may have been mostly affected by only one or two considerations or by a general

Ritov, 'Notions of Fairness and Contingent Fees' (2011) 74(2) Law and Contemporary Problems 1.

⁹⁵ Monica Shapira and Rami Benbenishty, 'Modeling Judgments and Decisions in Cases of Alleged Child Abuse and Neglect' (1993) 29 Social Work Research & Abstracts 14.

⁹⁶ Zuckerman (n 12) 457.

⁹⁷ *ibid*, ch 10, paras 10.116–10.117.

impression or intuition about the case at hand. This is a negative result since it attaches a technical meaning to the factors listed in rule 3.9,⁹⁸ and prevents transparent reasoning.

Similarly, in a study performed by Barton Beebe that examined multifactor tests for the likelihood of consumer confusion in trademark infringement cases it was found that when judges use the multifactor test, usually only two or three factors are sufficient to determine the result. Therefore, the study concludes that judges tend to short-circuit the multifactor test.⁹⁹

The study examined all reported federal district court opinions in the United States for a five-year period in which a multifactor test for the likelihood of consumer confusion was used. The results showed that only a few factors prove to be decisive and that the rest of the factors are redundant or even irrelevant.¹⁰⁰ In practice, a limited number of core factors determine the outcome of the test: the 'similarity of the marks' factor was found to be by far the most influential, and two other factors were found to be decisive, the 'defendant's intent' factor when it favours the likelihood of confusion and the 'proximity of the parties' goods' factor.¹⁰¹ Not only that, but Beebe found that judges tend to 'stampede' (quickly run through) the remaining factors to conform to the test outcome.¹⁰²

⁹⁸ *ibid.*

⁹⁹ Beebe (n 52) 1614.

¹⁰⁰ *ibid* 1581–1582.

¹⁰¹ *ibid* 1600.

¹⁰² *ibid* 1581–1582.

Beebe also found significant variation among the circuits in the application and outcome of their respective tests. (Each circuit has developed its own formulation of the test, and the different tests consist of either 6, 7, 8, 10 or 13 factors). Even though there is an overlap among some of the factors used in each circuit, the study showed that there is a great diversity – not just in which factors are employed, but also in how they are employed. This produces, according to Beebe, excessive intercircuit variation in the application and outcome of the multifactor tests:

Some circuits claim to weigh heavily under certain factors what other circuits claim to ignore, and nearly every factor or combination of factors has been called the “most important” by one court or another. To make matters worse, scattered among the circuits are factors that are clearly obsolete, redundant, or irrelevant, or, in the hands of an experienced judge or litigator, notoriously pliable.¹⁰³

The results of this study match the results of the previous studies mentioned above. However, Beebe goes a step further and asks the question, ‘But in relying only on certain leading factors, are judges making flawed decisions?’¹⁰⁴ His answer to this question follows:

If recent research in human decision making is any guide, then the answer is very likely no. Like any human decision makers, district

¹⁰³ *ibid* 1581–1584. To clarify, the diversity is demonstrated in the judicial reasoning; that is, in which considerations the judges said they used to reach a decision, as the empirical data shows that in practice judges only take two or three certain factors into account.

¹⁰⁴ *ibid* 1614.

judges attempt to decide both efficiently and accurately. In pursuit of efficiency, they consider only a few factors. In pursuit of accuracy, they consider the most decisive factors.¹⁰⁵

Not only that, but Beebe refers to this judicial decision making process as successful and even rational:

In essence, as consummate pragmatists, they “take the best,” a strategy which empirical work suggests is an altogether successful—and rational—approach to decision making.¹⁰⁶

Thus, Beebe argues that the heuristic that judges employ when taking into account only a few factors is evidence of human ingenuity rather than human fallibility.¹⁰⁷ As will be shown later, Beebe’s conclusion may be too simplistic considering the wide range of psychological theories regarding the nature of heuristics and human decision making. Beebe’s optimistic approach seems to be consistent with the ‘fast and frugal’ (F&F) school of thought, whose scholars believe that people have adopted strategies that work well for them; scholars from the ‘heuristics and biases’ (H&B) school would be more concerned with errors caused by the use of heuristics.¹⁰⁸

¹⁰⁵ *ibid.*

¹⁰⁶ *ibid.*

¹⁰⁷ *ibid* 1603.

¹⁰⁸ See Part 3 (chapter 5) of the dissertation.

Beebe assumes that the judges' tendency of only considering two or three factors is an indicator of their efficient behaviour. But in order to make this statement he presumes that the factors the judges have chosen to consider are indeed the most relevant and important ones. However, the mere fact that the judges in this case study chose two or three specific considerations out of a long list of factors does not necessarily mean that they made the right choices; for example, they might have chosen these considerations because they were the easiest to take into account. Beebe assumes that the remaining considerations are irrelevant, but he may be wrong. The question becomes, 'Who determines which considerations are relevant and which are not?'

Beebe claims that decision-making strategies that lead people to consider only a few attributes from a larger set of information are rational since in certain contexts people make complex decisions based on a single cue, and that this simple strategy, known as 'Take the Best', is as good as or even outperforms computation-intensive decision making. Beebe is referring to a study performed by Czerlinski, Gigerenzer and Goldstein that asked participants to perform tasks such as the following: 'Predict average attractiveness rating of ... famous men based on the subjects' average likeability ratings of each man, the percentage of subjects who recognised the man's name, and whether the man was American'; viz participants were asked to make a prediction based on several cues. Czerlinski, Gigerenzer and Goldstein found that people used the 'Take the Best' strategy that recalls cues in order, one at a time, searching for a cue that discriminates between the two objects in question. For example, if two men are American, then the 'name' cue might be

tried. Once a discrimination cue is found, it serves as the basis for inference, and all other cues are ignored.¹⁰⁹

Czerlinski, Gigerenzer and Goldstein argue that in certain environments this strategy performs well and works better than linear predictability that takes into account all cues. The question remains whether this study applies to the legal field when the issues are often more complex, and the judge is required to take into account all of the factors in the legal rule (which are equivalent to all the cues in this experiment) and cannot simply ignore them. Not only that, but as Beebe himself mentions, other data challenged the validity and pervasiveness of the 'Take the Best' model.¹¹⁰

In any event, simply assuming that decisions made under multifactor tests are not flawed is not enough. Therefore, in this Part I chose a different methodology, the purpose of which is to address the quality of decisions made under multifactor rules and not to merely address the question of whether judges ignore some of the considerations on the list. I do this by comparing decisions made under different rule structures and examining which of these rule structures leads to an optimum decision. More specifically, I identified a case in which there is a wide legal agreement regarding the correct result, and I examined whether there

¹⁰⁹ Beebe (n 52) 1602, referring to Jean Czerlinski, Gerd Gigerenzer and Daniel G Goldstein, 'How Good Are Simple Heuristics?' in Gerd Gigerenzer et al (ed), *Simple Heuristics That Make Us Smart* (Oxford University Press 1999) 97.

¹¹⁰ Beebe (n 52) fn 93, referring to David R Shanks, 'Take the Best or Look at the Rest? Factors Influencing "One-Reason" Decision Making' (2003) 29 *Journal of Experimental Psychology: Learning, Memory & Cognition* 53. Shanks showed in an experiment that participants did not universally use the 'Take the Best' heuristic.

is a deviation from this desirable result when a long list of factors is used. This provided means by which I could evaluate whether the decisions made under a multifactor rule are indeed accurate. As far as I know this type of experiment has never been done before.

3. The Importance of Having Simple Procedural Rules

I. The Purpose of Civil Procedure

I.I Procedural Rules Are Addressed to Judges

Historically, rules of procedure were considered to be rules by which courts or other adjudicatory bodies resolved legal disputes. Procedural rules were distinguished from substantive rules, which directed how citizens were supposed to conduct themselves outside of the court room.¹¹¹ This traditional distinction places the emphasis of procedure on helping the judges to reach decisions while the substantive law is targeted to influence the behaviour of all citizens. According to this classification, the procedural law and the substantive law address different recipients. Therefore, when phrasing procedural rules, one should put the emphasis on setting rules that will 'talk' to judges and help them make the best possible decisions. Psychological scholarship could provide useful information on how to phrase rules of procedure that will enable judges to best perform their judicial roles.

¹¹¹ Jay Tidmarsh, 'Procedure, Substance, and Erie' (2011) 64 Vanderbilt Law Rev 877, 882.

Using psychological research in order to improve the communication between judges and the procedural rules under which they operate should not be an alien idea for the judiciary, since psychology has long been a natural part of the judicial work; for instance, judges are required to evaluate different mental conditions such as ‘intention’ or ‘insanity’ in order to make legal decisions.¹¹² The judiciary should therefore welcome the contribution of the psychological literature to procedural scholarship. In Jerome Frank’s words,

The psychological aspects of trial-judging should long have been a lively subject. For judicial administration of justice is, in considerable part, a psychological process. ... Yet many judges and lawyers who think it is important to recognize the practical effects of the lack of psychological uniformity among witnesses, jeer at the suggestion that it is important to recognize that the same lack of uniformity among trial judges has important practical results.¹¹³

Even after the ‘recipients’ classification of procedural law for judges and substantive law for everyone had faded,¹¹⁴ procedural law was considered to be a

¹¹² Jerome Frank, *Courts on Trial: Myth and Reality in American Justice* (Princeton University Press 1949) 157.

¹¹³ *ibid.*

¹¹⁴ It is clear that procedural rules are not only addressed to judges but to the litigants as well. As explained by Crifo (Carla Crifo, ‘Enforcement of Process Requirements: A Search for Solid Grounds’ (2014) 34 *Oxford Journal of Legal Studies* 325, 331):

Rules of court are addressed to two distinct audiences. On the one hand, they impose behaviours and sanctions (where those sanctions are automatic) upon the litigants themselves. In so doing they may require more or less specifically defined behaviours, and they provide a practical structure within which to comply. Of the various functions that the rules of court as formalities addressed to litigants and litigants’ behaviour could have, the most important in this context is the standardizing function, or “channelling” function in Fuller’s words. The rules provide a channel that facilitates the identification, investigation and resolution of

tool to enforce the substantive law and was described as ‘the handmaid of justice’.¹¹⁵ The purpose of procedure as perceived today is to enforce substantive rights ‘with as little friction as possible’ and to ensure that individual rights are respected in fair process.¹¹⁶ This purpose is represented in the CPR rule 1.1(1) that explicitly states: ‘These Rules are a new procedural code with the overriding objective of enabling the court to deal with cases justly.’ In this respect, procedural rules that are set in a way that does not allow their implementation by judges undermine the very goal of procedure: to be a helpful tool in enforcing the substantive law and to provide a mechanism of redress.

I.II Procedure and Substance

Historically, rules of civil procedure were treated as pure mechanism to facilitate the application of substantive rules; procedural rules were considered to be ‘secondary, ancillary and devoid of any interest beyond the merely instrumental’.¹¹⁷ However, although rules of procedure represent the *process* of

a dispute or of law-given right.

¹¹⁵ Tidmarsh (n 111). See also Thomas O Main, ‘The Procedural Foundation of Substantive Law’ (2010) 87 Washington University Law Review 801, 810, citing John Salmond:

‘Substantive law is concerned with the ends which the administration of justice seeks; procedural law deals with the means and instruments by which those ends are to be attained. The latter regulates the conduct and relations of courts and litigants in respect of the litigation itself; the former determines their conduct and relations in respect of the matters litigated. Procedural law regulates the conduct of affairs in the course of judicial proceedings; substantive law regulates the affairs controlled by such proceedings.’

¹¹⁶ Tidmarsh (n 111) 883.

¹¹⁷ Crifo (n 114) 327.

evaluating entitlements and valuing the claims that implicate them,¹¹⁸ in fact procedure changes entitlements and the values of the claims and directly affects the nature and structure of the substantive law.¹¹⁹ In reality, procedural rules influence the results of the litigation. As explained by Crifo,

... [I]n the real world one is faced with the undoubted fact that, despite any attempts to minimize the theoretical importance of procedure and give priority to the substantive law to be applied, rules of procedure carry an inordinate amount of weight, both practical and legal. The violation of mere procedural rules can effectively put substantive rights out of the reach of one or the other litigant.¹²⁰

Moreover, since procedure generally imposes costs and affects the probability or amount of recovery,¹²¹ the rules of procedure used in adjudication affect the value of the claim on which it operates and also exercise a prospective effect on the expected values of future claims.¹²² Even a typical procedural requirement that applications be submitted on a certain type of paper could change the substance of the parties' entitlements if, for example, this type of paper were too costly for normal litigants to obtain.¹²³ Complex procedural rules such as 'Laundry List' rules impose a heavy cost on the civil legal process, while the benefit of these rules is

¹¹⁸ Tidmarsh (n 111) 884.

¹¹⁹ *ibid* 885, 887.

¹²⁰ Crifo (n 114) 328.

¹²¹ For example, a system that permits broad discovery might change the amount of recovery, as it might lead to the uncovering of new information that would allow a litigant to pursue a new theory of recovery. See Tidmarsh (n 111) 889.

¹²² *ibid* 892.

¹²³ *ibid* 891–892.

questionable. Therefore, and considering the possible negative effects of complex procedural rules on substantive rights, it is necessary to aspire to simplify the rules as much as possible.

Even according to the approach that supports the dichotomy between substance and procedure (substantive law here refers to the rules that determine rights and obligations while procedural law is the process of enforcing those rights), it is impossible to understand substantive law apart from procedure, as substantive law emerges against a procedural backdrop without which the substantive law could not work as intended.¹²⁴ This is not to say that procedure is more important or that procedure and substance are the same.¹²⁵ However, there are legal scholars who argue that the distinction between procedural law and substantive law is context dependant.¹²⁶ Zuckerman explains:

... [W]hether a right is procedural or substantive is context dependent. The determination of whether a CPR rule is *intra vires* cannot, therefore, depend exclusively on the distinction between substantive and procedural rights. It must turn on whether the modification effected by the CPR to a particular right was within the ambit of the empowering provisions of CPA 1997.¹²⁷

¹²⁴ *ibid* 888.

¹²⁵ *ibid* 893–894.

¹²⁶ *ibid* 904.

¹²⁷ Zuckerman (n 12) paras 2.7–2.9. See also Martin Dockray, ‘The Inherent Jurisdiction to Regulate Civil Proceedings’ (1997) 113 LQR 120, 131:

[A] matter which is procedural from the position of an applicant may be constitutional in the eyes of the respondent. The fact that procedural law can be described as subordinate or adjectival because it aims to give effect to substantive rules should not conceal the truth that procedures can and do interfere with important human rights, while the means by which a decision is reached may be just as important as the decision which is made in the end.

Other legal scholars take a more extreme approach and argue that the classic distinction between substantive law and procedural law should be abandoned entirely.¹²⁸ Either way, under any of the current common perceptions of the relationship between substantive law and procedural law, there is no doubt that civil procedure rules are inherently and intrinsically significant. It is therefore important to avoid setting unproductive 'Laundry List' procedural rules that are difficult to implement and that impose a burden on judges and on the civil legal process.¹²⁹

Where procedure is as important as substance, procedural change requires the same degree of political accountability and economic and social foresight as reform of an equivalent rule of substantive law. Major innovations in procedural law should therefore be recognised as an institutional responsibility, not a matter on which individual judges should respond to the pleas of particular litigants. Procedural revolutions should appear first in statutes or in the Rules of Court, not in the law reports.

¹²⁸ For a critique of this approach see Jennifer S Hendricks, 'In Defense of the Substance-Procedure Dichotomy' (2011) 89 Washington University Law Review 103.

¹²⁹ Crifo objects to the idea that judges should be given almost unlimited discretion to decide when to apply rules of procedure (while they have very little leeway to diverge from substantive rules), and suggests a formalist approach to civil procedure whereby the rules of procedure bind the judge in the same manner as any other state regulation (Crifo (n 114) 326, 328):

[If] the administration of justice is mere machinery, it can be left to its operators, the judiciary, to devise, enact and apply the best procedures for its delivery. It is then merely an issue of internal organization whether, if at all, a judge or a court can derogate, interpret purposively, or integrate the rules thus created. Where a rule is missing or an eventuality has not been foreseen, the inherent jurisdiction of the court to regulate its own business can easily fill the gap. However, the identification of civil procedure as merely a subsidiary (at best) part of the regulation and rights-attribution powers of the state, delegated to the court as 'organization of their own process', is unsatisfactory in the present day.

I.III Pervasive Application of Procedural Rules

Another important point in relation to civil procedure is that procedural rules control and affect the majority of civil disputes. This is significant because complex rules are considered to be more undesirable when they affect a wide range of social activities.¹³⁰ In addition to Schuck's criteria for complex rules mentioned above,¹³¹ Epstein defines a complex rule as one that has pervasive application across routine social activities. In other words, according to Epstein legal complexity is not merely a simple measure of the inherent or formal properties of legal rules, but it is also a function of how deeply the rules cut into the fabric of ordinary life. For example, while the legal rules that regulate homicide are directed to the destructive activities of a very small portion of the population,¹³² the rules regulating the use of property or the hiring and firing of workers routinely intrude into the everyday lives of ordinary people.¹³³ Employing Epstein's definition, it is especially vital to regulate simple procedural rules and to avoid 'Laundry List' civil procedure rules.

¹³⁰ Epstein (n 21) 28–29.

¹³¹ See chapter 1 above (in Part 1).

¹³² Epstein gives the rules that regulate homicide as an example for complex rules that are unavoidable and not necessarily undesirable: 'the legal rules that regulate homicide must, in dealing with criminal intent, sort out graduations of purpose, intent, and knowledge; they must set the boundaries between murder, manslaughter, and killing by misadventure; and they must delineate the defences in such cases: self-defense, provocation, abuse, insanity and the like.' See Epstein (n 21) 28–29.

¹³³ *ibid.*

II. Additional Examples of Factor Overload

CPR 3.9 is merely one example evidencing the situation of Factor Overload. There are other procedural rules that are set with the same 'Laundry List' structure.¹³⁴ The purpose of the current study is to analyse the case of Factor Overload as a general phenomenon. The basis for the theories of information overload and tasks complexity is the human mind and cognitive processes that most people share. Therefore, the psychological effects described in this Part are not unique to a specific rule or a certain legal system, and the phenomenon of Factor Overload is manifested in contexts other than CPR 3.9, as is shown in the following two examples:

Paragraph 7.2 of the Practice Direction that supplements CPR Part 14 deals with withdrawing an admission made under Part 14 (for example withdrawing an admission of a claim made by a defendant). It includes at least seven factors that the judge must consider in order to give permission for an admission to be withdrawn. Here, as in CPR 3.9, the court is required to regard 'all the circumstances of the case', including the seven factors. This Practice Direction reads as follows:

7.2 In deciding whether to give permission for an admission to be withdrawn, the court will have regard to all the circumstances of the case, including –

(a) the grounds upon which the applicant seeks to withdraw the admission including whether or not new evidence has come to light which was not available at the time the admission was made;

¹³⁴ See chapter 2(V) above (in Part 1) for additional examples.

- (b) the conduct of the parties, including any conduct which led the party making the admission to do so;
- (c) the prejudice that may be caused to any person if the admission is withdrawn;
- (d) the prejudice that may be caused to any person if the application is refused;
- (e) the stage in the proceedings at which the application to withdraw is made, in particular in relation to the date or period fixed for trial;
- (f) the prospects of success (if the admission is withdrawn) of the claim or part of the claim in relation to which the offer was made; and
- (g) the interests of the administration of justice.

In a decision given by the Court of Appeal (Civil Division), Lord Justice Ward presented a portrait of the decision-making process in relation to this Practice Direction that demonstrates its complexity. According to Lord Justice Ward, taking into account the specific factors listed in the Practice Direction in addition to the need to have regard to all the circumstances of the case is not an easy task:

These factors are not listed in any hierarchical sense nor is it to be implied in the Practice Direction that any one factor has greater weight than another. A judge dealing with a case like this must have regard to each and every one of them, give each and every one of them due weight, take account of all the circumstances of the case and, balancing the weight given to those matters, strike the balance with a view to achieving the overriding objective.¹³⁵

As Lord Justice Ward explains, not only that the list of factors is complex, but there will also be variation between cases, which adds to the complexity:

¹³⁵ *Woodland v Stopford* [2011] EWCA Civ 266, 2011 WL 722309, para 26.

Cases will vary infinitely and the weight to be given to the relevant factors will inevitably vary from case to case. Sometimes the lack of new evidence and the lack of explanation may be the important considerations; in others prejudice to one side or the other will provide a clear answer and in all the interests of justice will sway the balance.¹³⁶

This phenomenon of multi-factorial rules is of course not limited to the English legal system and can be found in other common law systems as well. For example, in Israel in order to transfer a case from the fast track to the regular track the court is required to consider at least seven factors (here as well, the rule says the seven factors will be taken into account, among other things), including: (1) the complexity of the facts, the evidence and the legal questions; (2) the number of parties; (3) the benefit of managing a cross action or a third party notice together with the claim, considered against the risk that it would unnecessarily complicate or prolong the proceedings; (4) the scope of oral testimonies and investigations that might be necessary; (5) the scope of expert testimony that might be necessary; (6) the influence of the claim's outcome on the public; and (7) the importance of a quick resolution of the claim due to its substance and due to the parties' identity.¹³⁷

¹³⁶ *ibid.* Lord Justice Ward therefore concludes:

It would be wrong for this court to circumscribe the manner of the exercise of this discretion or to give any more guidance than is trite, namely, carry out the task set by the Practice Direction, weigh each of the identified factors as well as all the other circumstances of the case and strike a balance with due regard to the overriding objective.

¹³⁷ Rule 214(12) of the Israeli Civil Procedure Regulations (1984) (translated from Hebrew).

III. The Rule of Law and Procedural Fairness

III.I The Rule of Law

The affinity between the Rule of Law and procedure has been widely discussed in the legal theory literature. As explained by Waldron, according to Fuller, the Rule of Law does not directly require anything substantive: 'All it requires is that the state should do whatever it wants to do in an orderly, predictable way, giving us plenty of advance notice by publicizing the general norms on which its actions will be based, and that it should then stick to those norms and not arbitrarily depart from them even if it seems politically advantageous to do so'.¹³⁸ Indeed, procedural scholarship and common conceptions of the Rule of Law go hand in hand.¹³⁹

Generally, as Waldron explains, most conceptions of the Rule of Law emphasise the requirement that people in positions of authority should exercise their powers within a constraining framework of public norm, rather than on the basis of their own individual sense of right and wrong.¹⁴⁰ These conceptions of the Rule of Law also place great emphasis on legal certainty and legal predictability, as well as on the determinacy of the norms that are upheld in society and the reliable

¹³⁸ However, Waldron refers to these requirements as 'formal' and 'structural' rather than 'procedural', as they emphasize the forms of governance and the formal qualities that are supposed to characterize the norms on which state action is based. See Jeremy Waldron, 'The Concept and the Rule of Law' (2008) 43 Georgia Law Review 1, 7.

¹³⁹ Procedure is used here *not* in the sense of courtroom procedure, but rather as it relates to the *form* that legal norms take. Waldron refers to these requirements of the rule of law as formal (in contrast with substantive) and distinguishes between formal and procedural. See Jeremy Waldron, 'The Rule of Law and the Importance of Procedure' New York University Public Law and Legal Theory Working Papers, Paper 234, 6.

¹⁴⁰ Waldron, 'The Concept and the Rule of Law' (n 138) 6.

character of their administration by the state.¹⁴¹

As I will argue, 'Laundry List' rules may interfere with some of the requirements of the Rule of Law. For example, if a rule were too complex to implement due to a large number of considerations, the judge might practically be encouraged to ignore the list of factors and make a decision according to his sense of right and wrong. This would be considered problematic according to the Rule of Law that requires the exercise of power to be within a confining normative structure.

More specifically, Fuller's list of requirements for the Rule of Law provides 'eight ways to fail to make law'. One item on Fuller's list that is especially relevant to the situation of Factor Overload is *congruence*.¹⁴² Congruence requires an agreement between the declared rules and their actual application. Fuller sees a failure of congruence between the rules as announced and their actual administration as one of the routes to failure in the enterprise of creating law.¹⁴³ This is a violation of one of the demands of *the inner morality of the law*.¹⁴⁴

Fuller mentions that the requirement of congruence between official action

¹⁴¹ *ibid.*

¹⁴² As explained by Waldron, congruence between official action and law on the books is the only requirement on Fuller's list that is procedural (that is, relates to due process or courtroom procedure), rather than formal (the form that legal norms take). See Waldron, 'The Rule of Law and the Importance of Procedure' (n 139) 6.

¹⁴³ Lon L Fuller, *The Morality of Law* (Rev. edn, Yale University Press 1969) 39, 41.

¹⁴⁴ Even though, as Fuller recognises, the eight principles he suggests, including congruence, only provide distinct standards by which excellence in legality may be tested rather than a goal of perfection or a utopia of *legality*. See *ibid* 41–42.

and the law is the most complex of all the desired elements that make up the internal morality of the law.¹⁴⁵ According to Fuller, the most subtle element in the task of maintaining congruence is the problem of interpretation: legality requires judges to apply statutory law in accordance with principles of interpretation,¹⁴⁶ but the answer to the question of what are those principles is complex.

Relative to 'Laundry List' rules it could be argued that since judges cannot perform the complex calculation of taking many factors into account, there is a gap between the declared rule and its actual application because, in fact, even though the rule mentions several considerations, judges do not always take all of these considerations into account, due to cognitive overload. This would be difficult to prove as judges could argue they considered all the factors while making their decision. But, as the psychological literature suggests, the task of integrating a large number of factors is unlikely to be a task that people (including judges) perform well.

III.II A Procedural Understanding of the Rule of Law

As explained by Waldron, there is a separate current of thought in the Rule of Law tradition that emphasises procedural issues, maintaining that the Rule of Law is not just about general rules but is also about their impartial administration: 'A procedural understanding of the Rule of Law requires not only that officials apply

¹⁴⁵ *ibid* 81.

¹⁴⁶ *ibid* 82.

the rules as they are set out; it requires application of the rules with all the care and attention to fairness that is signalled by ideals such as “natural justice” and “procedural due process”.¹⁴⁷ Waldron clarifies that these two currents of thought (the ‘original’ Rule of Law and the procedural side of the Rule of Law), usually work together, but in some cases tension might occur, as explained in the following paragraph:

For the most part, these two currents of thought sit comfortably together. They complement each other. Clear, general public norms are valueless if they are not properly administered, and fair procedures are no good if the applicable rules keep changing or are ignored altogether. But there are aspects of the procedural side of the Rule of Law that are in some tension with the ideal of formal predictability.¹⁴⁸

Waldron explains the tension between the procedural side of the Rule of Law and the ideal of formal predictability as follows:

The procedural side of the Rule of Law presents a mode of governance that allows people a voice, a way of intervening on their own behalf in confrontations with power. It requires that public institutions sponsor and facilitate reasoned argument in human affairs. But argument can be unsettling, and the procedures we cherish often have the effect of undermining the predictability that is emphasized in the formal side of the ideal.¹⁴⁹

In other words, according to Waldron, by emphasizing the legal process

¹⁴⁷ Waldron, ‘The Concept and the Rule of Law’ (n 138) 7–8.

¹⁴⁸ *ibid* 8.

¹⁴⁹ *ibid*.

rather than the formal attributes of the general rules, the procedural aspects of the Rule of Law seem to value opportunities for active engagement in the administration of public affairs, instead of the certainty that makes private freedom possible.¹⁵⁰

On both sides, the Rule of Law condemns official behavior that treats individual agency as something of no consequence. On one side it is private agency in civil society that is respected, while on the other side it is private agency exercised within the context of the institutions of the state.¹⁵¹

Be that as it may, there is not doubt that the procedural understanding of the Rule of Law is a meaningful aspect of the Rule of Law that requires the attention of legal policy makers.

III.III Treating Like Cases Alike

Another principle that is associated with the Rule of Law is the ancient principle of ‘treating like cases alike’.¹⁵² This principle requires the court to apply the same

¹⁵⁰ *ibid* 8–9.

¹⁵¹ *ibid*.

¹⁵² As Endicott explains, the rule of law can be opposed to arbitrary government, as a community attains the ideal of the rule of law when the life of the community is governed by law. According to Endicott, ‘Government is arbitrary if it does not treat like cases alike – if it does not treat people consistently’. See Timothy AO Endicott, ‘The Impossibility of the Rule of Law’ (1999) 19 *Oxford Journal of Legal Studies* 1, 3. See also Jeffrey Brand-Ballard, *Limits of Legality: The Ethics of Lawless Judging* (Oxford University Press 2010) 255–256:

The comparative justice principle goes by many names: justice, fairness, equality, formal justice, formal equality, et cetera. It is often stated in Aristotelian terms, as requiring adjudicators to “treat like cases alike.” It receives great attention and

norm in similar cases. The difficulty in applying this principle is sometimes derived from the need to identify ‘similar’ cases and ‘different’ cases.¹⁵³

Multifaceted ‘Laundry List’ rules might increase the risk of ‘like’ cases not being treated ‘alike’. If judges were unable to perform the complex calculation of taking all the factors of the rule into account, this could lead to a different application of the rule in similar cases. For example, if judges were to practically disregard the list of factors since it was too difficult to implement, this would mean

deference, under many descriptions, in Anglo-American jurisprudence. To say that one case is “like” another is to say that the two cases are tokens of one case type. Only a miniscule fraction of the features of a case are features upon which judges should base their decisions.

¹⁵³ As explained by Ingram (Peter Ingram, ‘Maintaining the Rule of Law’ (1985) 35 *Philosophical Quarterly* 359, 361–362):

To follow a rule, or more universally, to be committed to a system of rules as operative for guiding behaviour, is to accept the principle that like cases should be treated alike. That is to say, I am following a rule if and only if I treat all cases that fall under the rule as the rule dictates I should treat them. Admittedly this raises at once the question of interpreting when a particular case actually falls under the rule (or fails to do so); some cases will be included within, some excluded from the ambit of the rule: this in short is the problem of “hard cases”. But once I have averred that I am following a rule, and if I have declared that I believe the instant case to fall under it, I am committed to applying the rule in practice to it, unless I can appeal to some excusing condition to make “a special case”. Exceptions must remain exceptions, however. If a rule is to endure as a rule, if it is to be upheld as a practical rule that actually guides behaviour, it must be applied more often than not (or at least in significant cases). In sum, if laws are rules they logically require to be applied to every relevant case; a failure of application requires to be explained. Yet although the non-enforcement of a rule other than by mistake or ignorance detracts from a conception of law as a body of general rules, exceptions are properly made in appropriate cases. The dictum that a rule logically requires to be applied to every relevant case is qualified by four considerations: the phenomenon of hard cases, the existence of special cases, the interaction between laws as rules that individually may have a bearing on each other, and the relationship of laws to the system of which they form a part. The point to be made is that the explanations available to account for the superficial exemption of a case from an applicable rule largely do not detract from but rather support the idea of the rule of law.

that in practice the rule provided no clear guidance. This kind of vagueness is likely to increase the chance of a violation of the principle of ‘treating like cases alike’, since the norm that the judge is required to apply in similar cases is confusing.¹⁵⁴

Despite of the centrality of the principle of ‘treating like cases alike’, it is considered to be inconclusive by several legal scholars. For example, Andrei Marmor suggests that a distinction should be drawn between the idea that ‘like cases should be treated alike’ and two other ideas: the rationale of analogical reasoning in adjudication and the value of coherence. Marmor then argues that previous judicial decisions should not always be treated as legally binding in similar cases just because they are similar, even if the reasons for the previous decisions are not determinative.¹⁵⁵

According to Marmor’s interpretation, there is no need for the principle of ‘treating like cases alike’ if two similar cases are actually determined by the reasons that apply to them: ‘...[T]he determining reasons would do all the work of justifying similar rulings. This is what makes the principle of “treating like cases alike” uniquely problematic, and separate from the questions of analogical reasoning and coherence.’¹⁵⁶ Following is the core of the principle of ‘treating like cases alike’,

¹⁵⁴ This discussion is separated from the rules v standards discussion that will be presented in the last chapter of this Part. The point I am making here is that ‘Laundry List’ rules can create an unhelpful complexity that leads to difficulty in applying the rule. A different (but related) question is in which legal situations a standard is preferable to a rule and when should judicial discretion be allowed rather than limited.

¹⁵⁵ Andrei Marmor, *Law in the Age of Pluralism* (Oxford University Press 2007) 183–196.

¹⁵⁶ *ibid* 183. Marmor therefore refers to the following situation:

But now think about those cases in which decisions are underdetermined by

according to Marmor:

So here is the question of treating like cases alike: are there any good reasons to treat previous judicial decisions as legally binding in similar cases, just because they are similar, that is, even if the underlying reasons of the previous decisions underdetermine the result?¹⁵⁷

As Marmor explain, the principle of ‘treating like cases alike’ is separate from coherence. Since coherence calls for a consistent application of reasons, one does not exhibit incoherence by making different decisions under similar circumstances, ‘if the decisions were not quite determined by the reasons that apply to those circumstances’:¹⁵⁸

If we assume that the principle of treating like cases alike pertains to decisions which are underdetermined by reasons, coherence, by itself, would not answer our question; at least not generally. (An exception will be discussed in the last section.)¹⁵⁹

reasons, because the decision involves, to some extent, an arbitrary choice, or because the decision involves a choice between incommensurable values, or because the relevant reasons are indeterminate (due to moral vagueness, for example). Outside courtrooms, in the ordinary course of our lives, we might try to avoid such decisions or, more commonly, we just make a decision and move on. But the courts must decide, and often judicial decisions, especially of higher courts, actually make the law.

¹⁵⁷ *ibid* 184.

¹⁵⁸ *ibid*.

¹⁵⁹ *ibid*. Not only that, according to this interpretation similar cases could be treated differently without concluding that one of the decisions was wrong:

Furthermore, this should also alleviate an immediate worry: One could have thought that if similar cases are treated differently, it must follow that (at least) one of them was wrongly decided. If we confine our attention, however, to those cases in which legal decisions are not entirely determined by reasons, this conclusion does not follow.

The exception Marmor refers to is a case in which the use of analogy in adjudication can be rationalised as an instance of ‘treating like cases alike’. This occurs in the case of using what he calls a weak analogy – an analogy that does not apply the exact reason or principle that justifies the previous ruling but instead relies on a similar principle.¹⁶⁰

Marmor concludes with the remark that the analysis of the principle of ‘treating like cases alike’ is inconclusive:

...it should not be assumed that weak analogy is necessarily justified whenever an occasion for its use presents itself. As in other cases of treating like cases alike, there may be very good reasons to treat like cases differently. All this, I admit, is very inconclusive. But sometimes the conclusion of a normative analysis is that there should not be any conclusive answer to the question dealt with. The principle of treating like cases alike is one of those issues.¹⁶¹

To conclude, the principle of ‘treating like cases alike’ comes into its own precisely where the reasons for decision are not determinative; all else being equal, justice demands equal treatment in such situations. But in order to determine whether the reasons for the decision justify the results, it is necessary to understand what the rule says. ‘Laundry List’ rules do not always provide clear reasons for making decisions for this purpose. Also, it is possible to argue that ‘Laundry List’ rules are undesirable under Marmor’s narrow interpretation of the principle of ‘treating like cases alike’ because even a weak analogy that relies on a

¹⁶⁰ *ibid* 193–194.

¹⁶¹ *ibid* 195.

similar principle (an instance of ‘treating like cases alike’, according to Marmor) is hard to identify in a situation in which the rule does not provide clear guidance for making a decision.

4. Doctrinal Analysis and Empirical Data – CPR 3.9

I. Choosing a Methodology

In choosing a methodology to perform an analysis that would demonstrate the effects of choice overload or information overload in the context of too many factors set in a certain civil procedure rule, I considered four possibilities. Two research methods were quickly rejected: (1) a qualitative one in which in-depth interviews with common law judges would be performed was abandoned because people are usually unaware of the cognitive heuristics they use, and as a result it would not be fruitful to ask judges about them. In fact, the cognitive effects described in this Part are a branch of a field in psychology called ‘The New Unconscious’, due to the unconscious psychological mechanisms underlining people’s decision-making processes and (2) a quantitative method that included coding courts’ decisions and quantifying certain variables, such as the number of considerations set in the relevant rule, the number of cases in which the judge ignores some of the considerations and so on. This method raised difficulties such as the ability to understand and interpret the decisions, the way to find and to

choose suitable cases and the high volume of cases that would have to be examined. Most importantly, a similar methodology had been used in the past in studies that showed that when presented with multiple factors, judges tend to ignore many of the factors on the list and only consider one or two factors in order to reach a decision.¹⁶² In this Part, I aim to examine the quality of decisions made under 'Laundry List' rules and not to merely demonstrate that judges ignore some of the considerations on the list. Therefore, this method was also, discarded.

Two other possible research methods remained: a doctrinal method in the form of legal analysis of the court decisions and a quantitative method in the form of surveys that simulate the situation of Factor Overload. I decided to combine these research methods. In that way, real court decisions are analysed, both from a doctrinal perspective and from a social science perspective. Using this combination, tools from both disciplines, law and psychology, are utilised.

II. Court Decisions Analysis

I will begin by discussing a few cases in which the court implemented CPR rule 3.9 and then move on to describe my experiment. In regard to the old rule 3.9 that required the court to consider all of the circumstances including nine factors, the court adopted the 'stand back' approach, whereby the application of rule 3.9 is not performed using a 'checklist' exercise but rather by an estimation of the weight of

¹⁶² See the studies presented in chapter 2(V) above (in Part 1).

all the factors overall. In the *Hansom* case, Lord Mance said: ‘Indeed, at the end of the day, the right approach is to stand back and assess the significance and weight of all relevant circumstances overall, rather than to engage in some form of “head-counting” of circumstances.’¹⁶³ The old rule 3.9 gave judges expansive discretion, as explained by Zuckerman:

The multiplicity of the CPR 3.9 factors and the fact that they stood in no particular relative order of importance meant that the court had almost unfettered direction. For it is obvious that the longer the list of considerations that must be taken into account, the less each of them is likely to count and the more open ended the court’s freedom of choice is likely to be.¹⁶⁴

Just before the new rule 3.9 came into force the Court of Appeal articulated its strong approach towards changing the culture of delays and non-compliance by noting the amended rule 3.9 that includes fewer factors than its predecessor. In the *Perry* case,¹⁶⁵ Lord Justice Jackson stated that after the new rule came into force litigants who substantially disregarded court orders or the requirements of the CPR would receive significantly less tolerance than before.

¹⁶³ *Hansom v Makin* EWCA [2003] Civ 1801, 2003 WL 22936599, para 20. See also *Ryder Plc v Beever* [2012] EWCA Civ 1737, [2013] 2 Costs LO 364, para 18, and see the discussion in Part 3, chapter 1 of the dissertation.

¹⁶⁴ Zuckerman (n 12) para 11.124.

¹⁶⁵ *Fred Perry (Holdings) Limited v Brands Plaza Trading Limited* [2012] EWCA Civ 224, 2012 WL 608500.

Shortly after the new rule became effective (in April 2013) the Court of Appeal gave another decision, in the *Mitchell* case,¹⁶⁶ in which it gave guidance about the correct approach towards the revised version of CPR rule 3.9. In the context of the Jackson reforms and the general requirement that courts adopt a more robust approach to granting relief to parties who default on court rules, practice directions and court orders, the Court of Appeal ruled that relief from sanctions would not be granted where deadlines were overlooked, so solicitors should not take on so much work that they were unable to meet them.

The Court of Appeal in the *Mitchell* case acknowledged that the new version of CPR 3.9, that includes the need (i) for litigation to be conducted efficiently and at proportionate cost and (ii) to enforce compliance with rules, practice directions and court orders, reflects a 'deliberate shift of emphasis'. The court determined that the new CPR 3.9 considerations 'should now be regarded as of paramount importance and be given great weight. It is significant that they are the only considerations which have been singled out for specific mention in the rule'.¹⁶⁷

The Court of Appeal also recognised the requirement to consider 'all the circumstances of the case, so as to enable it to deal justly with the application' that is mentioned in the new CPR 3.9. The Court of Appeal explained the reference to dealing with the application "justly" as follows:

The reference to dealing with the application "justly" is a reference back

¹⁶⁶ *Andrew Mitchell MP v News Group Newspapers Ltd* [2013] EWCA Civ 1537.

¹⁶⁷ *ibid* para 36.

to the definition of the “overriding objective”. This definition includes ensuring that the parties are on an equal footing and that a case is dealt with expeditiously and fairly as well as enforcing compliance with rules, practice directions and orders.

As for the reference to “all the circumstances of the case” the Court of Appeal stressed that the two considerations that are specifically mentioned in the new CPR 3.9 should be given more weight than the other circumstances:

The reference to “all the circumstances of the case” in CPR 3.9 might suggest that a broad approach should be adopted. We accept that regard should be had to all the circumstances of the case. That is what the rule says. But (subject to the guidance that we give below) the other circumstances should be given less weight than the two considerations which are specifically mentioned.¹⁶⁸

Moreover, in the *Mitchell* case the Court of Appeal gave detailed parameters as to the application of the new CPR rule 3.9. First, the court will consider the nature of the non-compliance with the relevant rule, practice direction or court order and if this can be regarded as trivial, the court will usually grant the relief provided that an application has been made promptly.¹⁶⁹

The principle “*de minimis non curat lex*” (the law is not concerned with trivial things) applies here as it applies in most areas of the law. Thus, the court will usually grant relief if there has been no more than an insignificant failure to comply with an order: for example, where there has been a failure of form rather than substance; or where the party has narrowly missed the deadline imposed by the order, but has otherwise

¹⁶⁸ *ibid* para 37.

¹⁶⁹ *ibid* para 40.

fully complied with its terms.¹⁷⁰

Second, if the non-compliance cannot be characterised as trivial, the court will consider why the default occurred and if there is a good reason for it, the court will be likely to decide that relief should be granted.¹⁷¹

But is the change of approach in the *Mitchell* case a result of the new rule? Is the rule indeed clearer now that it does not include nine factors? Regrettably, the answer is no. In itself, the new rule does not add much to the current rules of

¹⁷⁰ *ibid para 40.*

¹⁷¹ *ibid paras 41.* The Court of Appeal gave the following examples to demonstrate what would constitute a good reason for non-compliance:

For example, if the reason why a document was not filed with the court was that the party or his solicitor suffered from a debilitating illness or was involved in an accident, then, depending on the circumstances, that may constitute a good reason. Later developments in the course of the litigation process are likely to be a good reason if they show that the period for compliance originally imposed was unreasonable, although the period seemed to be reasonable at the time and could not realistically have been the subject of an appeal. But mere overlooking a deadline, whether on account of overwork or otherwise, is unlikely to be a good reason. We understand that solicitors may be under pressure and have too much work. It may be that this is what occurred in the present case. But that will rarely be a good reason. Solicitors cannot take on too much work and expect to be able to persuade a court that this is a good reason for their failure to meet deadlines. They should either delegate the work to others in their firm or, if they are unable to do this, they should not take on the work at all. This may seem harsh especially at a time when some solicitors are facing serious financial pressures. But the need to comply with rules, practice directions and court orders is essential if litigation is to be conducted in an efficient manner. If departures are tolerated, then the relaxed approach to civil litigation which the *Jackson* reforms were intended to change will continue. We should add that applications for an extension of time made before time has expired will be looked upon more favourably than applications for relief from sanction made after the event.

procedure.¹⁷² The interpretation of rule 3.9 in the *Mitchell* case seems to be a result of a change in the Court of Appeal's approach at the time, one that possessed the potential to lead to a change in the general judicial culture towards non-compliance. Furthermore, in the *Mitchell* case the Court of Appeal mentioned that the considerations listed in the old rule could still be relevant but that now the primary consideration is enforcement. This means the Court of Appeal defined a dominant consideration and in that way avoided the complex multi-factor calculation that existed before. Singling out enforcement as the prominent consideration could have been accomplished in the wording of the rule itself, but because the rule does not say that, it was left for the Court of Appeal to set the tone of the new rule. Overall, the court's interpretation in the *Mitchell* case was desirable, as enforcing compliance was the purpose of the amendment to rule 3.9 to begin with.

However, the guidance that was given by the Court of Appeal in the *Mitchell* case in relation to the new rule 3.9 did not survive very long. Only eight months after the *Mitchell* decision the Court of Appeal revised its approach towards the new rule 3.9 in the *Denton* case,¹⁷³ giving more leeway to litigants, against the purpose of preventing non-compliance with process requirements and adopting a new three stage inquiry. Andrew Higgins explained the judgment as follows:

¹⁷² Adrian Zuckerman, 'Enforcing Compliance with Process Requirements by a Coded Message – The Revised CPR 3.9' (2013) 32 Civil Justice Quarterly 123.

¹⁷³ *Denton v TH White Ltd* [2014] EWCA Civ 906.

The Master of the Rolls and Vos L.J., gave a joint judgment effectively replacing the *Mitchell* guidance, which focused on whether the breach was trivial and whether there was a good reason for it, with a three stage analysis focusing on: (i) whether the breach was serious or significant; (ii) the reasons for the breach; and (iii) all the other circumstances of the case including the factors set out in CPR r.3.9(1)(a) and (b).¹⁷⁴

As Higgins argues, this experience demonstrates the failure of the drafters of the new rule 3.9. It shows that the rule itself needs to give clear guidance to courts when exercising their discretion. The revised rule 3.9 is 'virtually content free, doing little more than repeating the overriding objective, and yet it is still as open ended as the previous (heavily criticised) rule it was designed to replace'.¹⁷⁵ Unfortunately, the current legal state is unlikely to lead to clarity:

The nine factors have been replaced by two factors but all of them and more may find their way back into the frame when the court considers "all the circumstances" of the case during the "third stage" of the *Denton* guidance. The purpose of the reforms to CPR r.3.9 was not to save words, but to provide better guidance to the courts in how to exercise their discretion. However, the *Denton* guidance provides only limited assistance to lower courts.¹⁷⁶

¹⁷⁴ Andrew Higgins, 'CPR 3.9: The Mitchell Guidance, the Denton Revision, and Why Coded Messages Don't Make for Good Case Management' (2014) 33 Civil Justice Quarterly 379, 379. As Higgins explains Lord Justice Jackson's guidance differed from the majority in the following point:

Jackson L.J., the author of the review into civil litigation costs which called for CPR r.3.9 to be amended, provided his own guidance which differed in one critical respect from the majority. While endorsing the new three stage inquiry, Jackson L.J. dissented on the weight to be given to the two criteria set out in CPR r.3.9(1)(a) and (b). Whereas the majority stated that the factors should be given particular importance, according to Jackson L.J. they should be given the same weight as all the other circumstances of the case that the court had to consider in order to deal with the application justly

¹⁷⁵ *ibid* 391.

¹⁷⁶ *ibid*.

Higgins explains, that while the courts now know to normally grant the relief if the breach was not significant or if there was a good reason for it, they still have to weigh all the circumstances if the breach is significant and if there is no good reason for it. This means the courts are provided with considerable discretion and little guidance.¹⁷⁷

In assessing those circumstances, courts will rarely be able to reason by analogy from the results in the combined cases in *Denton*. As Jackson L.J himself noted, all the cases before the court were extreme examples, and in more difficult cases, the difference between the reasoning of the majority and Jackson L.J may well matter. This is virtually a judicial invitation to engage in further satellite litigation.¹⁷⁸

III. Experiment

III.I Introduction

As mentioned above, I use the term 'Factor Overload' to describe a cognitive phenomenon that occurs while judges attempt to implement legal rules that include more than a few factors. The growing number of factors that the judge is required to consider in these types of cases leads to difficulties in the decision-

¹⁷⁷ *ibid.*

¹⁷⁸ *ibid.* See also Jack R. Williams, "'Well, That's a Relief (from Sanctions)!'" – Time to Pause and Take Stock of CPR r.3.9 Developments within a General Theory of Case Management' (2014) 33 Civil Justice Quarterly 394; Stuart Sime, 'Sanctions after Mitchell' (2014) 33 Civil Justice Quarterly 133.

making process. These difficulties are related to the limits of the human mind to process and integrate many considerations simultaneously. In order to demonstrate the effects of Factor Overload I performed an experiment using a real case in which the court applied rule 3.9 of the CPR. CPR rule 3.9 exemplifies information overload since it includes at least nine different factors that the judge must weigh in order to reach a decision. It is therefore a suitable case study to examine the phenomenon of cognitive overload due to a large number of considerations in the legal context. The purpose of the experiment was to show that having to weigh a large number of factors is detrimental to the decision-making process by creating difficulties in applying legal rules.

III.II Experiment Description

My hypothesis was that given the same case facts, judicial decisions would be similar both when participants used a large number of factors and when they used no factors at all to decide a case. Once there became too many factors to consider the judge would encounter cognitive difficulty processing all of the information and would unconsciously omit some of the factors during the decision-making process. Due to the cognitive effects of information overload and the human tendency to simplify complex decisions, the list of factors would become practically meaningless when it was too long to implement. Therefore, instituting a rule with a long list of considerations would result in decisions that are not derived from the rules; rather, they would be closer to decisions made under maximal judicial

discretion, without any clear direction.¹⁷⁹ Thus, I anticipated that the decisions would be more consistent under the limited-number-of-factors scenario than under the long-list-of-factors scenario. I also expected that applying the rule to the facts of the case would be easier under the limited-number-of-factors case.

As previously mentioned, in order to prove my theory I chose a real case that both utilised CPR rule 3.9 and had wide legal agreement regarding the correct result. In the case I chose (*Perry*), the Court of Appeal (Civil Division) decided unanimously that a relief from sanctions should not be granted and that the case is an example of situations in which the court should enforce compliance and not grant the relief. Not only that, Lord Justice Jackson, who gave one of the opinions (the appeal was heard before Lord Justice Maurice Kay, Lord Justice Jackson and Lord Justice Lewison), was involved in the amendment of rule 3.9 as part of his review of civil litigation costs in England and Wales. He is therefore an expert on the subject.¹⁸⁰ Lastly, the decision received positive treatment in later cases and in

¹⁷⁹ As will be discussed in chapter 6 of this Part, multifactor rules could intentionally be standards that give the judge wide discretion (in fact, this is usually the case). The point here is that using a long list of factors, even if the purpose were to give the judge a wide discretion, does not add anything to the decision, since, in cases in which the list is too long, judges cannot use it as a helpful tool in their decision-making process. Moreover, at least in the context of procedural rules such as rule 3.9, it could be argued that limiting judicial discretion or using a rule instead of a standard is preferable, but these are separate issues than the question of whether using a long list of factors adds value to legal rules.

¹⁸⁰ The following quote from Lord Justice Jackson's opinion shows that the court was convinced that in this case that the relief from sanctions should not be granted (*Fred Perry (Holdings) Limited v Brands Plaza Trading Limited* (n 165) para 48):

Non-compliance with the CPR and orders of the court on the scale that has occurred in this case cannot possibly be tolerated. Any further grant of indulgence to the defendants in this case would be a denial of justice to the claimants and a denial of justice to other litigants whose cases await resolution by the court.

the legal literature.¹⁸¹ The method I chose examines the deviation from the optimum. I expected that when using the long list of factors participants would be more willing to grant the relief from sanctions even though the correct decision should be not to grant the relief.¹⁸²

I took the basic description of the factual chronology of the case from the decision given by the Court of Appeal. I then slightly modified the presentation of the case in order to ensure that other factors would not influence the premise of what the experiment was attempting to examine. Firstly, I tried to keep the description of the facts as simple as possible without omitting any relevant details in order to make sure the facts of the case were clear to the 148 participants who took part in the survey.

Secondly, I presented both the plaintiff and defendant as companies, and I tried to avoid presenting the plaintiff as a 'big company' versus the defendant as a 'weak' small company, since I did not want the participants to rule in favour of the defendant simply because they felt more empathetic towards him. In fact,

¹⁸¹ According to Westlaw UK, one of the leading online legal research services.

¹⁸² It could be argued that although in the *Perry* case (the one that was used in the experiment) the court was dealing with the unreformed rule 3.9, it was in essence deciding as if rule 3.9 had already been reformed, meaning that the decision would not have gone that way had it not already been decided that rule 3.9 must be amended. However, this is not the reasoning given by the court ((*Fred Perry (Holdings) Limited v Brands Plaza Trading Limited* (n 165) para 50):

It is currently anticipated that this revised rule will come into force on 1 April 2013. After that date litigants who substantially disregard court orders or the requirements of the CPR will receive significantly less indulgence than hitherto. As I say, that rule amendment lies in the future. In the present case, on the rules as they stand, relief from sanction must be refused.

Not only that, the case provides a good example of non-compliance that should not be tolerated because the defendant failed to comply with six court orders without good reasons.

rule 3.9 already touches on a sensitive issue of the right to present a defence (since the result of not granting relief from sanctions is that the defendant cannot submit a defence), and I suspected that even with my modifications participants would tend to give the relief from sanctions despite the fact that in the case used in the survey the defendant did not comply with six court orders. Being too lenient with violations of process requirements was part of the problem of the old rule 3.9 that did not put enough emphasis on enforcing compliance. For that reason, although I used a real case, I tried to present the facts of the case in a balanced way and to avoid placing the emphasis on specific aspects of rule 3.9, as I am interested in examining the influence of the number of factors and not the specific goal of the rule. I therefore presented the parties as approximately equal entities.

This should not cause more deviation from the optimum because the optimum decision in the case is to *not* grant the relief in favour of the defendant. Presenting the defendant as equal to the plaintiff (as opposed to a 'weak' litigant) should only encourage more optimum decisions. In any event, the case was presented in an identical way between all groups, the only difference being the number of considerations, which is the variable I wanted to investigate.

III.III Method

The experiment was performed on Amazon's MTurk using 'Qualtrics' online survey software (the actual survey appears in the following section of this chapter).¹⁸³ Participants were given a description of the modified *Perry* case, as mentioned above, and were divided into three groups (148 subjects took part in the survey).¹⁸⁴ The first group was given the full list of factors in CPR rule 3.9 and was asked to reach a decision according to these factors; the second group was asked to reach a decision without any factors at all and according to their discretion, given only the following quote from rule 3.9: 'On an application for relief from any sanction imposed for a failure to comply with any rule, practice direction or court

¹⁸³ Amazon Mechanical Turk (MTurk) is an online crowdsourcing system that allows easy access to online research participants. MTurk workers are mostly from the United States and India. For more about the demographics of the participants see Joel Ross and others, 'Who are the Crowdworkers? Shifting Demographics in Mechanical Turk' in *CHI' 10 Extended Abstracts on Human Factors in Computing Systems* (ACM 2010). Despite differences between MTurk participants and traditional samples, it was found that generally MTurk participants produce reliable results and that MTurk offers a highly valuable opportunity for data collection. See Joseph K Goodman, Cynthia E Cryder and Amar Cheema, 'Data Collection in a Flat World: The Strengths and Weaknesses of Mechanical Turk Samples' (2013) 26 *Journal of Behavioral Decision Making* 213.

The participants were given the following instructions:

We are conducting an academic survey about legal decision making. We need you to perform as the judge in a legal case that will be presented to you and then answer a few questions. Select the link below to complete the survey. At the end of the survey, you will receive a code to paste into the box below to receive credit for taking our survey.

¹⁸⁴ MTurk participants do not possess legal background. I chose to perform the experiment on MTurk for two reasons. Firstly, I performed a pilot of this experiment with law students and they were influenced by their previous familiarity with the case and by their specific legal education (for example students of Professor Zuckerman, who had influenced the amendment of rule 3.9, tended not to grant the relief in comparison to other students). By using MTurk I could ensure that the participants were not familiar with the case or the amendment of rule 3.9 and that they were only affected by the number of factors. Secondly, MTurk allows easy access to a large number of participants.

order the court will consider all the circumstances’; and the third group was asked to reach a decision given only three of the factors from rule 3.9. To avoid a state in which specific factors affect the results I randomised the factors so that different subjects in this group received different factors. The results of the three different conditions (a long list of nine factors, a short list of three factors and full judicial discretion) were then compared.

The experiment was followed by a questionnaire in which participants were asked to provide some information about themselves and to explain how they had reached their decisions, as a tool to understanding their decision-making process. Participants were required to provide the following information: age; gender; native language; occupation; legal background; reason for granting or refusing the application; explanation of how they applied the legal rule that was mentioned in the survey; level of confidence in their decision; and level of difficulty in performing the task. I then used the answers to these questions to check whether any other factors influenced the participants’ decisions and to make sure that the participants indeed read the case and understood it. I also measured the time it took each subject to answer the survey as another tool to ensure that the case was read by the participant.

III.IV The Survey

Following is the survey as it was given to the participants:

Group A

Fabric Limited is a well-known manufacturer of sportswear. It sued Omega Limited for infringement of trademarks. According to the allegation, Omega had been dealing in counterfeit Fabric sportswear although there might have been some parallel imports as well.

In the course of the proceedings, that began over a year ago, Omega failed to comply with 6 court orders, including 'unless orders'. The effect of an 'unless order' is that a failure to comply will result in Omega's defence being struck out. And indeed, the effect of Omega's non-compliance was that Omega's defence was automatically struck out and judgment for Fabric entered against Omega (without a full trial).

A day before the final judgment, Omega are now submitting an application for 'relief against sanctions' and are asking for a full trial. Omega acknowledge that they had been in breach of court orders in the past and explain that they have been struggling to cope with running the business and dealing with the litigation at the same time.

The following rule sets the conditions for granting relief from sanctions:

“(On an application for relief from any sanction imposed for a failure to comply with any rule, practice direction or court order the court will consider all the circumstances including –

- ☒ the interests of the administration of justice;**
- ☒ whether the application for relief has been made promptly;**
- ☒ whether the failure to comply was intentional;**
- ☒ whether there is a good explanation for the failure;**
- ☒ the extent to which the party in default has complied with other rules, practice directions, court orders and any relevant pre-action protocol;**
- ☒ whether the failure to comply was caused by the party or his legal representative;**

- ☒ **whether the trial date or the likely trial date can still be met if relief is granted;**
- ☒ **the effect which the failure to comply had on each party; and**
- ☒ **the effect which the granting of relief would have on each party.”**

Should the relief from sanctions be granted (in favour of Omega)? (yes/no)

Group B

Group B was provided with the identical prompt but a different rule set:

“On an application for relief from any sanction imposed for a failure to comply with any rule, practice direction or court order the court will consider –

Participants were given three randomised factors out of the nine factors mentioned above; for example:

- ☒ **the interests of the administration of justice;**
- ☒ **whether there is a good explanation for the failure;**
- ☒ **whether the failure to comply was caused by the party or his legal representative;”**

Group C

Group C was provided with the identical prompt but a different rule set:

“On an application for relief from any sanction imposed for a failure to comply with any rule, practice direction or court order the court will consider all the circumstances.”

III.V Results

The results showed that under the 3-factors condition subjects were more likely to make the optimal decision, that is, not to grant the relief from sanctions, more than in any of the other groups. This difference was shown to be statistically significant (the Chi Square test showed a significant result in relation to groups A and B: $P < 0.05$, $P = 0.035$, as well as in relation to groups B and C: $P < 0.05$, $P = 0.02$). The results are shown in the following table (Table 1):

	(Group A)	(Group B)	(Group C)
	9 factors (n=50)	3 factors (n=48)	0 factors (n=50)
Grant Relief from Sanctions	50%	29%	52%
Refuse Relief from Sanctions (optimum result)	50%	71%	48%

These results demonstrate not only that the long list of factors (group A) did not change the participants' decisions in comparison to the condition of no factors at all (group C), but also that in this case having a long list of factors actually prevented participants from reaching the optimal result. As mentioned above, I identified the optimal result by using the unanimous decision of the Court of Appeal in this case, accompanied by a wide acceptance of the court's decision in following legal cases and in the legal scholarship.

As shown in the table, when given only three randomised factors to consider from rule 3.9 (group B), 71% of the participants decided *not* to grant the relief from sanctions (n=48), the same decision given by the Court of Appeal (the optimal result). In contrast, when given nine factors, only 50% of the participants decided not to grant the relief from sanctions (n=50). This result is despite the fact that the Court of Appeal ruled that the case presented in the survey is an example of a case in which the relief from sanctions should *not* be granted. As anticipated, the results of group A (the nine factors condition) were similar to the results of group C (no factors at all), as 48% of the participants in group C decided not to grant the relief from sanctions (n=50).

This chapter presented the results of a controlled experiment. In the following chapter I will discuss actual policy changes that have been made in relation to rule 3.9 and the possible practical implications of the psychological analysis presented above on the real world decisions of judges.

IV. Policy Aspects – Lord Justice Jackson’s Costs Review and CPR 3.9

Amendment

As mentioned before, prior to April 2013 CPR rule 3.9 listed nine factors that the court had to take into consideration when adjudicating an application for relief from sanctions. Judges struggled to implement this rule, since it required scrutinizing all the factors on the list and demanded examination of all the circumstances of a particular case. Rule 3.9 did not offer sufficient protection against the problem of delays and non-compliance with procedural requirements in the civil justice system. Following Lord Justice Jackson's *Review of Civil Litigation Costs*, the Civil Procedure Rules Committee approved an amended rule 3.9 that came into force on 1 April 2013.

As mentioned above, in *Perry*, the Court of Appeal expressed faith in the ability of the proposed amendment to CPR rule 3.9 to change the culture of delays and non-compliance in the course of civil litigation. Lord Justice Jackson stated, ‘It is currently anticipated that this revised rule will come into force on 1 April 2013. After that date litigants who substantially disregard court orders or the requirements of the CPR will receive significantly less indulgence than hitherto.’¹⁸⁵

But does the amended CPR rule 3.9 promise a change? In this chapter I will suggest practical policy implications of the psychological studies presented above,

¹⁸⁵ *Fred Perry (Holdings) Limited v Brands Plaza Trading Limited* (n 165) para 50.

by analysing the reform of rule 3.9. The amendment of rule 3.9 is a good example of how psychological analysis can help determine a desired policy change. By investigating the implications of findings derived from empirical behavioural studies, a better understanding of the implementation of rule 3.9 could be achieved, and as a result a better rule structure could be proposed in order to address the concern that relief against sanctions is being granted too readily. This chapter therefore demonstrates how the behavioural analysis of ‘Laundry List’ rules can contribute to policy changes.

The original purpose of the proposed amendment to CPR rule 3.9, as portrayed in Lord Jackson’s final report on civil litigation costs, was to encourage judges to take a firmer line in enforcing orders and dealing with cases of noncompliance.¹⁸⁶ Reforms to enforce compliance followed Professor Zuckerman’s criticism of the state of affairs in which judges are too tolerant of litigants in default, which leads to delays and the waste of court resources.¹⁸⁷ In his final report, Lord Justice Jackson adopted an approach that follows the same line and made the following recommendation:

The courts should be less tolerant than hitherto of unjustified delays and breaches of orders. This change of emphasis should be signalled by amendment of CPR rule 3.9. If and in so far as it is possible, courts

¹⁸⁶ Lord Justice Jackson, *Review of Civil Litigation Costs: Final Report* (Ministry of Justice, 2010) 280.

¹⁸⁷ *ibid* 386–388. See also Adrian Zuckerman, ‘Enforcing Compliance with Deadlines’ (2004) 23 *Civil Justice Quarterly* 231; Zuckerman (n 12), ch 10 (especially paras 10.87–10.102).

should monitor the progress of the parties in order to secure compliance with orders and pre-empt the need for sanctions.¹⁸⁸

The version of CPR rule 3.9 suggested by Lord Justice Jackson in his final report was intended to achieve the goal of enforcing compliance, and was phrased as follows:

Proposed rule change. I recommend that sub-paragraphs (a) to (i) of CPR rule 3.9 be repealed and replaced by: “(a) the requirement that litigation should be conducted efficiently and at proportionate cost; and (b) the interests of justice in the particular case.” This form of words does not preclude the court taking into account all of the matters listed in the current paragraphs (a) to (i). However, it simplifies the rule and avoids the need for judges to embark upon a lengthy recitation of factors. It also signals the change of balance which I am advocating.¹⁸⁹

Despite its good intentions Lord Justice Jackson’s proposal left legal scholars with a sense of unease. Higgins, for example, suggested an alternative version for rule 3.9 that includes an exhaustive list of factors (instead of the version of the rule proposed by Lord Justice Jackson that left more room for discretion) in order to reduce non-compliance.¹⁹⁰ After the publication of his final report, Lord Justice Jackson presented his proposal to amend rule 3.9 in a seminar in Oxford. His

¹⁸⁸ Jackson (n 186) 399 (para vi).

¹⁸⁹ *ibid* 397–398 (para 6.7).

¹⁹⁰ Andrew Higgins, ‘The Costs of Case Management: What Should Be Done Post-Jackson?’ [2010] *Civil Justice Quarterly* 317. Higgins argues that the court should take into account three factors under rule 3.9: (1) whether granting relief would prejudice the other parties’ right to fair trial; (2) whether granting relief would result in the court allocating disproportionate resources to the dispute; and (3) whether there was a good reason for the failure to comply.

proposal was challenged in the seminar and some salient issues were discussed.

The discussion at the seminar was summarised by Lord Jackson in his note to the Rule Committee:

The proposal contained in Costs Review Final Report chapter 39 and recommendation 86 was discussed at a civil procedure seminar chaired by Professor Zuckerman on 24th May 2011, with contributions from a number of Oxford academics, as well as overseas jurists and a judge from the Ontario Court of Appeal. Andrew Higgins spoke in favour of his rival proposal set out in his article *The Costs of Case Management: What should be done post-Jackson?* [2010] CJQ 317. He argued that his three proposed criteria (whilst the precise wording is open to criticism) provide an exhaustive list of the factors that the courts should take into account; this would promote stronger enforcement of the rules. Inbar Levy, a DPhil student who is examining the issue from the perspective of behavioural psychology, explained the problems of information overload: people have difficulty managing complex choices, which include a large number of alternatives or factors. They tend to simplify decision-making by using shortcuts. She therefore supported the proposal to make rule 3.9 as short and simple as possible. Professor Zuckerman argued that the litmus test might be whether the defaulter's breach was "disruptive", alternatively the approach should be to enforce sanctions save in "exceptional circumstances". He argued that the legal profession is extremely adaptive and would rapidly adapt to a culture of enforcement, as has happened in Singapore.

To say that any sort of consensus was reached at the seminar would be an overstatement, but the issues were clearly exposed and I took away the following points:

- (i) The criteria in the rule must be clear and simple.
- (ii) One benefit of a broad discretion is that there will be fewer appeals. On the other hand, a discretion that is not constrained by clear criteria would lead to a rule that is uncertain in application: different judges could then take either a lax or a strict approach to non-compliance. That is the nub of the problem.
- (iii) My draft rule (although supported by some contributors) does not give a sufficiently strong steer towards enforcing compliance. Justice

Sharpe thought the phrase “interests of justice” gave too much discretion to judges to take a lax approach to non-compliance.¹⁹¹

The seminar in Oxford had some effect since following his participation in the seminar, Lord Justice Jackson decided to alter his proposal and to suggest the following version for CPR rule 3.9:

Having considered the views of the Judicial Steering Group and the points raised at the Oxford seminar, I remain convinced that rule 3.9 needs (a) to be simplified and (b) to give a clear pointer towards enforcement of rules and orders, i.e. against relief from sanctions. One way of achieving this might be my suggested draft as set out in chapter 39 of the Costs Report and in para 1 above. **A better approach, however, would be the following:**

Delete sub-paras (a) to (i) of rule 3.9 and substitute:

“(a) the primary need to enforce compliance with rules, practice directions and orders save where there has been good reason for the default or in exceptional circumstances; and

(b) the interests of justice in the particular case.”¹⁹²

The post-seminar proposal puts a clearer emphasis on the need to enforce compliance, stressing that it is the ‘primary’ need, and stating two specific circumstances in which it would be possible to deviate from the principle of enforcing compliance (where there has been good reason for the default or in exceptional circumstances). Yet, the post-seminar proposal preserved the ‘interests of justice’ phrase that was criticised in the seminar by Justice Sharpe

¹⁹¹ Rupert Jackson, *Amendment of CPR 3.9 – Rupert Jackson’s Note to the Rule Committee re Rule 3.9 (second draft)* (Civil Procedure Rule Committee – Ministry of Justice, 6 June 2011), paras 4–5.

¹⁹² *ibid* para 7.

since it leaves too much discretion to judges to tolerate non-compliance. In addition, the post seminar proposal left rule 3.9 in its non-exhaustive form (instructing the court to consider ‘all the circumstances’), which allows more room for judges to deviate from the primary need of enforcing compliance.

Surprisingly, the Civil Procedure Rules Committee did not adopt any of the above versions for CPR rule 3.9, and the final wording as promulgated by the committee is an odd amalgamation of the previous proposals:

In rule 3.9, for paragraph (1), substitute –

“(1) On an application for relief from any sanction imposed for a failure to comply with any rule, practice direction or court order, the court will consider all the circumstances of the case, so as to enable it to deal justly with the application, including the need –

(a) for litigation to be conducted efficiently and at proportionate cost; and

(b) to enforce compliance with rules, practice directions and orders.”.¹⁹³

The wording that has been put forward by the Civil Procedure Rule Committee offers no apparent advantages over the previous versions and is unsuccessful in two respects: it is neither simple, nor does it answer the need of enforcing

¹⁹³ Civil Procedure Rule Committee, Amendment of CPR 3.9 (Ministry of Justice, CPR 11(23), 8 July 2011). According to the drafting notes ‘the amendment is made following the recommendation to amend rule 3.9 made at paragraph 8.1(vi) of Chapter 39 of the Review of Civil Litigation Costs: Final Report, 21 December 2009 (the Costs Review). At the June 2011 CPRC meeting, the Committee discussed two alternative forms of amendment proposed by Lord Justice Jackson: the version set out at paragraph 6.7 of the Costs Review and the version set at paragraph 7 of paper CPR (11)11. The Committee preferred an amalgamation of the two and invited Lord Justice Jackson and MOJ lawyers to produce a revised draft on this basis. The revised draft is set out above.’

compliance. The amended rule presents only two factors to be considered by the judge in order to grant relief from sanctions instead of the unproductive checklist of the the old CPR rule 3.9. Yet, these two factors are not simpler, lack clear guidance and are non-exhaustive. In a state in which improving the enforcement of compliance is vital, a vague rule is unsatisfactory.¹⁹⁴

While Lord Justice Jackson recognised that rule 3.9 should be as simple as possible, the revised version does not seem to simplify things at all. Even though the new rule is shorter in length it requires the court to consider ‘all the circumstances’ and it includes the broad resolve to ‘deal justly with the application’, without giving a decisive weight to any of the factors mentioned in the rule. Since the new rule does not contain any clear criteria in practical terms it undermines the original goal of directing judges towards a stricter policy on enforcement. Moreover, the new rule does not rectify the complexity problem manifested in the previous rule 3.9 and lacks the simplicity that is required according to the psychological studies previously discussed.¹⁹⁵

In conclusion, while according to psychological studies it is indeed necessary to simplify rule 3.9 and to abandon its ‘Laundry List’ structure, the new

¹⁹⁴ As Professor Zuckerman observed, the revised rule ‘merely repeats the material parts of the overriding objective of CPR 1.1 and states the obvious point that rules and court orders should be enforced. The fact that the rule maker considered it necessary to reiterate these already existing principles is of itself significant. It provides an indication of the rule maker’s belief that the overriding objective had not been given adequate effect in decisions to grant relief from sanctions’. See Zuckerman, ‘Enforcing Compliance with Process Requirements by a Coded Message – The Revised CPR 3.9’ (n 172) 134.

¹⁹⁵ See Inbar Levy, ‘Lightening the Overload of CPR Rule 3.9’ (2013) 32 Civil Justice Quarterly 139.

rule does not answer the goal of setting clear guidance in order to encourage compliance. From the behavioural perspective, adopting a rule with an exhaustive number of considerations and an explicit preference to enforcing compliance over other factors would have been preferable.

As discussed in chapter 4(II), despite the hope for a change in the judicial culture that could have occurred if the Court of Appeal had taken a consistent strict line in relation to rule 3.9, the combination of the precedents that were given after the new rule 3.9 came into force (especially from the *Mitchell* case and the *Denton* case) does not provide clear guidance. It is likely that more developments are still to come on this issue of enforcing compliance with process requirements.¹⁹⁶

5. Information Overload in Dworkin's 'Judge Hercules' Metaphor

I. Dworkin's 'Judge Hercules'

Thus far I have discussed the concept of complexity regarding legal decision making in the confined context of procedural rules. However, the issues discussed in this chapter relate to 'the single most important jurisprudential dispute of the

¹⁹⁶ Stuart Sime, *A Practical Approach to Civil Procedure* (17th edn, Oxford University Press 2014), para 37.34.

past 50 years', commonly known as the 'Hart-Dworkin' debate.¹⁹⁷ In this chapter I will argue that Ronald Dworkin's jurisprudence consists of a 'Laundry List' and therefore may be problematic in light of the psychological analysis presented in the previous chapters.

Dworkin believes that there are objective truths about values, ie that some institutions really are unjust and some acts really are wrong, no matter how many people believe they are not. Dworkin defends the metaphysical independence of value. For example, some acts, such as 'torturing babies for fun', are wrong in themselves, not just because people think they are wrong; and they would still be wrong if no one thought they were wrong.¹⁹⁸ According to Dworkin, there must be a right answer about the best thing to do in a given situation 'even if that answer is only that nothing is'.¹⁹⁹

In relation to law, Dworkin adopts the 'one-system picture' wherein law is treated as part of political morality, as opposed to law and morality counting as two separate systems. More specifically, in relation to procedure, Dworkin argues that

¹⁹⁷ Ronald J Allen, 'Taming Complexity: Rationality, the Law of Evidence and the Nature of the Legal System' (2013) 12 Law, Probability and Risk 99, 110:

Hart famously articulated his concept of law, involving among other things identifying the authoritative sources of law, where law was understood more or less as rules. Dworkin did not contest so much the essential nature of the legal system as a system of rules but instead has argued, over and over again, that the meaning and content of rules is determined in part by morality, and not just by the utterances of whatever is identified by the rule of recognition. The significance of this lies in its potential to give an integrated account of law; it need not have the gaps, and the gap filling discretion, of the positivists.

¹⁹⁸ Ronald Dworkin, *Justice for Hedgehogs* (Belknap Press of Harvard University Press 2011) 7-9.

¹⁹⁹ *ibid* 418.

‘once we reject the two-system model, and count law a distinct part of political morality, we must treat the special structuring principles that separate law from the rest of political morality as themselves political principles that need a moral reading.’²⁰⁰

Dworkin adopts the assumption that the law is structured by a coherent set of principles about justice and fairness and procedural due process. According to his view, the law asks judges to enforce this coherent set of principles in fresh cases that come before them, so that each person’s situation is judged fairly and justly according to the same principles.²⁰¹ In order to explain how this complex task is performed Dworkin creates his metaphor of a ‘Judge Hercules’. Hercules is an ideal judge, required to consider the law as a whole when deciding a particular case and to always ascertain the one right answer.

According to Dworkin, Hercules must check the various combinations of principles and determine which of them is ‘best’ as compared to all other possible combinations.²⁰² Dworkin’s metaphor of Judge Hercules seems inconsistent with

²⁰⁰ *ibid* 413.

²⁰¹ Allen (n 197) 110–111.

²⁰² *ibid* 111. This is easier said than done. In response to Dworkin it has been said that Hercules’s task is an impossible task even under the assumption that there is a limited set of principles and even for a judge who works at the speed of a supercomputer, since it would take endless time to check the various combinations of all the principles and their consistency. Dworkin’s approach was strongly criticized (see *ibid* 112):

Hercules can look at so few of the possible ways to ‘integrate’ the relevant principles that there is literally no hope of arriving at the best except by astonishing chance, and even then no one including Hercules could possibly know it had occurred.

Under the limiting assumption that the object of inquiry is static, then, not even

the cognitive findings regarding information overload. While Dworkin supports taking a wide range of principles into account in order to reach a specific decision, the phenomena of information overload suggests that excessive information would confuse the judge and damage the decision-making process.

II. Critique

Dworkin says that the Hercules metaphor is useful because Hercules is more reflective and self-conscious than any real judge needs to be or could be given the pressure of work. Even though no judge can behave just like Hercules, Dworkin asserts it remains a useful aspiration. He proceeds to say that Hercules shows us the 'hidden structure' of real judges' judgments.²⁰³ However, the psychological findings previously discussed imply that the Judge Hercules metaphor is not as useful as Dworkin suggests, since, bearing in mind how the human mind works, judges should not aspire to make decisions like Judge Hercules does.

The decision-making mechanism of Judge Hercules does not seem fitting for

Hercules could have a clue as to whether whatever integration of principles he was fond of is the 'best', or even somewhat consistent. And the limiting assumption is false; society is organic, not static. The problems it throws up, and the various ways to resolve them, evolve in unpredictable ways over time; no one was thinking of wiretapping, DNA identification, or al-Qaeda even 200 years ago. This does not just further complicate an already impossible task. It is conceptually different. The point is that there is no pre-existing body of principles that is complete to be integrated. As a conceptual matter, in addition to computational complexity, Dworkin's aspirations fail. Dworkin's law as integrity as a description of either the legal system or what we should aspire for it even with moral principles filling the gaps cannot even get off the ground. It is directionless; it is pointless.

²⁰³ *ibid* 111.

a human judge at all. The psychological studies previously presented are concerned with the high load of information. In sharp contrast, Dworkin's approach values the integration of as many principles as possible in order to reach a decision. But, in line with the cognitive findings presented above, Dworkin's suggested decision-making process is more likely to confuse a human judge than to help him reach a right decision. Consequently, embracing the Judge Hercules metaphor is not a constructive exercise for learning about the proper way to make legal decisions. Dworkin's Judge Hercules is more of a limitation than an 'aspiration' according to the psychological literature.

Not only is the Judge Hercules metaphor not suitable for the way judges think, it also does not seem to be suitable for our legal system in its current structure. Dworkin assumes that the consideration of as many relevant principles as possible will yield a better decision. This is a highly intuitive assumption, not just in legal contexts, but also in relation to any decisions people make in their lives. It 'makes sense' to think that using more information will necessarily produce better decisions. For instance, the more information a person has about the United States' past elections, the more likely he will be able to predict the results of the next United States' presidential election. However, recent literature shows that the supposition of 'the more information the better' is not always true. For example, some of the information pertaining to past elections may not help in predicting future results and can therefore disrupt the attempt to make an accurate assessment of upcoming elections.

III. Dworkin versus Gigerenzer

Gerd Gigerenzer shows that more information is not always better. Even though in most models of rationality it is taken for granted that the quality of the decision always improves with increasing amounts of information, actually the relationship between amount of information and quality of prediction is often an inversely U-shaped curve.²⁰⁴ This means that a certain amount of information indeed contributes to the quality of the decision or the prediction. However, after a specific point additional information not only does not contribute to the quality of the decision, but it diminishes it. The inversely U-shaped curve shows that an excessive amount of information is accompanied by a descent in the quality of the decision. Therefore, Gigerenzer argues that ignoring information can lead to better decisions than can strategies that use all of the available relevant information.²⁰⁵

Gigerenzer draws an interesting distinction between what he refers to as 'prediction' and 'data fitting'. Prediction here is defined as testing whether certain parameters can predict future events, and data fitting is defined as applying certain parameters to data that is presently available. For example, weather forecasting would be prediction according to this definition, while using sociological theories to explain the Cold War (an event that already happened) is an example of data fitting. The distinction Gigerenzer draws between data fitting and prediction is

²⁰⁴ Gigerenzer (n 2) 21.

²⁰⁵ *ibid.*

described as follows:

To fit the parameters of a model to a body of data that is already known is called data fitting; here and in other situations where one simply explains what has already happened, more information (and more free parameters) is almost always better. To test whether a model with fixed parameters can predict the future or unknown events is called prediction. In an uncertain world that is not perfectly predictable, the belief that more information is better is no longer true.²⁰⁶

Gigerenzer argues that in ‘prediction’ type decisions – decisions that involve uncertainty – people should ignore part of the information in order to improve the quality of the decision. Gigerenzer supports taking a limited amount of information into account when uncertainty is involved, and in that way to avoid relying on information that exist today that does not always generalise to tomorrow. This leads to the conclusion that even if judges were able to process an unlimited amount of information, it would still not be recommended to take all of this information into account, due to the uncertainty involved in ‘prediction’ type decisions.

This approach is contrary to Dworkin’s Judge Hercules metaphor not only with respect to the judge’s psychological nature but also with respect to the nature of the decision itself. In other words, Gigerenzer’s approach contradicts Dworkin’s approach not only because of the cognitive nature of the judge but also because of the nature of legal decisions. Legal decisions often include an element of prediction and could therefore fall under Gigerenzer’s theory of using a limited amount of

²⁰⁶ *ibid.*

information when uncertainty is involved.

Does legal decision making constitute 'data fitting' or 'prediction'? Does it entail more 'known data' or more uncertainty? On the one hand, applying the rules to the facts is not simply data fitting. Legal decision making involves different types of uncertainty, judgements and evaluations; for example it is necessary to determine witness credibility, the potential outcome of court orders, questions of fairness and due process, and more. On the other hand, legal rules should be applied in a consistent way according to the facts of the case, and in that sense they include an element of data fitting. Additional reinforcement to this point is the fact that legal decisions usually deal with events that happened in the past, and in that respect they are more like 'data fitting' than 'prediction'.

To conclude, it might be the case that legal decisions are neither examples of 'data fitting' nor 'prediction' but something in the middle, as the process of legal decision making is an amalgamation of different types of tasks while each task has a distinctive nature. In other words, legal decisions sometimes have several dissimilar parts (such as determining questions of law and questions of fact) and different levels of complexity and therefore cannot always be characterised by a single element.

Interestingly, the issue of uncertainty in legal cases directly relates to the subject of rules versus standards that will be discussed in the final chapter of this Part. In general, strict rules in which the legal command is determined in advance usually lead to more certainty, with the price of inflexibility. On the other hand,

standards generally allow more discretion in each and every case and are therefore more suitable for a less predictable and less frequent environment. In a less predictable environment it is more difficult to give content to the law before the event, and therefore judicial discretion is considered to be preferable.

One could argue that it does not matter whether judges *can* engage in the complex calculation presented by Dworkin because in any event we cannot change the fact that it *is* the law. That is to say, even in the case where the law is hard to implement, it is still defined as structured by a coherent set of principles about justice and fairness and procedural due process that *should* be taken into account in each case. In response to this argument I suggest that judges should not aspire to behave like Judge Hercules *particularly* under the assumption that the law is based on a large set of principles because such an attempt to behave like Judge Hercules might lead to the opposite result – of taking into account fewer of those principles, due to the limitations of the human mind. In my opinion, setting rules with a large number of factors might render the factors meaningless, and the result would be that judges take fewer of these factors into account, which is an undesired result even under Dworkin's theory.²⁰⁷

Gigerenzer demonstrates that 'Less information, time and knowledge can be more' in the legal context as well. He observes that experts from other fields base judgements on surprisingly few pieces of information and sometimes even tend to

²⁰⁷ Therefore, in chapter 6 of this Part I will suggest other tools that could help judges perform the complex task of taking into account a large number of factors (such as clustering the factors into small groups, and more).

make better decisions when they have less time.²⁰⁸ He then proceeds to discuss magistrates' bail decisions. In England and Wales, magistrates make decisions on some two million defendants every year as a bench of two or three. The law instructs the magistrates to consider the nature and seriousness of the offense; the character, community ties, and bail record of the defendant; the strength of the prosecution's case; the likely sentence if convicted; and any other factor that appears to be relevant.²⁰⁹ Yet, as Gigerenzer observes, 'the law is silent on how magistrates should weigh and integrate these pieces of information, and the legal institutions do not provide feedback as to whether their decisions were in fact appropriate or not. The magistrates are left to their own intuitions'.²¹⁰

A study that observed several hundred trials in two London courts over a period of four months revealed that bail decisions are highly affected by heuristics (shortcuts). The study found that even though the magistrates claimed they thoroughly examined all of the evidence in order to treat individuals fairly and without bias, in fact they based their decision almost solely on one of the following three factors (with 92% predictive accuracy): (1) Did the prosecution request conditional bail or oppose bail? (2) Did a previous court impose conditions or remand in custody? (3) Did the police impose conditions or remand in custody?

²⁰⁸ Gigerenzer (n 2) 21.

²⁰⁹ *ibid* 28–29.

²¹⁰ *ibid* 28.

The average time a bench spent with each case was between six and ten minutes.²¹¹

In response to these findings, Gigerenzer presents his pioneering argument in which relying on the police or a previous court might be a ‘short-cut’ *toward* due process. According to Gigerenzer, a ‘fast and frugal’ process need not be less accurate than a due process. However, in the bail bond case the ‘short-cut’ reasons were not correlated with the nature and seriousness of the offence. Not only that, the accuracy of the bail decisions is unknown because no data was collected regarding their quality. Going into greater detail, Gigerenzer explains that magistrates can make two kinds of errors: misses (bailing people who subsequently commit another crime for example) and false alarms (imprisoning people who would not have committed a crime if they had been bailed). Even if statistics were kept about the number of misses, no information about false alarms would be available, as one cannot divine whether an imprisoned person would have committed a crime if he had been bailed.²¹² In other words:

There are numerous predictors for the trustworthiness of a defendant, and the optimal solution is unknown. However, it is also more difficult because, as mentioned, the legal institutions do not provide feedback possible for false alarms. ... the magistrates have no systematic opportunity to learn.²¹³

²¹¹ *ibid*. These results fit the pattern of heuristics that includes using mental shortcuts (such as a rule of thumb) in the decision-making process. For further discussion see Part 3.

²¹² *ibid* 29–30.

²¹³ *ibid* 31.

Even so, Gigerenzer believes that the use of heuristics (by definition that entails the use of less information) may be a possible way to protect defendants in a system that collects data regarding bail errors. In a system that does not collect data for bail errors it is difficult to know how to solve the problem of protecting defendants from these errors. Accordingly, in the bail decisions example Gigerenzer claims that magistrates solve a different problem, 'namely of protecting themselves by "passing the buck"', instead of protecting defendants. That is to say, judges prefer to place the responsibility for the decision on someone else instead of looking for errors.

According to Gigerenzer, this example demonstrates that institutions that foster the self-protection of their professionals over the protection of their clients are prone to support forms of self-deception (since while judges claim to consider a wide range of factors in bail decisions this study shows that 'passing the buck' is the main factor that determines the result). In Gigerenzer's words 'the bail heuristics are a solution, but not to the problem the magistrates are supposed to solve'. This shows that the design of institutions can transform the problem that agents try to solve,²¹⁴ but, on the bright side, under a different design the use of heuristics can be helpful and can be used for the protection of defendants rather than the protection of judges.

The type of discussion Gigerenzer is engaging in is entirely foreign to Dworkin's conception of Judge Hercules. When reading the two theories together it

²¹⁴ *ibid* 30.

is hard to imagine they both discuss the same legal system. While Dworkin's approach supports the use of as much information as possible, Gigerenzer promotes the use of shortcuts to make legal decisions (despite the bail example). And while Dworkin has an ideal conception of judges, Gigerenzer's approach is more suspicious about judges' motivations. It is difficult to settle these two approaches.

IV. Evidence Illustration

A similar debate exists in relation to evidence. Many scholars, such as Jeremy Bentham, argue that fact finders should evaluate all relevant evidence on a case-by-case basis, without admissibility and corroboration rules.²¹⁵ They claim that sorting evidence into 'reliable' and 'unreliable' categories is futile, as evidence ought to be evaluated in each and every case rather than categorically.²¹⁶ Alex Stein, on the other hand, suggests that legal systems with high volumes of litigation need to macromanage evidence and minimise the cost of errors by eliminating inefficient evidence.²¹⁷ He concludes his approach with the following paragraph:

Evidence is the basis of justice, yet its exclusion does not necessarily exclude justice. Contrariwise, admission of potentially probative, but noisy, evidence might distort justice by leading factfinders [sic] astray. At a minimum, such evidence will require costly processing and

²¹⁵ Alex Stein, 'Understanding the Law of Evidence through the Lens of Signal-to-Noise' Cardozo Legal Studies Faculty Research Paper No 380, 6 <http://works.bepress.com/alex_stein/40> accessed November 2013.

²¹⁶ *ibid* 18.

²¹⁷ *ibid* 6.

consideration... At worse, it will lead to erroneous decisions. ...a legal system that manages multiple trials cannot afford either cost.²¹⁸

In an analogy to procedural rules, it could be argued that certain items on a long list should not be considered even when they could be relevant since they create noise that lead to errors. When resources are limited some considerations should be excluded from the decision-making process, just as the legal system sometimes excludes evidence in order to promote efficiency. A 'Laundry List' rule is inefficient in that sense as studies show that judges take into account only two or three main considerations and therefore the rest of the factors on the list could be noise whose cost the system cannot bear. On the other hand, there could be other ways to eliminate noise that are better than rules of exclusion. A full account of this topic is beyond the scope of this work. Nevertheless, it is an interesting reference point to our discussion.

²¹⁸ *ibid* 48.

6. Practical Conclusions

I. Preface

Generally, there is a consensus that it is often easier or preferable to change the environment in which decision makers function or to delegate from a badly positioned to a well-positioned decision maker than to try to change how each individual processes information.²¹⁹ For example, if patients are more likely to understand medical information when it is presented in one form over another, it would be better to present the information in the fashion that most people understand rather than to attempt to train them to understand the other form.²²⁰

In the legal environment it could be argued that improving judges' decision-making processes should be a part of their professional training, as judges are required to make complex decisions on a regular basis. However, the question remains whether judges could indeed be trained to make better decisions, especially when the cognitive mechanisms they use are usually unconscious. In any event, changing the environment in which judges make their decisions can

²¹⁹ Mark Kelman, *The Heuristics Debate* (Oxford University Press 2011) 4.

²²⁰ *ibid.*

certainly be helpful, and therefore this solution should be considered alongside judicial training.

In order to determine what the proper solution or the preferable environment is for adjudicators it is necessary to identify the precise problem in the 'Laundry List' rule structure. There are two different difficulties that could arise when dealing with complex rules that include many factors:

1. In the first case the legislature has identified and specified the weight that should be given to each factor in the legal situation, and this balance is portrayed in the rule. However, judges do not follow the list of factors set by the legislature (for example they ignore some of the factors on the list). This type of difficulty could be the source of two problems: Firstly, when judges do not follow the rule their decisions could be biased. Secondly, when judges do not follow the rule it creates a problem of uncertainty since it is not clear how the rule is implemented, and therefore litigants do not know how to adjust their behaviour in order to follow the rule.
2. In the second case the legal situation is complex, and the legislature could not identify the optimal equilibrium in advance and has therefore left the decision to the discretion of the adjudicator, listing the considerations that could be relevant in a certain legal situation as guidance to exercising judicial discretion. Here as well there could be two potential problems: Firstly, when discretion is given to the judges they might not choose the optimal balance between the factors (for example in the context of rule 3.9

judges were too lenient with non-compliance). But it is difficult to determine what this optimal balance is and whether judges have deviated from it. Secondly, when the legislator chooses a standard that gives the discretion to the judge to decide what the right balance is in each case and not a rule, it creates more uncertainty. This occurs because standards allow more uncertainty than rules since rules give content to the law before individuals act while standards give content to the law after individuals act. More uncertainty in this context is not necessarily a negative result as the choice between a rule and a standard depends on the situation.²²¹

The solutions presented in this chapter will deal with both of the numbered difficulties. Due to human cognitive limitations, the judges' struggles to apply a norm that includes many factors pertains both to the first problem of following a rule portrayed in a long list of factors and to the second problem of making use of a guiding list of factors that is meant to help them apply a standard and exercise their discretion. Some solutions fit better for one or the other type of difficulty. For example, linear models are more helpful if policy makers aim to have an accurate 'calculation' of a list of consideration (the first problem above). In contrast, a solution of identifying a primary consideration could help the judge in implementing a standard (the second problem above).

²²¹ See chapter 6(V) of this Part.

II. Linear Models

This chapter will suggest using linear models in order to help judges implement ‘Laundry List’ rules. Generally speaking, a linear model is a statistical prediction based on input variables. Linear models are needed since experts in a field (such as judges in the common law system) are much better at selecting and coding information than they are at integrating it.²²² People are good at choosing the right predictor variables, but they are poor at integrating information,²²³ especially information from diverse and incomparable sources.²²⁴ The purpose of the linear model is therefore to integrate the information in an optimal manner, using a computational model.

A linear model is a mathematical model that fits a linear equation to data.²²⁵ There are several possible formulas for a linear model in the context of ‘Laundry List’ rules. For instance, it is possible to build a model that requires the judge to rate each factor on a scale of 0-10. Taking the old CPR rule 3.9 as an example, each consideration in rule 3.9 in regards to granting relief from sanctions would receive

²²² Dawes (n 9) 573. See also Paul E Meehl, *Clinical versus Statistical Prediction: A Theoretical Analysis and a Review of the Evidence* (University of Minnesota Press 1954).

²²³ Mathematically, it might be argued that the distinction between the selection of variables and the integration of variables is artificial, since the only difference between the selection function and the integration function is that the coefficients of the non-selected variables (ie those considered non-relevant by the judge) should be zero in the integration function.

²²⁴ Dawes (n 9) 574.

²²⁵ Linear equations are notated in the following form: $y = mx + b$. This is an equation of the line through the point (x_1, y_1) with slope m .

a number: if 'the failure to comply was intentional' (3.9(c)), the judge would rate it '0' (the lowest rating possible), but if 'the application for relief has been made promptly' (3.9(b)), the judge would rate it '10' (the highest rating), and if the answer was somewhere in the middle the judge would rate it '5' and so on. The model would set a numerical threshold for granting relief from sanctions that should be in accordance with the rules of evidence and the balance of probabilities. In the latter example 51% of the 90 points rating range is 45.9 points and therefore and any sum beyond this number would suggest that the judge should grant the relief from sanctions. This calculation would of course only serve the judges as a tool, and they could deviate from the result as long as they gave reasons for doing so.

It should be stressed that linear models cannot replace the experts. It is always the expert who chooses the variables and determines what to look for, while the linear model is merely aimed towards integrating the information.²²⁶ The advantage of linear models over intuitive clinical judgement was shown in a variety of contexts, such as faculty rating of graduate students,²²⁷ the diagnosis of psychosis versus neurosis by clinical psychologists,²²⁸ bank loan officials'

²²⁶ Dawes (n 9) 573.

²²⁷ *ibid* 576.

²²⁸ Lewis R Goldberg, 'Man versus Model of Man: A Rationale, Plus Some Evidence, for a Method of Improving on Clinical Inferences' (1970) 73(6) *Psychological Bulletin* 422.

prediction of bankruptcies²²⁹ and even decisions about what type of bullet should be used by the police.²³⁰

One possible way of building a linear model is to use an expert's judgement, a court judge's for instance, about an outcome criterion and then to use the model in place of the expert.²³¹ Even though the models make use of the weights derived from the judges, they consistently perform better than the judges from whom they were derived. The models perform better in the sense of better correlation between predicted and actual values. Linear models work because they catch the essence of the judge's valid expertise while eliminating unreliability.²³² That is to say, a linear model distils underlying policy from variable behaviour, namely judgement affected by context effects or extraneous variables.²³³ For example, if a statistical examination of cases that apply rule 3.9 shows that applications for relief from sanctions that were submitted more than ten days after the failure to comply were considered to be applications that were not made 'promptly' according to rule 3.9(b) then the linear model would imitate the judges and grant a low score to that particular element and consequently a lower success rate to applications that were submitted after ten days from the failure to comply.

²²⁹ Dawes (n 9) 579.

²³⁰ *ibid* 577–578; Kenneth R Hammond and Leonard Adelman, 'Science, Values, and Human Judgment' (1976) 194 *Science* 389.

²³¹ Dawes (n 9) 574.

²³² *ibid* 575.

²³³ *ibid*.

The function of linear models is to remove the human unreliability by eliminating the random error in human judgement. Although the clinical judge, as opposed to a machine, possesses his full share of experience and human learning, he could become easily distracted by irrelevant variables such as his own boredom, illness and personal circumstances. These distractions lead to errors that are manifested in inconsistency in repeated judgements.²³⁴ This kind of criticism about inconsistency of human judges in similar or identical cases is very common in the legal context. The linear models therefore attempt to separate the human unreliability from the valid judgemental strategy.²³⁵ As aforementioned, it has already been demonstrated that linear models of human judges can be more accurate diagnostic predictors than are the humans who are modelled.²³⁶

Implementation of the concept of linear models with regard to 'Laundry List' procedural rules would be helpful. For example, as mentioned above, in order to grant relief from sanctions the judge is obligated to consider 'all the circumstances', including the nine factors that are explicitly mentioned in the old rule 3.9 of the CPR. According to the previously mentioned behavioural studies, a judge will encounter difficulty while trying to implement a rule such as rule 3.9, since the rule instructs the judge to integrate an extensive number of factors. A mathematical model can clearly help the judge in this instance, by carrying out the integration and giving the most accurate weight to each factor. The appropriate weight would

²³⁴ Goldberg (n 228) 423.

²³⁵ *ibid.*

²³⁶ *ibid* 430.

be set in advance, according to the importance of each factor, while the model would apply the desirable weight and produce a recommended resolution. Further thought should be given to the appropriate model for each rule. It seems that a simple model with constant and reproducible weights, applicable across all cases and all levels of awards, is too simple-minded. At a minimum it should be determined how to calculate the weights, whether the distributions should be symmetrical and whether the model should be the same for plaintiffs and defendants.

Considering the perceived 'cold', 'systematic', 'inhuman' nature of linear models, it is not surprising to find objections to using linear models amongst scholars and practitioners. Thus, for instance, the possibility was raised that perhaps the experts used in the studies weren't the right ones – if other experts were used, then the results would be different. That is to say, we could do better by appointing better judges. But, as Dawes mentions, no such experts were produced by the critics, and the question is therefore why these hypothetical other people should be any different.²³⁷ Another resistance to using linear models is derived from our selective memory about clinical predictions and from heuristics of availability, hindsight and self-fulfilling prophecy. Thus, for example, since instances of successful clinical prediction are available, our belief in such prediction is reinforced – single instances of successful clinical prediction often have greater impact on our impression than do much more valid statistical

²³⁷ Dawes (n 9) 579.

compilations based on many instances.²³⁸ Furthermore, people are comfortable with the illusion that life is predictable and that they can predict it, even though that rarely turns out to be the case.²³⁹

It could be argued that the computation exercise is hollow since the outcome is not produced by the computation but by the earlier allocation of values while the value allocation to particular factors is subjective. However, as mentioned above, when used in other contexts linear models were found to be useful and to produce better outcomes than decisions made without use of the models. This positive result might be related to the fact that the experts are good at identifying the most important considerations, but they then struggle with integrating all the considerations together. The linear model allows experts to exercise their expertise and allocate values to each factor but helps them with the more difficult task of weighing the factors altogether. In addition, the use of linear models could encourage judges to use a more deliberate attitude instead of relying on their intuition, by requiring them to engage in a methodological decision-making process.²⁴⁰

Computational models seem especially helpful under the premise that a judge (an expert) tries to function as a measuring instrument that is built to

²³⁸ *ibid.*

²³⁹ *ibid* 580.

²⁴⁰ According to Guthrie, Rachlinski & Wistrich, 'A judge who must review a script or checklist at each step in the decision-making process is less likely to rely on intuition when doing so is inadvisable.' See Chris Guthrie, Jeffrey J Rachlinski and Andrew J Wistrich, 'Blinking on the Bench: How Judges Decide Cases' 93 Cornell Law Review 1, 40. And see the discussion in Part 3 of the dissertation.

accurately evaluate stimuli.²⁴¹ Under this perception the instruments used in everyday practice accomplish technologically something that a human expert may have done professionally in the past (such as the thermometer that supplants sensitive hands). And, at least for its limited purpose the instrument is usually better than the human, in that it does not exhibit inconsistency caused by fatigue or bias.²⁴²

An example for the effects of fatigue and bias on human judgement is a study performed by Danziger, Levav and Avnaim-Pesso that found that judges are more likely to grant prisoners parole immediately after they (the judges) took a meal break.²⁴³ According to the results of this study, prisoners saw a 65% success rate if their cases were heard early in the workday or immediately after a judge had eaten lunch, but the number of requests granted dropped to nearly zero just before a break period and at the end of the day.²⁴⁴ These results suggest that when

²⁴¹ DJ Weiss and J Shanteau, 'Empirical Assessment of Expertise' 45 Human Factors Journal 104, 105.

²⁴² *ibid.*

²⁴³ See Shai Danziger, Jonathan Levav and Liora Avnaim-Pesso, 'Extraneous Factors in Judicial Decisions' (2011) 108 Proceedings of the National Academy of Sciences of the United States of America 6889.

²⁴⁴ It should be mentioned that the results of this study were contested by Keren Weinshall-Margel and John Shapard who claimed that the order of the cases that came in front of the parole boards was not random and not exogenous to the timing of meal breaks. Weinshall-Margel and Shapard examined data provided by Danziger, Levav and Avnaim-Pesso and obtained additional data from 12 hearing days and interviews of three attorneys, a parole panel judge and five personnel at Israeli Prison Services and Court Management.

They found that the parole board tries to complete all cases from one prison before it takes a break and to start with another prison after the break. They also found that within each session, unrepresented prisoners usually go last and are less likely to be granted parole than prisoners with attorneys. For these reasons and others they concluded that several factors contribute to the downward trend in prisoner success between meal breaks and that Danziger,

judges make repeated rulings, they show an increased tendency to rule in favour of the status quo (leaving the prisoners in jail as opposed to changing the situation and granting parole). This tendency can be overcome by a judge's taking a meal break, due to the effects of a short rest, positive mood and glucose on mental resource replenishment.²⁴⁵ In Danziger, Levav and Avnaim-Pesso's words:

We test the common caricature of realism that justice is "what the judge ate for breakfast" in sequential parole decisions made by experienced judges. We record the judges' two daily food breaks, which result in segmenting the deliberations of the day into three distinct "decision sessions." We find that the percentage of favorable rulings drops gradually from $\approx 65\%$ to nearly zero within each decision session and returns abruptly to $\approx 65\%$ after a break.²⁴⁶

Levav and Avnaim-Pesso's analysis does not support their conclusion that parole decisions are influenced by legally irrelevant factors. According to Weinshall-Margel & Shapard, the phenomenon of favorable decisions peaking after a meal break is likely an artifact of the order of case presentation and it is not evidence that meal breaks affect the parole boards' decisions.

Danziger, Levav and Avnaim-Pesso replied to this critic and claimed that the data fail to support Weinshall-Margel and Shapard's assertions. Following is a quotation from their reply: 'We recoded our data—including representation as an explanatory variable—and reran all of the regression models presented in our original manuscript, but this time also included representation as one of the predictors. The original results replicate in every analysis; case order and the meal break remain robust predictors of the parole decision. The presence of legal counsel was always positively correlated with release likelihood but was not a significant predictor in every single model that we ran. ...Regarding prison of origin...In all instances prisoners from the same prison appear before and after a break. Note that prison of origin alone cannot explain our effect, because there is nothing about it that predicts a decrease in likelihood of favorable rulings. Additionally, we reinterviewed prison personnel; they validated our original report that attorneys represent clients on a first come, first served basis. This precludes an ordering by prison.'

See Keren Weinshall-Margel and John Shapard, 'Overlooked Factors in the Analysis of Parole Decisions' (2011) 108 Proceedings of the National Academy of Sciences of the United States of America E833; author reply E834.

²⁴⁵ Danziger, Levav and Avnaim-Pesso (n 243) 6892.

²⁴⁶ *ibid* 6889.

As Danziger, Levav and Avnaim-Pesso imply, it makes sense in a legal context to rely on human judgement only under the assumption that a judge's ruling is based solely on laws and facts. But as the results of the study suggest, since it is not always the situation that judges apply legal reasons to the facts of a case in a rational, mechanical and deliberative manner, perhaps it would be helpful to use computational models to assist human judges in their decision-making process.

It should be emphasised that the mathematical models are not aimed towards dehumanizing legal decisions but rather at serving as a helpful tool in the complicated decision-making process. Unaided individuals tend to have great difficulty incorporating quantified variables, they tend to base their decision on less information than do mathematical models and they apply their decision policies inconsistently.²⁴⁷ Mathematical models recognize the limitations of human information processing and are merely used as additional tools for decision making and not as a substitute for human beings.²⁴⁸ Unlike the option of diminishing the number of considerations in 'Laundry List' rules, the possible use of mathematical models would enable to preserve a relatively high number of considerations in a certain legal rule while the integration would be accomplished with the assistance of a computerised mathematical model.

²⁴⁷ Saks and Kidd (n 35), 147–148; Robyn M Dawes and Bernard Corrigan, 'Lineal Models in Decision Making' (1974) 81(2) Psychological Bulletin 95.

²⁴⁸ Saks and Kidd (n 35) 147–148.

Even if linear models can offer better prediction than human judgement, the question remains: Is prediction important? Detractors might suggest that prediction is not the most important test for a judge's decision since even the best prediction does not necessarily indicate that the decision was right or just. What is important is whether the intuitive clinical judgement is better or worse than the linear model. Nevertheless, there are several arguments to support the importance of linear models. As Dawes mentions, prediction is necessary in order to fully understand the decision and how it was made. In other words, even though understanding the decision making process is not synonymous with prediction, most people would agree that understanding entails some ability to predict.²⁴⁹

This discussion leads to another important question: What is a measure of a right decision? Is the correctness of a judicial decision even 'knowable'? There are two kinds of uncertainty: temporary uncertainty (when the occurrence of a future event removes the uncertainty) and permanent uncertainty.²⁵⁰ For instance, the uncertainty of whether or not it will rain tomorrow is temporary²⁵¹ while the uncertainty of evaluating pain and suffering damages would be considered permanent, because no one can know how much pain another person feels when suffering from a broken arm, for instance. In many judicial decisions the uncertainty is permanent, meaning it is impossible to determine whether a judicial decision was the right decision or the best decision. In other words, in judicial

²⁴⁹ Dawes (n 9) 574.

²⁵⁰ Zuckerman (n 12) para 9.50.

²⁵¹ *ibid.*

proceedings the criterion of accuracy is permanently elusive.²⁵² If some ultimate truth were available against which to test the accuracy of legal decisions then there would be little need for trials,²⁵³ that is, assuming there is indeed one right answer for each legal problem.²⁵⁴ A detailed discussion of these questions is beyond the scope of the present work. But, whatever the answer might be, it seems plausible to argue that legal decisions should be made under non-arbitrary, non-biased, explained procedures, which are not based on personal inclination. Procedures that make use of linear models could help meet these requirements.

III. Limiting and 'Chunking' Factors

According to the psychological studies discussed above, decision makers have difficulty managing a large number of considerations. The most obvious solution for this problem is to simply reduce the number of factors in legal rules. By limiting the number of factors, judges would be able to weigh the factors in an optimal way, ie fully taking into account every factor instead of treating the list of factors as a 'checklist'.

²⁵² Saks and Kidd (n 35) 146.

²⁵³ *ibid.*

²⁵⁴ See chapter 5 above (in Part 1).

However, limiting the number of factors could raise a serious difficulty, since it could be argued that there is a large number of relevant factors that *should* be taken into account by the court. If indeed it were the case that there are more than a few important considerations, simply ignoring some of them seems to be unjust. The court should take into account relevant considerations and not take into account irrelevant considerations. Reducing the number of factors might have the effect of changing the legal question by removing important considerations that a court should be asking itself.

This may be true in a perfect world. But what if judges were not able to take into account all the relevant considerations? Should we still include all the relevant considerations in the legal rule even though we know the rule is impossible to implement? It could be argued that the number of factors should be reduced even with the price of relinquishing some of the relevant considerations because this way judges at least would consider *some* of the relevant considerations (when the alternative is ignoring the long list of factors *all together* and making an intuitive decision).

One of the enemies of simplicity is the wish to achieve perfect justice in the individual case. Simple rules (such as rules with one or two determinate factors) do not meet this aspiration since they are tests that work most of the time but are known to fail some of the time. However, as Epstein explains, the gains from seeking perfection through complex rules is an illusion, 'for with complexity come

the opportunities for gamesmanship that will be part and parcel of social life so long as resources are scarce and individuals are motivated by self-interest'.²⁵⁵

Therefore, the comparison between simple rules and complex rules should be conducted in the language of realisable achievements and not in the language of aspiration. And in the language of realisable achievements simple rules (such as the rule that says certain forms of contract are enforceable only if contained by a written signed document) have an advantage over complex rules:

The only question for the legal system is how it will make its errors, not whether it will make them. Simple rules are adopted by people who acknowledge that possibility of error up front, and then seek to minimize it in practice. Complex rules are for those who have an unattainable vision of perfection.²⁵⁶

This approach would support reducing the number of factors in legal rules for the sake of simplicity. The results of the survey presented in chapter 4(III) also suggest that reducing the number of factors could be helpful. Recall that in the experiment, subjects were more likely to reach the optimal result using a limited number of three-factors than when using nine factors, even though, obviously, in the three factors condition some of the considerations were not presented at all. The considerations in the three factors condition were randomised thus the result of the experiment is explained by the number of considerations and not by the influence of any of the specific factors.

²⁵⁵ Epstein (n 21) 37–38.

²⁵⁶ *ibid* 38–39.

Another solution would be to use ‘chunks’ (factors sorted into groups) to help judges process the large number of considerations. In his well-known paper, George A. Miller proposed that the capacity of short-term memory is limited to a ‘magical number’ of seven (plus or minus two) items.²⁵⁷ This limit is usually expressed in terms of ‘chunks’, namely groups of items that have been collected together and treated as a single unit. For example, the following sequences of single letters may serve as three individual chunks, rather than as nine separate items (these combinations would help people memorise the letters): USA, YYY, BBQ. The limit of the number of chunks a person can process appears to be about three or four distinct chunks, consistent with many modern studies, or the equivalent of about seven uncompressed items of typical compressibility, which is consistent with Miller’s famous magical number.²⁵⁸

The psychological studies regarding chunking offer another solution for the ‘Laundry List’ problem other than simply reducing the number of factors. This solution is to arrange the factors in chunks so they will be easier for a human decision maker to process. For example, in the case of the old CPR rule 3.9 the following considerations could be expressed in one chunk: items 3.9(h) ‘the effect which the failure to comply had on each party’ and 3.9(i) ‘the effect which the granting of relief would have on each party’ as they both refer to the effect on the parties. In addition, 3.9(c) ‘whether the failure to comply was intentional’, 3.9(d)

²⁵⁷ George A Miller, ‘The Magical Number Seven Plus or Minus Two: Some Limits on Our Capacity for Processing Information’ (1956) 63 *Psychological Review* 81.

²⁵⁸ Fabien Mathy and Jacob Feldman, ‘What’s Magic about Magic Numbers? Chunking and Data Compression in Short-Term Memory’ (2012) 122 *Cognition* 346, 346.

‘whether there is a good explanation for the failure’ and 3.9(f) ‘whether the failure to comply was caused by the party or his legal representative’ could become one chunk as they all refer to the reason of the failure to comply.

Theoretically, the advantage of the chunking technique is that it could allow judges to ‘have their cake and eat it too’ – expressing a large number of factors in chunks lets them keep all of the considerations with a simpler decision-making mechanism. However, it is uncertain that judges would follow this technique in reality or that using chunks would make much of difference.

Another similar, helpful solution would be to provide clear guidance on how to implement the long list of factors. For example, improvements could include identifying factors as primary or secondary, suggesting judges apply the rule in several stages, setting a unique threshold (for instance granting relief from sanctions only when the party was not responsible for the delay), specifying the weight that should be given to each factor, highlighting the most important factor on the list and so on.

IV. Rules versus Standards

IV.I Putting Everything in Context

I will discuss the connection between Factor Overload and the ‘Rules v Standards’ debate based on the classic analysis of Louis Kaplow in his famous paper ‘Rules versus Standards: an Economical Analysis’.²⁵⁹ According to the definition adopted by Kaplow, the only distinction between rules and standards is the extent to which efforts to give content to the law are undertaken before or after the action occurs that is the subject of the legal case. That is to say, rules are *ex ante* (for example prohibiting driving in excess of 100 kmh on a highway), and standards are *ex post*, (for example prohibiting ‘driving at an excessive speed on highways’).²⁶⁰

There is an intuitive connection between the ‘Factor Overload’ debate and the ‘Rules v Standards’ debate since the structure of ‘Laundry List’ legal commands is presumably more similar to the usual structure of standards than to the usual structure of rules (intuitively, rules are perceived to be more simple and straightforward than standards). However, according to Kaplow a standard could be structured as a long list of factors as well since there is no necessary connection between the number of factors and the classification of the legal command as a ‘rule’ or a ‘standard’. That is to say, the question of ‘Rules v Standards’ is

²⁵⁹ Louis Kaplow, ‘Rules versus Standards – an Economic-Analysis’ (1992) 42 Duke Law J 557.

²⁶⁰ *ibid* 559–560.

completely separate from the question of the complexity of the legal command.²⁶¹

A rule could be structured in a way that includes an extensive number of factors, and so could a standard. Even so, as it will be shown in the following paragraphs, much can be learned from the 'Rules v Standards' debate that concerns our discussion.

It is commonly said that rules tend to be over- and under-inclusive relative to standards. Kaplow's response to this suggestion is that it is misleading because typically it implicitly compares a complex standard and a relatively simple rule. Kaplow therefore seeks to illuminate the intersection between the rules and standards debate (that he sees as equivalent to the *ex ante* versus *ex post* law debate) and the debate over the appropriate degree of detail needed in legal commands.²⁶² As Kaplow explains, the potential variation in rules complexity is familiar (for example a motor vehicle code could specify a single speed limit or a handful of speed limits for each highway and street). Nonetheless, standards as well may admit few or many considerations in determining their application (for example a standard that directs people not to drive at an excessive speed may be based only on safety considerations or may include other considerations such as energy conservation). Moreover, when it is analysing standards Kaplow explains that the legal scholarship should refer to the dimension of the level of detail

²⁶¹ It is also important to stress that a short rule is not necessarily a simple rule. Consider Epstein's following example: 'A legal rule that allows an employer to fire a worker only for 'just cause' is not a simple rule, because...the list of relevant considerations that helps determine which firing are for cause and which are not is almost endless', See Epstein (n 21) 28.

²⁶² Kaplow (n 259) 565.

actually employed by the adjudicator (for example even if a standard were to permit consideration of dozens of factors it might be described as having simple standards if juries were to make their decisions based on the same two or three factors).²⁶³

The distinction between the complexity of the law and whether it is *ex ante* or *ex post* has practical importance, as Kaplow explains:

...a complex standard might be preferred to a simple rule because of its complexity or because of the advantages of *ex post* formulation, or both. As a result, in some instances in which the complex standard is superior, it may be that complexity is better than simplicity, but a rule – a complex rule – would be preferable to a standard; or, it may be that a standard is better than a rule, but a simple standard would be preferable to a complex one.²⁶⁴

Another general, interesting point is that standards can be transformed into rules once they are applied, through the creation of precedents.²⁶⁵ It may be the case that the first enforcement proceeding essentially transforms the standard into a rule; ie that in subsequent enforcement proceedings, courts simply apply the precedent rather than engaging in an inquiry concerning the appropriate legal

²⁶³ *ibid* 565–566.

²⁶⁴ *ibid* 566–567. For example:

...a standard (implicitly complex) that one dispose of toxic substances "appropriately" may be preferable to a rule that simply prohibits the dumping of petroleum byproducts [sic] into bodies of water. But, at least for substances frequently used in common settings – such as dry cleaning and automotive fluids – a complex rule detailing the appropriate manner of disposal for different substances may be even better.

²⁶⁵ *ibid* 568.

treatment and that access to this precedent costs no more than if the law had been promulgated as a rule in the first place.²⁶⁶ It seems that this is exactly what the Court of Appeal tried to do in *Perry*, as Lord Justice Jackson's opinion draws attention to the amendment of rule 3.9 and to the concern that relief against sanctions is being granted too readily:

Such a culture of delay and non-compliance is injurious to the civil justice system and to litigants generally. The Rule Committee has recently approved a proposal that the present rule 3.9(1) be deleted and the following be substituted:

"On an application for relief from any sanction imposed for a failure to comply with any rule, practice direction or court order, the court will consider the circumstances of the case, so as to enable it to deal justly with the application including the need –

(a) for litigation to be conducted efficiently and at proportionate cost; and

(b) to enforce compliance with rules, practice directions and court orders."²⁶⁷

Lord Justice Jackson then moves on to emphasise that after the amendment the court will be less tolerant towards litigants who did not comply with any rule, practice direction or court order:

It is currently anticipated that this revised rule will come into force on 1 April 2013. After that date litigants who substantially disregard court orders or the requirements of the CPR will receive significantly less indulgence than hitherto.²⁶⁸

²⁶⁶ *ibid* 577.

²⁶⁷ *Fred Perry (Holdings) Limited v Brands Plaza Trading Limited* (n 165) para 49.

²⁶⁸ *ibid* para 50.

Zuckerman explains that there is nothing in the new rule to indicate that from now on enforcing compliance with process requirements will be the primary consideration.²⁶⁹ The new rule still allows judges the discretion to decide in each case what the right balance between the factors, and in that sense the rule is more similar to a standard. However, the Court of Appeal in *Perry* was signalling that the new rule would result in 'significantly less indulgence than hitherto'. That is to say, the court was declaring that it will use its discretion in order to enforce compliance, and in that respect it made the legal command closer to a rule than to a standard. This classification of rule 3.9 would of course depend on how later decisions interpret the new rule 3.9, and as mentioned above the court does not seem to be continuing this development.

IV.II A Question of Cost

Rules are considered to be more costly to promulgate than standards because they involve advance determination of the law's content. Respectively, standards are considered to be more costly to predict or apply since they require later determination of the law's content.²⁷⁰ The choice between rules and standards depends on the environment in which the law is applied. A rule is preferable in

²⁶⁹ Zuckerman, 'Enforcing Compliance with Process Requirements by a Coded Message – The Revised CPR 3.9' (n 172).

²⁷⁰ Kaplow (n 259) 562–563.

settings with common characteristics and frequent behaviour, such as when regulating the use of dry cleaning chemicals, because, as explained by Kaplow, it is more efficient. The reason a rule is more efficient in an environment with common characteristics and frequent behaviour is that if there will be many enforcement actions, it would cost less to resolved the issue on a wholesale basis at the rule promulgation stage than to repeatedly give content to a standard on a retail basis.²⁷¹ In addition, it would be easier for litigants to learn about the rule and be guided by it:

Moreover, with regard to the countless acts of individuals subject to these laws, a rule will tend to be better as well. Because learning about a rule is cheaper, individuals may spend less in learning about the law, and may be better guided by a rule since the law's content can be more readily ascertained.²⁷²

In contrast, a standard is preferable in less frequent and less predicted environments; for example, when regulating chemicals used rarely and in settings that vary substantially. This is because designing a rule that accounts for every relevant situation is wasteful, as most situations would never arise:²⁷³

Although it might be more difficult and costly for an individual and an enforcement authority to apply a standard in a particular instance, such an application need be made only if its unique set of circumstances actually arises. Thus when frequency is low, a standard tends to be preferable.

²⁷¹ *ibid* 563.

²⁷² *ibid*.

²⁷³ *ibid*.

Kaplow therefore makes the following conclusion:

In summary, the greater the frequency with which a legal command will apply, the more desirable rules tend to be relative to standards. This result arises because promulgation costs are borne only once, whereas efforts to comply with and action to enforce the law may occur rarely or often.²⁷⁴

In the procedural context it is also possible to make this differentiation between rules that apply to frequent situations and standards that are desirable for rare situations. For example, in the context of CPR rule 3.9 a rule may be preferable assuming there are many delays and a problem of non-compliance. In its previous form, rule 3.9 was a standard, not a rule, because judges did not treat the list of factors as a checklist; they were required to consider ‘all the circumstances’; and, more generally, rule 3.9 gave judges wide discretion.

Lastly, it is interesting to look at the situation of ‘Factor Overload’ from a similar perspective of ‘noise screening’. As mentioned above, Alex Stein argues that the reason the legal system establish evidentiary rules rather than allowing fact finders to make decisions by considering all relevant evidence is that an economically minded legal system that processes many cases must suppress all evidence that brings along a negative productivity-expense balance.²⁷⁵ Stein discusses the question of why evidentiary rules exclude certain information,

²⁷⁴ *ibid* 577.

²⁷⁵ Stein (n 215) 1.

including relevant information, from affecting the outcomes of cases.²⁷⁶ According to Stein's theory, when the 'noise' (information not allowing the fact finders to make a reliable determination of the relevant probability of the underlying allegation) coming from the evidence overpowers the evidence's 'signal' (information reliable enough to allow the fact finders to determine the probability of the underlying allegation) the evidence should be excluded.²⁷⁷

Stein's principle is 'an efficiency-driven approach to information management'.²⁷⁸ Using an analogy to 'Laundry List' rules, if a procedural rule were set in a form that creates noise that, in Stein's words,²⁷⁹ "drowns" the signal' (ie a rule that creates an overload of factors and defeats its own purpose by creating a difficulty to implement the rule and fulfill its purpose), it might be better not to make use of all the factors in the rule. Stein's definition of noise is related to variance and is different from the definition of noise I suggested above in relation to Factor Overload. However, the same principle of managing information efficiently applies here as well – if implementing a rule with numerous factors is inefficient then maybe a few of the factors should be dropped, despite the fact that they may be relevant.

I would argue, that just like excluding 'noisy' evidence, it makes sense to screen 'noisy' factors. Even if all the factors on the 'Laundry List' are relevant, when

²⁷⁶ *ibid* 2.

²⁷⁷ *ibid* 1, 3.

²⁷⁸ *ibid* 3.

²⁷⁹ *ibid*.

a rule is difficult to implement it is not efficient to use it. Legal policy makers should therefore exclude certain factors just like we exclude certain evidence that is considered to be 'noisy'. An example of 'noisy' evidence given by Stein is an unreliable witness. In the case of an unreliable witness there is a wide-ranging probability scale: the witness might be telling the truth; he might be lying; and he might be telling a partial truth. Stein identifies that in this situation there is a high variance in relation to the evidence and concludes that in such cases it is not helpful to use the evidence, since the 'noise' overcomes the 'signal'. According to Stein the variance is key in determining the efficiency of using certain information.²⁸⁰

In relation to 'Laundry List' rules the variation might exist between cases – ie similar cases would yield different results due to the difficulty in weighing all the factors in the rule. And this may indicate that the long list of factors is unworthy of consideration. In Stein's words, in relation to hearsay evidence: 'The noise coming from the statement mutes its signal, which makes the statement...too costly to evaluate relative to its informational benefits'.²⁸¹ Again, Stein refers to specific

²⁸⁰ *ibid*, 5.

²⁸¹ *ibid*:

What should policymakers do with noisy evidence? This question is not easy to answer. Policymakers working for Systems L and S are unlikely to resolve it in the same way. Recall that the two legal systems are identical in all respects except caseload. System L's caseload is much heavier than that of System S. This difference will not affect the design of the systems' proof burdens and basic evidence selection rules. Because the two systems have similar substantive preferences, their tradeoffs between false positives and false negatives will be similar as well. The two systems also would not differ in their basic evidence selection rules. These rules are fairly standard and uncontroversial.

types of evidence and not to rules structure but the same logic could be applied here as well, as it may be too costly to evaluate the right weight to be given to each factor on the 'Laundry List' relative to the informational benefits of those numerous factors.

The concept of 'noise screening' is directly related to the available resources of the legal system. Indeed, it might be true that multi-factored rules would be easier to deal with in a system with unlimited resources. However, Stein recognises the fact that the way we deal with 'noise' (again, his notion of noise is different than the one I suggested above), should be related to the caseload of the system.²⁸²

Therefore, a legal system with a heavy caseload must set up a 'screen' that would allow it to separate efficient from inefficient evidence.²⁸³ Similarly, in a legal system with high caseload and limited resources 'Laundry List' rules are inefficient and should be simplified. Simplification is not only necessary because allocating time for the discussion of a multitude of factors would burden the system, but also because the heavy caseload further exacerbates the problem of judicial cognitive overload.

The caseload difference, however, should affect the ways in which the two systems treat the noisy evidence. Because System S's caseload is relatively light, it can afford expending some of its resources on the integration of noisy evidence in adjudicative factfinding [sic]. For example, System S may authorize factfinders to dedicate more time to cases that involve noisy evidence. The number of such cases would be small. Cases in which noisy evidence would engender an erroneous assignment of liability or entitlement would be rare as well. Moreover, noisy evidence would occasionally help factfinders [sic] get to the truth. This beneficial effect would be relatively rare, but one cannot discount it completely.

²⁸² *ibid* 11.

²⁸³ *ibid* 13.

7. Conclusion

This Part has suggested applying cognitive psychological research to the debate regarding 'Laundry List' procedural rules and examined ways to improve structuring certain legal commands.

In the spirit of this paper I will keep the conclusion as simple as possible:

1. Some legal rules are set in the form of a 'Laundry List', itemising a long list of factors that judges must consider.
2. People, including judges, have difficulty manipulating a large number of factors.
3. This cognitive phenomenon referred to as 'information overload' raises a problem in the context of civil procedure.
4. In order to deal with this problem legal policy makers should consider the following solutions:
 - a. Limiting the number of considerations in legal rules to 3–4 factors maximum.
 - b. Chunking factors into groups so that they are easier for a decision maker to process.
 - c. Using computers to help judges give the appropriate weight to each factor.

Part 2

Chronicle of a Decision Foretold:

Interim Remedies and Confirmation Bias

1. Preface

Part 1 of the dissertation demonstrated how psychological scholarship could be used in order to better construct procedural rules. As was shown in relation to ‘Laundry List’ rules, behavioural studies can provide useful information about the way legal rules are implemented by human judges. This knowledge can help determine the optimum rule configuration, with the purpose of promoting procedural fairness and efficiency. In this Part, I will analyse another common procedural arrangement – the interim remedies jurisdiction – from the perspective of cognitive psychology. The present Part therefore provides another illustration of the usefulness of behavioural psychology to procedural scholarship.²⁸⁴

The adversarial system is considered to be a main safeguard against the formation of an opinion before all the evidence is presented at trial. According to

²⁸⁴ The topics discussed both in Part 1 and in the present Part (Part 2) bring us back to the more general issue of judicial intuition and judicial expertise that will be addressed in Part 3 of the dissertation.

Lon L. Fuller, 'An adversary presentation seems the only effective means for combating this natural human tendency to judge too swiftly in terms of the familiar that which is not yet fully known.'²⁸⁵

Fuller explains that usually in practice at some early point a familiar pattern will seem to emerge from the evidence:

an accustomed label is waiting for the case and, without awaiting further proofs, this label is promptly assigned to it. It is a mistake to suppose that this premature cataloguing must necessarily result from impatience, prejudice or mental sloth. Often it proceeds from a very understandable desire to bring the hearing into some order and coherence, for without some tentative theory of the case there is no standard of relevance by which testimony may be measured.

Fuller continues to explain that the early label quickly becomes a fixed conclusion:

But what starts as a preliminary diagnosis designed to direct the inquiry tends, quickly and imperceptibly, to become a fixed conclusion, as all that confirms the diagnosis makes a strong imprint on the mind, while all that runs counter to it is received with diverted attention.²⁸⁶

Finally, he argues that the adversarial system is the only way to deal with this strong initial imprint:

²⁸⁵ Lon L Fuller and John D Randall, 'Professional Responsibility: Report of the Joint Conference' (1958) 44 American Bar Association Journal 1159, 1160.

²⁸⁶ *ibid.*

An adversary presentation seems the only effective means for combatting this natural human tendency to judge too swiftly in terms of the familiar that which is not yet fully known. The arguments of counsel hold the case, as it were, in suspension between two opposing interpretations of it. While the proper classification of the case is thus kept unresolved, there is time to explore all of its peculiarities and nuances.²⁸⁷

But does the adversarial system indeed provide protection from the effects of first impression? In this Part, I claim that a decision to grant or refuse an interim remedy application may affect the court's final decision in the case at hand. A decision that favours a party in the interim stage of the litigation can produce an exaggerated preference of this party's version of the dispute due to the confirmation bias effects. This unjustified preference is not derived from an accurate assessment of the facts or from judges' harmful intentions; rather it is a result of an unconscious cognitive process in which people tend to favour information that confirms their preconceptions and scarcely look for information that contradicts their initial impressions.

In this Part, I will not only examine the issue of individual confirmation bias, ie when the same judge rules on both the interim decision and the final decision, but I will also discuss institutional aspects that are related to confirmation bias and status quo bias, namely, the judicial tendency to affirm a previous decision even when it was given by another judge.

²⁸⁷ *ibid.*

In order to assess whether an interim injunction decision indeed relates to the final decision on the case, I performed an empirical examination. Information regarding the occurrence and the character of the phenomenon would help determine whether any policy changes should be suggested and, if so, which ones would be most appropriate.

In the second chapter of this Part, I will introduce the psychological studies that deal with confirmation bias as a theoretical basis for my argument regarding the interim remedies jurisdiction. The confirmation bias entails the human tendency to favour information that confirms initial hypotheses, regardless of whether that information is reliable. People gather evidence and recall information selectively and interpret it in a biased way that fits with their previous beliefs or opinions.²⁸⁸ Confirmation bias is relevant in the context of interim remedies because a decision on an application for an interim remedy requires the judge to form a certain opinion regarding the merits of the case at an early stage of the litigation. The result is that the judge's impression at the interim stage might disproportionately affect his final decision.

In the third chapter of this Part, I will discuss another related cognitive effect, called the 'status quo bias'. The status quo bias refers to people's tendency to prefer the present state of the world to alternative states, all other things being equal.²⁸⁹ The status quo bias is relevant to this discussion in two respects: Firstly,

²⁸⁸ Nickerson (n 11).

²⁸⁹ Daniel Kahneman and Amos Tversky, 'Choices, Values, and Frames' (1984) 39 *American Psychologist* 341.

one of the principles governing the interim injunctions jurisdiction states that the court must preserve the status quo pending a final decision.²⁹⁰ This principle has been strongly criticised in the legal scholarship (by Zuckerman and by Sharpe, as will be elaborated in the chapter), and the data regarding the status quo bias support the legal criticism of the principle and suggest that the current legal principle may originate in a behavioural bias. Secondly, the status quo bias serves as the basic explanation for my analysis of the tendency of judges to adhere not only to their own initial decisions but also to decisions made by their colleagues in earlier stages of the litigation.

Chapter 4 will describe my experimental findings to provide support to the argument presented in this Part in relation to interim remedies. The empirical examination was twofold: Firstly, I performed an online survey wherein subjects were asked to make a decision on a hypothetical legal case. Participants were divided into three groups (a between-subjects design was used) and were given a description of the case with an interim injunction (the treatment groups) and without it (the control group) and were then asked to make a decision. The results of the participants' decisions were then compared in order to examine whether and how the final decision was affected when subjects were told an interim injunction had been given previously. Here as well, I did not ignore the fact that a previous decision could provide relevant information. Therefore, in the survey I used a case in which the interim injunction decision should not have an

²⁹⁰ Zuckerman (n 12), ch 9.

effect on the final result (when the decision to grant the interim injunction was based only on the risk of irreparable harm).

Secondly, I performed a natural experiment in which I tested the relationship between interim injunctions and final decisions in real cases from the Israeli court system, in order to check whether there is a connection between these two variables. The results show a significant correlation between the interim stage ruling and the final stage ruling. These results do not ascertain the existence of a bias since it is possible that the impression at the initial stage of the litigation remained unchanged in the last stage of the litigation for a good reason. However, the results provide essential information, as they show that there is indeed a correlation in the same direction as expected by my hypothesis.

This observation is not trivial, because there are cognitive processes other than the confirmation bias and the status quo bias that could affect the relationship between interim decisions and final decisions in an opposite direction. For example, it could be argued that judges see the last stage of the litigation as an opportunity to amend actions that were taken at the beginning of the litigation and that were based on partial information. It could also be the case that recent information has more influence than early information, due to a cognitive effect called the 'recency effect'.²⁹¹ Therefore, it was critical to rule out

²⁹¹ The recency effect is described as follows: 'When subjects are presented with a list of words for immediate free recall, the last few words tend to be recalled very well'. See Alan D Baddeley and Graham Hitch, 'The Recency Effect: Implicit Learning with Explicit Retrieval?' (1993) 21 *Memory & Cognition* 146.

these possibilities and to test whether there is indeed a correlation between the interim stage and the final stage in real cases.

It should be mentioned that I do not rely on my own empirical findings to make my argument in relation to interim remedies. The modest empirical examination in this Part, as well as the one in Part 1, are used in support of my arguments, that are predominantly based on the robust psychological literature that thoroughly studied the cognitive effects I discuss in the dissertation.

Chapter 5 will present the procedural rules that govern the interim remedies jurisdiction. I will discuss the current test to grant an interim injunction and its implications considering the psychological analysis presented in the previous chapters. In England and Wales, in order to grant an interim remedy, the court is required to apply the 'balance of convenience' test. The purpose of the test is to determine the extent to which each party is exposed to irreparable harm in the event of his succeeding at the trial. As part of the balance of justice the court must assess the parties' chances of success on the merits of the case (however, as I will explain in this chapter, the role of merits is questionable due to the *Amercian Cyanamid* case).²⁹² While assessing the merits, the court must embrace a certain opinion regarding the probability of success of each party.

Understanding the legal test that applies to interim injunction applications is necessary in order to determine whether the current test is problematic in light of the psychological analysis and whether changing the test would be helpful in

²⁹² Zuckerman (n 12), ch 9.

preventing the formation of a primary opinion that could affect the way the judge perceives later developments in the litigation.

In chapter 6, I will attempt to connect all the pieces and offer a more comprehensive theory regarding the judicial tendency to affirm early decisions. To suggest a more general theory, this chapter will examine other situations that exhibit an excessive influence of early information on the final result of the trial. An analogy will be drawn between the subject of interim remedies and other legal situations, such as appeals, pre-trial custody and more in order to contribute to the understanding of the situation, after considering the relevant differences and similarities. The analogy will demonstrate the effects of the psychological mechanisms discussed in other contexts as well and show the robustness of the phenomenon and the attention it requires from legal scholars and policy designers.

Finally, chapter 7 will offer several policy changes that could be made in order to reduce the risk of confirmation bias and status quo bias in the context of interim remedies. The conclusion regarding the appropriate solution depends on the magnitude of the phenomenon and on the costs and outcomes of changing the current rules. Three main possible changes will be considered. The first option requires changing the balance of convenience test used to grant an interim remedy. As mentioned above, the formation of an opinion regarding the final outcome at an early stage of the litigation increases the risk of confirmation bias. Therefore it is possible to limit the assessment of the merits in the interim stage

by, for instance, setting a limited standard, such as a requirement to show that there is a 'serious question to be tried' (rather than a 'probability that the plaintiff is entitled to relief').

The second option is to appoint different judges to grant or deny interim injunctions and to make the final decision. This solution would require more resources and could impose a heavy burden on the legal system. Nevertheless, a significant confirmation bias may justify a policy change in the form of more judges per case.

Lastly, the third option that will be considered is appropriate judicial training that could mitigate the effects of the confirmation bias and the status quo bias.

It should be noted that first impression effects may be relevant not only to interim remedies but to other aspects of the litigation. The wide implications of the tendency to 'stick' to our initial opinion in the legal context are potentially significant. Nevertheless, in this Part, I chose to explore the issue from the perspective of interim remedies because, in my opinion, it is a demonstrable manifestation of the bias, and because it is possible to suggest practical solutions for the problem that arises in this specific context. However, I will explore other legal situations in which there may be a risk of confirmation bias, as this effect is not limited to interim remedies. Finally, I will try to identify characteristics of legal situations that are more prone to confirmation bias in order to make some generalizations regarding the phenomenon discussed in this Part.

2. Confirmation Bias

I. Introduction

This chapter will outline the psychological studies that deal with confirmation bias or ‘myside bias’ as a theoretical basis for my argument regarding interim remedies applications. Confirmation bias describes the tendency of individuals to favour information that confirms their preconceptions or hypotheses, regardless of whether that information is true or false. People gather evidence and recall information selectively and interpret it in a biased way that fits with their previous beliefs or opinions. Studies show that individuals have a natural tendency to look for evidence that directly supports hypotheses they favour. People seldom seek evidence that would show a hypothesis to be wrong. They are likely to overestimate the probable accuracy of their judgements and to fail to consider reasons why their judgements might be incorrect.²⁹³ In that sense, the phrase ‘the first impression is the last impression’ is exactly right.

The confirmation bias is relevant to our discussion since making a decision on an application for an interim remedy requires the judge to form a certain opinion regarding the merits of the case at an early stage of the litigation. This is a

²⁹³ Nickerson (n 11). See also Lee Ross, Mark R Lepper and Michael Hubbard, ‘Perseverance in Self-Perception and Social Perception: Biased Attributional Processes in the Debriefing Paradigm’ (1975) 32 *Journal of Personality and Social Psychology* 880; See also Guthrie and George (n 11).

key element because studies about confirmation bias show that when a conclusion is drawn on the basis of information acquired and integrated over time, the information acquired early in the process tends to carry more weight than the information acquired later, as a result of a cognitive process called the 'primacy effect'.²⁹⁴ Therefore, since there is a clear cognitive preference for early information, the judge's impression at the interim stage is bound to affect her final decision more than new information discovered in subsequent stages of the litigation, as relevant and as reliable as it may be. In that sense, after formulating an opinion on the merits of the case, the judge is no longer '*tabula rasa*' (a blank slate) and is more likely to reach a biased decision. This is especially true when referring to interim remedies that are given in the absence of one of the parties, when the initial information presented to the judge is one-sided.²⁹⁵

II. Psychological Studies Confirming the Confirmation Bias

II.I General Observations

It is often said, 'nothing is more permanent than the temporary'. This proverb receives a new meaning in light of psychological studies that show that people seek or interpret evidence in ways that are partial to an existing belief,

²⁹⁴ Nickerson (n 11) 187.

²⁹⁵ Zuckerman (n 12), ch 9, para 9.123 (Without Notice Injunctions).

expectation or hypothesis in hand.²⁹⁶ In that sense, our initial opinion is more likely to become permanent than to be changed, even when confronted with new contradicting evidence. This psychological phenomenon may raise serious concerns in the legal context where new evidence is accumulated during the trial since judges are required to be open-minded in order to reach a fair decision.

Confirmation bias has been generically defined as an ‘inappropriate bolstering of hypotheses or beliefs whose truth is in question’.²⁹⁷ Under the influence of confirmation bias, the decision maker is unconsciously building a case in order to justify a conclusion already drawn, instead of impartially evaluating evidence in order to come to an unbiased conclusion.²⁹⁸ It is important to mention that confirmation bias appears even when people are *not* motivated by the desire to defend beliefs that they wish to maintain. This means, they may be selective in seeking or interpreting evidence even in the testing of hypotheses or claims in which they have no material stake or obvious personal interest.²⁹⁹ This point is especially important to legal policy – since it implies that judges would potentially be biased even though they have no special interest in the outcome of the case and merely because they formed an opinion early on. This type of bias exceeds the legal definition of bias that usually refers to bias that is derived from personal interest or animosity towards the parties.

²⁹⁶ Nickerson (n 11) 175.

²⁹⁷ *ibid.*

²⁹⁸ *ibid.*

²⁹⁹ *ibid* 176.

There are also instances when a person wishes to disconfirm a particular hypothesis. In those cases the hypothesis in question is someone else's belief, and the confirmation bias is a bias to confirm that the hypothesis in question is false.³⁰⁰ I will come back to this point and explain why in the legal domain the tendency would be to confirm other judges' decisions and not the other way around.³⁰¹

II.II Restricted Attention

A great deal of empirical evidence supports the idea that the confirmation bias is extensive and strong. Beyond seeking information that is supportive of an existing hypothesis or belief, it was found that people often tend to seek only information that will support that hypothesis *in a particular way*. People generally look for a specific type of information that they would expect to find, assuming the hypothesis is true, and sometimes even give weight to information that is consistent with a hypothesis but does not confirm its correctness.³⁰²

³⁰⁰ *ibid.*

³⁰¹ But just as an 'appetizer', one example of this tendency is a study performed by Mandeep Dhami that dealt with bail decisions. The study found that a simple heuristic proved to be a better predictor of judicial decisions than a more complex model that instantiated the principles of due process – judges relied on earlier decisions (made by the police, prosecution and previous bench) even though these earlier decisions were not significantly related to the case characteristics. This implies that judges were 'passing the buck' instead of making decisions based on all of the relevant information. See Mandeep K Dhami, 'Psychological Models of Professional Decision Making' (2003) 14 *Psychological Science* 175. This article shows that in the legal context the individual confirmation bias is not likely to be of the kind that disconfirms another judge's hypothesis.

³⁰² Nickerson (n 11) 177.

II.III Supportive Information Perceived As More Credible

Aside from the restriction of attention to a favoured hypothesis, people also tend to give greater weight to information that is supportive of existing beliefs or opinions than to information that runs counter to them; for example, people are more likely to seek to discredit information that contradicts their opinions. Preferential treatment of evidence supporting existing beliefs is empirically observable in the tendency of people to recall or produce reasons supporting the side they favour and not to recall or produce reasons supporting the other side.

In one study participants were capable of generating reasons for holding a view counter to their own when explicitly asked to do so but failed to do so spontaneously.³⁰³ Another study found that participants in a mock jury trial who tended to use evidence selectively to build one view of what happened expressed greater confidence in their decisions than did those who spontaneously tried to weigh both sides of the case.³⁰⁴ The latter study, that is especially relevant to the legal field, shows that the fact that judges are confident in their decisions does not mean that they made decisions that are based on all the relevant information – on the contrary – judges who express high confidence in decisions may have ignored relevant information and are therefore more convinced of their own story or

³⁰³ *ibid* 178.

³⁰⁴ *ibid*.

their own version.³⁰⁵ To conclude, overconfidence is directly related to confirmation bias because the one-sided view of events is usually accompanied by a deceptively high level of confidence, higher than when trying to weigh both sides.

An interesting example of confirmation bias from day-to-day life is people's belief in astrology and psychics. 'Mind-readers' usually describe a person's character in universally valid terms (the description is general enough to roughly fit most people). Individuals who believe that their minds are being read will have little difficulty finding substantiating evidence in what the mind-reader says if they focus on what fits and discount what does not, and if they fail to consider the possibility that an equally accurate description can be produced if their minds are not being read. These individuals will also tend to find some predictions that have turned out to be true, and this may suffice to strengthen their beliefs if they fail to consider either predictions that proved not to be accurate or the possibility that people without the ability to see the future could make predictions with equal hit rates.³⁰⁶

³⁰⁵ See also Dale Griffin and Amos Tversky, 'The Weighing of Evidence and the Determinants of Confidence' (1992) 24 *Cognitive Psychology* 411.

³⁰⁶ Nickerson (n 11) 180.

II.IV Self-Fulfilling Prophecies

Another aspect of confirmation bias is people's tendency to create self-fulfilling prophecies. For example, it was found that students' perceptions of certain qualities of a guest lecturer (eg the 'friendliness' of the lecturer) were influenced by what they had been led to expect from a prior description of that lecturer. This tendency was also evident in studies in education that explored the effect of teachers' expectations of students' performances and found similar results.³⁰⁷

Likewise, researchers who assigned two groups of people to view the same videotape of a child taking an academic test found that people rated the academic abilities of the child as above grade level if they were led to believe that the child's socioeconomic background was high but rated the academic abilities of the child as below grade level if they were led to believe that the child's socioeconomic background was low. This occurred despite the fact both groups watched the same videotape. This result indicates that the participants formed a hypothesis about the child's abilities on the basis of socioeconomic background and then interpreted what they saw in the videotape so as to make it consistent with that hypothesis.³⁰⁸

These self-fulfilling prophecies are also produced by people's tendency to respond to questions or people in a way that acquiesces to whatever hypothesis the interrogator is entertaining. For example, in an experiment involving

³⁰⁷ *ibid* 181.

³⁰⁸ *ibid* 182.

telephone conversations it was found that male participants acted differently toward female participants who had been described as attractive than toward those who had been described as unattractive, and their behaviours evoked more desirable responses from the 'attractive' women than from the 'unattractive' ones.³⁰⁹ Similar findings were produced by a study that demonstrated how prior expectations affect judgements and decisions made by professional polygraph examiners.³¹⁰

The conclusion drawn from these studies is that experiment participants responders may inadvertently provide their own evidence for a working hypothesis by, in effect, accepting the assumption on which the experimenters' questions or behaviour are based and behaving in a way that is consistent with that assumption. In other words, people's expectations (the male participants in the phone example) are 'confirmed' because the behaviour of the observed person (the female participants in the phone example) has been shaped by them.³¹¹ In the legal context, this could mean, for example, that judges who have formed certain hypotheses would influence the behaviour of witnesses, and in that sense tamper with the normal course of the trial.

³⁰⁹ *ibid* 181.

³¹⁰ Eitan Elaad, Avital Ginton and Gershon Ben-Shakhar, 'The Effects of Prior Expectations and Outcome Knowledge on Polygraph Examiners' Decisions' (1994) 7 *Journal of Behavioral Decision Making* 227.

³¹¹ Nickerson (n 11) 181.

II.V Complexity

Moreover, it has been suggested that the confirmation bias is especially prevalent in situations that are inherently complex and ambiguous. It has been argued that in situations characterised by interactions among numerous variables and in which the cause-effect relationships are obscure, confirmation bias can have a great effect. In those situations, so it has been claimed, knowledgeable, well-intended people would draw support for diametrically opposed views from the same set of data.³¹² The legal environment is almost by definition a situation in which data tend to be open to various interpretations, as there are at least two parties with different interpretations to the same course of events. This would imply that the legal environment is likely to be more vulnerable to the effects of the confirmation bias.

III. The Primacy Effect

III.I Introduction

As mentioned above, the confirmation bias is directly related to another psychological effect, typically referred to as the 'primacy effect'. The primacy effect entails a person's tendency to give more weight to information acquired earlier than to information acquired later when the person draws a conclusion on

³¹² *ibid* 191–192.

the basis of information acquired over time.³¹³ The primacy effect is distinguishable from confirmation bias by its being an effect that originates in reasoning related to memory (people tend to remember information that comes first in a series of items), as opposed to being a cognitive effect that has several explanations.³¹⁴ In other words, although the primacy effect and confirmation bias can be related to each other, according to the psychological definition, effects that are related to memory are separated from those that are cognitive effects.

As in the case of confirmation bias, it should be mentioned that the primacy effect could be relevant not only to interim injunctions, but to any early information at trial, for instance the testimony of the first witness or any evidence that is presented first to the judge. The early information frames the case in a certain way that may affect the judge even in later stages of the litigation. It is difficult to imagine in this more general context how a trial could be conducted without presenting the evidence one piece after the other. Perhaps a change in the order of presenting the evidence should be considered in some cases (for example by allowing the defendant to present first). Yet another consideration is that judges read the documents of the case in advance and can form an impression even before the first hearing. These interesting questions are beyond the scope of the current study but could be considered for future research.

³¹³ *ibid* 187.

³¹⁴ Explanations for confirmation bias will be discussed in detail in chapter 6 of this Part.

III.II The Primacy Effect

In a study that demonstrated the primacy effect all of the people were shown the same picture on a series of slides. The first slide was unfocused so that the picture was not recognisable. On successive slides the focus was made increasingly clear. After each slide presentation participants were asked to identify what was shown in the picture. The results showed that participants who were not shown the poorly focused picture were able to identify it correctly more quickly, while participants who were exposed to the unfocused picture took more time to identify the picture. The impression formed on the basis of seeing an unfocused picture persisted even after the picture was in sufficiently good focus.³¹⁵ In this case, early defocused information delayed people's ability to recognise the right image. The additional early information not only did not contribute to the decision-making process, but it clearly damaged it.

This result may sound counterintuitive, as the first group of people who were exposed to the early information was briefly exposed to the exact same information as the second group of people. Presumably, the people in the first group should have used the late and more accurate information to reach a decision. But the results show that early information can leave a strong impression and can also be misleading.

In the legal context this means that information the judge is exposed to early in a case could cloud his vision of later potentially high-quality information.

³¹⁵ Nickerson (n 11).

As mentioned before, this is especially worrisome when an interim injunction is given in the absence of one of the parties, as the judge is only exposed to part of the evidence at that initial stage. And, due to the strong impression early information makes, this partial evidence might affect the interpretation of other relevant evidence that will be presented subsequently.³¹⁶

Similarly, another study found that people were perceived to be more competent in a problem-solving task if they solved many problems early in a problem series and few problems late in the series than if they did the reverse.³¹⁷ That is to say, subjects formed a better impression of those people who solved several of the first questions correctly than of those people who solved the same number of questions correctly but later on (out of the same overall number of questions). This shows that the early impression had a greater effect, despite the fact that in both conditions the number of correct answers was the same.

III.III The Recency Effect and the Availability Bias

The discussion in the previous section is not to say that recent information cannot have a prominent effect as well. Having the last word is considered to be an advantage for a reason: there is another memory effect similar to the primacy

³¹⁶ In addition, it has been demonstrated that confirmation bias is even stronger if information is presented and processed sequentially instead of simultaneously. The study showed that participants had an increased preference for information that supported their beliefs over information that conflicted with their beliefs after they made a decision, due to sequential presentation. See Eva Jonas and others, 'Confirmation Bias in Sequential Information Search after Preliminary Decisions: An Expansion of Dissonance Theoretical Research on Selective Exposure to Information' (2001) 80 *Journal of Personality and Social Psychology* 557. This is an important point since in the legal context the information is usually presented in a sequential way, over time, and not simultaneously.

³¹⁷ Nickerson (n 11) 187.

effect called the ‘recency effect’. The recency effect refers to people’s tendency to remember recently encoded information better than less recently encoded information. The recency effect is shown in studies in which subjects are asked to memorise a list of items and recall them. The results show that items that appear last on the list tend to be recalled more easily. This effect was shown not only in relation to short-term memory but was also observed in the recall of information from long-term storage.³¹⁸ There is additional evidence in the literature for the recency effect in a lab experiment that examined the order of presentation of evidence by the prosecution and the defense in a hypothetical legal case.³¹⁹

The common view in the behavioural literature is that neither the recency effect nor the primacy effect is generally more dominant, rather their influences depend on the context. The order of presentation undoubtedly has a powerful effect on the way people memorise and process information. But the different influence of early or late information depends on the situation. In the context of interim remedies the judges must form an opinion early and I suspect that the primary information that leads to the framing of the case in favour of one of parties at the beginning of the litigation has a strong effect.

³¹⁸ Arthur M Glenberg and others, ‘Studies of the Long-Term Recency Effect: Support for a Contextually Guided Retrieval Hypothesis’ (1983) 9 *Journal of Experimental Psychology: Learning, Memory and Cognition* 231.

³¹⁹ Adrian Furnham, ‘The Robustness of the Recency Effect: Studies Using Legal Evidence’ (1986) 113 *Journal of General Psychology* 351. Another related cognitive heuristic is the availability bias. See Amos Tversky and Daniel Kahneman, ‘Availability: A Heuristic for Judging Frequency and Probability’ (1973) 5 *Cognitive Psychology* 207, who showed that people evaluate the frequency or probability of events by the ease with which relevant instances come to mind. See also Norbert Schwarz and others, ‘Ease of Retrieval as Information: Another Look at the Availability Heuristic’ (1991) 61 *Journal of Personality and Social Psychology* 95.

III.IV Belief Persistence

The primacy effect is closely related to 'belief persistence'. People tend to have an interest in belief preservation and the confirmation bias serves that purpose. Peoples' beliefs are persistent in the sense that once a belief or opinion has been formed, it can be resistant to change, even in the face of compelling counter-evidence that shows it to be false. People are more likely to question information that conflicts with pre-existing beliefs than information that is consistent with them and are more likely to see ambiguous information to be confirming of pre-existing beliefs than disconfirming them. Not only that, two people with conflicting beliefs can examine the same evidence and each find reasons for increasing the strength of their existing views.³²⁰

IV. Overconfidence

Another prevalent phenomenon that is related to 'belief persistence' is people's general tendency to express a higher degree of confidence than is justified by the accuracy of their performances. Studies show that overconfidence is more common than underconfidence when comparing the actual percent of correct answers against the 'predicted' percent of correct answers (the probability

³²⁰ Nickerson (n 11) 187.

estimate) in a certain task.³²¹ In other words, people are often more confident in their judgement than is warranted by the facts.³²² Kahneman and Tversky refer to the confidence that people feel for highly fallible performance as 'the illusion of validity'.³²³

Overconfidence can be reduced by providing reasons against one's position, but it cannot be fully eliminated.³²⁴ In addition, in a study that investigated overconfidence of lawyers in evaluating case outcome, researchers asked the lawyers to generate reasons why they might not achieve their stated goals, in an attempt to reduce overconfidence, but this manipulation did not improve the results.³²⁵ This is a further indication that the legal system should not rely on judges' sense of confidence in their decisions, since their impressions may be misleading.

Especially relevant to this discussion is the fact that overconfidence is not limited to lay judgement or laboratory experiments.³²⁶ Experts, such as judges, are not immune from the illusion of validity. Professionals, too, were found in other studies to be overconfident when making judgements in their own areas of expertise. For example, attorneys tended to express confidence of obtaining

³²¹ *ibid* 188.

³²² Griffin and Tversky (n 305) 411.

³²³ Nickerson (n 11) 188.

³²⁴ *ibid*.

³²⁵ Jane Goodman-Delahunty and others, 'Insightful or Wishful: Lawyers' Ability to Predict Case Outcomes' (2010) 16 *Psychology, Public Policy, and Law* 133.

³²⁶ Griffin and Tversky (n 305) 411.

litigation outcomes that were better than those they actually obtained;³²⁷ similar results were found in studies performed with physicians, psychologists, negotiators, security analysts and engineers.³²⁸ Experts' estimations of their own performance have therefore been described as 'often wrong but rarely in doubt'.³²⁹

A reliable environment for statistical prediction can help experts perform better in that respect (for example when predicting the cards held in a game of bridge experts tend to be less overconfident).³³⁰ But the legal environment seems to be the exact opposite of statistically predictable (it is difficult to foresee the results of legal disputes), and that would suggest that judges might have greater confidence in their decisions than other professionals. In the medical field, studies found that although clinical diagnoses based on case statistics tend to be more accurate than those based on clinical judgements, clinicians typically have greater confidence in their own judgements than in those derived statistically from incidence data.³³¹ Obviously, judges by definition rely on their own judgements and this might make them generally more prone to overconfidence.

³²⁷ Elizabeth F Loftus and Willem A Wagenaar, 'Lawyers' Predictions of Success' (1988) 28 *Jurimetrics* 437. A more recent study found that lawyers' overconfidence was not resolved even with years of legal experience. The same study also found that female lawyers were slightly better and showed evidence of less overconfidence. See Goodman-Delahunty and others (n 325).

³²⁸ Griffin and Tversky (n 305) 412.

³²⁹ *ibid.*

³³⁰ Nickerson (n 11) 189.

³³¹ *ibid.*

This is not to say that overconfidence cannot be somewhat avoided in some areas of expertise. For example, professional weather forecasters tend to be relatively well calibrated in relation to their weather predictions, since they receive constant and immediate feedback regarding the accuracy of their predictions and therefore are able to learn from their experience.³³² However, weather forecasters are considered to be an exception, as normally experts overestimate their probability of success.³³³

Receiving feedback is a key component to preventing overconfidence and developing expertise in general. But unfortunately, it seems to be lacking in the legal environment, as there is usually no absolute indication to whether a legal decision was 'right' or 'wrong'. As mentioned in Part 1, in many judicial decisions there is a permanent uncertainty, meaning, it is impossible to determine whether a judicial decision was the right decision or the best decision.³³⁴ As opposed to the weather-forecasting example, where there is an instant validation or falsification, in the legal context there is no 'super system' that can test

³³² *ibid.*

³³³ Griffin and Tversky (n 305) 411.

³³⁴ As Zuckerman explains (Adrian Zuckerman, 'No Justice without Lawyers—The Myth of an Inquisitorial Solution' (2014) 33 Civil Justice Quarterly 355, 364):

Since judgments are meant to be determinative of the parties' rights and final, court decisions are not amenable to testing in the market of ideas. Court findings cannot be further assessed once the appeal process has been exhausted. There is no mega-test by which to gauge the factual accuracy of final judgments. If we were able to design a superior process for measuring the conformity of judicial pronouncements with the truth, we would have reason to discard our existing process in favour of the superior one, in which case we would again be left with no further means of evaluating the accuracy of court findings. Given that court judgments cannot be tested outside the legal process, the only guarantee of rectitude of decision has to be found within the process itself.

accuracy.³³⁵ Therefore, it is difficult to produce any reliable mechanism of feedback in judicial decision-making that would help with the problem of overconfidence.

Griffin and Tversky offer one explanation for overconfidence. They discovered that people focus on the strength or extremeness of the available evidence (for example the warmth of a recommendation letter) with insufficient regard for its weight or credence (the credibility of the writer in the same example). People's confidence is determined by the balance of arguments for and against the competing hypotheses, with insufficient regard for the weight of the evidence. This mode of judgement yields overconfidence when the strength of the evidence is high and its weight is low.³³⁶ This situation is likely to arise in domains in which people can readily form a strong impression even though these impressions have low predictive value, such as when an interviewer forms a strong impression of the quality of a prospective student even though this impression does not predict the candidate's performance.³³⁷

³³⁵ Another possible implication of this legal uncertainty is that judges have less incentive to constantly question themselves in order to improve because unlike the weather forecaster, their mistakes cannot be immediately revealed.

³³⁶ Griffin and Tversky (n 305).

³³⁷ *ibid* 428. An interesting legal example is a study performed by Wistrich, Guthrie & Rachlinski that found that judges cannot ignore inadmissible information (such as prior sexual history of an alleged rape victim or a conversation protected by attorney-client privilege) and that this information influenced judges' decisions even when they were reminded (or even ruled themselves) that the information was inadmissible. See Andrew J Wistrich, Chris Guthrie and Jeffrey J Rachlinski, 'Can Judges Ignore Inadmissible Information? The Difficulty of Deliberately Disregarding' (2005) 153 U Penn Law Rev 1251. In this case the credence of the inadmissible evidence may be low, but judges still take it into account, focusing on the strength of the evidence and not on its weight.

V. Confirmation Bias in Legal Research

V.I Introduction

Judges are required to maintain an open mind during the trial, fighting the natural human tendency to form an opinion early in an evidence-evaluation process. The question is whether judges are indeed able to delay forming an opinion regarding the merits of the case until the end of the trial. Based on psychological studies, it is plausible that judges form their views early and then refine their interpretations as evidence and arguments continue to be presented. That is to say, judges form an opinion at the beginning of the litigation and then evaluate further evidence with a bias that favours that initial opinion. Therefore, judges' initial impressions may strongly influence how new information is interpreted. This could be problematic as judges may form opinions based on superficial cues at the early stages of the litigation and then interpret information in a biased way.³³⁸

³³⁸ Nickerson (n 11) 193. An interesting purely legal example is a case in which the High Court of Australia ruled that a judge was disqualified from hearing the trial on the grounds of apprehended bias. According to this ruling, the bias arose from previous findings that the judge had made in another case involving one of the parties that dealt with the same issue. See Andrew Higgins, 'BATAS v Laurie: Apprehended Bias and Actual Failure of Case Management' (2011) 30 Civil Justice Quarterly 246.

V.II Mock Trial Jurors Experiments

Studies regarding mock-trial jurors found that they often come to favour a particular verdict early in the trial process and that manipulating the order of the evidence can have dramatic effects on jurors' evaluations of trial testimony.³³⁹ This occurrence is connected to the individual's cognitive tendency to build a story and stick to it. Jurors draw on evidence selectively to construct a single story of what happened, with no acknowledgment of alternative possibilities, instead of constructing multiple theories and evaluating them against the evidence and against alternatives.³⁴⁰ The story construction tendency would explain the fact that the final verdicts that juries return are usually the same as the tentative ones they initially form.³⁴¹ Not only that, but the data suggest that deliberation following the presentation of evidence tends to have the effect of making a jury's average opinion more extreme in the same direction of the jury's initial pre-deliberation opinion.³⁴²

³³⁹ Patricia G. Devine and Thomas M. Ostrom, 'Cognitive Mediation of Inconsistency Discounting' (1985) 49 *Journal of Personality and Social Psychology* 5.

³⁴⁰ Deanna Kuhn, Michael Weinstock and Robin Flaton, 'How Well Do Jurors Reason? Competence Dimensions of Individual Variation in a Juror Reasoning Task' (1994) 5 *Psychological Science* 289. See also Nancy Pennington and Reid Hastie, 'Reasoning in Explanation-Based Decision Making' (1993) 49 *Cognition* 123.

³⁴¹ Nickerson (n 11) 194.

³⁴² *ibid.* On the other hand, as mentioned above (see chapter 2(III.III), in Part 2), a lab experiment that examined the influence of the order of presentation of evidence by the prosecution and the defence found a recency effect. That is to say, having the last word can be of benefit as well. Both early information and recent information could have a disproportionate impact, depending on the situation.

The fact that the final verdicts were found to be similar to the tentative ones in the mock-trial jurors experiment does not necessarily mean there is a bias, since it is possible that the tendency to 'stick' with the initial verdicts is because in most cases the initial conclusions hold following further objective scrutiny. Conversely, it is also possible that the initial verdict influences jurors' subsequent thinking and biases them to look and give undue weight to evidence that supports their initial impression.³⁴³ There seems to be more evidence in the literature to support the latter, namely that jurors interpret late information in a biased way. For example, it was found that participants in mock jury trials were likely to remember statements that were consistent with their chosen verdicts as statements that had been presented at trial (more than remembering statements that were inconsistent with their verdicts). This result shows that the jurors' initial opinions affected the way they processed information later.³⁴⁴

It could be argued that professional judges, as opposed to jurors in a mock trial, would not exhibit the same behaviour, as their training prepares them to consider different alternatives and to process information in an open-minded way. The psychological literature, however, shows that experts are not immune from biases. For example, as will be discussed in chapter 6 of this Part, an 'affirmance effect' was identified specifically in relation to judicial decision making.

³⁴³ *ibid.*

³⁴⁴ *ibid.*, citing Pennington and Hastie.

V.III Lawyers and the Wason Card Selection Task

Rachlinski and Wistrich showed that lawyers are susceptible to confirmation bias by administering a legal variation of the Wason card selection task (a well-known demonstration of the confirmation bias) to them.³⁴⁵ Their results demonstrate the influence of confirmation bias on lawyers in a legal setting. Rachlinski and Wistrich apply their findings to decision making about discovery and raise the concern that parties might be exposing themselves only to confirmatory information as they procure evidence, thereby inducing overconfidence in their positions. Moreover, according to Rachlinski and Wistrich confirmation bias can cause litigants to interpret ambiguous information in a self-serving way, and that may lead to an excessively optimistic perception of the

³⁴⁵ Below is a description of the original Wason card selection task (see Jeffrey J. Rachlinski and Andrew J. Wistrich, 'How Lawyers' Intuitions Prolong Litigation' (2003) 86 Southern Calif Law R 101, 125-26):

In a typical version of this study, Wason shows people four cards, each bearing one of the following symbols: "E," "K," "4" and "7." He informs the participants that each card displays a letter on one side and a number on the other side. He then asks the participants which card or cards, if any, they would need to turn over to determine whether the statement, "[i]f a card has a vowel on one side, then it has an even number on the other side," is accurate. The correct answer to this question is "E" and "7." On reflection, it is easy to see why. An odd number on the other side of the "E" card, or a vowel on the other side of the "7" card, would falsify the statement. The statement, however, says nothing about what is on the other side of a card displaying an even number, so, turning over the "4" card would accomplish nothing. Neither a vowel nor a consonant on its other side would falsify the statement. Similarly, the statement indicates nothing about what is on the other side of a card displaying a consonant, so turning over the "K" card is equally unnecessary. People perform poorly on this task. The most common response is "E" and "4" followed by those who answer only with "E." The majority of respondents thus choose to turn over cards that were capable of confirming the statement, but fewer than 5 percent correctly answer "E" and "7."

merits of the case.³⁴⁶ As a result of these mechanisms (in combination with other cognitive errors), lawyers sometimes may be wrongly encouraging their clients to delay settlement or advising them to reject good settlement offers. According to Rachlinski and Wistrich's data, lawyers are not less susceptible to cognitive error than their clients and therefore they are not naturally able to evaluate possible settlements.³⁴⁷ This study demonstrates the presence of confirmation bias in the legal environment and shows that it could be prevalent amongst legal professionals.

3. The Status Quo Bias

I. The Behavioural Status Quo Bias

The psychological study of interim remedies requires an analysis of another cognitive bias called the 'status quo bias'. Behavioural studies show that individuals tend to prefer the present state of the world to alternative states, all other things being equal.³⁴⁸ It has been demonstrated that people are reluctant to make changes to their current state and to trade objects they own. This reluctance

³⁴⁶ *ibid* 124–32.

³⁴⁷ *ibid* 158.

³⁴⁸ Amos Tversky and Daniel Kahneman, 'Loss Aversion in Riskless Choice: A Reference-Dependent Model' (1991) 106 *Quarterly Journal of Economics* 1039; Kahneman and Tversky (n 289); Eyal Zamir and Ilana Ritov, 'Loss Aversion, Omission Bias, and the Burden of Proof in Civil Litigation' (2012) 41 *Journal of Legal Studies* 165.

has been explained as a combination of loss aversion and reference dependence, which causes the status quo to appear better than its alternative, *ceteris paribus*.³⁴⁹

In a study performed by Moshinsky and Bar-Hillel, participants were requested to rate the attractiveness of various policies. The experimenters found that labelling some state of affairs 'status quo' enhanced their ratings; ie a policy seemed more attractive to respondents who thought it was the status quo than to those who did not (a phenomenon Moshinsky and Bar-Hillel call 'status quo label bias').³⁵⁰ This shows that merely perceiving a state of affairs as the status quo could have a strong effect. Applying these findings to a legal context, it may be that judges' reflexes compel them not to deviate from the status quo; for example, when the status quo was determined by a previous interim remedy.

Ritov and Baron found that the status quo bias is at least partly caused by a bias towards omission. People are perceived to be less responsible for outcomes of omission; ie inaction or a failure to act, than for outcomes of apparent action. In the study, that presented scenarios in which change occurs unless action is taken, subjects reacted more strongly to adverse outcomes caused by action, even when the status quo was maintained, and they preferred inaction over action, even

³⁴⁹ Avital Moshinsky and Maya Bar-Hillel, 'Loss Aversion and the Status-Quo Label Bias' (2010) 28 *Social Cognition* 192, 193.

³⁵⁰ *ibid* 193.

when inaction was associated with change.³⁵¹ The preference for omission may also result from unwillingness to choose between available options and could reflect a measure for reducing the processing load.³⁵²

More generally, as explained by Kahneman, Knetsch and Thaler, the status quo bias is closely related to the endowment effect (people's tendency to attribute more value to things merely because they own them) and to loss aversion:

In general, a given difference between two options will have greater impact if it is viewed as a difference between two disadvantages than if it is viewed as a difference between two advantages. The status quo bias is a natural consequence of this asymmetry: the disadvantages of a change loom larger than its advantages. However, the differential weighting of advantages and disadvantages can be demonstrated even when the retention of the status quo is not an option.³⁵³

³⁵¹ Ilana Ritov and Jonathan Baron, 'Status-Quo and Omission Biases' (1992) 5 *Journal of Risk and Uncertainty* 49.

³⁵² *ibid* 60.

³⁵³ Daniel Kahneman, Jack L Knetsch and Richard H Thaler, 'Anomalies: The Endowment Effect, Loss Aversion, and Status Quo Bias' (1991) 5 *Journal of Economic Perspectives* 193, 200. The legal literature has also recognised the importance of the status quo bias. See Magnus Söderberg, 'Uncertainty and Regulatory Outcome in the Swedish Electricity Distribution Sector' (2008) 25 *European Journal of Law and Economics* 79. In addition, it has been suggested that the reluctance of appellate judges to reverse a case might be affected by past judicial efforts. See Shay Lavie, 'Are Judges Tied to the Past? Evidence from Jurisdiction Cases' <<http://portal.idc.ac.il/he/lawreview/conferences/documents/2014-lavie.pdf>> accessed May 2014. And, in relation to preliminary injunctions, it was argued that a 'lock-in' effect causes a decision-maker who must revisit an earlier decision to be locked-in to the earlier decision, especially when the earlier decision led to the investment of resources that cannot be recovered. See Kevin J Lynch, 'The Lock-In Effect of Preliminary Injunctions' (2014) 66 *Florida Law Review* (forthcoming).

II. The Legal Status Quo Principle

Interestingly enough, one of the principles governing interim injunctions is to preserve the status quo pending a final decision.³⁵⁴ This principle has been earnestly criticised by the legal scholarship. It has been argued that the principle is ‘fatally flawed because the interim injunction jurisdiction is not directly concerned with the preservation of physical states but with the preservation of rights’.³⁵⁵ The preservation of the status quo is one of the earliest principles developed by the court in relation to interim remedies. However, Zuckerman refers to the status quo principle as ‘an illusory quest’:

Although on occasion it has been said that the purpose was to preserve objects or factual states of affairs, in truth courts are only concerned with rights to objects and with legal states of affairs.³⁵⁶

Zuckerman gives an example that shows that an interim injunction runs the risk of infringing rights as well as preserving them, and therefore risks disturbing the status quo as well as maintaining it:

Suppose that A and B claim to have an exclusive right to exploit a patent and start marketing a product. A applies to restrain B from doing so. If B

³⁵⁴ Zuckerman (n 12), ch 9.

³⁵⁵ *ibid* para 9.13. See also Robert J Sharpe, *Injunctions and Specific Performance* (Canada Law Book 2010) para 2.550. For a view that supports taking into account the status quo see Zamir and Ritov. Zamir & Ritov argue that if the parties use the status quo as a reference point and frame the results of the litigation as a deviation from the status quo (as shown in the behavioural studies), then the status quo should be taken into account, as it affects the well being of litigants. This approach is questionable in light of the common perception that the purpose of legal proceedings is to enforce rights and not to improve a litigant’s well being.

³⁵⁶ Zuckerman, *Zuckerman on Civil Procedure: Principles of Practice* (n 16) para 10.12.

is restrained, when he has in fact a right to market the product, B's right will have been infringed. If B is not restrained and A has in fact the right to the patent, A's right would be infringed by B.³⁵⁷

Psychological analysis of the status quo principle in relation to interim remedies seems to confirm the existence of the status quo bias in this context and may contribute to the existing discussion on this topic. The status quo bias suggests that the current principle of preserving the status quo in relation to interim injunctions originates in a behavioural bias and reflects an irrational comprehension of the case and the facts. Therefore, analysis of the above psychological studies that deal with the status quo bias is relevant to the application of interim remedies. As will be discussed later, the status quo bias might appear not only when the interim injunction decision is made (when the status quo is the state before the interim injunction is given) but also during the final decision (when the status quo is the state that was determined by the interim injunction).

³⁵⁷ *ibid.*

4. Experimental Findings

I. Online Experiment

I.I Experiment Description

In order to examine whether and how an interim injunction relates to the final decision I carried out a small-scale experiment using ‘Qualtrics’ online survey software. Subjects were 61 graduate and undergraduate law students from Oxford and Cambridge. I used the factual framework of a real case in which an application for interlocutory injunction was submitted.³⁵⁸

In English law the basic test to grant an interim injunction is ‘the balance of convenience’ test. The balance of convenience test has two elements: (1) the extent to which each party is exposed to irreparable harm and (2) the merits test that refers to the chances of success at trial. The balance of convenience test requires the court to discount each party’s irreparable harm by the probability of its occurrence, which includes the probability of success on the merits.³⁵⁹ As will be discussed in chapter 5, a relaxed attitude has been adopted in relation to the merits element and an applicant only has to show that there is ‘a serious question to be tried’.

³⁵⁸ The case that was used in the online experiment is *Thane Direct Co v Pitch World Ltd* [2012] EWHC 4227 (Ch), 2012 WL 488669. Here as well, the presentation of the case was simplified in order to suit the format of a short online survey. The actual survey appears in the following section of this chapter.

³⁵⁹ Zuckerman, *Zuckerman on Civil Procedure: Principles of Practice* paras 10.22–10.27.

In the experiment I tested whether exposure to a previous interim remedy decision affects the final decision, by comparing decisions made in a specific case with a previous interim injunction decision and without it. In the experiment subjects were divided into three groups:

1. *Group A* was given a civil case with a description of a conflict between two parties. Subjects were asked to reach a final decision in the case according to a set of data that included information on the case and on the parties' rights, with no mention of an interim remedy application. The purpose for the existence of group A was to check what the final decision on the case would be without an interim remedy decision.
2. *Group B* was given the same description of a civil case, but this time subjects were told that an interim injunction had previously been granted in favour of the plaintiff since otherwise the plaintiff would suffer irreparable harm. As in group A, subjects in group B were asked to reach a final decision in the case, given the same set of data that included information on the case and on the parties' rights. The scenario for Group B simulated a situation in which a primary decision on the interim remedy application referred to the risk of irreparable harm (the first element of the balance of convenience test).
3. *Group C* was given the same description of a civil case, but this time subjects were told that an interim injunction had previously been granted in favour of the plaintiff since the plaintiff had a strong case on the merits.³⁶⁰ Subjects were then

³⁶⁰ I assume that in the legal system the mechanism of the confirmation bias works not only when the judge himself made the decision in the interim stage but also when the decision was

asked to reach a final decision in the case, given the exact same set of data that included information on the case and on the parties' rights. The scenario for Group C simulated a situation in which a primary decision on the interim remedy application referred to the parties' chances of success on the merits (the second element of the balance of convenience test).

I then compared the final decisions rendered by all the groups in order to examine whether subjects from groups B and C, who may have had an initial preference towards the plaintiff due to exposure to previous interim remedy decisions in his favour, tended to rule in favour of the plaintiff in their final decision more often than subjects from group A. The comparison between the three groups provided information regarding the link between the interim remedy decision and the final outcome of the case, as well as the result of using a different legal standard (as groups B and C each represented one of the two elements of the balance of convenience test).

given by a different judge in the early stages of the litigation. According to the logic of the 'primacy effect', the preconception should exist even when the source of information is external (a decision made by a different judge) and not internal (a previous decision made by the same judge). The effects of the confirmation bias that follow the impression received according to early information should also be similar when another judge gave the decision. In addition, following a previous decision may be a result of the status quo bias mentioned above.

I.II Results

The results showed a stronger connection between the interim decision and the final decision when the reason specified for granting the interim injunction was that otherwise the plaintiff would suffer irreparable harm (group B above), than when the reason specified for granting the interim injunction was based on the merits of the case (group C above). In other words, the element of the balance of convenience test that refers to irreparable harm had a stronger effect than the element of the test that refers to the parties' rights on the merits.

A result that shows that the final judgment is affected by a previous decision that relates to the merits (group C above) would not necessarily indicate a bias is present since it could be argued that another judge's opinion about the merits of the case is relevant to the final decision. But, the element of risk of irreparable harm (group B above) should no longer be relevant in the final decision stage as in that stage the parties' rights are already determined so there is no longer a need to evaluate the risk of harm (by discounting each party's irreparable harm by the probability of his succeeding at trial, as it is now known who won the case).

The Chi Square test showed a significant result in relation to groups A and B ($P < 0.05$, $P = 0.043$). The differences between groups A and C were not significant in this small-scale set of data. These results appear in the following table (Table 2):

	Group A (no interim injunction) (n=20)	Group B (interim injunction based on irreparable harm) (n=21)	Group C (interim injunction based on merits) (n=20)
Accept claim	35%	67%	50%
Dismiss claim	65%	33%	50%
Total	100%	100%	100%

These results are somewhat surprising, as one would expect the interim decision would affect the subjects more when it is related to the merits of the case than when it is due to the risk of irreparable harm. However, it is possible that mentioning the risk of irreparable harm made a stronger impression as the subjects could have wanted to avoid a costly mistake. That possibility will be discussed in chapter 6, as it is one of the explanations for confirmation bias.

It is interesting to note that the preference for the status quo is generally explained in terms of loss aversion. Since people are loss averse, losses are weighted more heavily than the gains caused by a change, when the reference point is the status quo.³⁶¹ It is therefore possible that the mentioning of

³⁶¹ Ritov and Baron (n 351) 49; Kahneman and Tversky (n 289).

‘irreparable harm’, a loss, may be related to the stronger tendency of the participants to adhere to the status quo (the interim injunction decision) in group B, even though (as mentioned above) the question of irreparable harm is separated from the merits of the case.

Another possible explanation is that even though in group C the decision only referred to the risk of irreparable harm, the subjects treated the decision as a signal about the merits as well. This explanation would lead to the conclusion that changing the legal test (see the discussion in chapter 7 of this Part) would not be helpful, since, despite what is said in the reasoning and despite the legal standard on which the decision is based, the merits element is always taken into account.

I.III The Survey

Following is the survey as it was given to the participants:

Group A

Target Company, the claimant, is a television marketer of household products. Its most successful product was a five-function steam mop called the H2O Mop X5. Target had sold two million of the steam mops worldwide and enjoyed 80 per cent of the market for steam mops sold through television. Pitch Company, the defendant, also a television marketer of household products, launched the five-function Vapour Mop X500, which Target alleged was similar to its product in several respects. Target filed a claim alleging infringement of its rights, seeking to prevent Pitch from selling the allegedly infringing product.

You are required to decide on the infringement case based on the following:

The approach to deciding the question of infringement is first to decide if the overall impression produced by the alleged infringement on the informed user is “not different” from the overall impression produced on the informed user by the registered design. If it is the same then the product is infringing and if it is not the same then it is not.

The informed user is a user who is informed as to the design corpus in the field. He or she is interested in the designs of the products. Pioneering designs which stand out from the design corpus will have a wide scope of protection than other designs.

The defendant produced evidence of the design corpus. Numerous examples of steam mops were produced all more or less like thin vacuum cleaners with widened bodies. Some were fairly bulbous, some were more cylindrical, some had triangular heads, some rectangular heads, some had loop handles and some had stem handles, some were green. The informed user is aware of all of these.

The overall impression produced on the informed user by the design in question (Target’s product) is a bright green product. It has a bulbous body and a triangular base. The container is visible on the body and there are two prominent knobs. There is metal part in the handle. There is an overall chevron area on the back. Bearing in mind the design corpus represented by the material put forward by the defendant, it seems unlikely that the informed user would regard the community design as a pioneering design representing a major departure from what had gone before. It is another design of product, no doubt with its own merits, but there are other broadly similar designs already available.

The overall impression on the informed user of the alleged infringement (Pitch’s product) is of another bright green product. It has a bulbous body and a triangular base. The container is visible on the body with two prominent knobs and a third, which may or may not be a knob, just above it. There is a metal part to the handle. There is an oval wavy area on the back.

Comparing the two one can see that there are differences. There are shoulders on the body of the alleged infringement and the bulbous bodies are slightly different shapes. The triangular base is of different shapes; the oval ridged area on the back is rather different; the shape of the contained body is a bit different at the lower end. There are other differences, but these seem to be the most important ones.

What is your decision on the case? [Accept claim (in favour of Target) / Dismiss claim (in favour of Pitch)]

Group B

Group B was provided with the identical prompt but with the following addition:

Justice Mann (Judge of the Patent court, a part of the Chancery Division of the High Court) decided to intervene and grant an interim injunction to stop Pitch's (the defendant) sales until the final hearing, concluding that Target (the claimant) has a strong case.

Group C

Group C was provided with the identical prompt but with the following addition:

Justice Mann (Judge of the Patent court, a part of the Chancery Division of the High Court) decided to intervene and grant an interim injunction to stop Pitch's (the defendant) sales until the final hearing, concluding that Target (the claimant) has a strong case.

II. Empirical Data from the Israeli Courts

A natural experiment that examines the correlation between interim remedies and final decisions would not ascertain the existence of a confirmation bias, as it is unknown what the final decision would be without the interim remedy application in each case (and, as mentioned above, in some cases the interim decision could provide relevant information for the final ruling). However, it could at least reveal whether there is a relevant linear connection between the two variables, that is, whether it is indeed the case that the final result is likely to be similar to the interim remedy application result, and in what percentage of the cases.

Therefore I examined a random sample of 1000 monetary claim cases from the Israeli Civil Magistrate Courts (the basic trial courts in Israel).³⁶² The sample included normal civil track cases, excluding special tracks such as fast track cases and family court cases, since the special proceedings may involve other factors that are beyond the scope my inquiry.³⁶³ The data showed that an application for a temporary seizure injunction was submitted by the plaintiff in 273 of the cases (27.3%). I divided these cases into two groups: (1) those in which the application for a temporary seizure injunction was successful or partially successful and (2) those in which the application for a temporary seizure injunction was unsuccessful. I then examined the final decisions in the cases and categorized them as (1) the claim was accepted, (2) the claim was dismissed and (3) other (the claim was partially accepted / settlement / mediation / the claim was deleted / the claim was removed / arbitration). Next, I analysed the relationship between the decision on the interim application and the final decision on the case.

The results showed that there is a significant correlation between the interim decision and the final decision (again, these results do not prove that there is a bias but merely indicate that there is indeed a correlation between the

³⁶² This sample was made possible with the kind assistance of the Office of the Legal Advisor in the Israeli Administration of Courts. I have chosen to use a sample from the courts in Israel due to my familiarity with the Israeli legal system and the availability of the data. Like the English legal system, the Israeli legal system is a common law system, and the rules of procedure in Israel that deal with interim orders are similar to the ones in England and Wales. It should also be mentioned that the phenomenon discussed in this paper refers to general human behaviour tendencies and could therefore be examined in different legal systems.

³⁶³ In the Magistrate Courts in Israel generally a single judge presides in each case. Also, the sample was not restricted to certain dates.

interim order and the final decision). In 84.4% of the cases in which the claim was accepted, a temporary seizure order had been granted (or partly granted) in favour of the plaintiff (and thus was refused in 15.6% of those cases). When the claim was dismissed a temporary seizure order had been given in favour of the plaintiff in only 59.1% of the cases (and therefore was refused in 40.9% of the cases).³⁶⁴ Following are the results (Tables 3 and 4):

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	7.076 ^a	2	.029
Likelihood Ratio	7.459	2	.024
Linear-by-Linear Association	3.811	1	.051
N of Valid Cases	273		

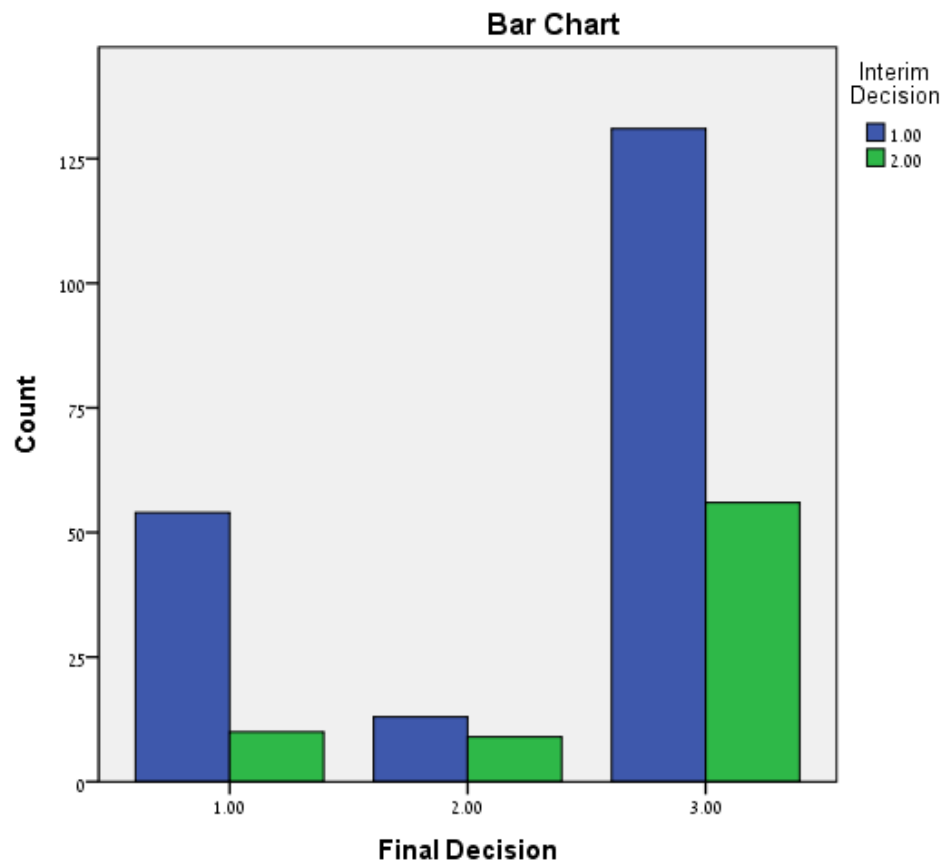
a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.04.

³⁶⁴ The test for granting an interim relief in Israel puts more emphasis on the merits than the English test. In order to grant an interim injunction the plaintiff must provide evidence regarding the merits and to show that there is a prima facie case, meaning a likelihood of success in trial. The court then considers the potential harm that would be caused to the plaintiff (or a third party) if the interim injunction application were to be refused against the harm that would be caused to the defendant if the interim injunction were to be granted. However, and even though the prima facie case standard is still in use in Israel, following changes in English court rulings the Israeli courts also mentioned in a few cases a lower standard of showing that there is a serious question to be tried. See Shlomo Levin, *The Theory of Civil Procedure: Introduction and Basic Principles* (2nd edn, 2008) 190–193.

The high threshold to grant an interim order in Israel could partly explain the strong correlation between the interim stage and the final stage shown in the data. However, a temporary seizure order in Israel is a common interim order that is considered to be minimally infringing on the respondent's rights comparing to other interim remedies and therefore it is granted quite readily.

Final Decision * Interim Decision Crosstabulation [Table 3]

			Interim Decision		Total
			1.00	2.00	
			<u>Granted / Partly Granted</u>	<u>Refused</u>	
Final Decision	1.00	Count	54	10	64
	<u>Claim</u>				
	<u>Accepted</u>	% within Final Decision	84.4%	15.6%	100.0%
	2.00	Count	13	9	22
	<u>Claim</u>				
	<u>Dismissed</u>	% within Final Decision	59.1%	40.9%	100.0%
	3.00	Count	131	56	187
	<u>Other</u>	% within Final Decision	70.1%	29.9%	100.0%
Total		Count	198	75	273
		% within Final Decision	72.5%	27.5%	100.0%



Detailed Crosstabulation [Table 4]

			Interim Decision			Total
			Granted	Refused	Partially Granted	
Final Decision	Claim Accepted	Count	49	10	5	64
		% within Final Decision	76.6%	15.6%	7.8%	100.0%
	Claim Dismissed	Count	13	9	0	22
		% within Final Decision	59.1%	40.9%	0.0%	100.0%
	Partly Accepted	Count	29	13	9	51
		% within Final Decision	56.9%	25.5%	17.6%	100.0%
	Settlement	Count	51	23	6	80
		% within Final Decision	63.8%	28.8%	7.5%	100.0%
	Mediation	Count	11	6	3	20
		% within Final Decision	55.0%	30.0%	15.0%	100.0%
	Claim Deleted	Count	15	13	4	32
		% within Final Decision	46.9%	40.6%	12.5%	100.0%
	Claim Removed	Count	3	0	0	3
		% within Final Decision	100.0%	0.0%	0.0%	100.0%
	Arbitration	Count	0	1	0	1
		% within Final Decision	0.0%	100.0%	0.0%	100.0%
Total	Count		171	75	27	273
	% within Final Decision		62.6%	27.5%	9.9%	100.0%

Lastly, as shown in Table 4, in 71.2% of the cases in which the claim was settled, a temporary seizure order had been granted or partly granted in favour of the plaintiff. Accordingly, a temporary seizure order was refused in only 28.8% of the cases that ended in settlement. This is an interesting result indicating that the interim order may provide a strong signal from the court that incentivizes the parties to settle.

5. Granting an Interim Injunction

I. Introduction

In this chapter I will discuss the balance of convenience test to grant an interim injunction in order to better understand its implications considering the psychological analysis presented in the previous chapters. As previously mentioned, in England and Wales, in order to grant an interim remedy, the court is required to apply the balance of convenience test. The purpose of the test is to determine the extent to which each party is exposed to irreparable harm to his rights in the event of his succeeding at the trial. As part of the balance of convenience test the court must assess the parties' chances of success on the merits (however, the role of merits is debatable due to the *Amercian Cyanamid*

case, as will be explained next).³⁶⁵ While assessing the merits, the court must embrace an opinion regarding the probability of success of each party. According to the confirmation bias, after deciding whether or not to grant an interim remedy, the judge is likely to ignore information that contradicts his opinion or hypotheses regarding the chances of success at the trial.

II. The Scope of Interim Remedies

An interim injunction is an order made by the court directing a party to do or refrain from doing an act related to the litigation. Interim remedies are not designed to resolve the matter in dispute but to serve other varied purposes. For example, the court may grant an interim injunction whose purpose is to provide protection to rights pending the outcome of the litigation. Interim orders may be granted before proceedings have commenced, during the proceedings and even after the final judgment, and the range of interim orders that the court may make is wide.³⁶⁶ The confirmation bias effects may depend on the type of interim injunction in question. For example, perhaps orders that are given in the absence of one of the parties ('without notice injunctions') would lead to a stronger

³⁶⁵ Zuckerman (n 12), ch 9.

³⁶⁶ Zuckerman, *Zuckerman on Civil Procedure: Principles of Practice* (n 16), para 10.1.

confirmation bias, as in those cases the judge is exposed to one-sided information in the interim stage.³⁶⁷

III. A Balance of Justice

The basic test adopted by English law to determine whether justice requires the grant of an interim injunction is the balance of convenience test. As the function of the interim injunction jurisdiction is to safeguard rights from irreparable harm (that is, harm that cannot be compensated in damages) pending litigation, the balance of convenience test requires the court to examine the extent to which each party is exposed to irreparable harm in the event of his succeeding at trial. The objective of this principle is to ensure that the court attempts to minimise the magnitude of harm likely to be caused.³⁶⁸ The test therefore demands that the court discount the magnitude of each party's irreparable harm by the probability of its occurrence, which includes the probability of success on the merits, and compare them.³⁶⁹

³⁶⁷ Not only that, but the effects of the confirmation bias and the primacy effect may also depend on the length and the complexity of the litigation. For example, due to the 'availability heuristic' judges may tend to give more weight to recently acquired information and in effect to rely less on early information derived from an interim remedy. The availability heuristic could be especially relevant in long litigations where there is a significant interval between recent and old information.

³⁶⁸ Zuckerman, *Zuckerman on Civil Procedure: Principles of Practice* (n 16), paras 10.22–10.24.

³⁶⁹ *ibid* para 10.27.

IV. The *American Cyanamid* Merits Approach

As mentioned above, the balance of convenience test requires the court to assess the merits of the parties' arguments in some form. Several standards for assessing the merits, such as the 'probability that the plaintiff is entitled to relief', a 'strong *prima facie* case that the right which he seeks to protect in fact exists', a '*prima facie* case', and 'if the evidence remains as it is, it is probable that at the hearing of the action the plaintiff will get a decree in his favour', were used in the past.³⁷⁰ But the most recent standard is the one that was set in *American Cyanamid Co v Ethicon Ltd* [1975] AC 396, [1975] 1 All ER 504, HL.

The *American Cyanamid* case introduced an extremely weak merits test. Lord Diplock, on an appeal to the House of Lords, determined that all an applicant for an interlocutory relief had to show was 'that the claim is not frivolous or vexatious; in other words, that there is a serious question to be tried'.³⁷¹ The House of Lords, however, did not stop there, as Lord Diplock went on to hold that it is not a part of the court's function in the interim relief stage to try to resolve conflicts of facts on which the claim of either party may ultimately depend nor to decide difficult questions of law which call for detailed deliberation. This was later interpreted to mean that beyond ensuring that the applicant had an

³⁷⁰ *ibid* para 10.29.

³⁷¹ *ibid* para 10.31.

arguable case, the strength of the parties' claims and their chances of success on the merits had no significance in the interim remedy stage.³⁷²

This approach was criticised by Zuckerman, who proclaimed that 'neglecting the probability of success limb' leads to distorting consequences.³⁷³ Zuckerman observed that, generally, the courts did not challenge the view that merits had hardly any role to play in the interim injunction stage, but in practice they continued to be influenced by their assessment of the parties' respective chances of success, as in many cases it is easier for the court to assess the parties' chances of success than to estimate future harms.³⁷⁴ To conclude, in the current state of affairs the importance of the merits in the balance of convenience test remains unclear.³⁷⁵ This approach towards the merits test is important for the discussion regarding the possible solutions for confirmation bias in chapter 7 of this Part.

³⁷² *ibid* para 10.33.

³⁷³ *ibid* para 10.34. Also see the numerical example in chapter 6 of this Part.

³⁷⁴ *ibid* para 10.35.

³⁷⁵ *ibid* para 10.43. See also John Leubsdorf, 'Preliminary Injunctions: In Defense of the Merits' (2007) 76 Fordham Law Review 33.

6. A Theory of Judicial Confirmation Bias

I. Introduction

As demonstrated by the psychological studies mentioned above, individuals tend to cling to their initial beliefs and judgements and confirm their preconceptions. In this chapter I claim that in the legal context we also find another type of bias, an 'institutional confirmation bias', wherein decisions made by *other* decision makers in the same system are later confirmed by their colleagues. This tendency is related to the status quo bias mentioned above. After presenting several explanations for confirmation bias and reviewing legal situations in which there is a tendency to affirm a decision given by another judge, an analysis of the institutional confirmation bias will be suggested.

II. Explanations for the Confirmation Bias

II.I Motivational v Cognitive

The psychological literature offers several explanations for confirmation bias. These explanations can generally be divided into two categories: motivational reasons and limitations of a cognitive nature. On the motivational level, studies show that people find it easier to believe propositions they would like to be true than propositions they would prefer to be false. Then, since people attach high

value to consistency between their beliefs and evidence, they guard against data that are inconsistent with these beliefs by treating data defectively and partially. Paradoxically, the human desire to be consistent can be so strong as to make it difficult to evaluate new evidence in an objective way.³⁷⁶

Other researchers have argued that the basic problem instigating confirmation bias is not motivational but reflects cognitive limitations.³⁷⁷ According to this interpretation, conclusions that appear to be drawn only because people want to draw them may be reached because they are more consistent with prior beliefs, primarily due to biased searching of memory. Considering the cognitive element, at the very least motivational effects are influenced by cognitive processes. The conclusion is therefore that both motivational and cognitive factors are involved in the confirmation bias.³⁷⁸

II.II Cognitive Explanations

This section will further discuss cognitive explanations for confirmation bias. A cognitive explanation for confirmation bias being rooted in people's mental limitations is the human tendency to gather information about only one hypothesis at a time and to consider only the possibility that the hypothesis is true. People can think of solely one thing at a time, and once focused on a

³⁷⁶ Nickerson (n 11) 197.

³⁷⁷ *ibid.*

³⁷⁸ *ibid* 198.

particular hypothesis, they continue to do so. Focusing on a single hypothesis may strengthen it even if it is false, since it is more likely to receive positive reinforcement. Not only that, but people can be selective with respect to where they obtain information to increase the likelihood of finding information that is consistent with existing beliefs.³⁷⁹

Two additional cognitive explanations for confirmation bias are (1) a lack of mathematical understanding that in order to evaluate a hypothesis one needs to consider not only the probability of an event assuming the truth of a hypothesis, but also the probability of the same event assuming the falsity of that hypothesis and (2) that due to inadequate effort people do not think about alternatives to a hypothesis and fail to sufficiently search for other possibilities. These 'positive-test' strategies can be reduced if people are asked to consider alternatives (but they tend not to consider them spontaneously).³⁸⁰ In the adversarial legal system the judge is naturally required to consider the alternative hypothesis, as the other party usually presents it. This might be a positive feature of the legal system in regards to reducing confirmation bias. However, this method of actively thinking about the alternative does not cancel the bias entirely. The legal system also has other characteristics that could encourage an institutional confirmation bias, as will be discussed later (in chapter 6(III) of this Part).

³⁷⁹ *ibid* 198–199.

³⁸⁰ *ibid* 199–200.

It was also found that when people are asked to explain or imagine why a hypothesis might be true or why a possible event might occur, they tend to become more convinced that that hypothesis is true or that the event will occur. The order of presenting the evidence, then, is very important, since when people are asked first to generate reasons *for* expecting a specified event, they later consider the event more probable than when people are first asked to generate the reasons *against* expecting the event.³⁸¹ For example, when assessing a risk of irreparable harm in the event that the plaintiff would succeed at trial, the judge must evaluate the possibility that the plaintiff would win. This evaluation may affect the judge, especially when the interim remedy is given *ex parte*.

II.III Motivational Factors

Perhaps most relevant to this discussion, is the human tendency to (unconsciously) employ confirmation bias in order to guard against making certain types of mistakes. Determining the truth is not necessarily the only or the primary objective one might have in respect to proving a hypothesis. For example, when the undesirable consequences of judging a true hypothesis to be false are greater than those of judging a false hypothesis to be true, there is a bias towards confirmation. People's cognitive processes in this context are foremost pragmatic survival mechanisms whose purpose is to avoid costly error – not to test

³⁸¹ *ibid* 203.

hypotheses in accordance with science.³⁸² Below is an example of an employer who wants to test the hunch that extroverts make the best salespeople that illustrates the point:

If the employer checked the sales performance only of extroverts, found it to be very good and, on this basis, decided to hire only extroverts for sales positions, one would say that she had not made an adequate test of her hunch because she did not rule out the possibility that introverts might do well at sales also. But if her main objective was to avoid hiring people who will turn out to be poor at sales, satisfying herself that extroverts make good sales people suffices;³⁸³

In this example the fact that the employer has not discovered that introverts can be good at sales too does not invalidate the decision to hire extroverts if the purpose is to ensure that poor performers do not get hired, but it only means that the employer might miss some opportunities by not hiring introverts.³⁸⁴

An interesting indication of this process is that sometimes people tend to repeat a certain type of behaviour because the behaviour has worked in the past as part of the mechanism of avoiding errors, which, as a survival mechanism is likely to take precedence over truth finding.³⁸⁵ This action may be related to confirmation bias in the institutional legal context, as judges may repeat decisions made by other judges, which have 'worked' in the past, in order to avoid errors.

³⁸² *ibid* 203–204.

³⁸³ *ibid* 204.

³⁸⁴ *ibid*.

³⁸⁵ *ibid*.

II.IV Additional Reasons

There are other factors, in addition to the cognitive and motivational ones, that explain the confirmation bias effects. One important point is that there are some beliefs for which it is inherently impossible to obtain evidence of falsehood. For example, if universities admit only students who meet certain admission requirements due to a belief that such students are more likely to succeed in their studies, the data regarding students who do not meet the requirements but could nevertheless be successful will not exist. Therefore, critical data to falsify the hypothesis regarding the relevance of the admission requirements will never be known.³⁸⁶ In the case of interim remedies a similar situation might occur, since sometimes the decision regarding an interim remedy could lead to the conclusion of the case, either because it might be interpreted by the parties as a signal from the court, or because the practical results of the decision encourage the parties to settle; for example, if a litigant cannot afford to continue the legal proceedings after receiving an interim injunction that prevents him from selling a product.³⁸⁷

One final interesting factor that strengthens the confirmation bias is the fact that if somebody is constantly urged to present reasons for opinions that she holds and is not encouraged to also articulate reasons that could be given against

³⁸⁶ *ibid* 199.

³⁸⁷ Interestingly, in the sample of the Israeli Magistrate Court cases mentioned above, out of the cases that ended in settlement a temporary seizure order in favour of the plaintiff was granted or partly granted in 71.2% of the cases and was refused in only 28.8% of the cases. However, this data only shows a correlation and no causal explanation can be made as to the connection between these two factors.

them, the person is being trained to exercise a confirmation bias, especially when the environment in which the person acts involves pressure to justify what she believes.³⁸⁸ When judges give the reasoning for their rulings they justify their decisions by presenting reasons for their opinions. It is possible that this process of reasoning encourages confirmation bias. But it is not necessarily the case, as generally the reasoning process can be more deliberate and may require judges to consider counter arguments.

To conclude, the psychological literature supplies strong evidence that people cannot assess the merits of their own opinions impartially. It is usually impossible to put one's belief in the balance with an opposing belief and give them a fair weighing.³⁸⁹

III. Similar Legal Situations

III.I Preface

This chapter will examine other situations in which early information may influence the final result of a trial. For instance, in criminal trials it has been shown that a defendant's pre-trial custody has overwhelming implications regarding the verdict and the sentence that the accused is likely to receive. An analogy will be drawn between this example (and others) and the subject of

³⁸⁸ Nickerson (n 11) 205.

³⁸⁹ *ibid* 210.

interim remedies for the purpose of contributing to the understanding of the situation by considering the relevant differences and similarities. The analogy will demonstrate the effects of the confirmation bias and the status quo bias in other contexts as well and will show the robustness of the phenomenon and the attention it requires from legal scholars and policy designers. This discussion is important because the phenomenon discussed in this Part is not only relevant to interim remedies but is also relevant to many other legal situations.

III.II Affirmance Effect in the United States Courts of Appeals

In 2002, researchers Guthrie and George studied appeals and found that during the decade between 1980 and 1989 the United States Supreme Court reversed 64% of the cases it heard, while during the same period the United States Courts of Appeals affirmed 90% of the cases they decided. Therefore, they concluded that the United States Supreme Court is more likely to reverse cases than the courts of appeals and that affirmances are the appellate courts' defining feature. Guthrie and George refer to this statistic as the 'affirmance effect' in the United States Courts of Appeals.³⁹⁰

³⁹⁰ Guthrie and George (n 11) 358–359. This study demonstrates that even experienced appellate judges (and not only trial judges or junior judges) use heuristics when making decisions. Following is Guthrie and George's data for a period of one year:

The American federal judicial system has thirteen intermediate appellate courts staffed by 179 active judges and one court of last resort with nine Justices. The courts of appeals handle the lion's share of the system's appellate work; last year, for instance, they reviewed more than 27,000 trial court decisions ... By contrast,

It is important to notice from the quotation that the United States Supreme Court grants review to a very low number of requests. Considering this information, it is possible to argue that the practical meaning of a refusal to grant review is the affirmation of the previous ruling. And in that sense, the affirmance rate is higher than the one given by Guthrie and George, who claim that it is 28% since the Supreme Court justices affirmed only twenty-two of the eighty cases they heard in the aforementioned October 2003 Term.³⁹¹ However, Guthrie and George offer a comprehensive behavioural analysis that I would like to discuss.

Interestingly, Guthrie and George found that the circuit affirmance rate appears to rise with case overload – according to the statistical data the rate of affirmances is strongly and positively associated with the number of cases (a

the Supreme Court granted review to fewer than eighty out of the thousands of requests presented in the October 2003 Term. But, if your writ is granted by the Court, then you are almost assured of a victory: the Justices affirmed only twenty-two of the eighty cases they heard, or a mere 28%. By contrast, the circuit courts affirmed nearly 91% of the 27,000-plus rulings reviewed during the same time.

³⁹¹ *ibid.* The researchers claim that the high affirmance rate of the US Courts of Appeals is puzzling in light of the dominant model of litigation behaviour, called the ‘selection model’. According to the model, the affirmance rate in the Courts of Appeals should be about 50%. I do not find this explanation compelling:

...litigants (in the civil justice system anyway) are rational actors seeking to maximize their outcomes. When deciding whether to go forward with adjudication or to settle a dispute, litigants compare the expected value of adjudication to the actual value of settlement. Most cases will settle (even on appeal) because litigants can generally save money by doing so. The cases that fail to settle are those in which the litigants develop “divergent expectations” about the likely outcome in court, and this is most likely to occur in close cases where the court could come out either way. Because there is no reason to expect close cases to favor one side or the other, selection theory suggests that the affirmance rate in the courts of appeals should be about 50%.

9500-case increase in caseload corresponds to about a 6% increase in affirmation rate).³⁹²

Guthrie and George provide a behavioural explanation for the affirmance effect in the United States Courts of Appeals, based on two heuristics: the status quo bias and the omission bias. As discussed above, the status quo bias is a person's tendency to prefer an option that is consistent with the status quo rather than one that requires a change from the status quo, all other things being equal.³⁹³ Guthrie and George support the claim that judges accept the current state, which is represented by precedent and past decisions, to save time and effort and thereby consider more cases than would otherwise be possible. Cases on appeal are no different, as each case comes with a status quo position since one party has previously won a judgment.³⁹⁴ This analysis is relevant to interim remedies as well, because an interim decision creates (or preserves) a certain status quo that the judge can later rely on.

Alternatively, it could be argued that the decisions are seldom reversed because the lower courts have better information than the appellate courts (for example because of their direct access to the evidence). Another potential claim is that relying on an interim remedy decision made by another judge makes sense because it provides relevant information. Indeed, a previous decision can provide relevant information. However, legal policy makers should be aware that relying

³⁹² *ibid* 361.

³⁹³ *ibid* 377.

³⁹⁴ *ibid* 378.

on past decisions might serve a different cognitive mechanism and therefore could be exaggerated and undesirable.

The second bias discussed by Guthrie and George is the omission bias. People are perceived to be more responsible for outcomes of apparent action than for outcomes of inaction. This means that people attach more responsibility to 'active' doings than to 'passive' ones. Individuals also experience more regret as a consequence of an action than an 'omission'. The omission bias induces people not to act but to leave things as they are. That way, people protect themselves psychologically from any negative outcomes of their actions. In relation to appellate judges, by not reversing the trial judge's decision, any negative outcome resulting from the decision will be perceived as a product of the trial judge's action, not the appellate judge's inaction.³⁹⁵

Two other heuristics that might contribute to the affirmance effect according to Guthrie and George are the 'take-the-first' heuristic and the 'take-the-last' heuristic. The take-the-first heuristic entails people's tendency to adopt the first course of action that comes to mind: "Thus, a judge may simply affirm a case in front of her because that is the decision strategy most likely to occur to her first'. As part of the take-the-last heuristic people use the same decision cue they used before to make the decision: "Thus, if an appellate judge voted to affirm in a similar prior case, she might simply opt to do the same thing this time

³⁹⁵ *ibid* 379–380.

around'.³⁹⁶ Even though these heuristics cannot account for why judges initially decided to affirm, they both might help explain the affirmance effect:

... both assume some recollection of prior decision strategies—take-the-last does so explicitly and take-the-first does so implicitly because the first thought that occurs to a decisionmaker [sic] will often be based on expertise arising from prior experience—but both the take-the-first heuristic and the take-the-last heuristic might help explain the perpetuation of the affirmance effect.³⁹⁷

Finally, Guthrie and George mention the 'imitation heuristic' as a further explanation for the affirmance effect:

This heuristic "allow[s] individuals to save the costs of individual learning, experimentation, and search by exploiting the information available in the minds of other individuals." Following such imitation strategies "as 'eat what older and experienced conspecifics eat' or 'prefer mates picked by others' can speed up decision making by reducing the need for direct experience and information gathering."³⁹⁸

If a judge were to use the imitation heuristic, she would make the same decision that relevant others have made:

The judge might defer to what most others confronted with the same decision have decided—for example, the district judge below, other circuits, or other colleagues on the panel—or she might defer to those whom she deems to have greater status than her—for example, other judges in her circuit or in other circuits who have faced the same

³⁹⁶ *ibid* 383–384.

³⁹⁷ *ibid*.

³⁹⁸ *ibid* 384–385.

essential decision.³⁹⁹

III.III Pre-trial Custody

Another similar legal situation relevant to this discussion is pre-trial custody. Empirical data has shown that an accused person had a greater chance of being convicted when he entered the court in custody than when he was not in custody, even when an attempt was made to equalise the custody and non-custody cases by confining the analysis to cases in which the bail was set at \$500. The association between custody status and the outcome of the trial was proven to be strong in a study that also found that for all offences where there was a conviction after a 'Not Guilty' plea, 64% of those accused who were in custody were sent to jail in comparison to only 17% of those not who were not in custody.⁴⁰⁰ This shows that a decision made in the very early stages of the trial has a great effect even when the decision itself is not significant and should not have such strong influence on the fate of the accused.

Despite the fact that in this study an attempt was made to equalise the custody and non-custody cases, the study does not clearly indicate that there is a bias. This is because it is possible that the same considerations that lead to the person being in custody also relate to the final decision of whether to convict the accused or not. It is important to note that in order to show a bias, it is not

³⁹⁹ *ibid.*

⁴⁰⁰ Pamela Koza and Anthony N Doob, 'The Relationship of Pre-trial Custody to the Outcome of a Trial' (1975) 17 Crim LQ 391.

enough to show that there is a connection between the interim stage and the final stage. It is necessary to show, for example, that certain factors were given a disproportionate weight due to the first impression or that the initial decision was wrong and still affected the final result. Therefore it is difficult to prove the existence of a bias in this case.

III.IV Bail Decisions

As mentioned above, in a study performed by Mandeep Dhimi it was found that judges relied on earlier decisions made by the other decision makers in the law enforcement system, including the police, the prosecution and the previous bench. This heuristic was shown to be the best predictor of these judicial decisions even though the earlier decisions were not significantly related to the case characteristics. The study therefore concluded that judges have a strong tendency to rely on previous decisions (made by other decision makers) and that the tendency to 'pass the buck' is stronger than making a decision based on all of the 'relevant information'.⁴⁰¹ As will be argued in the following chapter, the tendency to 'pass the buck' fits well with some of the aforementioned explanations for the confirmation bias and the status quo bias, for instance, the mechanism to guard

⁴⁰¹ Dhimi (n 301).

people against making certain types of mistakes. One way of guarding against mistakes is to rely on a previous decision made by someone else.⁴⁰²

Dhami's study is more convincing than the custody study mentioned in the previous section because it provides a model that includes many available cues (factors that the decision could be based on) and shows that judges base their decisions on only one cue. The study coded all of the cases' cues that could affect the decision. The cues were divided into those referring to (1) the personal characteristics of the defendant, (2) the offense with which the defendant was charged, (3) the defendant's previous record and (4) the bail hearing. The study

⁴⁰² It is important to mention that the judges in Dhami's study were magistrates. In the English legal system the large majority of magistrates are lay magistrates who are not required to have any formal legal training. See: Mandeep K Dhami and Peter Ayton, 'Bailing and Jailing the Fast and Frugal Way' (2001) 14 Journal of Behavioral Decision Making 141. And see the following explanation from the MoJ website (www.judiciary.gov.uk/you-and-the-judiciary/going-to-court/magistrates-court/ accessed 6 June 2014):

Who are magistrates?

Justices of the Peace, as they are also known, are local people who volunteer their services. They do not require formal legal qualifications, but will have undertaken a training programme, including court and prison visits, to develop the necessary skills. They are given legal and procedural advice by qualified clerks.

District judges are legally qualified, paid, full-time professionals and are usually based in the larger cities. They normally hear the more complex or sensitive cases.

There are approximately 23,000 magistrates, 140 district judges and 170 deputy district judges operating in the roughly 330 magistrates' courts throughout England and Wales.

Therefore, it could be the case that professional judges would behave differently. Generally, relying on professional judges would not solve the problems that cognitive biases create for the justice system, as it has been demonstrated that judges use intuitive judgement, rely on heuristics, and are susceptible to cognitive illusions as well. However, it has been suggested in relation to judges and juries that it may be possible to choose an optimal decision maker by comparing the relevant strengths and weaknesses of judges and juries in different contexts. See: Guthrie, Rachlinski and Wistrich; Chris Guthrie, Jeffrey J Rachlinski and Andrew J Wistrich, 'Inside the Judicial Mind' 86 Cornell Law Review 777.

showed that judges rely only on previous decisions. In other words, Dhami suggests that judges use a simple heuristic to make their decisions by relying on early decisions, rather than using all of the relevant information and weighing and combining it appropriately.⁴⁰³

IV. Judicial Institutional Bias

As mentioned before, people tend to be 'belief persistent' and to have an interest in belief preservation. The confirmation bias serves that purpose. Therefore, when a judge grants an interim injunction to one of the parties, he is likely to be biased in favour of that party in later stages of the litigation. But, in the judicial context there seems to be another type of confirmation bias that is related to the special institutional role of the judge. In the legal system the tendency to 'stick' with a decision may apply to decisions made by other judges and not just the judge himself. This is shown in the study about appeals in the United States as well as in the study about bail decisions.

The mechanisms of the individual confirmation bias and the judicial tendency to affirm other judicial decisions seem to be related. Firstly, as mentioned before, people's cognitive processes in relation to confirmation bias are foremost pragmatic, and their purpose is to avoid costly errors and not to test

⁴⁰³ Dhami (n 301).

hypotheses in accordance with science.⁴⁰⁴ This tendency is relevant for judges as well since they may employ a 'judicial affirmation' technique by relying on a decision previously made by a fellow judge in order to avoid making a mistake.

In relation to the status quo bias, Tetlock and Boettger found that individuals who know they will be held accountable for their decisions are more likely to stay with the status quo than are those who do not expect to be held accountable.⁴⁰⁵ Therefore, claimed that because judges are accountable to the litigants whose fates they determine, the status quo bias may have a great influence on them.⁴⁰⁶ As mentioned above, the status quo bias is closely related to the confirmation bias, and these findings also support the existence of an institutional confirmation bias.

Secondly, one of the explanations for confirmation bias is that due to inadequate effort people do not think about alternatives to a hypothesis and fail to sufficiently search for other possibilities. Considering the high caseload judges must manage, it would not be surprising that they prefer to rely on previous decisions and not to invest effort in thinking about other options. This point is

⁴⁰⁴ Nickerson (n 11) 203–204.

⁴⁰⁵ Philip E Tetlock and Richard Boettger, 'Accountability Amplifies the Status Quo Effect When Change Creates Victims' (1994) 7 *Journal of Behavioral Decision Making* 1. This experiment found that subjects were especially unwilling to hypothetically accept a drug in the US pharmaceutical market when it was not yet on the market, and when they felt accountable for their decisions.

⁴⁰⁶ Guthrie and George (n 11) 379.

also manifested in the study about appeals in the United States that found that the affirmance effect is stronger in jurisdictions with higher caseloads.⁴⁰⁷

Not only that, but the theory behind the legal status quo bias, in which relying on past decisions saves judges time, attention and effort, coheres perfectly with this explanation for confirmation bias – inadequate cognitive effort that prevents people from thinking about alternatives to a hypothesis. The confirmation bias and the status quo bias are related to one another, and this relationship strengthens the suspicion that these effects are prominent in the legal environment and therefore should be taken into consideration by policy makers.

Furthermore, this explanation for confirmation bias (of inadequate cognitive effort) seems to parallel two of the explanations given by Guthrie and George for the affirmance effect: the imitation heuristic that allows decision makers to save the cost of individual learning and information gathering; and the take-the-first heuristic in which the decision maker simply adopts the first course of action that comes to mind.⁴⁰⁸

In conclusion, the tendency to restore prior beliefs and prior judgements applies both to a prior belief or judgement of the same judge and to a prior decision made by a different judge. In addition, considering the cognitive

⁴⁰⁷ However, it is important to note that the data merely shows a correlation between affirmance rate and case overload (and not causation).

⁴⁰⁸ See chapter 6(III.II) of this Part.

mechanisms behind the tendency to 'stick' to a prior decision, the confirmation bias and the status quo bias could be relevant in other legal situations. Those situations are not limited to interim remedies decisions.

7. Policy Changes

I. Introduction

In this chapter I will discuss several possible policy changes that could be made to alleviate the risk of confirmation bias in the context of interim remedies. The conclusion regarding the appropriate solution depends upon the magnitude of the phenomenon and the costs and outcomes of changing the current civil procedure rules. While there is strong psychological evidence to show that the confirmation bias and the status quo bias are salient, it is difficult to know what the magnitude of the phenomenon is in the legal context, and therefore a few possible measures will be considered.

II. Changing the Legal Test

There are two main possible changes that could be made to the current civil procedure rules to remedy the risk of confirmation bias. One option will be addressed here and the second will be addressed in the following section. The first option requires changing the existing test that grants an interim remedy. For example, because the formation of an opinion regarding the final outcome at an early stage of the litigation increases the risk of the individual confirmation bias, it is possible to limit the assessment of the merits in the interim stage. This can be accomplished by placing the emphasis on the requirement of irreparable harm and preserving the very limited assessment of the merits under the current test. A lower standard such as a requirement to show that there is a 'serious question to be tried' and not 'probability that the plaintiff is entitled to relief' could be set.

On the other hand, relying on the test of irreparable harm may cause distortions as well and therefore the advantages and disadvantages of using this test should be considered. Changing the merits requirement raises other possible problems. Namely, ignoring the probability of success condition and putting the emphasis on examining the magnitude of the harm (as part of 'the balance of convenience' test), may result in the interim decision increasing the likelihood of harm pending proceedings, as demonstrated by Zuckerman in the following numerical example:

Suppose that a claimant would lose £100,000, if he were not granted an interim injunction and he went on to obtain a favourable judgment on the merits, but his chances of establishing his claim are only 25 per cent. By contrast, the defendant, whose chances of winning are correspondingly 75 per cent, would lose £80,000.⁴⁰⁹

If we accept the low standard of ‘as serious question to be tried’, then ‘having established that the claimant has an arguable case, the court should ask no further questions about the parties’ prospects of succeeding at the trial but proceed to a comparison of the magnitude of harms’.⁴¹⁰ The result in Zuckerman’s example is as follows:

In this example, the court would have to decide for the claimant even though the claimant’s loss discounted by the probability of success is £25,000, whereas that of the defendant is £60,000.⁴¹¹

However, the potential distortions created by disregarding the merits test do not lead to the conclusion that legal policy makers should use the merits test despite of its potential psychological negative implications. Rather, and assuming the individual confirmation bias is prominent in the context of interim remedies, the effects of this bias should be assessed among all the other considerations in order to determine the appropriate use of the merits test. The fact that there are other factors to be considered for the sake of setting the best test to grant an interim

⁴⁰⁹ Zuckerman (n 12), para 9.34.

⁴¹⁰ *ibid.*

⁴¹¹ *ibid.*

remedy does not constitute an exemption from the need to take relevant psychological effects into account.

But there are three other reasons to abandon the proposal to change the legal test of interim injunctions. Firstly, as mentioned before, even now under the very limited merits test judges do not completely follow the test and still take into account the merits factor while making their decisions. This is an indication that changing the test would not help solve the problem of confirmation bias in practice, as judges would not necessarily follow a new test.

Secondly, even if the legal test were different and included a limited assessment of the merits, and even if judges followed that test, judges could still form a strong opinion on the merits of the case while making a decision on the interim injunction application. Changing the test does not ensure that the judge would not form an impression about the case while making her decision in the early stages of the litigation.

Thirdly, the results of my experiment (refer to chapter 4) show that there is a correlation between the final decision and an interim decision made by a different judge when the interim decision was based on the test of irreparable harm as opposed to on the examination of the merits. That is to say, my experiment showed that the irreparable harm test is more influential on the second judge than is the merits test when reaching a final decision. The focus on the merits is therefore questionable.

To conclude, changing the legal test does not seem like a good solution, neither from the legal perspective nor from the psychological perspective.

An opposite suggestion would be to put even *more* emphasis on the merits at early stages. If the first impression were to be so strong then increasing the accuracy of the initial opinion is crucial in order to make sure the final result is the best result possible. When early decisions in legal proceedings are so meaningful, improving it would lead to better outcomes and increase the accuracy of the final decision on the case. This means legal policy makers should encourage judges to base their early decisions on as much evidence as possible, making the most informed decision on the merits even in early stages.

III. Appointing Different Judges

The second possible changes that could be made to the current civil procedure rules is to appoint different judges to grant the interim injunctions than the final decisions (for example by establishing a rotation system of judges). The judges who would make the final decisions would not be exposed to the interim remedy decisions. This solution would necessitate more resources and could impose a burden on the legal system because it would require more judges to spend time and effort studying a case. Although currently interim injunctions are often given by different judges, nevertheless, the confirmation bias and the status quo effects

may justify a policy change in the form of more judges per case as the benefit may outweigh the cost.

Since it is possible that judges would tend to conform with previous interim decisions even when the decisions are made by other judges, it would not be enough change to merely appoint separate judges to decide the interim remedy applications and to make the final decisions. It would also be necessary not to reveal any information about an interim injunction to the judge who is making the final ruling.⁴¹²

IV. Judicial Training

Psychological studies have shown that deliberative processing can overcome framing effects and mitigate the confirmation bias effects.⁴¹³ Therefore, encouraging judges not to trust their intuitions and to engage in a deliberate, logical, reasoning process may help reducing the negative effects of confirmation bias.

In addition, it is possible to teach judges about cognitive illusions and biases as part of their judicial training. This may be helpful, because sometimes there are methods or tools that can be used to reduce the bias. For example, as mentioned

⁴¹² As mentioned above, judges cannot ignore inadmissible information even when asked to do so. See Wistrich, Guthrie and Rachlinski (n 337). Therefore, it would not be helpful to only require the judges to ignore a previous interim injunction decision.

⁴¹³ Rachlinski and Wistrich (n 345) 153.

before, in relation to confirmation bias it is sometimes helpful to encourage people to think about alternatives to their hypotheses. Whether this method would work in relation to judges is yet to be determined, as currently judges are already naturally exposed to alternatives (since in the adversarial system each party presents his version), and this organic environment does not seem to eliminate the bias entirely.⁴¹⁴

An interesting mechanism that can reduce overconfidence in judgements of experts is an 'interval elicitation procedure'. As part of this procedure experts are asked for a lower limit, upper limit and a best guess when performing a judgement task. Then, they are asked to rate their confidence in the interval produced. When the interval system was used, the average overconfidence was substantially decreased.⁴¹⁵ Applying this procedure to the legal system, it is possible to ask judges to produce (even as a personal exercise and not in their public reasoning) an interval for their decision in order to improve their judgement.

Theoretically, the solution of providing appropriate judicial training may possess an advantage over the previously suggested solution of appointing separate judges, since judges could still be exposed to previous decisions made by other judges and could make use of relevant information in those decisions without being biased. But this is a rather optimistic view of the prospects of

⁴¹⁴ For a similar discussion in relation to lawyers see *ibid* 132.

⁴¹⁵ Andrew Speirs-Bridge and others, 'Reducing Overconfidence in the Interval Judgments of Experts' (2010) 30 *Risk Analysis* 512.

dealing with cognitive biases through judicial training, especially given that any such training would invariably impose additional cost on the legal system.

8. Conclusion

This Part discussed two main types of the tendency to ‘stick’ to early decisions which have observable effects on judicial behaviour: (1) an individual confirmation bias that might occur when a judge makes a decision in favour of one of the parties in the middle of the litigation and then must make a final ruling on the case and (2) an institutional confirmation bias manifested in a judicial tendency to affirm a previous decision made by a different judge and to maintain the status quo.

The psychological evidence establishing the strength of the confirmation bias is robust. Given that the behavioural literature has proven this phenomenon to be both frequent and pervasive with the potential to adversely influence the decisions of judges, it is prudent to devise policies that seek to offset this bias wherever possible.

The aim of this Part was to draw attention to cognitive disruptive factors that may cause judges to ‘stick’ to their initial hypotheses. Plotting a detailed reform policy is beyond the scope of the present work, but several reform proposals are presented here as possibilities to be considered more fully in the future.

The clearest way to make judges' prior beliefs and judgements less 'sticky' is to simply split the decision making in different stages of the litigation between different judges (without disclosing information regarding an interim decision to the judge who is making the final ruling). The desirability of this measure would depend on the magnitude of the phenomenon. Also, judicial training may sometimes be a helpful tool in mitigating the effects of certain biases, though this could be considered a limited palliative measure for combating judges' tendencies to confirm previously made decisions.

As mentioned in the preface of this Part, according to Fuller the adversarial system is the only effective process for fighting the human tendency to reach fixed conclusions quickly and early on. Fuller explains that '...all that confirms the diagnosis makes a strong imprint on the mind, while all that runs counter to it is received with diverted attention'.⁴¹⁶ Fuller's analysis indicates that the belief in the adversarial process reflects an age-old recognition of the confirmation bias. Consequently, it could be argued that since confirmation bias is already accepted, one should be consistent and avoid all processes vulnerable to it,⁴¹⁷ including certain elements of the interim injunctions jurisdiction.

⁴¹⁶ Fuller and Randall (n 287) 1160.

⁴¹⁷ For example, Zuckerman argues against judicial involvement in the case of litigant in person, as that kind of involvement in the presentation of the parties' evidence and arguments would undermine the integrity of the fact-finding process (Zuckerman, 'No Justice without Lawyers—The Myth of an Inquisitorial Solution' (n 334) 372):

Only an adversarial process, which distances the judge from the factual presentation of competing accounts of the facts in issue, can guarantee that all the relevant considerations are adequately aired and tested. Put differently, by its

Part 3

Judicial Intuition

1. Preface

This Part will deal with the question of judicial intuition as a conclusion to the two main topics of this dissertation (factor overload in Part 1 and interim remedies affirmation in Part 2). The issues discussed in this Part will provide a general overview of the nature of judicial decision making from a cognitive perspective. This Part therefore connects the topics that were discussed in Part 1 and Part 2, rendering them both contributions to the same general question of the credibility of judicial intuition, whilst also offering some useful background to future analysis of similar questions of judicial decision making.

A common argument made by law scholars asserts that judges possess unique expertise and experience that make them bias-resistant. Similarly, it has been argued that unlike other human beings judges are able to make decisions

very nature, the judicial role is judgmental, in the sense of forming judgment. A judge who descends into the arena where the controversy is played out is bound to adopt a judgmental approach long before he has seen and heard all that the parties wish to put forward. Such a judicial involvement is incompatible with doing justice between two parties each entitled to equal protection. The paradoxical truth is that in order to maintain an unbiased decision making process, the parties must not rely on the decision maker to develop their respective positions but must each have their own champion unburdened by responsibility to the opponent beyond ethical obligations of propriety and fair play.

without being influenced by their personal characteristics and preferences. In this Part, these theories will be examined and eventually rejected. It is important to stress that I do *not* argue that judges could not obtain certain judicial expertise or acquire special skills via professional training and experience. Rather, in this Part, I will discuss the possibility of benevolent judicial intuition and simultaneously reject claims that judges are more 'rational' than the average person.

Both Part 1 and Part 2 of the dissertation touch on the question of judicial intuition. In Part 1, I discussed the problem of 'Laundry List' rules, ie procedural rules that include a long list of factors that the judge must take into account. I presented evidence that this type of rule structure creates a cognitive overload that leads to difficulty applying the rule. This concept is related to the question of judicial intuition since there are two ways to look at the application of 'Laundry List' rules:

1. The 'stand back' approach: According to this approach the judge is not required to implement a rule with a long list of factors in a calculative way. Rather, the listed considerations should be considered as a whole, without having to treat the list of factors as a checklist. The 'stand back' approach is manifested in Lord Mance's reasoning in *Hansom v Wright*: 'Indeed, at the end of the day, the right approach is to stand back and assess the significance and weight of all relevant circumstances overall, rather than to

engage in some form of “head-counting” of circumstances.’⁴¹⁸ This approach may encourage the judge to engage in a more intuitive decision-making process.

2. The deliberate approach: According to this approach the judge should contemplate each consideration one by one, giving each factor the proper weight, and reach a calculative result. This approach requires the judge to engage in a more logical decision-making process.⁴¹⁹ When using this type

⁴¹⁸ *Hansom v Makin* (n 163) para 20. Lord Justice Mance referred to the application of rule 3.9 of the CPR that at the time included nine factors that the court must take into account (see Part 1 of the dissertation). A similar approach was presented by Lord Justice Lewison in *Fred Perry (Holdings) Limited v Brands Plaza Trading Limited* (n 165) para 18: ‘It cannot be stressed too strongly, however, that a decision whether or not to grant relief against sanctions is an exercise of discretion. That is not a question of ticking boxes or adding up the score of each party under the various paragraphs, in some cases some of the factors will have greater weight than others and in some cases some of the factors will not apply at all.’ See also *Ryder Plc v Beever* (n 163) para 18.

⁴¹⁹ See the following explanation by Guthrie, Rachlinski & Wistrich (Guthrie, Rachlinski and Wistrich, ‘Blinking on the Bench: How Judges Decide Cases’ (n 240) 40–42):

Scripts and checklists can free judges from reliance on their memories and encourage them to proceed methodically, thereby ensuring that they touch all of the deliberative bases. A judge who must review a script or checklist at each step in the decision-making process is less likely to rely on intuition when doing so is inadvisable. In some respects, the justice system already takes this approach. Judges receive “scripts” for some tasks when they are appointed. Judges also develop their own scripts and checklists for various tasks and share them with one another. In addition, multifactor or balancing tests have become common. Examples include the five-factor test for inadvertent waiver of privileged documents; the seven- or eight-factor test for cost shifting in the context of electronic discovery; the five-factor test for dismissal for failure to prosecute or comply with an order; the four-factor test for evaluating speedy trial right violations; and the multifactor test for determining the likelihood of consumer confusion in trademark infringement cases.

Although multifactor tests are ubiquitous, they are imperfect. Some multifactor tests are poorly designed and include inappropriate factors that duplicate or overlap with other factors within the test. When judges excessively rely on multifactor tests, as well as on scripts and checklists, there is a risk of mechanical jurisprudence. Excessive rigidity may unduly restrict judges from tailoring their analysis to the case. Further, multifactor or balancing tests may be

of decision making, the work of the judge is similar to computational problem solving, in which a certain weight is given to each factor and the decision is a result of a calculation resembling a mathematical exercise.

In Part 2 of the dissertation I discussed the question of early decisions and their influence on the final decision of the trial. I claimed that due to certain cognitive effects, including the confirmation bias, the status quo bias and the primacy effect, information provided early in the litigation may have an excessive effect on the final decision, since generally people are notably affected by first impressions and are not likely to change their opinions once they are formed. Part 2 is also related to the question of judicial intuition, as it could be argued that encouraging a more deliberate decision-making process rather than the use of intuition may help

indeterminate, and applying or weighing some of the factors within the test may require intuition. Finally, judges sometimes employ heuristics to circumvent the multifactor analysis by relying on just a few of the factors in making their decision, thereby diminishing the value of the test as a corrective device.

Nevertheless, such tests possess the potential for mitigating cognitive error by nudging judges toward more deliberative processes. Multifactor tests can help ensure that judges consider all relevant factors and can remind them of their responsibility to base decisions on more than mere intuition. Similar reminder systems have reduced medical diagnostic error. Thus, a system that forces judges to weigh each of the factors expressly also might help reduce judges' reliance on intuition. This may be the reason that some appellate courts require administrative agencies or lower courts to expressly consider or weigh each of the factors in a multifactor test, sometimes in a particular sequence. In their more extreme forms, such techniques are known as "forcing functions," which are exemplified by computer systems that force the user to complete step two before moving to step three.

mitigate some of the cognitive effects that cause the first impression to be so overpowering.

This use of a deliberate decision-making process is specifically important in relation to Part 2 because confirmation bias is associated with the human intuitive mode of thinking (Chapter 4 of this Part will discuss the two modes of human thinking – System 1, the intuitive system, and System 2, the deliberate system), as explained by Kahneman: ‘The initial attempt to believe is an automatic operation of System 1, which involves the construction of the best possible interpretation of the situation’.⁴²⁰ The tendency of System 1 to “believe” is related to the operations of associative memory and to the “positive test strategy” (a deliberate search for confirming evidence). System 1 also ‘favors uncritical acceptance of suggestions and exaggeration of the likelihood of extreme and importable events’.⁴²¹

⁴²⁰ Daniel Kahneman, *Thinking, Fast and Slow* (Farrar, Straus and Giroux 2011), 81. Kahneman gives an example:

Gilbert sees unbelieving as an operation of System 2, and he reported an elegant experiment to make his point. The participants saw nonsensical assertions, such as “a dinca is a flame,” followed after a few seconds by a single word, “true” or “false.” They were later tested for their memory of which sentences had been labelled “true.” In one condition of the experiment subjects were required to hold digits in memory during the task. The disruption of System 2 had a selective effect: it made it difficult for people to “unbelieve” false sentences. In a later test of memory, the depleted participants ended up thinking that many of the false sentences were true. The moral is significant: when System 2 is otherwise engaged, we will believe almost anything. System 1 is gullible and biased to believe, System 2 is in charge of doubting and unbelieving, but System 2 is sometimes busy, and often lazy. Indeed, there is evidence that people are more likely to be influenced by empty persuasive messages, such as commercials, when they are tired and depleted.

⁴²¹ *ibid.*

Understanding the nature of judicial intuition would help determine which measures are the most appropriate ones to mitigate cognitive biases that may affect judicial decision making. This Part will therefore provide some valuable background regarding experts' intuition and decision making that will contribute to the understanding of the issues that were discussed in Part 1 and Part 2 of the thesis, and it could also serve as a basis for further analysis of procedure from a behavioural point of view.

2. Judicial Intuition – Introduction

While people tend to trust their intuition, judicial intuition might not always contribute to the highest quality of legal decisions. This phenomenon occurs because personal intuition sometimes leads to errors. On the other hand, judges in the common law system are qualified and experienced, and their intuition may be important. The question is, therefore, if judges should rely on their intuition when making legal decisions. In other words, is there a way to preserve judicial intuition without enabling biases and arbitrariness? This dilemma was described well by Griffin and Kahneman:

Good and poor judgments are both normal, and the processes that produce brilliant intuitive insights are also the cause of systematic biases. The study of judgment errors provides a map of the regions of danger where fast and confident intuition should give way to slower

reasoning processes and where automatized cognitive skills should give way to formal rules and guidelines.⁴²²

In his recent and most comprehensive book, *Thinking, Fast and Slow*, Daniel Kahneman discusses the key question of ‘Expert Intuition: When Can We Trust it?’ Kahneman presents two basic conditions for acquiring a skill that could be the basis for an intuitive judgement that reflects true expertise (as opposed to an illusion of validity): (1) an environment that is sufficiently regular to be predictable and (2) an opportunity to learn these regularities through prolonged practice.⁴²³ The definition of expertise is therefore ‘the ability to develop skilled intuition’. In other words, experts manage to use their intuition in a skilled way that does not require them to engage in deliberate calculations.

A good example of experts is chess players. It is estimated that chess masters and grandmasters store about 50,000 chess positions in their memories (a magnitude roughly comparable to that of natural language vocabularies of college-educated people), and they know which moves to make in a given situation. This means that chess players store information based on previous games that can be

⁴²² Dale Griffin and Daniel Kahneman, ‘Judgmental Heuristics: Human Strengths or Human Weaknesses?’ in Lisa G Aspinwall and Ursula M Staudinger (eds), *A Psychology of Human Strengths: Fundamental Questions and Future Directions for a Positive Psychology* (1st edn, American Psychological Association 2003) 165.

⁴²³ Kahneman, *Thinking, Fast and Slow* (n 10) 240.

accessed quickly, when relevant. According to studies, it takes about ten years to develop this kind of expertise.⁴²⁴

But can judges develop expertise like chess players? Can they learn from past cases and apply their experience? Can the legal system rely on judicial intuition? Even though judges are supposed to produce articulate decisions that are based on legal reasoning it is known from psychological studies that judges use intuition.⁴²⁵ But can we trust their intuition?

The credibility of judicial intuition reflects on the subjects that were discussed in Part 1 and Part 2 of the thesis. For example, in relation to 'Laundry List' rules, if judicial intuition were to be trusted then legal policy makers might accept an approach that does not require judges to ponder the considerations in the rule one by one and make a decision in a calculative way. That is to say, if judges' intuition were reliable the stand back approach mentioned above may be more suitable than the calculative approach.

According to Guthrie, Rachlinski and Wistrich's pioneering work, the intuitive approach appears to have a powerful effect on judges' decision making and while it might work well in some cases, it could also lead to erroneous and

⁴²⁴ See Neil Charness and others, 'The Role of Deliberate Practice in Chess Expertise' (2005) 19 *Applied Cognitive Psychology* 151; Fernand Gobet and Herbert A Simon, 'Recall of Random and Distorted Chess Positions: Implications for the Theory of Expertise' (1996) 24 *Memory and Cognition* 493.

⁴²⁵ It has been claimed that the requirement to articulate the reasons for the decision encourages deliberate thinking rather than intuitive thinking. For a discussion about the relationship between articulation and intuition see chapter 7 of this Part.

unjust outcomes. Guthrie, Rachlinski and Wistrich therefore suggest that the justice system should take steps to encourage judges to make more deliberative decisions (that is, applying the law to the facts in a logical and a mechanical way instead of making intuitive decisions).⁴²⁶

Whether the legal system can trust judicial intuition or not is a question that goes beyond the scope of this thesis. However, since studies show that judges do use intuition it is important to discuss the cognitive processes that create that intuition and may affect the way judges make decisions. Therefore, in the next chapters I will discuss essential interrelated topics, such as the two modes of human thinking (the intuitive system and the deliberate system), the two schools of decision making (the 'heuristics and biases' school and the 'fast and frugal' school) and more. I will begin in the following chapter by presenting a few examples of studies that revealed bias in judicial decision making and demonstrate a side of judicial decision making that is often ignored.

⁴²⁶ Guthrie, Rachlinski and Wistrich, 'Blinking on the Bench: How Judges Decide Cases' (n 240). Guthrie, Rachlinski & Wistrich undertook a number of studies with real judges. In one of the studies they gave judges the cognitive reflection test (CRT). The CRT is a test designed to distinguish intuitive processing from deliberative processing. The CRT questions have a correct answer that is easy to discern upon reflection, yet each also has an intuitive incorrect answer that almost immediately comes to mind.

The CRT consists of questions such as the following: 'A bat and a ball cost \$1.10 in total. The bat costs \$1.00 more than the ball. How much does the ball cost?' The intuitive answer that jumps to mind is ten cents. However, this answer is wrong. The correct answer is five cents—the ball costs five cents, the bat costs \$1.05, and together they cost \$1.10. Responses on the CRT show that most people are unable or unwilling to suppress the impulsive response of ten cents. These results provide evidence that ordinary adults possess dual-processing systems in which intuition tends to dominate, but can be overcome by deliberation.

Guthrie, Rachlinski & Wistrich found that judges sometimes answer intuitively as well on the CRT. But, as Guthrie, Rachlinski & Wistrich mention themselves judges undoubtedly exercise greater care when ruling in court than when responding to CRT questions.

3. Examples of Judicial Fallibility

In this chapter I will briefly deal with the alleged special ‘debiasing’ nature of judges. It is sometimes argued that judges are not susceptible to normal cognitive biases. According to this argument judges are trained to be objective and logical and are therefore coherent and neutral when making legal decisions. Part 1 and Part 2 of the thesis are based on the assumption that judges are not rational agents, and the studies presented here support that assumption.

Following are a few examples that show that judges are not immune to biases and that judges can be influenced by factors that are related to their personal experiences or their cognitive processing. This is not very surprising, as judges are, in the end, human. Also, as mentioned before, this is not to say that judges do not possess special legal expertise. Judges are experienced professionals, but their decisions are inevitably affected by their human nature.

Several studies showed that even experienced and well-trained judges are vulnerable to cognitive biases. In a comprehensive empirical study, Guthrie, Rachlinski and Wistrich showed that judges are affected by cognitive illusions that can produce systematic errors in judgement. Their study examined whether five common cognitive illusions (anchoring, framing, hindsight bias, the representativeness heuristic and egocentric biases) would influence the decision-

making processes of a sample of 167 federal magistrate judges. The results show that judges rely on the same cognitive decision-making processes as lay people and other experts, which leaves them vulnerable to cognitive illusions that can produce poor judgements.⁴²⁷

For example, it was shown in the study that judges were influenced by anchoring. Anchoring entails people's tendency to rely on an initial value available to them when making numerical estimates, even when this initial value (the 'anchor') does not provide any information about the actual value of the item being estimated. In the study, judges were given a description of a serious personal injury suit in which only damages were at issue. The judges were randomly assigned to either a 'No Anchor' condition (no numerical value was given) or an 'Anchor' condition. Judges who were assigned the 'Anchor' condition were informed that the defendant 'has moved for dismissal of the case, arguing that it does not meet the jurisdictional minimum for a diversity case of \$75,000', although the plaintiff clearly had incurred damages greater than \$75,000.⁴²⁸ Judges were then asked, 'How much would you award the plaintiff in compensatory damages?'

The results showed that judges were influenced by the anchor: 'The sixty-six judges in the No Anchor condition indicated that they would award plaintiff an average of \$1,249,000 while the fifty judges in the Anchor condition awarded an average of \$882,000. The difference between the two groups was statistically

⁴²⁷ Guthrie, Rachlinski and Wistrich, 'Inside the Judicial Mind' (n 402).

⁴²⁸ The judges were required to decide on the motion, and only two judges accepted it.

significant.⁴²⁹ The results demonstrate that merely mentioning the number of \$75,000 (even though it was irrelevant) caused judges to award a significantly lower amount of damages. This indicates that judges could be influenced by irrelevant factors due to certain cognitive processes. It is therefore important for the legal scholarship to learn these human cognitive mechanisms and how they affect judicial decision making.

As mentioned above, Guthrie, Rachlinski and Wistrich showed that judges are influenced not only by anchoring but also by other cognitive heuristics. Based on their studies' results, the experimenters concluded: 'Even if judges have no bias or prejudice against either litigant, fully understand the relevant law, and know all of the relevant facts, they might still make systematically erroneous decisions under some circumstances simply because of how they – like all human beings – think'.⁴³⁰

Other studies showed that varying the context in which judges review evidence or altering the form in which that evidence is presented shifts judges' attention and alters their decisions. For example, Rachlinski, Wistrich and Guthrie demonstrated that judges assess the credibility of an expert witness more favorably when lawyers present an additional expert with similar, albeit notably weaker, credentials. The researchers refer to this effect as the 'contrast effect'.⁴³¹

⁴²⁹ Guthrie, Rachlinski and Wistrich, 'Inside the Judicial Mind' (n 402) 787–792.

⁴³⁰ *ibid* 829.

⁴³¹ Jeffrey J Rachlinski, Andrew J Wistrich and Chris Guthrie, 'Altering Attention in Adjudication' (2013) 60 UCLA Law Review 1586.

The point here is that the contrast effect makes a certain option look more valuable than it really is because of a shift of attention. The expert witness is perceived to be more credible only because of a comparison to an expert witness with fewer credentials.

Another example (that was not performed on judges but would help demonstrate the contrast effect) is a study that found that defendants can induce plaintiffs to settle a case by presenting two settlement options, one of which is clearly inferior to the other.⁴³² The settlement offer looks more valuable in comparison to an inferior offer, but it is merely a matter of presentation, as the inferior offer should not make the better offer more or less desirable to the plaintiff. Yet presenting an inferior offer increased the chances that the plaintiff would settle.

Another study demonstrated that judges' willingness to ignore inadmissible evidence in a criminal case is affected by both the gravity of the crime and the severity of police misconduct.⁴³³

The studies presented in this chapter demonstrate that judges, like other human beings, use shortcuts and are affected by the presentation of the data when

⁴³² *ibid* 1598, citing Mark Kelman, Yuval Rottenstreich and Amos Tversky, 'Context-Dependence in Legal Decision Making' (1996) 25 *Journal of Legal Studies* 287.

⁴³³ Rachlinski, Wistrich and Guthrie (n 431). Other studies examined judicial prejudice against certain litigants. For an example of a study about racial bias see Jeffrey J Rachlinski and Sheri Lynn Johnson, 'Does Unconscious Racial Bias Affect Trial Judges?' (2009) 84 *Notre Dame Law Rev* 1195. However, this dissertation is concerned with cognitive processes of legal actors that could systematically influence the administration of justice, rather than studies regarding specific stereotypes or prejudice.

making legal decisions. These cognitive processes can sometimes lead to biases in judicial decision making.

However, not every cognitive effect necessarily indicates a bias. For example, a recent study in the United States suggests that judges with daughters are more likely to vote in favour of women's rights than ones with only sons. Surprisingly, this effect, according to the study, is most pronounced among male judges appointed by Republican presidents. The researchers, Maya Sen and Adam Glynn, refer to this effect as the 'daughter effect'. The study examined about 2,500 votes by 224 federal appellate court judges and found that having at least one daughter corresponded to a 7% increase in the proportion of cases in which a judge voted in a feminist direction. The researchers also looked at the same judges' votes in a separate set of 3,000 randomly chosen cases. There was generally no relationship between having daughters and liberal votes. Daughters made a difference only in civil cases having a gendered dimension.⁴³⁴

Maya Sen, one of the researchers who performed the study, explained this effect in an interview given for the *New York Times*:

"Justices and judges aren't machines," she said. "They are human, just like you and me. And just like you and me, they have personal experiences that affect how they view the world."⁴³⁵

⁴³⁴ Adam N Glynn and Maya Sen, 'Identifying Judicial Empathy: Does Having Daughters Cause Judges to Rule for Women's Issues?' [2014] American Journal of Political Science.

⁴³⁵ Adam Liptak, 'Another Factor Said to Sway Judges to Rule for Women's Rights: A Daughter' *The New York Times* (16 June 2014).

Whether the daughter effect is a result of personal experience or ideology forming, this example shows that judges could be influenced by moral or social outlooks when deciding on a matter of value or policy. In this example the interpretation can lead to the promotion of women rights, which could be considered a progressive law development. Therefore, it is important to distinguish between the descriptive psychological studies that inform the legal scholarship about the way judges make decisions and normative legal arguments which address whether this judicial decision-making process is desirable or not.

4. The Dual Processing Model

In this chapter I will discuss the two modes of cognitive processing, the division of which enables one to observe the different mechanisms by which individuals (and specifically in this case, judges) process information and arrive at decisions. In general, the psychological literature categorises two modes of thinking, labelled 'System 1' and 'System 2'.⁴³⁶ System 1 is also called the 'associative system' of reasoning.⁴³⁷ It is a fast system that compresses a great deal of information into a simple output and yields many correct inferences at the cost of some systematic biases.⁴³⁸ System 2, on the other hand, is referred to as the 'rule based' system.⁴³⁹ It

⁴³⁶ Griffin and Kahneman (n 422) 172.

⁴³⁷ *ibid* 173.

⁴³⁸ *ibid* 174–175.

⁴³⁹ *ibid* 172.

is characterised by a more limited capacity, deliberate attention and serial processing.⁴⁴⁰ In many cases, the two systems work together and lead to the same answer, but in other cases fundamental contradictions between the outputs of the two systems are revealed.⁴⁴¹

As a preliminary comment, it should be emphasised that System 1 and System 2 are not distinct ‘real’ systems in people’s brains. They are merely used to describe the two modes of cognitive processing. In addition, it is more likely that the distinction between the systems is not dichotomous and that people sometimes use both modes of thinking simultaneously. In general, the sharp categorization of two systems, although commonly used, was criticised in the psychological literature.

For example, Norman and others argue that simply encouraging subjects to slow down and increase their attention to analytical thinking is insufficient to increase diagnostic accuracy. This was demonstrated in a study the researchers performed that showed that instructions to be slow and thorough yielded no advantage in diagnostic accuracy over instructions to proceed rapidly.⁴⁴² The study supports the criticism of the dichotomous system as it shows that the two features of System 2, deliberate processing and increased accuracy, do not always correlate.

In addition, opponents argued that the ‘dual processing theory’ of reasoning

⁴⁴⁰ *ibid* 174.

⁴⁴¹ *ibid*.

⁴⁴² Geoffrey Norman and others, ‘The Etiology of Diagnostic Errors: A Controlled Trial of System 1 versus System 2 Reasoning’ (2014) 89 *Academic Medicine* 277.

model (consisting of System 1 and System 2) is unnecessarily restrictive and that it is more likely that diagnostic tasks may proceed through a variety of mental strategies ranging from 'analytical' to 'intuitive.' This approach does not deny the evidence in support of a dual processing model, but it adds that the psychological scholarship should presume both processes operate in concert and that solving any task may rely to varying degrees on both processes.⁴⁴³

In his recent book Kahneman adopts the labels of System 1 and System 2, which were originally proposed by psychologists Keith Stanovich and Richard West to define the above-mentioned two modes of human thinking. Kahneman describes the modes as follows:

- *System 1* operates automatically and quickly, with little or no effort and no sense of voluntary control.
- *System 2* allocates attention to the effortful mental activities that demand it, including complex computations. The operations of System 2 are often associated with the subjective experience of agency, choice, and concentration.⁴⁴⁴

To illustrate, Kahneman provides several examples of automatic activities that are attributed to System 1: understanding simple sentences, driving a car on an empty road, completing the phrase 'bread and...', orienting the source of a sudden sound, answering $2 + 2 = ?$, making a 'disgust face' when shown a horrible picture,

⁴⁴³ Geoffrey Norman, Sandra Monteiro and Jonathan Sherbino, 'Is Clinical Cognition Binary or Continuous?' (2013) 88 *Academic Medicine* 1058.

⁴⁴⁴ Daniel Kahneman, *Thinking, Fast and Slow* (Penguin 2012), 20–21.

detecting that one object is more distant than another, and more.⁴⁴⁵ Kahneman also provides examples for the more complex operations of System 2 that require attention and are disrupted when attention is drawn away: focusing on the voice of a particular person in a crowded and noisy room, maintaining a faster walking speed than is natural to you, comparing two washing machines for overall value, filling out a tax form, checking the validity of a complex logical argument, searching memory to identify a surprising sound, counting the occurrences of the letter *a* in a page of text, monitoring the appropriateness of your behaviour in a social situation, and others.⁴⁴⁶

The following table summarises the differences between the two ‘systems’ of processing:⁴⁴⁷

⁴⁴⁵ *ibid* 21.

⁴⁴⁶ *ibid* 22.

⁴⁴⁷ Guthrie, Rachlinski and Wistrich, ‘Blinking on the Bench: How Judges Decide Cases’ (n 240) 8.

Characteristic	System 1 (Intuitive)	System 2 (Deliberative)
Cognitive Style	Heuristic	Systematic
Cognitive Awareness	Low	High
Conscious Control	Low	High
Automaticity	High	Low
Speed	Fast	Slow
Reliability	Low ⁴⁴⁸	High
Effort	Low	High
Emotional Valence ⁴⁴⁹	High	Low

The automatised cognitive skills from System 1 can help create good judgements, since intuitive judgements can be quick and accurate. For instance, $2 + 2 = 4$ is a correct answer that is produced quickly by System 1. This means that it is sometimes preferable to use mental shortcuts over slower reasoning processes.

⁴⁴⁸ This is not to say that the intuitive system cannot produce accurate results. For example, System 1 can understand simple sentences quickly and without much effort. However, this system is also more prone to make mistakes.

⁴⁴⁹ In psychology, valence means the intrinsic attractiveness or aversiveness of an event, object, or situation. See [http://en.wikipedia.org/wiki/Valence_\(psychology\)](http://en.wikipedia.org/wiki/Valence_(psychology)).

However, interestingly enough, the same processes of System 1 that produce good judgements and brilliant intuitive insights are also the cause of poor judgements and systematic biases.⁴⁵⁰ This disparity occurs because System 1 uses heuristics (mental shortcuts, such as a rule of thumb). These are principles that work in most situations, but they are not strictly accurate.

In other words, cognitive bias (such as the confirmation bias discussed in Part 2) is only one of the possible consequences of the use of heuristics or mental shortcuts. The use of heuristics can sometimes be a good decision-making mechanism. In fact, as Gigerenzer argues, the claim that heuristics lead to second-best outcomes is a misconception.⁴⁵¹ This is because, he explains, 'For many legal problems, finding the absolutely best solution to a problem (ie optimization) is out of reach. The problem is too complex, information is scarce and contradictory, too many players are involved with dissimilar goals, or time is pressing and the world uncertain'.⁴⁵² In those cases in which the optimal strategy is not known or determining it is too time-consuming, heuristics may be the only solution. And therefore, the process of decision making by the use of heuristics can lead to good results, according to Gigerenzer.⁴⁵³

⁴⁵⁰ Griffin and Kahneman (n 422) 165.

⁴⁵¹ Gigerenzer, 19. For a criticism of Kahneman's 'bounded probabilistic rationality' thesis see Alex Stein, 'Are People Probabilistically Challenged?' (2013) 111 Michigan Law Review 855.

⁴⁵² Gigerenzer (n 2) 17.

⁴⁵³ *ibid* 19.

Gigerenzer's approach raises serious questions, such as how legal judgments can be given without accounting for the process of reasoning that leads to the decisions. In his paper, Gigerenzer only refers to the result of using heuristics in decision making and not to the jurisprudential implications of allowing the use of such heuristics in legal decision making. However, it might be argued that judges use heuristics even when providing reasoning (see chapter 7 of this Part) and that legal policy makers should consider the implications of their using these heuristics.

As demonstrated by Gigerenzer, the 'heuristics and biases' tradition of research on human judgement includes both descriptive and critical agendas. The descriptive agenda is to identify and characterise the 'judgemental heuristics' of intuitive thinking, while the critical agenda is to identify the 'biases' that distinguish intuitive thinking from idealized formal models of decision making.⁴⁵⁴ But, as Gigerenzer observed,⁴⁵⁵ 'The terms *heuristics* and *biases* are often used interchangeably, since both are seen as creating the problem of cognitive biases, even though the one term describes a process and the other an outcome'.

Gigerenzer's approach is different than Guthrie, Rachlinski and Wistrich's approach. Recall that, in order to prevent errors, Guthrie, Rachlinski and Wistrich claim that the justice system should take steps to encourage judges to make more

⁴⁵⁴ Griffin and Kahneman (n 422) 166.

⁴⁵⁵ Gigerenzer (n 2) 18.

logical and deliberative decisions instead of intuitive decisions.⁴⁵⁶ Guthrie, Rachlinski and Wistrich's point of view sounds convincing. If legal policy makers want more consistent and systematic judicial decisions, they should encourage judges to use their 'deliberative' systems and not their 'intuitive' systems.

On the other hand, an opposite (and somewhat radical) approach suggests that the legal system should consider the advantages of the 'intuitive' system despite its lack of accuracy. For example, the intuitive system is faster than the deliberative system. Indeed, the intuitive system is also more likely to lead to errors and to produce wrong decisions. However, if justice means not only delivering correct decisions but also delivering them within a reasonable amount of time it might be that the errors inherent in the intuitive system are a price the legal system should be willing to pay in order to deliver judgments in a reasonable time.

This argument may be problematic since it accepts the existence of imperfect outcomes in some cases in favour of quick and just decisions in other cases. But the argument should be considered in light of the limited resources of the legal system, assuming of course that there is some value to judicial intuition. As explained by Zuckerman, 'Justice, like any other public service, must be provided at a reasonable and proportionate cost to taxpayers and litigants alike':⁴⁵⁷

⁴⁵⁶ Guthrie, Rachlinski and Wistrich, 'Blinking on the Bench: How Judges Decide Cases' (n 240).

⁴⁵⁷ Zuckerman (n 12), ch 1, para 1.6.

The fact that citizens are entitled to correct adjudication within a reasonable time does not however mean that citizens are entitled to claim the best possible court adjudication system regardless of how much it costs. It does not follow that just because we have a legitimate claim that the state should protect our rights that we are entitled to the best possible law enforcement system regardless of expense.⁴⁵⁸

Furthermore, adjudication involves inevitable compromises between different goals. As Zuckerman explains, an adequate system of adjudication of civil disputes must meet three basic requirements: (1) it must deliver judgments that are well grounded in law and in fact; (2) it must do so within a reasonable time; and (3) it must deliver this with the use of proportionate public and litigant resources.⁴⁵⁹ This creates obvious tensions between the imperatives:

Delivering speedy and high quality judgments would require many more resources than are available. As a result compromises must be made by the court. The court may decide to adopt less resource-intensive processes or, instead, to take longer reaching resolution. While there may be several options open one thing is clear: adjudication involves inevitable compromises arising from the need to balance competing imperatives or desired goals.⁴⁶⁰

In support of Zuckerman's argument, not only can intuitive decisions save time, but there are scholars who argue that sometimes the decision itself can be better when using shortcuts. For example, Gigerenzer claims that there are situations in which using a heuristic – that is, relying on one reason and ignoring the rest instead of

⁴⁵⁸ *ibid.*

⁴⁵⁹ *ibid.*, ch 1, para 1.7.

⁴⁶⁰ *ibid.*, ch 1, para 1.8.

integrating all reasons by a linear strategy of weighing and adding – is likely to produce higher predictive accuracy than combining all of the cues (that is to say, all the information available to make a decision).⁴⁶¹ Gigerenzer argues that ‘In general, the greater the uncertainty is, the more robust simple strategies are compared to one with higher greed for information’.⁴⁶² This could mean, for example, that when making an estimation regarding a future event (a decision that involves uncertainty) it might be better to use a rule of thumb instead of using a large volume of information (because according to Gigerenzer some of this information may turn out to be irrelevant).

Lastly, it is interesting that the two modes of thinking – System 1 and System 2 – run directly parallel to the two models of judging – the formalist model and the realist model.⁴⁶³ According to the formalist model, judges identify the relevant legal principles, apply them to the facts of the case, and logically reach the outcome of the dispute. In contrast, according to the realist model, the law is not a scientific enterprise in which deductive reasoning can be applied to reach a determinate outcome in every case. Instead, realists believe that judges reach a result by balancing the interests of the parties and that judges are influenced by

⁴⁶¹ Gigerenzer (n 2).

⁴⁶² *ibid* 38.

⁴⁶³ Posner defines ‘formalism’ as the use of deductive logic to derive the outcome of a case from premises accepted as authoritative; and ‘realism’ as deciding a case so that its outcome best promotes public welfare in nonlegalistic terms. See Richard A Posner, ‘Legal Formalism, Legal Realism, and the Interpretation of Statutes and the Constitution’ (1986) 37 *Case Western Reserve Law Review* 179, 181. See also Brian Leiter, ‘Legal Formalism and Legal Realism: What Is the Issue?’ (2010) 16 *Legal Theory* 111.

their own personal characteristics (such as ideology and public policy preferences):⁴⁶⁴

The two venerable models of judging—the formalist and realist models—offer contrasting responses. According to the formalists, judges apply the governing law to the facts of a case in a logical, mechanical, and deliberative way. For the formalists, the judicial system is a “giant syllogism machine,” and the judge acts like a “highly skilled mechanic.” Legal realism, on the other hand, represents a sharp contrast.⁴⁶⁵

While System 2 appears to be the driving force behind the formalist model, System 1 appears to be the driving force behind the realist model. This is because under the realist model the determinate cognitive factor of judging is intuition (the main trait of System 1), whereas under the formalist model judging is mechanical and systematic (characteristics of System 2):

According to the realists, judges follow an intuitive process to reach conclusions which they only later rationalize with deliberative reasoning. For the realists, the judge “decides by feeling, and not by judgment; by ‘hunching’ and not by ratiocination” and later uses deliberative faculties “not only to justify that intuition to himself, but to make it pass muster.”⁴⁶⁶

Both in the case of System 1 and System 2 and in the case of the realist model and the formalist model, a dichotomous distinction is unconstructive. In reality, human

⁴⁶⁴ See <http://legal-dictionary.thefreedictionary.com/The+Realist-Formalist+Debate>.

⁴⁶⁵ Guthrie, Rachlinski and Wistrich, ‘Blinking on the Bench: How Judges Decide Cases’ (n 240) 2–3.

⁴⁶⁶ *ibid.*

cognitive processing is affected by both modes of thinking, just as judges rely on both intuition and logic. It is therefore more helpful to devise different solutions to cognitive biases that would be suitable for specific legal environments, as I suggested in part 1 and part 2 of the dissertation.

5. 'Heuristics and Biases' v 'Fast and Frugal'

The discussion in the previous chapter reflects the differences between the 'heuristics and biases' (H&B) school (most often associated with Daniel Kahneman and Amos Tversky), and the 'fast and frugal' (F&F) school (most closely linked with Gerd Gigerenzer). Essentially, the H&B school sees heuristics as the source of errors, while the F&F school views heuristics as mechanisms that can be the source of functional decision making. Mark Kelman identified the H&B v F&F debate that has been almost entirely ignored in the legal academy. According to Kelman, those associated with the H&B school are more prone to believe that actors should be protected from making errors, while those associated with the F&F school 'share rational choice theorists' optimism that subjects have adopted strategies that work well for them, even though they decidedly reject rational choice theorists' descriptive accounts of how it is that subjects are able to make good decisions'.⁴⁶⁷ He describes the debate as follows:

⁴⁶⁷ Kelman (n 219) 4–5.

Those in the H&B school emphasize the degree to which the use of heuristics often prevents us from choosing options that would maximize expected value in the way that conventional rational choice theories believe we do... Those who think of heuristics as “fast and frugal” techniques to make decisions that achieve an organism’s ends in a given environment... are considerably less interested in “biases” or errors than in *achievements*.⁴⁶⁸

Following is a table that illustrates the differences between the H&B school and the F&F school using a comparison to the rational choice theory:⁴⁶⁹

	Rational Choice Theory	H&B	F&F
Perception of people’s capacity to make decisions	Optimistic	Pessimistic	Optimistic
Reasons for errors in decision making	External	Internal	Internal

It is important to mention that the distinction between the F&F school and the H&B school does not merely involve the question of whether heuristics can be better seen as a source of error or as the source of functional decision making. Scholars in the two schools also disagree about *why* heuristics lead to mistakes (when they do), what it means to behave rationally, whether people are less prone

⁴⁶⁸ *ibid.*

⁴⁶⁹ For an explanation of the rational choice theory see the Introduction to the dissertation.

to use heuristics when they possess certain background traits or have more time or cognitive resources to reach a decision, and more.⁴⁷⁰

One critical distinction between the H&B and the F&F schools is how they perceive and judge 'error'. The H&B approach assumes there is an accurate outcome that people should aspire to and that heuristics can lead to deviation from this accurate outcome. The F&F approach, on the other hand, assumes that the desired outcome changes according to the settings in which the decision maker makes the decision. According to the F&F approach the disposition to use particular cognitive methods, such as heuristics – that were adaptive in the particular environment in which they evolved – may sometimes have become dysfunctional in a modern environment. Therefore, F&F theorists say that the judgements following the use of heuristics are presumably fine, even if they appear 'inaccurate', because evolved traits meet people's 'real' ends.⁴⁷¹ Consider the following example regarding evolutionary psychology:

Our taste for high-calorie sweets and fats – the taste is a decision-guiding "trait" that was perhaps functional in the calorie-poor environment in which our ancestors lived – may now serve even our gene-replicating ends poorly. This will be true if overeating and heart attacks have become a bigger threat to survival, or at least our capacity to ensure we are around to protect our young until they reach maturity, than starvation.⁴⁷²

⁴⁷⁰ Kelman (n 219) 6.

⁴⁷¹ *ibid* 7.

⁴⁷² *ibid*.

In this example, what is perceived to be the 'accurate outcome' of eating high-calorie sweets and fats is no longer desired due to environmental changes. Therefore, if people were to adopt a repulsion for high-calorie sweets and fats, that would be a heuristic that leads to a correct decision and not to an error.

But is the F&F approach suitable for the legal world? The answer depends on whether there is indeed a specific accurate answer decision makers should aspire to in the legal context. As opposed to the high-calorie food example, litigants and judges in courts follow rules and not just their personal goals and aspirations. In that sense, it seems impossible to use the analogy of evolutionary and biological behaviour for the desired behaviour in legal proceedings. On the other hand, as Gigerenzer explains,⁴⁷³ shortcuts may sometimes lead to better results as they offer a more simple decision-making mechanism.

Despite the difference between the fields of psychology and law, Kelman makes an interesting analogy between arguments made by H&B theorists about error and arguments typically made by lawyers who criticise the use of rules. As he explains, H&B theorists claim that heuristics generates accurate judgments or good decisions in most circumstances, but not all, since the correct conclusion does not always follow from the most readily processed cues and reactions. This means that according to the H&B school, errors are a result of the failure to make use of fuller, more sensitive judgment techniques. Rules are over- and under-inclusive, and in that sense the use of rules is similar to the use of heuristics or rules of thumb:

⁴⁷³ See also chapter 5 (III) in Part 1.

...H&B theorists are making arguments about error that are conceptually parallel to those typically made by lawyers critiquing the use of rules, proxies, or conclusive presumptions in decision making. Even those generalizations that are right on most occasions are not *invariably* right. Rules are inevitably over- and under-inclusive.⁴⁷⁴

However, the analogy Kelman makes between rules and heuristics is not completely accurate since psychological heuristics are usually the result of System 1, the intuitive system, while in the legal context rules encourage a more formal application of the rule to the facts, a process that is usually the result of System 2, the deliberative system.

This is a crucial point because even though rules and heuristics are both simple, the way people process rules can be a result of different cognitive mechanisms, and this can affect the accuracy of a decision. This is because, as explained before, System 1 is more prone to make mistakes. While it is sometimes desirable to encourage simple rules, it is important to differentiate between the

⁴⁷⁴ Kelman (n 219) 6–7. This issue is also related to the Rules v Standards debate that was discussed in Part 1 of the dissertation. Kelman gives an example:

Think of the canonical case of using a rule rather than a standard: ages of majority that determine when someone can vote, or buy liquor, or consent to sexual relations. In a sense, the use of a rule (those over 18 can vote) is very much like the use of an H&B heuristic: we substitute an easily made judgment – is the person trying to register to vote older or younger than 18? – for a richer, harder-to-determine true target attribute – is the would-be voter mature, reflective, politically sophisticated, and likely to care about the resolution of political issues? Naturally, some older than 18 are not very mature and some who are younger are quite mature.

Indeed, there is a tradeoff between rules and certainty and standards and accuracy. Rules create more legal certainty but are usually over- and under-inclusive; and standards allow more discretion in specific legal cases but also create more uncertainty.

question of simplicity and the question of intuitive versus a logical decision-making process. Part 1 of the dissertation dealt with the question of simplifying legal rules and elaborated on these issues.

6. The Fundamental Question of Judicial Expertise

The issue of judicial expertise is crucial because experts are defined as being able to make good use of their intuition in a way that leads to quick and accurate decisions in their area of expertise. Whether we can trust expert intuition in the legal context is a question that has not yet been fully investigated. But, if an investigation found that the legal environment allows for judges to acquire a skill that could be the basis for an intuitive judgement that reflects true expertise, it might make sense to rely on judicial intuition. As mentioned before, Kahneman presents two conditions for intuitive judgements that reflect true expertise: (1) an environment that is sufficiently regular to be predictable and (2) an opportunity to learn these regularities through prolonged practice.⁴⁷⁵ In general, the legal environment is not usually characterised as ‘regular’ or ‘predictable’ (due to the unique nature of each case, the need for legal change or development of the law and more), and this might make it a difficult environment in which to develop true expert intuition.

⁴⁷⁵ Kahneman, *Thinking, Fast and Slow* (n 10) 240.

Another important point that is relevant to the legal world in general and to the question of 'Laundry List' rules (that was discussed in Part 1) in particular is that experts are people who can better manage higher levels of complexity in their fields of expertise. The complexity of a task varies depending on who is trying to solve it. In other words, the effects of cognitive overload depend on the level of expertise of the task doer. The studies explaining task complexity discuss the objective complexity of the task as well as the subjective complexity experienced by the task doer:

A person's familiarity with the task; his or her short-term memory, span of attention, and computational efficiency; the availability of tools, time constraints, and so forth, can moderate the relationship between objective and experienced complexity. In this light, experienced complexity is merely a reaction to task characteristics. Such reactions, however, also may be evoked for reasons other than task characteristics (e.g., task context, self-doubt, anxiety, fear, etc.).⁴⁷⁶

This observation has implications for the legal domain. If judges were considered 'experts' according to Kahneman's definition, one could conclude that the judges would be able to deal with legal complexity. This is important since expertise in that sense would imply that judges could handle complex legal rules, such 'Laundry List' rules. This issue was discussed in detail in Part 1.⁴⁷⁷

⁴⁷⁶ Campbell (n 64) 48.

⁴⁷⁷ In the particular context of 'Laundry List' rules, as was demonstrated in Part 1, studies show that judges (like other professionals) are not good at managing a large number of factors or considerations.

In an attempt to improve the assessment of expertise and expert judgement, Weiss and Shanteau created an 'index of expertise' that is based on an empirical measure of expert judgement.⁴⁷⁸ This measure was developed according to the two characteristics that are necessary to form expertise, as presented by Weiss and Shanteau: (1) 'Discrimination of the various stimuli in the domain' and (2) 'Consistent treatment of similar stimuli'.⁴⁷⁹ In other words, Weiss and Shanteau argue that an expert should be able to distinguish between dissimilar cases and treat them differently (or appropriately, as it is possible to imagine different cases that require similar treatment), as well as discern similar cases and treat them consistently.

Even though the Weiss and Shanteau research is a part of the psychology scholarship, the two conditions presented by them seem remarkably similar to the well-known legal principle of 'treating like cases alike'. In the words of Lord Hoffmann in the *Matadeen* case: '...treating like cases alike and unlike cases differently is a general axiom of rational behaviour'.⁴⁸⁰ Also, similar problems arise in relation to the 'treating like cases alike' principle:

Of course persons should be uniformly treated, unless there is some valid reason to treat them differently. But what counts as a valid reason for treating them differently? And, perhaps more important, who is to decide whether the reason is valid or not? Must it always be the courts?

⁴⁷⁸ Weiss and Shanteau (n 241).

⁴⁷⁹ *ibid.*

⁴⁸⁰ *Matadeen v Pointu* [1998] 3 WLR 18, [1999] 1 AC 98.

The reasons for not treating people uniformly often involve, as they do in this case, questions of social policy on which views may differ.⁴⁸¹

There are several intriguing observations regarding Lord Hoffmann's reasoning. As mentioned before, it shows that the concerns of the psychological literature and the concerns of the legal literature are fairly similar, as they both refer to the same idea of treating similar cases alike and dissimilar cases differently. Interestingly, from the linguistic point of view, Lord Hoffmann even uses the term 'rational behaviour' that is widely discussed in the psychological scholarship. But more importantly, Lord Hoffmann notices the great difficulty of applying 'equality of treatment' and evaluating what counts as a valid reason for treating unlike cases differently.

Weiss and Shanteau acknowledge this very problem and mention that it would be ideal to evaluate expertise by looking at outcomes and correlating the action with a 'gold standard' – a universally accepted outcome measure that directly reflects the behavior under scrutiny. An example for such a 'gold standard' would be 'patients of an expert surgeon are more likely to survive' or 'the expert air controller's planes are more likely to arrive safely'.⁴⁸² But as Weiss and Shanteau rightly observe, an outcome measure does not always exist and does not always capture expertise, as a process may be more complex than the use of the obvious outcome measure presupposes. Thus, in the surgeons' example it may be

⁴⁸¹ *ibid.*

⁴⁸² Weiss and Shanteau (n 241) 104.

that high survival rates reflect the ability to attract easy cases rather than indicating true surgical skill. Therefore, it is not always appropriate to use an outcome measure to identify expertise.⁴⁸³ This observation seems to be especially pertinent in the legal context, where the ‘rightness’ of the outcome (the decision on the case at hand) is not always ‘knowable’ or easy to evaluate.

Going into greater detail, Weiss and Shanteau follow the work of Einhorn, who proposed two necessary empirical criteria for expertise. The first criterion is the requirement that an expert’s judgement be consistent over repeated trials (‘intraindividual reliability’). Einhorn himself acknowledged, however, that although consistency is a necessary condition it is not sufficient for determining expertise, since even though an expert should not behave randomly, high consistency can be obtained by following an incorrect rule in a consistent manner. Therefore, the second condition that Einhorn proposed is consensus between experts.⁴⁸⁴ Weiss and Shanteau do not accept the latter criterion of agreement between experts because according to their approach, agreement does not imply correctness, as all the (proclaimed) experts may be wrong.⁴⁸⁵ Instead, Weiss and Shanteau suggest the following working measure, ‘the Cochran-Weiss-Shanteau (CWS) index of expertise’:

We propose the ratio of discrimination over inconsistency as an index of expertise (see Equation 1). *Discrimination* refers to the judge’s differential evaluation of the various stimuli within a set. *Consistency*

⁴⁸³ *ibid* 105.

⁴⁸⁴ *ibid* 106.

⁴⁸⁵ *ibid* 107.

refers to the judge's evaluation of the same stimuli similarly over time; inconsistency is its complement. The ratio will be large when a judge discriminates effectively, and it will be reduced if the judge is inconsistent.

$$\text{CWS} = \frac{\text{Discrimination}}{\text{Inconsistency}}. (1)^{486}$$

Weiss and Shanteau's measure incorporates both a judge's ability to discriminate and to be consistent and therefore they argue that it allows avoiding a wrong evaluation of experts' abilities:

One can show discrimination simply by generating a wide variety of responses; one can exhibit consistency by making the same response for all cases. Adopting either of these strategies alone, however, guarantees that the other quality will be lost. The ability to incorporate both qualities simultaneously requires accurate and consistent assessment of stimuli, the essence of expert judgment.⁴⁸⁷

Despite its benefits, the measure suggested by Weiss and Shanteau includes a few limitations that seem to be even more limiting in the legal context. Firstly, in order for people to benefit from the results of using the CWS index of expertise, it is necessary for the different stimuli (for example, legal cases) given to the expert judges to vary in perceptible ways, since if the stimuli objects vary too little no one

⁴⁸⁶ *ibid* 104, 108.

⁴⁸⁷ *ibid* 109.

will be able to discriminate between them, and if the objects vary too much then all of the judges will discriminate perfectly, and no one will appear to be better at judging than anyone else. The determination of the extent of variation requires expertise, and therefore it may not be trivial to achieve.⁴⁸⁸

This predicament is particularly troublesome in legal situations in view of the fact that it is difficult to determine which cases are alike and which cases are different. This difficulty arises because almost every case is unique in its circumstances (as there are different individual litigants in each case as well as different conflicts and disputes). Identifying the specific circumstances that justify drawing a distinction between cases is not an easy task. Consequently, it would be complicated to apply the CWS index of expertise in order to establish whether the judges in a court system are indeed experts.

A second limitation is derived from the fact that the measure suggested by Weiss and Shanteau looks solely at internal properties of data (the characteristics of the stimuli) without evaluating the outcomes of the judgements.⁴⁸⁹ This is not a coincidence, as Weiss and Shanteau mention that reality does not always provide the comfort of a 'follow up' (for example, what ultimately happens to a patient following diagnosis and treatment).⁴⁹⁰ In the legal context, this uncertainty might even be permanent as it may never be known whether a decision was 'right' or 'wrong'.

⁴⁸⁸ *ibid* 111.

⁴⁸⁹ *ibid*.

⁴⁹⁰ *ibid* 112.

To refute the problem of validity Weiss and *Shanteau* showed that the index distinguishes between acknowledged experts and novices. They presented data that demonstrates there is a difference between (non-legal) experts' and novices' judgements when both groups are given relevant cues, partially relevant or irrelevant cues (Weiss and *Shanteau* used non-legal experts). More specifically, according to Weiss and *Shanteau*'s data, when given relevant cues the acknowledged experts perform much better than the novices (that is, the CWS of the acknowledged experts is higher than the CWS of the novices). In contrast, when given irrelevant cues the performance of the acknowledged experts and the novices is similar (and lower than in the relevant cues condition).⁴⁹¹

⁴⁹¹ *ibid* 112–13. To demonstrate, following is a description of one of the studies Weiss and *Shanteau* used in order to show that their index distinguishes between acknowledged experts and novices:

We also reanalyzed data from Nagy (1981), who asked participants to evaluate summary descriptions of applicants for the position of computer programmer at a real (name deleted upon request) company in Seattle, Washington. The study employed both professional personnel selectors (experts) and management students (novices). Each applicant was described by legally relevant attributes (recommendations from prior employers and amount of job-relevant experience) and legally irrelevant attributes (age, physical attractiveness, and gender). Filler information from local phone books was used for background information, such as home address.

Four professionals in personnel selection and 20 business students made two evaluations of 32 applicants (generated from a $2 \times 2 \times 2 \times 2 \times 2$ factorial design, in which there were two values for each of the five attributes listed previously). Before the evaluations participants were reminded about the company's written policy for hiring (i.e., what information should and should not be used). Based on the 64 (32×2) evaluations, the importance of the five attributes was determined for each participant on a 0- to 100-point normalized scale; average CWS values were generated for each group.

For the two relevant attributes (recommendations and experience), the CWS values are nearly identical for the two groups (see Figure 3). This should not be surprising, given that participants were reminded immediately before the study about relevant hiring criteria. In contrast, CWS values for the three irrelevant

Even though Weiss and Shanteau's approach seems to be helpful, its applicability in the legal context is unpromising, as a major part of the judicial challenge is the very thing to know which are the relevant factors (or 'cues' in Weiss and Shanteau's words), the partially relevant factors and the irrelevant factors. In fact, this is one of the main problems of using 'Laundry List' rules (that was discussed in Part 1 of the dissertation) – there are so many factors on the list that it is difficult to determine which factors are most relevant in each case. Weiss and Shanteau, on the other hand, assume that the relevancy of the factors is knowable; for instance, it is irrelevant to consider the physical attractiveness of an applicant for the position of computer programmer. But this is not the situation in the legal context, where almost every case is unique and where certain factors may be relevant under certain circumstances but irrelevant under different circumstances.

Even though Weiss and Shanteau's measure is helpful, it lacks perfection, and it would be difficult to apply in the legal context. It is therefore necessary to

attributes (age, attractiveness, and gender) reveal a very different pattern. For professionals, CWS values cluster around 1.0 (as they should, for it is inappropriate to discriminate on these aspects). In contrast, the values are considerably larger for students. Despite being told that age, attractiveness, and gender are not legally allowable business students had sizable CWS values for these "irrelevant" attributes. Clearly, it is not easy to ignore something as obvious as age or gender, even if required by the guidelines. Professionals, however, followed strategies to do precisely that.

The results from these reanalyses show that CWS can distinguish between levels of expertise, especially when the focus is on the most relevant cues. We are aware of the circularity in this reasoning. How do we know the auditors were really "experts"? We have relied on the judgment of the researchers, trusting that at least roughly they were able to distinguish experts from nonexperts. We also used external information (the knowledge of cue relevancy) supplied by a subject matter "expert" to help validate the index.

examine the influence of specific cognitive mechanisms on judicial decision making in order to devise ways to improve the administration of justice. Part 1 and Part 2 of the dissertation discussed a few of these cognitive mechanisms and their application to legal reasoning and practice.

7. Judicial Reasoning – Reflecting or Justifying?

Lastly, I now raise the question of judicial reasoning and its role in relation to judicial intuitive decisions. The reasoning stage is considered to be a logical stage in which the ‘deliberative system’ is used (rather the ‘intuitive system’). Judges sometimes use the term ‘it would not write’ to describe why they changed their opinions while writing their decisions – that is, they had initial inclinations to rule in a certain way but when they actually had to write their reasoning they changed their minds. That is to say, even if in the beginning a judge were to have a certain intuition or a certain opinion about the case, the reasoning stage could lead to deliberation, and in the deliberation stage the judge only applies the law in a logical manner. In other words, there is something about writing the reasoning that encourages deliberative thinking as opposed to intuitive thinking.

Guthrie, Rachlinski and Wistrich discuss this issue and argue that opinion writing could encourage a deliberate decision-making process:

Despite this cost, writing opinions could induce deliberation that otherwise would not occur. Rather than serving merely to describe an allegedly deliberative process that has already occurred (as the formalists might argue) or to rationalize an intuitive decision already made (as the realists might argue), the discipline of opinion writing might enable well-meaning judges to overcome their intuitive, impressionistic reactions.⁴⁹²

When preparing a written opinion is inconvenient or infeasible, Guthrie, Rachlinski and Wistrich suggest to state the reasons for the decision before the ruling is announced:

In such situations, perhaps judges should be required to articulate the basis for the decision before announcing the conclusion. Though there is little opportunity for reflection in these situations, simply stating the reasons for the decision before the ruling is announced may encourage the judge to be more deliberative.⁴⁹³

As Guthrie, Rachlinski and Wistrich mention, the opposite argument would suggest that judges sometimes use the reasoning stage to justify a decision they made early on (as legal realists might suggest), instead of engaging in a reflective reasoning process and applying the law to the facts.⁴⁹⁴ Empirical findings on judicial

⁴⁹² Guthrie, Rachlinski and Wistrich, 'Blinking on the Bench: How Judges Decide Cases' (n 240) 36–38.

⁴⁹³ *ibid.*

⁴⁹⁴ *ibid.* Guthrie, Rachlinski and Wistrich refer to the concern that reasoning could sometimes impair performance:

The psychological literature on the effects of requiring decision makers to provide reasons is mixed. Providing reasons for one's decision induces deliberation, but can also impair performance on tasks that benefit from intuition. Some studies suggest that deliberation can sometimes produce results that are inferior to

reasoning show that judicial reasoning reflects certain variables related to the judge's background (such as prior employment).⁴⁹⁵ These findings would support a behavioural explanation of judicial reasoning that proposes that intuition and personal experience sometimes affect judicial reasoning, notwithstanding the perception of the reasoning stage as being a more logical and deliberate stage.

8. Conclusion

Despite the differences between the H&B school and the F&F school there is no doubt that judicial decision making lacks precision and that the 'human factor' in judicial decision making may have consequences the legal scholarship has yet to fully consider. The topics discussed in the first two Parts were analysed from this point of view, as I attempted to present a realistic picture of judicial behaviour in relation to two common procedural arrangements: 'Laundry List' rules and interim remedies. Further analysis of English rules of procedure using cognitive psychology would contribute to the administration of justice and promote procedural fairness.

results produced by intuition, particularly where a task involves aesthetic judgment. We suspect, however, that most of the judgments that judges make are not the sort that are impaired by deliberation.

⁴⁹⁵ Gregory Sisk, Michael Heise and Andrew P Morriss, 'Charting the Influences on the Judicial Mind: An Empirical Study of Judicial Reasoning' (1998) 73 New York U Law Rev 1377.

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