

Risk attitudes and litigation: Kahneman and Tversky's fourfold pattern of risk attitudes and its implications on decision making involving litigation and settlement

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Abstract

In introducing the prospect theory in his bestseller "Thinking, fast and slow",¹ Nobel Laureate Daniel Kahneman presents the reader with two groups of characters, the Econs and the Humans.² The Econs are egoistic, value-maximising agents who behave logically and know what they want. These rational agents, at the centre of the rational choice theory, employ expected value when taking decisions under uncertainty. Unlike Econs, Humans are sometimes generous and can sacrifice their own well-being in favour of the group to which they belong. Their decisions are not always logical and their tastes are unstable.³ Nevertheless, Humans, as they are studied by the behavioural sciences, are not completely irrational. On the contrary, their departure from the expected utility follows predictable patterns and can, therefore, be scientifically observed and discussed. The most famous and influential work in this field is undoubtedly represented by the prospect theory developed by Amos Tversky and Daniel Kahneman.⁴ In their last work together, the prospect theory was further developed to include uncertain decisions as well as risky decisions.⁵

¹ Daniel Kahneman, *Thinking, Fast and Slow* (Penguin Books 2012).

² *Ibid*, 269.

³ *Ibid*.

⁴ Daniel Kahneman & Amos Tversky, 'Prospect Theory: An Analysis of Decision Under Risk' (1979) 47 *Econometrica* 263.

⁵ Daniel Kahneman and Amos Tversky, 'Advances in Prospect Theory: Cumulative Representation of Uncertainty' (1992) 5 *Journal of Risk and Uncertainty* 297.

As any other area where humans take decisions under risk and uncertainty, litigation needs a model of decision-making in order to make sense of and explain the behaviour of litigants before and during a trial. The major and most influential paradigm in the field of litigant behaviour analysis, in the last half century, has undisputedly been the economic model of suit and settlement.⁶ The economic model of suit and settlement maintains that litigants will settle if the settlement offer is higher than the expected value of the trial and will rather litigate on the contrary.⁷ Litigants would fail to amicably resolve the dispute only due to overconfidence or informational asymmetry.⁸ The economic model is based on the assumption that litigants make outcome-maximising decisions. The prospect theory has demonstrated that, even if we admit that people want to achieve the best possible outcome, they are likely to be unable to do so when found in situations of risk and uncertainty similar to those created by the litigation process.⁹ One of the main components of the prospect theory, the fourfold pattern of risk attitudes, later described in greater detail, posits that humans exhibit predictable risk attitudes, displaying constant deviations from the expected value decision-making.¹⁰ The findings of the prospect theory are of a great importance. This essay will explore whether these findings can be transposed to litigant's behaviour and decision-making and what are its implications to litigation and settlement. To do so, this essay will firstly describe the fourfold pattern and why it can be relevant to litigation. Then it will consecutively apply the two parts of the fourfold pattern to ordinary litigation, where the claimant has a moderate-to-high probability of prevailing at trial, and to the frivolous claim, where the claimant has a low probability to be successful¹¹. Finally, this essay will identify the limits to the descriptive accuracy of the fourfold pattern in litigation settings.

Keywords: *Prospect theory, risk, litigation, settlement agreement, litigants in litigation, psychological factors*

I. The fourfold pattern applied to litigation

It is difficult to have a satisfactory understanding of the fourfold pattern without a minimal knowledge of the prospect theory, of which the fourfold pattern is the

⁶ For a thoughtful treatment of rational choice theory, see Russell B. Korobkin and Thomas S. Ulen, *Law and Behavioral Science: Removing the Rationality Assumption from Law and Economics* (2000) 88 *California Law Review* 1051, 1060-66

⁷ Guthrie, 'Framing Frivolous Litigation' (nxx) Chris Guthrie, 'Framing Frivolous Litigation: A Psychological Theory' (2000) 67 *University of Chicago Law Review* 163, 165, 171.

⁸ Jeffrey J. Rachlinski, 'Gains, Loses and the Psychology of Litigation' (1996) 70 *Southern California Law Review* 113, 151.

⁹ *Ibid.*, 118.

¹⁰ Kahneman and Tversky, 'Advances in Prospect Theory' (nxx), 306

¹¹ Guthrie, 'Framing Frivolous Litigation' (nxx)

“most distinctive implication”.¹² Prospect theory is a theory of decision making developed by Kahneman and Tversky by using intuitions and empirical research to describe how people actually take decisions without assuming anything about the normative correctness of such behaviour.¹³ Through these observations and studies, Kahneman and Tversky concluded that people, contrary to rationality, exhibit different preferences according to the manner that a decision is framed.¹⁴ In the famous Asian disease study, they showed that, although confronted with an identical problem, people adopted different attitudes depending on whether the outcome was presented in terms of lives saved or lives lost.¹⁵

The key elements of the prospect theory can be summarized as follows: First, people attribute significance to gains and losses rather than wealth. To do so, they evaluate outcomes according to a reference point, which may be the status quo, a target etc. If outcomes are better than the reference point, they are gains; otherwise, losses.¹⁶ Second, people exhibit a diminishing sensitivity towards both losses and gains, in such a way that the impact of a given change in wealth diminishes with its distance from zero.¹⁷ Third, losses loom larger than equivalent gains.¹⁸ Fourth, the psychological weight that people attach to events differs from the probability of that event, in the following lines: due to the possibility effect, improbable outcomes are overweighted whereas substantially probable outcomes are underweighted under the influence of the certainty effect.¹⁹

The combined effect of these principles gives rise to the fourfold pattern.²⁰ According to this model, first, risk attitudes are determined upon whether people perceive their decisions as gains or as losses compared to their current status. In matter of gains, people tend to be risk-averse whereas in choosing between losses they tend to be risk seeking.²¹ Second, risk attitudes are reversed in face of low-probability gains and losses.²² To summarize, people tend to be risk-averse for moderate-to-high probability gains, risk seeking for moderate-to-high probability losses, risk seeking for low-probability gains, and risk-averse for low-probability losses.²³

¹² Kahneman and Tversky, 'Advances in Prospect Theory' (nxx), 306

¹³ Daniel Kahneman and Amos Tversky, 'Choices, Values, and Frames' (1984) 39 *American Psychologist* 341

¹⁴ Daniel Kahneman and Amos Tversky, 'The Framing of Decisions and the Psychology of Choice' (1981) 211 *Science* 453, 453-55.

¹⁵ Kahneman and Tversky, 'Choices' (nxx), 343.

¹⁶ Kahneman, *Thinking, Fast and Slow* (nxx) 282

¹⁷ *Ibid.*

¹⁸ *Ibid.*

¹⁹ *Ibid.*

²⁰ *Ibid.*, 317.

²¹ Chris Guthrie, 'Prospect Theory, Risk Preference, and the Law' (2003) 97 *Northwestern University Law Review* 1115, 1118.

²² *Ibid.*

²³ Guthrie, 'Framing Frivolous Litigation' (nxx), 180.

The question arises whether the largely accepted prospect theory can play a role in litigation and, if yes, what would be its implications. The next two sections of this essay will explore whether the findings of the prospect theory – the predictable deviations from the expected value decision-making – are valid and applicable to litigation.

II. The ordinary litigation framework

Assuming no counterclaim or costs are involved, litigation constantly presents the same pattern.²⁴ On one side, you have a claimant who can choose between accepting a settlement offer put forward by the defendant and pursuing litigation in order to hopefully obtain a better outcome. On the other side, the defendant can either attempt to propose a settlement agreement satisfactory to the claimant or litigate by taking the risk of a worse outcome.²⁵ Claimants choose between gains: either sure gains if they accept settlement or uncertain but potentially greater gains if they pursue litigation. Conversely, defendants choose between losses: either sure losses if they settle or uncertain but potentially greater losses if they litigate.²⁶

In such a situation, the prospect theory suggests that claimants, choosing between gains, will tend to be risk-averse, whereas defendants, choosing between losses, will tend to be risk-seeking.²⁷ Both simulation²⁸ and empirical²⁹ studies have confirmed that the implications of the prospect theory are valid to litigation.

Hence, it appears that the structure of litigation provides a “natural frame”³⁰ to litigants. The decision frame for litigants, i.e. the perspective through which they see the trial, is radically different. This observation has led legal scholars to develop the Framing Theory of Litigation.³¹ In short, the Theory posits that for moderate-to-high probability (30-80%) gains claimants will prefer settlement to trial; on the other hand, for moderate-to-high probability (30-80%) losses defendants will prefer trial to settlement.³²

These findings have a huge impact on litigation and settlement. For the risk-averse claimant, who prefers settlement to trial, the negotiated outcome will be sub-optimal and he will find himself worse-off than if he faced trial.³³ For the

risk-seeking defendant, this suggests that litigation in itself is a psychological barrier to achieve settlement.³⁴ In other scenarios, the alternative to a negotiated agreement is the absence of agreement. In litigation, it is different. If there is no settlement, then the parties will obtain an imposed solution from a third party – the court.³⁵ The result is that the defendant will be worse-off by choosing litigation to a negotiated outcome.

The Framing Theory of Litigation implies an important role for attorneys. As a skilled and experienced professional, the attorney may be able to reframe an offer made to his client³⁶. For instance, he may point out to a risk-seeking defendant what the latter stands to losing by pursuing litigation or he may qualify an offer as a better deal to what was previously proposed³⁷. On the other hand, the attorney is sometimes the main beneficiary of its client’s risk-seeking attitude which constitutes an obstacle to settlement and leads to protracted disputes³⁸. If the attorney is paid on an hourly basis, it is not difficult to perceive the danger. Leaving aside reprehensible lawyer behaviour, research shows that even an ethical attorney may fail to perceive this conflict of interest³⁹.

III. The frivolous claim

Although the fourfold pattern was demonstrated to be highly relevant to ordinary litigation, its second half suffered for a long time from a lack of attention by legal scholars.⁴⁰ However, the second half of the fourfold pattern can arguably be very helpful to describe and understand another type of litigation: the trial of the frivolous claim.⁴¹ Beyond its negative connotation, the frivolous claim can be defined in neutral terms as a low-probability claim.⁴²

Due to the inherent uncertainties related to litigation, even a very low-probability claim has some potential, however small, to bring a favourable result for the claimant. The frivolous litigation framework can, thus, be described as a litigation process where the claimant has a low probability to gain a considerable

²⁴ Rachlinski, ‘Gains’ (nxx) 129

²⁵ Ibid.

²⁶ Guthrie, ‘Framing Frivolous Litigation’ (nxx) 181

²⁷ Ibid. 182.

²⁸ Rachlinski, ‘Gains’ (nxx) 130-149

²⁹ Ibid, 149-160.

³⁰ Ibid, 129.

³¹ Guthrie, ‘Framing Frivolous Litigation’ (nxx) 181.

³² Ibid.

³³ Rachlinski, ‘Gains’ (nxx) 159-160

³⁴ Russell Korobkin and Chris Guthrie, ‘Psychological Barriers to Litigation Settlement: An Experimental Approach’ (1994) 93 Michigan Law Review 107, 138

³⁵ Ibid.

³⁶ Rachlinski, ‘Gains’ (nxx) 171.

³⁷ Ibid.

³⁸ Ibid, 172.

³⁹ Don A. Moore, Philip E. Tetlock, Lloyd Tanlu and Max H. Bazerman, ‘Conflicts of Interest and the Case of Auditor Independence: Moral Seduction and Strategic Issue Cycling’ (2006) 31(1) The Academy of Management Review 10, 16-17

⁴⁰ Guthrie, ‘Framing Frivolous Litigation’ (nxx) 183.

⁴¹ Ibid, 185.

⁴² Ibid, 186.

amount, whereas the defendant has a low probability to incur a considerable loss.⁴³ Under such circumstances, the fourfold pattern predicts that the claimant will exhibit risk-seeking behaviour while the defendant will tend to be risk-averse.⁴⁴ Experiments conducted by legal scholars and data taken from outside the litigation context confirm the correctness of the fourfold pattern as applied to the frivolous claim.⁴⁵

The risk preferences normally exhibited by litigants in ordinary litigation are reversed in the frivolous suit. Legal scholars have provided different accounts why claimants make risk-seeking decisions in the frivolous suit.⁴⁶ Here we are interested in the psychological factors as they are described in the prospect theory. The principle of diminishing sensitivity indicates that the changes close to the endpoints are more significant than the changes at the middle of the range.⁴⁷ Guthrie, while he accepts this principle, is nonetheless not convinced why it entails overweighting rather than less underweighting in the low endpoint.⁴⁸ In our opinion, the possibility effect, i.e. 'access' to the hope to obtain a good outcome, makes highly unlikely outcomes loom larger than their probability would justify.

Again, these discoveries have an important influence upon litigation and settlement. Risk-seeking claimants will favour trial, while risk-averse defendants will prefer settlement. In these circumstances, settlements when they occur will tend to benefit to claimants whose greater tolerance to risk provides them with a "psychological lever"⁴⁹ towards defendants. In a sense, the surplus amount that claimants are able to obtain from defendants compared to the expected value of the trial can be construed as purchasing of insurance by the defendant to avoid the risk of a very bad event.⁵⁰

For the attorney, the implications are mixed. On the one hand, his task is to assess the merits of the case and, especially, if he is paid upon a contingency fee, the attorney will dismiss frivolous cases.⁵¹ On the other hand, he may make the "rational" choice of pursuing some frivolous suits not only because there exists a possible positive outcome, however improbable, but also because he may exploit the risk-averse attitude of the defendant in order to obtain favourable settlement.⁵²

⁴³ Ibid.

⁴⁴ Ibid, 187.

⁴⁵ Ibid, 188-191.

⁴⁶ Ibid, 196.

⁴⁷ Kahneman and Tversky, 'Advances in Prospect Theory' (nxx) 303

⁴⁸ Guthrie, 'Framing Frivolous Litigation' (nxx) 198.

⁴⁹ Guthrie, 'Framing Frivolous Litigation' (nxx) 191.

⁵⁰ Kahneman, *Thinking, Fast and Slow* (nxx) 320.

⁵¹ Guthrie, 'Framing Frivolous Litigation' (nxx) 208.

⁵² Ibid.

IV. Limitations of the fourfold pattern to describe litigants' behaviour

Despite the descriptive power of the fourfold pattern, scholars have questioned the ability of the prospect theory to accurately predict litigant's behaviour.⁵³ One concern is the validity of the prospect theory in real litigation situations as opposed to experiments.⁵⁴ Another limitation put forward is that the fourfold pattern does not take sufficiently into consideration individual differences between litigants and the distinction between individual and group decision-makers.⁵⁵

The fourfold pattern applied to litigation has been further criticized because it assumes that litigants adopt the status quo as the reference point.⁵⁶ However, it can't be excluded that they might evaluate options compared to other reference points, such as the aspired outcome. It has been shown that claimants, in ordinary litigation, may exhibit risk-seeking attitudes when they are so induced by prior expectations.⁵⁷

Above all, the prospect theory's main shortcoming is that, in contradiction to its prediction that disputes tend to be litigated in lieu of being settled, available data show the contrary.⁵⁸ Ironically, in spite of the prospect theory being more descriptively accurate than the economic theory, it is the latter who better predicts the high rate of settlements.⁵⁹

The culprit acknowledged by scholars is that prospect theory, not unlike the economic theory, fails to take into account the emotional component of individuals.⁶⁰ Guthrie, for example, identifies regret aversion as a potent emotion that can be employed to observe and analyse litigant's behaviour.⁶¹ To Kahneman's credit, he admits that the inability of the prospect to deal with regret is one of its "blind spots"⁶².

The regret aversion theory of litigation suggests that litigants will prefer to settle rather than litigate in order to avoid post-decision regret.⁶³ For an attorney, the implication is that he has to take into account the type of litigant (institutional or individual), his personality (high or low self-esteem) and the type of case

⁵³ Guthrie, 'Prospect Theory' (nxx) 1118, 1156.

⁵⁴ Ibid, 1156-1159.

⁵⁵ Ibid, 1160-1162.

⁵⁶ Guthrie, 'Prospect Theory' (nxx) 1159-1160 *ibid*

⁵⁷ Rachlinski, 'Gains' (nxx) 145

⁵⁸ Chris Guthrie, 'Better Settle than Sorry: The Regret Aversion Theory of Litigation Behavior' (1999) University of Illinois Law Review 43, 89.

⁵⁹ Ibid.

⁶⁰ Ibid, 59-62.

⁶¹ Ibid, 64.

⁶² Kahneman, *Thinking, Fast and Slow* (nxx) 286.

⁶³ Guthrie, 'Better Settle than Sorry' (nxx) 64

(monetary or emotionally charged) when assessing the different options offered by trial and settlement.⁶⁴

Conclusion

The rational choice theory, employed in the economics and law literature for the last fifty years, despite its huge achievements, lacked an empiric confirmation. The prospect theory filled this gap by showing that individuals exhibit predictable deviations from the rational theory's expectations in situations of risk and uncertainty. The fourfold pattern of risk attitudes, the prospect theory's main implication, was employed and confirmed by legal scholars as highly relevant to litigation situations. In the ordinary litigation, the framing of the litigation as a gain for the claimant makes him favourable to settlement even for less than the expected value of the trial. Conversely, the risk-seeking attitude of the defendant constitutes an obstacle to settlement deals that might be favourable to him. This configuration is reversed in the frivolous suit, where a risk-seeking claimant frequently leads to settlement imposed by psychologically blackmailing a risk-averse defendant.

Nevertheless, not unlike the economic theory, the fourfold pattern is a "blunt tool"⁶⁵ of behaviour analysis. It fails to take into account the emotional aspects of litigants. Regret aversion, for instance, is a powerful feeling which induces a preference for settlement to litigation.

As a conclusion, prospect theory is an additional formidable instrument in the hands of attorneys to deliver better advice to their clients and to understand better the counterparty in litigation and settlement situations.

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⁶⁴ Ibid, 81-84.

⁶⁵ Guthrie, 'Prospect Theory' (nxx) 1163

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