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A theory of presumptions

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This paper deals with presumptions that shift the burden of persuasion on some issue in a civil case and attempts to explain why lawyers and judges treat these rules as having great importance. If the persuasion burden applied is 'more probable than not', such rules should affect outcomes only in those rare cases when the evidence is in equipoise. Yet in practice, these rules form an important and vigorously contested part of doctrinal law. The paper attempts to account for the prominence of these rules by considering them from the perspective of behavioral theory, particularly studies of anchoring and adjustment effects. Behavioral theorists have demonstrated that the precise way in which various questions are framed can have a profound impact on the answers given, particularly when the questions involve probability or judgments under uncertainty. This paper suggests that the perceived importance of persuasion burden-shifting rules may be due to their role in framing questions for the legal decisionmaker, particularly by causing decisionmakers to focus (or 'anchor') on one factor in a multi-factored decision, and the implicit recognition of judges and lawyers of the importance of such framing effects.

Keywords: presumptions; burden of persuasion; anchoring effects, behavioral theory.

The difficulty of providing a theoretically satisfying account of the doctrinal rules loosely referred to as 'presumptions' has long been recognized.1 Allen and Callen's recent work2 brings a substantial degree of theoretical coherence to the field by usefully distinguishing among different types of presumptions, and arguing for their theoretical equivalence to other procedural devices for managing uncertainty. Yet this approach to presumptions, despite, and perhaps even because of its theoretical coherence, ignores or implicitly criticizes the most puzzling of all aspects of presumptions—the importance with which lawyers and judges treat them in actual litigation.

In this piece, I consider one particular category of presumptions—those which shift the burden of persuasion on some issue in a civil case. The paradigmatic examples of such presumptions come from Delaware corporate law, where the burden of proving the fairness of transactions with interested shareholders and directors are subject to a complex jurisdiction of shifting burdens. However, similar examples of burden shifts may be found

1 'Every writer of sufficient intelligence to appreciate the difficulties of the subject-matter has approached the topic of presumptions with a sense of helplessness and has left it with a feeling of despair.' MORGAN, E. M. 1937 Presumptions. Wash. L. Rev., 12, 255.

in a wide variety of other areas of civil law. The question this paper seeks to answer is how such rules function in practice and, even more puzzling, why lawyers and judges treat them as having great importance. If these rules do only what they purport to do, shift the burden of persuasion on a particular issue in a civil case, they should be of little or no significance in most cases. Since the civil standard is preponderance of the evidence, often described as ‘more probable than not’, burden shifts should only affect outcomes in the rare case in which evidence is in equipoise or in which no evidence has been adduced by either side. Yet the actual practice of lawyers and judges is dramatically at odds with this theoretical conclusion. In actual practice, these rules form a significant part of doctrinal law, are vigorously argued over and a perceived error in their application generally justifies a reversal of the entire action.

This paper attempts to account for the surprising prominence of these burden-shifting rules by considering them from the perspective of behavioral theory, particularly those studies concerning anchoring and adjustment effects. In recent decades, behavioral theorists have demonstrated that the precise way in which various questions are framed can have a profound impact on the answers given, particularly when the questions involve predictions, probabilities or other judgments under uncertainty. This paper suggests that the perceived importance of burden-shifting doctrinal rules may be due to their role in framing questions for the judge or other legal decisionmaker and the implicit recognition of judges and lawyers, now made explicit by behavioral theory, that the way such questions are presented has a significant impact on the answers that are provided.

The paper is divided into two parts. Section 1 seeks to define the problem posed, first by discussing the relation of persuasion burden-shifting rules with other sorts of presumptions found in American law, and then documenting the curious dichotomy between the presumed theoretical insignificance of such rules and their perceived practical importance. Section 2 first introduces general research concerning anchoring effects in behavioral theory, and then seeks to apply some of the findings of that research to burden-shifting rules.

1. The puzzling nature of burden-shifting rules

The rules with which we are concerned all involve an issue, call it X, which is either an issue of fact or a mixed issue of law and fact. The rule provides that the burden of persuasion with respect to ‘presumed fact’ X initially rests with one party (party 1), but if party 1 makes the requisite showing with respect to another factual issue, the ‘basic fact’ Y, then the burden of persuasion on X shifts and is placed on the opposing party (party 2). Although the talk of burden shifting makes it sound as if there is a temporal dimension to this process, the ‘shift’ usually is simply part of the decisionmaker’s analysis as set forth in her opinion resolving the issue.\(^3\)

This form of rule should be distinguished from a similar one, also considered a ‘presumption’, which shifts only the burden of production, but not the burden of persuasion. Such rules provide that until fact Y (basic fact) is established, it is not necessary

\(^3\) I speak of the ‘decisionmaker’s opinion’ here because, as noted subsequently, a substantial number of these rules appear in American courts or administrative tribunals which do not utilize juries, such as Delaware Chancery Court. In cases where juries are asked to apply a persuasion burden-shifting rule, there is likely to be a temporal dimension to their analysis.
for the court to consider issue X. For example, in employment discrimination cases, once a plaintiff has proved a prima facie case of discriminatory treatment, the burden shifts to the defendant to show legitimate, nondiscriminatory reasons for the challenged employment action. But, as the Supreme Court made clear in 1981, the shift is only in the burden of production, not persuasion.\(^4\) If no discriminatory treatment can be shown, the defendant will win, frequently on summary judgment, by showing that the plaintiff is unable to establish a critical element of the claim. Once evidence is submitted from which a fact finder could reasonably find discriminatory treatment, whether the reasons for such treatment are valid or pretextual will likely be a major issue in the case. Thus, allocating production burdens in this way serves ‘to frame the factual issue with sufficient clarity’,\(^5\) but does not alter the risk of nonpersuasion.\(^6\) The classic treatments of presumptions often describe presumptions generally as production burden-shifting rules which have no effect on the burden of persuasion.\(^7\)

This paper, however, deals with rules that shift persuasion, not production burdens. In such cases, issue X is relevant to determination of the lawsuit whether or not fact Y can be established. For example, the fairness of a transaction to minority shareholders is going to be a critical issue in a shareholders’ action challenging that transaction whether or not a majority of the minority shareholders approved it. Accordingly, proof of ‘basic fact’ Y neither renders ‘presumed fact’ X relevant to determination of the lawsuit, as it would with a production shifting rule, nor does it compel a finding of X, as it would with irrebuttable or ‘mandatory’ presumptions.

Two other points should be noted with respect to production and persuasion shifting burdens. Although conceptually distinct, the two work together to determine the outcome of dispositive motions such as summary judgment and judgments as a matter of law. As Allen and Callen point out ‘A burden of production is satisfied if but only if the fact finder

\(^4\) Texas Dept of Community Affairs v Burdine, 450 US 248 (1981).

\(^5\) Burdine, supra, 450 US at 255-257.

\(^6\) In other cases, plaintiff’s showing on a particular factual issue will trigger defendant’s production burden on an issue on which defendant also has the burden of persuasion, i.e. an affirmative defence. This is not a ‘shift’ in the burden of persuasion but rather a factual showing which makes relevant an ‘affirmative defence’ on which defendant always has the persuasion burden. For example, until recently, proof of ‘mixed motives’ in Title VII employment discrimination cases triggered a persuasion burden on a defendant employer to show that it would have taken the same action without any race or gender-based motive. Justice Brennan’s opinion in Price Waterhouse v Hopkins, 490 US 228 (1989), distinguishing that case from Burdine, makes the point nicely: ‘[S]ince we hold that the plaintiff retains the burden of persuasion on the issue whether gender played a part in the employment decision, the situation before us is not the one of ‘shifting burdens’ that we addressed in Burdine. Instead, the employer’s burden is most appropriately deemed an affirmative defence: the plaintiff must persuade the fact finder on one point, and then the employer, if it wishes to prevail, must persuade it on another.’ 490 US at 245–246.

\(^7\) According to the so-called ‘bursting bubble’ theory of presumptions, which can be traced back the Thayer’s Evidence treatise, THAYER, J. 1896 A Preliminary Treatise on Evidence, p. 525, once the party against whom the presumption is raised meets a burden of production, the presumption ‘bursts’ and falls out of the case. The risk of nonpersuasion does not shift. Most of the major evidence treatises seem generally to endorse this view of presumptions. See, 1 WEINSTEIN, J. & BERGER, M. 1992 Weinstein’s Evidence, p. 301; 1972 Mccormick’s Handbook of the Law of Evidence, §§342 2d edn; 9 WIGMORE, J. 1981 Evidence, §§2493(e), (J. Chadbourn rev. edn). This is also the general rule set forth in Federal Rule of Evidence 301. The main authority which takes a contrary view is Uniform Rules of Evidence §302 (a) (1999) which like its predecessors provides that ‘In a civil action ... a presumption imposes on the party against whom it is directed the burden of proving that the nonexistence of the presumed fact is more probable than its existence’.
could find in favour of the party with the burden, but that, in turn, is determined by the burden of persuasion.\textsuperscript{8} Since it is the party with the burden of persuasion who carries ‘the risk of failure to persuade the jury of a given fact to the requisite degree’ it is such parties who are most subject to dispositive motions for failing to meet their production burdens. Note, however, that the importance of the persuasion burden in these cases is its role in allocating the risk of nonpersuasion of the ‘basic fact’, the one on which the burden of production has allegedly not been met. In contrast, the rules we are dealing with primarily in this paper allocate the risk of nonpersuasion of the ‘presumed fact’.

The second point is that courts are often confused about whether a given presumption shifts only the production burden or both the persuasion and production burdens on a given issue. The Supreme Court decided \textit{Burdine}, for example, because the lower federal courts had split on precisely this issue. The large number of cases which seek to distinguish production burden-shifting rules from persuasion burden-shifting rules suggest that this is a distinction that is neither intuitive or obvious to the courts which seek to apply these rules.

As previously noted, Delaware corporate law has perhaps the richest jurisprudence of persuasion burden-shifting rules,\textsuperscript{9} but they can also be found in many other totally unrelated fields of law.\textsuperscript{10} In suits for Social Security benefits based on claims of disability, once a claimant has proven an inability to continue at claimant’s former occupation the burden of persuasion formally shifts to the Department of Health and Human Services to prove ‘the claimant is capable, within his physical and mental limitations, of performing some other job which exists in the national economy’.\textsuperscript{11} Under Texas law, a criminal defendant challenging evidence has the burden of showing that the search and seizure that obtained it was unreasonable, but if defendant can show the police seizure was made without a warrant, the burden shifts to the State to show the seizure was nonetheless reasonable.\textsuperscript{12} In federal tax cases, ordinarily it is the taxpayer who has the burden of showing that the IRS’ assessment is incorrect. (This is sometimes referred to as the ‘presumption of correctness’). If the taxpayer proves, however, that the IRS assessment was ‘arbitrary and excessive’ the burden shifts to the IRS to establish the correct amount of the assessment.\textsuperscript{13}

\textsuperscript{8} \textit{Allen & Callen, supra} note 2 at 8–9.
\textsuperscript{9} Chancellor Jacobs’ opinion in \textit{In Re Wheelabrator Technologies}, 663 A.2d 1194, 1203 (Del. Ch. 1995) provides a paradigmatic example.
\textsuperscript{10} These presumptions must therefore be considered exceptions to the ‘bursting bubble’ theory of Thayer, Wigmore, McCormick and the Federal Rules, yet the cases that apply them rarely discuss those authorities, nor do they attempt to apply the contrary Uniform Rules. Indeed, a broad Lexis search of all federal and state cases found that a reference to ‘presumptions’ within five words of ‘Uniform Rules of Evidence’ turned up in only 28 cases. In contrast, 346 cases cited ‘Wigmore’ within five words of presumptions, and even Thayer was cited in 171 such cases. However, for the most part, the lines of cases we are concerned with here do not cite any evidence treatises, but rather treat these presumptions as part of the substantive law of corporations, disability benefits etc., rather than application of evidentiary principles.
\textsuperscript{11} \textit{Struempler v Bowen}, 822 F.2d 40, 41–42 (8th Cir. 1987).
\textsuperscript{12} \textit{Sims v Texas}, 980 S.W.2d 538, 539 (Texas App., 1998).
\textsuperscript{13} \textit{Helvering v Taylor}, 293 US 507, 513–515 (1935); \textit{Avery v Commissioner}, 574 F.2d 467 (9th Cir. 1978).
agreement or testamentary bequest, the burden of persuasion shifts to the party in such a relationship 'to disprove fraud or overreaching'.

All these rules shift the burden of persuasion between the parties on a 'presumed fact' that is central to the case (fairness of the transaction, existence of disability, reasonableness of search, correctness of tax assessment, fraud or overreaching) on the basis of proof of some 'basic fact' which is arguably also relevant to the presumed fact. There are a number of other interesting similarities as well. The central issues on which persuasion burdens are shifted tend to be complex, multi-faceted ones, admitting of many shades or degrees, while the issues whose demonstration serves to shift the burden (minority shareholder approval, inability to perform old job, lack of warrant, arbitrary tax assessment, relationship of trust) tend to be crisper questions, more amenable to yes or no answers. Also, these rules have tended to develop in legal areas where individual expert decisionmakers determine both matters of fact and law.

Still, all these rules purport to do is shift the risk of nonpersuasion when the burden to be applied is a preponderance of the evidence. Accordingly, it is hard to see why they would be of much significance in the typical case. If the civil standard of persuasion is indeed 'more probable than not', Allen and Callen must be correct in concluding that these rules should result in different outcomes 'only in the rare cases in which the evidence is in equipoise, or in which at least one party has no substantial evidence in its own favour'. Accordingly, it is precisely the prominence of these rules in the opinions of judges, writings of legal scholars and concerns of practitioners which poses a puzzle and requires an explanation.

It is not difficult to demonstrate that these burden-shifting rules have a prominence among practicing lawyers and judges quite at odds with their seeming theoretical insignificance. In the first place, they are a substantial part of the doctrinal law in certain areas. Delaware fiduciary duty law, for example, is largely concerned with the proper allocation of burdens of proof, and a great deal of judicial time and energy is devoted to explicating and refining these burden-shifting rules. Moreover, practitioners in these fields do not view the allocation of the burden of persuasion as trivial, but will argue long and vigorously over such issues, frequently expressing the view that burden of persuasion is an important determinant of success in such litigation. Finally, there is the undeniable fact that many cases are appealed and reversed on the grounds that the court below improperly

15 I.e. Delaware Chancellors, administrative law judges, Tax Court judges, judges in suppression hearings and probate proceedings).
16 Allen & Callen, supra note 2 at 4. Allen and Callen are speaking here, as I am, of rules that only shift the burden of persuasion. As noted previously, they recognize a larger and separate role for persuasion burdens in conjunction with production burdens in dispositive motions like summary judgment.
17 E.g. Texas Dept of Community Affairs v Burdine, 450 US 248 (1981) (holding that proof of disparate impact does not shift burden of persuasion, only production); Weinberger v UOP Inc., 457 A.2d 701, 703 (Del. 1983) (where corporate action is on both sides of a transaction, and 'where corporate action has been approved by an informed vote of a majority of the minority shareholders, we conclude that the burden entirely shifts to the plaintiff to show that the transaction was unfair to the minority'). Wheelabrator, supra note 9, 663 A.2d 1194 (Del. Ch. 1995).
18 E.g. Mullins Coal Co. v Director, Office of Workers' Compensation, 484 US 135, 157n.29 (1987) (noting the Department's position that in black lung benefits cases 'the principle that doubt is to be resolved in favour of the claimant ... plays an important role in claims determinations'. Harbor Fin. Partners v Huizenga, 751 A.2d 879, 901 (Del. 1999) ('[d]oubtless defendants appreciate this shift [in the burden of persuasion].')
applied these burden-shifting rules, even when the showing on the underlying issue does
not appear to have been in equipoise. In short, the burden of persuasion, particularly
when shifted by presumption rules, functions as much more than just a tiebreaker in rare
cases. Rather, the correct allocation of the burden of persuasion is viewed as an important
part of the substantive law.

2. Anchoring and adjustment

In recent decades, studies by behavioural theorists have demonstrated that the precise way
in which various questions are presented or framed can have a profound impact on the
answers given, particularly when the questions involve judgments made under uncertainty.
In a classic experiment conducted by Kahneman and Tversky, a ‘wheel of fortune’ was
spun that was rigged to stop at either 10 or 65. Subjects were then asked to estimate
the percentage of African countries in the United Nations, and told the number was
either higher or lower than the number ‘randomly’ spun. Those subjects first told that
the percentage was lower than 65 gave significantly higher average values (45) than those
told that the number was greater than 10 (25). This is true even though the subjects knew
that the ‘anchor numbers’ were chosen at random, and therefore could not be deemed to be
relevant to the determination of the correct answer. Similar instances of anchoring, which
we can define as predictable patterns in judgments under uncertainty based on relative
failure to adjust from an arbitrary starting point, have been found with respect to many
different types of judgments, and appear as prominently in the judgments of experts as lay
people.

A more recent study has shown this anchoring effect among members of the federal
judiciary. A group of 167 federal magistrate judges were given a description of a personal
injury lawsuit in which plaintiff was ‘badly injured’ after the brakes on defendant’s truck
failed. Defendant’s liability was clear, as was the existence of substantial damages.
Approximately half the judges were then simply asked how much they would award in
compensatory damages (the ‘No Anchor’ group.) The other half were also informed that
defendant had moved for dismissal of the case on the ground it did not meet the $75,000
amount in controversy needed for federal diversity jurisdiction. This group (the ‘Anchor’

19 Burdine, supra note 4, is one of a substantial number of cases that reverse upon finding that the lower court
shifted the burden of persuasion when the law required only a shift in the production burden. If these rules only
affect outcomes when the evidence is in equipoise, one would expect the ‘harmless error’ doctrine to be invoked,
or at least trigger a judicial inquiry as to whether the evidence below was or was not in equipoise. Instead, this
error alone seems enough to justify reversal. See also, In re Estate of Carpenter, 253 So. 2d 697 (Fla. 1971)
(burden shift on issue of undue influence in a will contest); In Re Decker, 595 F.2d 185, 188 (3d Cir. 1979)
(holding that by shifting burden of persuasion on adequacy of records to the bankrupt, ‘the bankruptcy judge
erred as a matter of law’.

A fuller description of some of these experiments may be found in TVERSKY, A. & KAHNEMAN, D. 1974
Judgment under uncertainty: heuristics and biases. Science, 185, pp. 1124, 1128-1130. See also PLOUS, S. 1993

21 Id.


23 The description stated ‘The braking system on the truck was faulty’ and ‘the truck had not been properly
maintained by defendant’. Plaintiff had been hospitalized for several months, lost the use of his legs and ‘had
been earning a good living as a free lance electrician’. Id. at p. 790.
group) was asked both how they would rule on that motion, and if they denied it, how much they would award in compensatory damages. Even though all but two of the judges in the Anchor group would have denied the motion, consistent with anchoring theory, the judges in the Anchor group awarded significantly less in damages than those in the No Anchor group.24

Anchoring effects have also been found in judgments concerning relative, non-numerical probabilities when a subject’s attention is focused on a particular feature of a complex event. For our purposes, the most intriguing of these studies is an experiment by Lichtenstein and Slovic in which subjects in a Las Vegas casino were offered a choice between two bets.25 Bet A had a higher probability of winning (and a lower probability of loss) than bet B, but bet B had a higher monetary payout if won. Subjects were asked to choose which bet they preferred to play. Later they were told to assume they owned a ticket to play each bet, and asked the lowest price at which they would sell the ticket. Perhaps surprisingly, 87% of the subjects who chose to play bet A nonetheless placed a higher monetary value on bet B.

Lichtenstein and Slovic explained this result in terms of anchoring theory. Determining the value of a bet is a complex issue involving consideration of two features of the problem—the likelihood of winning and the amount to be won (or lost). Lichtenstein and Slovic hypothesized that framing the question in terms of the price at which to sell the ticket tended to focus the subjects on the monetary amount to be won, which they then adjusted downwards based on the likelihood of not winning. Those who had preferred bet A initially presumably had focused on the higher probability of success rather than the lower payout. The change in the form of the question, therefore, changed the decision maker’s analysis of the same underlying issue.

Although the UN countries, damage award and Las Vegas experiments are all likely illustrations of the anchoring effect, they vary in subtle and interesting ways, particularly with respect to (1) ability to determine the correct result and (2) the relevance of the anchor to the underlying issue. In the initial Kahneman and Tversky experiments, there is an objectively correct right answer. Different anchoring methods can be judged as better or worse based on whether they lead a greater or smaller number of subjects to give (or come closer to) that correct answer.26 With respect to the damage award study, in contrast, there is no objectively correct amount of damages to award. The average award for the Anchor group ($882,000) was certainly within the realm of reasonable awards, as was that of the No Anchor group ($1,249,000). Yet it is still possible to criticize the results of the

24 The difference in average award was $1,249,000 for the No Anchor group, $882,000 for the Anchor group. This difference persisted in the first quartile ($288,000 versus $500,000) and third quartile ($1,000,000 versus $1,925,000) statistics. Id. at pp. 791–792.


26 For example, in another Kahneman and Tversky experiment, high school students asked to estimate the result of ‘8 x 7 x 6 x 5 x 4 x 3 x 2 x 1’ gave significantly higher answers (median 2,250) than those asked to estimate the result of ‘1 x 2 x 3 x 4 x 5 x 6 x 7 x 8’ (median 512). Kahneman and Tversky attributed this to the anchoring effect, hypothesizing that students adjusted upwards from the result of multiplying the first few numbers in the series. KAHNEMAN supra note 20 at 15. Since the correct result of the computation is 40,320 we can say that the first way of framing the problem is better than the second because it leads more people to get closer to the correct answer.
Anchor group as 'less rational' or 'biased' insofar as the experiment itself shows that the results are influenced by an irrelevant factor.27

With respect to the Las Vegas experiment, however, we cannot criticize the anchoring effect on either ground. The two bets were equal in value on a risk neutral basis28, so what was really being evaluated was the participant's preferences for risk. Since there is no 'correct' amount of risk preference, the anchoring effect could not be shown to lead to objectively incorrect results, and since the presumed anchoring factor, the amount of the payout, was clearly relevant to the valuation of the bet, it could not be critiqued as an irrational factor in the decision. All we can say is that focusing subjects on the amount of the payout rather than the probability of winning seems to lead to greater aggregate risk preference. Suppose, moreover, that we concluded that it was normatively desirable for people to show greater risk preference, perhaps because we are state officials with a large budget deficit who need to sell more state lottery tickets. We might design an advertising campaign that emphasizes the large amount of the payoff and says little or nothing about the actual probability of winning. The Las Vegas study suggests that this would increase people's valuation of lottery tickets and therefore lead to more sales. (Indeed, advertisements for lottery tickets do seem to emphasize payout over risk). It might be fair to say that some portion of the purchasers were 'manipulated' into purchasing lottery tickets, but the rightness of encouraging such purchases is a matter for normative policy debate. The mere fact that anchoring effects influenced that decision does not render it either wrong or irrational.29

Consider persuasion burden-shifting rules where the presumed fact, X, is a complex property like fairness or reasonableness, whose determination requires consideration and weighing of a variety of factors. Assume also that the basic fact, Y, while not dispositive of X, is at least relevant to its determination. Under such circumstances, studies like Lichtenstein and Slovic's suggest that the effect of the presumption will be to cause the judge or other fact finder to focus more on X in the determination of Y than he or she might otherwise be inclined to do. Accordingly, when Y is present, the likelihood of a finding of X increases significantly, and decreases when Y cannot be shown. Thus, presumptions of this sort may function as a legally authorized form of cognitive frame, bringing some greater uniformity and predictability to complex and uncertain factual inquiries.

This explanation of persuasion burden-shifting presumptions has some advantages over the standard model. First and foremost, its explains the importance with which courts treat these rules by showing that they really are important in the outcomes of many cases, not just those in which the evidence is in equipoise. It also suggests the kind of circumstances

27 Recognizing that if the motion to dismiss was perceived by the judges as providing relevant information it would not be subject to a normative critique as a bias, the authors of the study explicitly consider and reject that possibility. GUTHRIE supra note 22 at 792-93.

28 The matrix looked like this:

<table>
<thead>
<tr>
<th>(Prob)</th>
<th>(Payout)</th>
<th>(Value)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(win)</td>
<td>(11/12)</td>
<td>(60)</td>
</tr>
<tr>
<td>(lose)</td>
<td>(1/12)</td>
<td>(-120)</td>
</tr>
</tbody>
</table>

Total Value Bet A = (45.02)

29 Anti-smoking campaigns which emphasize the undesirable payout of lung cancer rather than the actual probability of contracting the disease would be employing precisely the same anchoring effect.
in which anchoring effects are most likely to occur—those where there is a complex, multi-factor judgment to be made under conditions of uncertainty, and the same person who has been focused on the anchor is then asked to make the underlying judgment. We have seen that actual burden-shifting rules appear most often in circumstances very much like that. It even potentially explains why courts have so much trouble policing the line between persuasion and production burden-shifting rules, and why they would want to do so. The ‘basic fact’ in production burden-shifting rules, is not supposed to have any effect on the burden of persuasion. According to the ‘bursting bubble’ theory of presumptions, it is supposed to vanish once it has shifted the burden of production.\(^{30}\) Yet as we have seen, anchoring effects can occur with any fact to which the subject’s attention is directed, whether or not it is strictly relevant to the underlying issue. We might consider the ‘basic facts’ which shift production burdens to be ‘invalid’ judicial anchors, which are not supposed to be given undue weight by the finder of fact, as opposed to persuasion shifting burdens, where the anchoring issue is expected to have a strong impact on resolution of the underlying dispute. Reminding courts that production burden shifts should have no effect on burdens of persuasion, and reversing when they appear to have had such an impact may well be the judicial system’s way of policing the line between desirable and undesirable anchoring effects. These rules may be most uncertain where the desirability of the anchoring effect is itself subject to debate.\(^{31}\)

An alternative explanation for the importance of burden shifting rules was suggested in comments to an earlier version of this paper. If ‘equipoise’ is construed by fact finders to include not just cases of absolute equality in the weight of the evidence, but cases where the evidence on both sides is sufficiently close that a fact finder is uncertain whether he or she has reached the right result, then the burden of persuasion will function as an important ‘tiebreaker’ in a much larger number of civil cases. There is some evidence that judges sometimes think about civil burdens of persuasion this way.\(^{32}\) Nonetheless, while this is a possible explanation, I think overall it is less persuasive than the one proposed here. First, it requires us to assume a much greater disparity between what judges say they are doing (and instruct juries to do) and what they actually do in deciding cases. Instead of applying a ‘more probable than not’ standard they would be applying a ‘reasonably certain or not’ standard.\(^{33}\) Secondly, the ‘expanded equipoise’ explanation would imply that burdens of persuasion are very important in all civil cases, but no more or less so when those burdens are shifted by particular legal rules. My reading of doctrinal law indicates that they appear uniquely important in substantive areas where persuasion burden-shifting rules apply.\(^{34}\)

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\(^{30}\) See discussion at note 7, supra.

\(^{31}\) For example, the complexity and uncertainty of the presumption rules in employment discrimination cases may well reflect judicial and societal debates as to how easy or hard it should be for plaintiffs to win such cases.

\(^{32}\) Note the description of the persuasion burden in *Mullins Coal Co. v Director, Office of Workers’ Compensation*, 484 US 135, 157n.29 as a rule that ‘doubt is to be resolved in favor of the claimant’.

\(^{33}\) Supporting this view, however, (and against my own) is the finding by Simon, R. J. & Mahan, L. 1971 Quantifying burdens of proof. *L. & Soc’y Rev.*, 5, 319, 325–326 that jurors asked to provide a statistical representation of the preponderance standard associated it with a probability of .75. I doubt, however, that judges would give similar responses, at least with respect to numerical probability values. Another important finding of behavioral theory is that most lay people have difficulty expressing probability in numerical terms. Windschitl, D. & Wells, G. L. 1996 Measuring psychological uncertainty: verbal versus numeric methods. *J. Exp. Psych. Appl.*, 2, 343.

\(^{34}\) It may well be, however, as some commentators have suggested, that fact finders do not apply the
Whether this paper has provided an accurate account of how burden-shifting presumptions function in the decision-making process is, of course, quite separate from the question of whether such rules, if they do indeed function this way, are appropriate and desirable. As we noted in connection with the lottery example, that question implicates complex normative and policy issues well beyond the scope of this paper. What this paper, has shown, I believe, is that legal rules which function by utilizing the anchoring affect to direct the fact finder’s attention to one aspect of a complex and uncertain judgment are not only possible, but may well be operating as part of existing substantive law, and are neither more nor less normatively appropriate than other forms of legal rules.

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