ARTICLE

Negative Language in Legal Writing

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Introduction

The musical *Into the Woods* begins by weaving together several traditional fairy tales with their usual focus on clear-cut binaries of good and evil, light and dark, love and hate, heroes and villains.[1] We meet many familiar characters and watch their stories intersect: Jack (of "and the Beanstalk"); Little Red Riding Hood; Cinderella, Rapunzel, and their princes; a couple longing for a child. There are, of course, also villainous characters: a witch, a wolf, and a giant. The heroes aren't all good: they are sometimes vain, self-centered, and impatient; their actions sometimes hurt the villains and each other. The villains aren't all bad: they can be caring and protective, and some of their harmful acts are in response to harm caused by the heroes. The heroes travel from the light of a safe village to the darkness of a dangerous wood. They encounter obstacles—many caused by the villains, some brought on themselves or caused by other heroes—but they struggle, persist, and ultimately triumph. That brings us to happily ever after, at least for the heroes, and the end of Act I.[2]

After the intermission, we see that things are not so simple. Act II of *Into the Woods* explores what happens after the "happy ever after" of a

1 Linguists have noted that positive terms tend to come first in phrases such as these that show opposite terms. Paul Rozin & Edward B. Royzman, *Negativity Bias, Negativity Dominance, and Contagion*, 5 Personality & Soc. Psych. Rev. 296, 314 (2001). This is true across many languages and word pairings. *Id.*

2 Quite literally: The last musical number in the first act is "Ever After," and the last words of that song are "happy ever after!" Stephen Sondheim & James Lapine, *Ever After*, *on* Into the Woods (RCA Victor 1988).

fairy tale. We see the characters regretting some of the choices they made in the first act. As Stephen Sondheim said, "The second act deals with the consequences of what [the heroes] did to get there."[3] The binaries break down. The characters learn what we already began to see in the first act: "heroes" aren't always good, and "villains" aren't always bad.[4] There is no happy ever after, but the characters realize they can learn from their experiences.[5]

A similarly familiar binary plays out in legal writing: whether to put a point positively or negatively. As was the case in *Into the Woods*, the traditional story is fairly simple: positive is generally good and negative is generally bad.[6] Recent scholarship has taken up another story—one based on science, but still simple: negative is generally good.[7] As the second half of *Into the Woods* reminds us, though, things are usually more complicated. The choice between the positive and the negative in legal writing is not simple, and choices have consequences. How to make the choice can be informed not only by the conventional wisdom—what we've always been told to do (or not to do)[8]—but by theory and the results of research,[9] and by practical considerations.[10] These, distilled, generate six principles that can help a legal writer decide when and how to use negative expression.[11]

I. The positive-negative binary in legal writing

We begin, as in the first act of *Into the Woods*, with a relatively simple binary. Where the musical tells a tale of heroes and villains, this legal writing story begins with a choice between positive and negative. Conventional wisdom has been that we should root for the heroes and that writers should aim for positive statements. And so experts often advise legal writers to, in most situations, strive for positive statements rather

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3 Stephen Sondheim, Look, I Made a Hat: Collected Lyrics (1981–2011) with Attendant Comments, Amplifications, Dogmas, Harangues, Digressions, Anecdotes and Miscellany 57 (2011).

4 Sondheim & Lapine, *No One Is Alone*, *on* Into the Woods, *supra* note 2 ("People make mistakes . . . / Witches can be right / Giants can be good").

5 Sondheim & Lapine, *Finale: Children Will Listen*, *on* Into the Woods, *supra* note 2 ("The way is dark / The light is dim / But now there's you, me, her and him / The chances look small / The choices look grim / But everything you learn there / Will help when you return there").

6 *See infra* section I.A.

7 *See infra* section I.B.

8 *See infra* section II.A.

9 *See infra* section II.B., C.

10 *See infra* section II.D.

11 *See infra* section III.

than negative ones.[12] Negative statements are considered confusing,[13] and double (or triple) negatives are doubly (or triply) worse.[14] This preference for positive statements over negative statements is not limited to the legal field: the venerable *Elements of Style* also recommends that writers "[p]ut statements in positive form."[15]

Yet legal writing scholars have started to explore implications of research from psychology and related fields that identifies benefits of negativity.[16] They have found evidence of a "negativity bias," the phenomenon that people are more sensitive to—more easily persuaded by—negative information[17] and "tend to weigh [it] more heavily than positive information."[18]

A. "A Very Nice Prince":[19] The conventional wisdom that positive writing is better (except when it isn't)

Experts agree, nearly universally,[20] that legal writers should use positive or affirmative statements, expressions, or terms rather than negative ones:[21] "Write in the affirmative, not the negative";[22] "[S]tate . . . ideas affirmatively."[23] To explain this advice, the experts note that negative

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12 *E.g.*, Cathy Glaser et al., The Lawyer's Craft 197 (2002) (recommending that legal writers use affirmative statements rather than negative ones); Joseph Kimble, *Lessons in Drafting from the New Federal Rules of Civil Procedure*, 12 Scribes J. Legal Writing 25, 54 (2009) (advising drafters to "[t]ry to put statements in positive form").

13 *E.g.*, Gertrude Block, Effective Legal Writing for Law Students and Lawyers 89 (1999).

14 *E.g.*, Mary Barnard Ray & Jill J. Ramsfield, Legal Writing: Getting It Right and Getting It Written 247 (5th ed. 2010) (advising writers to avoid multiple negatives because they are "hard to read"); Kimble, *supra* note 12, at 54–56 ("Avoid multiple negatives . . . .").

15 William Strunk Jr. & E. B. White, The Elements of Style 19 (4th ed. 2000).

16 *See* Kenneth D. Chestek, *Fear and Loathing in Persuasive Writing: An Empirical Study of the Effect of Negativity Bias*, 14 Legal Comm. & Rhetoric 1 (2017) [hereinafter Chestek, *Fear and Loathing*]; Kenneth D. Chestek, *Of Reptiles and Velcro: The Brain's Negativity Bias and Persuasion*, 15 Nev. L.J. 605, 606 (2015) [hereinafter Chestek, *Of Reptiles and Velcro*]; Michael R. Smith, *Going Negative in Policy Arguments*, Wyo. Law., Aug. 2018, at 50; Michael R. Smith, *The Sociological and Cognitive Dimensions of Policy-Based Persuasion*, 22 J.L. & Pol'y 35 (2013) [hereinafter Smith, *Sociological and Cognitive Dimensions*].

17 Daniel J. O'Keefe, *Generalizing about the Persuasive Effects of Message Variations: The Case of Gain-Framed and Loss-Framed Appeals*, *in* Bending Opinion: Essays on Persuasion in the Public Domain 117, 118 (T. V. Haaften, H. Jansen, J. D. Jong & W. Koetsenruijter eds. 2011).

18 David E. Kanouse, *Explaining Negativity Biases in Evaluation and Choice Behavior: Theory and Research*, *in* 11 NA—Advances in Consumer Research 703, 703 (Thomas C. Kinnear Provo, UT: Association for Consumer Research eds., 1984).

19 Sondheim & Lapine, *A Very Nice Prince*, *on* Into the Woods, *supra* note 2.

20 Some authors acknowledge a few caveats. *See, e.g.*, Block, *supra* note 13, at 89.

21 *See id.*; Deborah E. Bouchoux, Aspen Handbook for Legal Writers: A Practical Reference 83 (2005); Kimble, *supra* note 12, at 54 ("Try to put statements in positive form.").

22 Glaser et al., *supra* note 12, at 197.

23 Block, *supra* note 13, at 88.

writing is less forceful,[24] more wordy than putting the point positively,[25] and more confusing or more difficult for the reader to process.[26]

This confusion is particularly apparent when negative terms are used in syllogisms—the foundation for deductive reasoning. "Positive premises offer much stronger bases for deductive reasoning," Professors Sonya G. Bonneau and Susan A. McMahon assert, and they urge caution in formulating rules because a negative premise in a syllogism can lead to a logical fallacy.[27] For example: "Minors cannot enter into valid contracts. Sondra is not a minor. Therefore, Sondra entered into a valid contract."[28] The authors note that, even though it is possible to avoid a fallacy, a negative premise often leads to a necessarily narrow conclusion in order to avoid the fallacy: "Minors cannot enter into valid contracts. Sondra is not a minor. Therefore, the contract is not invalid on account of Sondra's age."[29]

Double or multiple negatives are considered especially confusing and problematic.[30] Professor Bouchoux notes that legal writers often use "expression[s] that make[] an assertion by denying its opposite, as in *not unmindful*," but that such expressions "usually force[] the reader to stop and think through what has been said."[31] For example, "[t]he phrase *not unimportant* must be converted to *important*."[32]

Double-negative statements can be useful, however, in limited situations. Professors Veda R. Charrow, Myra K. Erhardt, and Robert P. Charrow point out that such double negatives can convey a sense in the middle ground between two extremes, such as in the phrase *not unhappy*, which is not the same as *sad* but rather carries a sense somewhere between *happy* and *sad*.[33] Similarly, Professor Gertrude Block suggests,

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24 *See* Bouchoux, *supra* note 21, at 83 ("[N]egative words . . . are not as forceful as affirmative expressions . . . ."); David F. Herr, Roger S. Haydock & Jeffrey W. Stempel, Fundamentals of Litigation Practice § 27:3.2 (2019 ed.) ("Affirmative statements make more of an impact than neutral or negative statements.").

25 *See* Bouchoux, *supra* note 21, at 83 ("[N]egative words . . . are generally wordier than affirmative expressions.").

26 *See* Veda R. Charrow, Myra K. Erhardt & Robert P. Charrow, Clear and Effective Legal Writing 178 (4th ed. 2007) ("Negative statements . . . are generally more difficult for readers to process than positive statements."); Ray & Ramsfield, *supra* note 14, at 247 ("Negative statements are harder to understand than positive ones, so state things positively whenever possible.").

27 Sonya G. Bonneau & Susan A. McMahon, Legal Writing in Context 70 (2017).

28 *Id.*

29 *Id.*

30 Glaser et al., *supra* note 12, at 197 ("Using a double negative is always confusing, almost always ambiguous, and almost always unnecessary."); Charrow, Erhardt & Charrow, *supra* note 26, at 179 ("More than two negatives make a clause exceedingly difficult or even impossible to understand."); Bouchoux, *supra* note 21, at 83 ("The overuse of negatives is often confusing for the reader."); Ray & Ramsfield, *supra* note 14, at 247 ("Multiple negatives are also hard to read, so avoid them.").

31 Bouchoux, *supra* note 21, at 83.

32 *Id.* For research exploring why this is so, see *infra* section II.B.1.

33 Charrow, Erhardt & Charrow, *supra* note 26, at 178. This phenomenon does not require a double negative: the phrase *not sad* conveys a sense between *happy* and *sad* in the same way *not unhappy* does. *See also* Ye Tian & Richard

"deliberately ambiguous negatives do have a virtue—they can convey lukewarm enthusiasm. . . . 'I do not oppose the chairman's motion' does not mean that I favor it. The instructor who says that a student's writing is not bad does not mean it is good."[34] Though these expressions do not involve explicit double negatives, they do have one explicit negative and one word with negative connotations.[35]

Writers "may *occasionally* want to use double negatives to make a command or prescription more forceful."[36] Professors Charrow, Erhardt, and Charrow note that the following negative sentence might be preferable to its positive counterpart:

> Negative: "*No* client letter is to be sent out *unless* a senior partner has approved it."[37]
> Positive: "A client letter is to be sent out *only after* a senior partner has approved it."[38]

Although the authors do not say so, it may be that phrasing the instruction as a prohibition emphasizes that an associate who disregards it is breaking a rule.

Looked at together, the advice from these experts indicates that negative statements should generally be avoided, particularly negative premises in syllogisms and double negatives. Under some circumstances, however, double negatives can be effective in conveying a middle state between two extremes and because they might make an order stronger.

B. "Giants in the Sky":[39] The newer, science-based advice that negative writing is better (except when it isn't)

Negativity can have other benefits, too, besides conveying subtleties or forcefulness through double negatives. Some legal writing scholars have discussed the science showing the *benefits* of negativity more broadly.[40]

Breheny, *Negation*, *in* The Oxford Handbook of Experimental Semantics and Pragmatics 195, 202 (Chris Cummins & Napoleon Katsos eds., 2019).

34 Gertrude Block, *Language for Lawyers*, Fed. Law, Mar. 2012, at 54.

35 *See* section II.C.

36 Charrow, Erhardt & Charrow, *supra* note 26, at 179 (emphasis added).

37 *Id.*

38 *Id.*

39 Sondheim & Lapine, *Giants in the Sky*, *on* Into the Woods, *supra* note 2.

40 A pragmatic argument in favor of negativity came from Professor Helena Whalen-Bridge, who considered situations when an advocate might strategically choose to portray the client in a negative light. Helena Whalen-Bridge, *Negative Narrative: Reconsidering Client Portrayals*, 16 Legal Comm. & Rhetoric 151, 152 (2019).

Negativity bias is our inclination to be more strongly affected "by negative experiences and information" than by positive ones.[41]

Negativity bias should affect a legal writer's choices when "addressing adverse information," "making policy arguments," "choosing themes," and "choosing tone," advises Professor Kenneth D. Chestek.[42] In an empirical study focused on "theme," he asked judges to consider a hypothetical case that involved a dispute between a small business and the government.[43] The judges read one of nine different preliminary statements, some of which presented positive themes and others which presented negative themes.[44] After the judges read one of the nine preliminary statements, a neutrally written statement of stipulated facts, and a brief synopsis of the applicable law, they were asked to indicate which party they were inclined to rule in favor of and why.[45] Judges who read positively themed preliminary statements were more likely to focus on the law when explaining why they were inclined to rule for a given party, while judges who read negatively themed preliminary statements were more likely to focus on the facts in their explanations.[46] Further, when the preliminary statements focused on policy arguments, those stated negatively (a ruling for the other party would be bad for society) were more likely to result in a favorable outcome for the party than those stated positively (a ruling for my client would be good for society).[47] Thus, the results "confirm[ed] empirically the theoretical claim that policy arguments are more powerful if stated in the negative (that is, in terms of avoiding loss rather than providing gain)."[48]

Professor Chestek's empirical findings support the scholarship of Professor Michael R. Smith, who has recommended framing policy arguments negatively in order to take advantage of negativity bias and the related concepts of loss aversion and the endowment effect.[49] Loss aversion is our "tendency . . . to be . . . motivated [more] by the fear of loss than . . . by the prospect of gain."[50] The endowment effect is, similarly, our "tendency . . . to experience more pain in giving up something . . . than the

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41 Smith, *Sociological and Cognitive Dimensions*, *supra* note 16, at 77 ("Negativity bias refers to the tendency of people to be more impacted by negative experiences and information than they are by positive experiences and information."). For the science behind the negativity bias phenomenon, see *infra* section II.C.

42 Chestek, *Of Reptiles and Velcro*, *supra* note 16, at 622, 624, 625, 629 (capitalized headings made lowercase here).

43 Chestek, *Fear and Loathing*, *supra* note 16, at 8.

44 *Id.* at 15–16.

45 *Id.* at 15–17.

46 *Id.* at 26.

47 *Id.* at 31.

48 *Id.* at 34.

49 Smith, *Sociological and Cognitive Dimensions*, *supra* note 16, at 77–78.

50 *Id.* at 77.

pleasure . . . in acquiring the same thing."[51] Together—negativity bias, loss aversion, and the endowment effect—"strongly suggest[]," Professor Smith concluded, "that legal advocates should phrase their policy arguments in terms of avoiding loss."[52] An example would be "[s]tat[ing] the argument in terms of avoiding the infringement or diminishment of the rights . . . rather than as protecting those rights."[53]

Not all science-backed scholarship favors negativity, however. Based on Professor Chestek's study, a positively themed preliminary statement would be helpful to an advocate who wanted the judge to focus more on the law than the facts.[54] Further, preliminary statements based on character (the "good" character of the client or the "bad" character of the other party) were more successful when framed positively than negatively.[55] For one party, using a negative character preliminary statement backfired significantly: only 23.5% of participants who read that preliminary statement favored the government in a dispute between the government and a small business.[56]

At least one scholar has addressed the potential problems with negating or refuting an opposing argument, which is a different type of negativity than the negative themes and frames supported by the research on negativity bias. Professor Adam G. Todd considered "scholarship based on neuroscience, neuropsychology, and related empirical studies [about] judicial decision making . . . ."[57] As part of that examination, he discussed the problems with "[t]rying to negate an assertion made by an opposing party . . . ."[58] Specifically, negations can sometimes reinforce the assertion being negated due to the way the negations are processed and held in memory.[59] Further, negations can be subject to "the backfire effect" when the negation challenges a reader's "deeply held pre-existing position."[60] Think, for example, of someone who believes strongly that vaccines are harmful. Showing that person evidence that vaccines are not harmful is likely to "backfire" and cause the original views to become even more entrenched.

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51 *Id.*

52 *Id.* at 77–78.

53 *Id.* at 78.

54 *See* Chestek, *Fear and Loathing*, *supra* note 16, at 26.

55 *Id.* at 21.

56 *Id.* at 29. Professor Chestek theorized that this was because we tend to root for an underdog, and that preference is triggered by a negative personal attack, but not by negative policy arguments since those are focused on society and thus "there is no 'underdog.'" *Id.* at 30.

57 Adam G. Todd, *An Exaggerated Demise: The Endurance of Formalism in Legal Rhetoric in the Face of Neuroscience*, 23 Legal Writing 84, 85 (2019).

58 *Id.* at 113.

59 *Id.* at 113 & nn.162–63.

60 *Id.* at 113.

Looking at yet another, broader type of negativity, Professor Kathryn Stanchi has taken a deep look at how to deal with "negative information," meaning information that is adverse to the client's interest or unfavorable for the client's position.[61] As relevant to language choices, Professor Stanchi discusses refutation as one possible way of handling negative information.[62] To make a clear refutation, negation[63] will often be necessary.[64] For example, to refute an argument based on a statutory provision, an attorney might argue that the provision is not applicable for certain reasons.[65] Professor Stanchi concluded, among other things, that "overall, it is advantageous to preemptively disclose and refute adverse information" and that the benefits of refutation are clearest when it involves direct negation.[66]

Lawyers and legal writers can benefit from the negativity bias, as these scholars have argued. Framing policy arguments negatively can be particularly useful. Negative arguments based on character might backfire, however, when they are made against an underdog. Further, using negation carries risks, though direct negations are the best way to refute adverse information.

II. Negative language and its consequences

The choice to use positive or negative language involves distinguishing two types of negative language: negation and negative valence—that is, (1) words or phrases that include "not" or its equivalent, whether explicitly (*not safe*, *unsafe*) or implicitly (*dangerous*); and (2) words or phrases with a negative or "bad" meaning (*weapon*). All three examples have negative valence, or meaning, only the first two have negation. Research can help us think through the consequences of choosing to use one or the other. Practical considerations should weigh in that choice, as well.

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61 Kathryn M. Stanchi, *Playing with Fire: The Science of Confronting Adverse Material in Legal Advocacy*, 60 Rutgers L. Rev. 381, 381 (2008).

62 *Id.* at 388.

63 See *infra* section II.A for a definition of "negation" for purposes of this article.

64 Stanchi, *supra* note 61, at 429 (noting that "refutation" in the scientific literature includes things such as "arguing that a negative fact is simply not true or is not relevant to the issue, or arguing that an adverse authority is inapplicable or not actually adverse").

65 Professor Stanchi's examples of refutation include, "You may hear that the plaintiff was drinking, but his drinking is irrelevant to this dispute," which has an explicit negation (*irrelevant*), and "While the Jones case has some facts in common with the current case, it is distinguishable on the key relevant facts," which has an implicit negation (*distinguishable* or *not analogous*). *Id.*

66 *Id.* at 424, 429. Professor Stanchi noted, however, that it is not always possible to directly refute bad facts or bad law and thus lawyers may take more indirect paths: "[L]awyers who cannot directly negate a bad authority may reframe the question . . . or may read the authority broadly or narrowly to support their view. Lawyers seeking to deal with bad relevant facts may juxtapose them to more positive facts in order to blunt their force." *Id.* at 430.

A. "Our Little World":[67] Identifying negative language

What is negative language? Though we all likely have an intuitive understanding of what counts as "negative language," the concept is somewhat difficult to pin down;[68] distinctions between types of negativity can even overlap in a single word. Authors tend to explain it by example rather than definition. The clearest examples are explicit: *no* and *not*, along with words with related prefixes such as *non-* or *un-*.[69] In addition, various legal writing textbooks and guides include the following in their lists of negative words: "*unless, without,*"[70] "*prohibit[], . . . refus[e], none, . . . never, . . . except, limit, preclude, refuse, . . . void,*"[71] "*neglect to, . . . hardly, scarcely,*"[72] "*failure, absent,* and *deny.*"[73]

Many of these examples fall into the category of **negation**, either explicit ("not") or implicit ("absent," which is the equivalent of the explicit negation "not present"). The most straightforward example of negation is a statement that explicitly includes the word *not*.[74] As a matter of propositional logic, the definition ends there.[75] For any statement (or proposition) A, the negation is ~A,[76] which is read as *not A*,[77] and understood to mean *it is not true that A*.[78] Therefore, if A is true, then ~A is false, and if A is

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67 Sondheim & Lapine, *Our Little World, on* Into the Woods, *supra* note 2.

68 *See* A.J. Ayer, *Negation*, 49 J. Phil. 797, 797 (1952) (pointing out the ambiguity of a definition of positive and negative statements that relies on the presence or absence of words such as *no* or *not*: "the statement that Mt. Everest is the highest mountain in the world is to be classified, according to this principle, as affirmative and the statement that Mt. Everest is not the highest mountain in the world is to be classified as negative. But to say that Mt. Everest is the highest mountain in the world is to say that there is no mountain in the world which is as high as Mt. Everest, a statement which we have now to regard as negative, and to say that Mt. Everest is not the highest mountain in the world is to say that there is some mountain in the world which is higher than Mt. Everest, a statement which we have now to regard as affirmative. It would seem, therefore, that each of these statements is both affirmative and negative according to the means chosen for expressing it.").

69 Kimble, *supra* note 12, at 54 (listing as examples of negative words "*no, not,* and words with negative prefixes (*in-, un-, non-*)"); Ayer, *supra* note 68, at 797 ("In practice, one tends to regard a statement as negative if it is expressed by a sentence which contains such English words as *not, no, nobody, nowhere, nothing,* or the corresponding words in other languages."); Ray & Ramsfield, *supra* note 14, at 247 (including "*unless* [and] *not unlike*" in a list of negative words).

70 Kimble, *supra* note 12, at 54.

71 Bouchoux, *supra* note 21, at 83.

72 Ray & Ramsfield, *supra* note 14, at 247.

73 Charrow, Erhardt & Charrow, *supra* note 26, at 179.

74 Tian & Breheny, *supra* note 33, at 196 (referencing *no* and *not* as examples of negation).

75 *See, e.g.,* G.E. Hughes & M.J. Cresswell, A New Introduction to Modal Logic 4 (1996) (introducing the symbol for negation, which is read as "not," and indicating that use of the negation symbol is negation).

76 One symbol used for negation is "~." *See* Laurence R. Horn, A Natural History of Negation 79 (2001); Greg Restall, Logic: An Introduction 26 (2006); Hughes & Cresswell, *supra* note 75, at 4. Another symbol used for negation is "¬." *See* Ian Chiswell & Willfrid Hodges, Mathematical Logic 24 (2007); Ye Tian & Richard Breheny, *Dynamic Pragmatic View of Negation Processing, in* Negation and Polarity: Experimental Perspectives 21, 21 (P. Larrivée & C. Lee eds., 2016); Sangeet Khemlani, Isabel Orenes & P. N. Johnson-Laird, *Negation: A Theory of Its Meaning, Representation, and Use*, 24 (5) J. Cognitive Psych. 541, 550 (2012).

77 Hughes & Cresswell, *supra* note 75, at 4.

78 Restall, *supra* note 76, at 26.

false, then ~A is true.[79] Negation in propositional logic can be a part of complex reasoning,[80] but it is, at least, easy to define.[81]

In a natural language like English, defining negation is necessarily more complicated,[82] though English negation sometimes looks much like negation in propositional logic. For example, for the positive statement *it is Monday*, the negation can be formed by inserting the word *not* to create the statement *it is not Monday*. The two statements carry opposite meanings. Linguists would say the two sentences have the opposite "truth value."[83] If *it is Monday* is true, then *it is not Monday* must be false and vice versa.[84] Negation is, however, difficult to define;[85] explicit negation with the word *not*—or similar words and prefixes such as *no*, *un-*, and *non-* —is just the start.

Implicit negation in words or phrases lacks such explicit components. "With implicit negation, objects or actions are not directly denied, but rather their absence needs to be inferred from the statement."[86] For example, "*doubt* and *ignore*" show implicit negation; they "correspond to *not believe* and *not attend to*."[87]

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79 Horn, *supra* note 76, at xiii; *see also* Hughes & Cresswell, *supra* note 75, at 4–5 (showing the truth values for a statement and its negation in a "basic truth-table," which indicates when one is true the other is false).

80 One conclusion logicians will make about negated statements is that ~~A is equivalent to A. Horn, *supra* note 76, at xiii. In other words, double negatives are equivalent to the original positive statement.

81 *See id.* (describing the "simplicity" of negation in propositional logic); Noa P. Cruz Díaz & Manuel J. Maña López, Negation and Speculation Detection 7 (2019) (stating that "negation in logic is well defined and syntactically simple").

82 *See* Horn, *supra* note 76, at xiii ("[T]he form and function of negative statements in ordinary language are far from simple and transparent."); Díaz & López, *supra* note 81, at 7 ("[I]n natural language [negation] is complex.").

83 *See* Liuba Papeo & Manuel de Vega, *The Neurobiology of Lexical and Sentential Negation*, *in* The Oxford Handbook of Negation 740, 741 (Viviane Déprez & M. Teresa Espinal eds., 2020); Tian & Breheny, *supra* note 33, at 198 ("[N]egation reverses the truth value of a proposition.").

84 Looked at in this light, the line between a positive sentence and a negative sentence might become muddy, since one is simply the opposite of the other.

85 *See* Papeo & de Vega, *supra* note 83, at 740 (noting the "lack of consensus among philosophers, linguists, psycholinguists, and cognitive scientists on the definition of negation"); Guillermo Eduardo Macbeth, María del Carmen Crivello, Mauro Bruno Fioramonti & Eugenia Razumiejczyk, *Chronometrical Evidence Supports the Model Theory of Negation*, Sage Open (June 21, 2017), https://journals.sagepub.com/doi/10.1177/2158244017716216 ("The meaning of negation seems to be clear in mathematical logic" but "less clear in pragmatics" and "much more unclear in psychology, particularly in the field of reasoning research."); *cf.* Malin Roitman, The Pragmatics of Negation : Negative Meanings, Uses and Discursive Functions VII (2017) ("Negation is one of the most complex phenomena in language, seen from a formal linguistic perspective as well as from a functional, pragmatic perspective.").

86 Józef Maciuszek, Mateusz Polak & Martyna Sekulak, *There Is No Item vs. I Wish There Were an Item: Implicit Negation Causes False Recall Just as Well as Explicit Negation*, PLoS ONE, at 2 (Apr. 12, 2019), https://doi.org/10.1371/journal.pone.0215283.

87 Ken Ramshøj Christensen, *The Neurology of Negation: fMRI, ERP, and Aphasia*, *in* The Oxford Handbook of Negation 725, 727 (Viviane Déprez & M. Teresa Espinal eds., 2020); *accord* Barbara Kaup & Carolin Dudschig, *Understanding Negation: Issues in the Processing of Negation*, *in* The Oxford Handbook of Negation 635, 637 (Viviane Déprez & M. Teresa Espinal eds., 2020) (describing "forgot, absent, few" as implicit negation); Khemlani, Orenes & Johnson-Laird, *supra* note 76, at 550 (using *open* as an example of implicit negation since it implicitly denies *closed*). For research exploring readers' difficulty in grasping implicitly negative statements, see *infra* section II.B.1.

Some examples of negative language on the lists of legal writing scholars are words with **negative valence**, which are words with negative connotations. The valence of a word "is its quality of being perceived as 'good' versus 'bad.'"[88] Words like "defeat, despair, sorrow, gloom, misery, sadness, tragedy, and weep" have negative valence, while words like "cheer, pleasure, delight, fun, humor, joy, comedy, and comfort" have positive valence.[89] A word's valence can be negative ("crisis, weapon"), neutral ("ticket, member"), or positive ("friendship, courage").[90]

These two types of negative language are not mutually exclusive. Both negation and negative valence can appear in a single word or phrase. A word with negation can also have negative valence (e.g., *unhappy*). And a word with negative valence can be negated (e.g., *not grumpy*). The two types of negative language are also not coextensive. Some words with negative valence are not negations, implicit or explicit. *Fault*, for example, has negative valence but is not an implicit negation of another word.

B. "No More":[91] Research and theory about negation

The common wisdom about avoiding negative statements is now supported by research showing that subjects have more difficulty processing statements that use negation than statements without negation.[92] This processing difficulty is seen in several different ways: people take longer to respond to questions with negation, are less accurate in their responses, and have poorer recall later.[93]

One theory about why statements with negation are harder to process is that, in order to understand a statement with negation, people first mentally construct the positive version of that statement and then negate it.[94] For example, someone hearing *it is not Monday* will first process the

88 Kent C. Berridge, *Affective valence in the brain: modules or modes?*, 20(4) Nature Rev. Neuroscience 225, 225 (2019).

89 Christian Unkelbach, William von Hippel, Joseph P. Forgas, Michael D. Robinson, Richard J. Shakarchi & Chris Hawkins, *Good Things Come Easy: Subjective Exposure Frequency and the Faster Processing of Positive Information*, 28 Soc. Cognition 538, 542–43 (2010).

90 Fumiko Gotoh, Tadashi Kikuchi & Ulrich Olofsson, *A Facilitative Effect of Negative Affective Valence on Working Memory*, 51 Scandinavian J. Psych. 185, 186 (2010).

91 Stephen Sondheim & James Lapine, *No More, on* Into the Woods, *supra* note 2.

92 *See* P.C. Wason, *The Processing of Positive and Negative Information*, Q. J. Experimental Psych., May 1959, at 92; Philip B. Gough, *Grammatical Transformations and Speed of Understanding*, 4 J. Verbal Learning & Verbal Behav. 107, 109 (1965); Larry Sowder & Guershon Harel, *Toward Comprehensive Perspectives on the Learning and Teaching of Proof*, *in* Second Handbook of Research on Mathematics Teaching and Learning, 805, 826 (Frank K. Lester ed. 2007) ("Humans do not seem to process negative statements as facilely as affirmative statements."); Tian & Breheny, *supra* note 33, at 196 ("Negative sentences are found to be more difficult to process than positive sentences," e.g., "The door is not open." versus "The door is open.").

93 See the studies described *infra* section II.B.1.

94 Tian & Breheny, *supra* note 33, at 202. *But see* Marco Tettamanti, Rosa Manenti, Pasquale A. Della Rosa, Andrea Falini, Daniela Perani, Stefano F. Cappa & Andrea Moro, *Negation in the Brain: Modulating Action Representations*, 43

positive version, *it is Monday,* and then apply the negation, *not.* That extra step could explain the slower processing time for negation. It could also explain why people sometimes misremember negated information.

Another theory is that negation is harder to process because it can require more context.[95] This is because statements with negation "are often used to deny or contradict a positive proposition."[96] When the negation is taken out of context—presented without the corresponding positive information that it is contradicting—it is hard for the reader or listener to process.[97]

The processing difficulty of negation may stem from its demands on working memory.[98] "[W]orking memory resources are required to process text as we read it, but there is a limit to how much we can hold in our working memory. If more resources are required to process text than are currently available for a reader, difficulties will arise."[99] As someone reads a sentence, even a relatively simple one such as the first sentence of this paragraph, that person has to hold many pieces of information in working memory in order to relate the words and phrases to each other and understand the complete sentence.[100] That task becomes even harder with a more complex sentence such as the preceding one. And adding the word "not" increases the difficulty further because it requires additional processing.[101]

No matter the cause or theory, this processing difficulty has consequences for the reader's attitude towards the writing or the propositions in the text: when readers struggle to understand what they are reading,

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NeuroImage 358, 370 (2008) (noting that their "results do not support the hypothesis of a greater processing load associated to negative sentences, and are in line with the idea of a reduced access to the negated information").

95 Tian & Breheny, *supra* note 33, at 207 ("Out-of-context negative sentences are more difficult to process than positives, and their positive counterparts are often represented in the early stage of processing."). On the other hand, context can ameliorate or counteract the effects of negation. *See infra* section II.B.2.

96 *Id.* at 204.

97 *Id.* ("[N]egative sentences out of appropriate context are often infelicitous, and therefore hard to process.").

98 Sara J. Margolin, *Older Adults' Comprehension of Transformational and Deactivation Negation*, 41 Educ. Gerontology 604, 605 (2015) (noting negation may overtax working memory).

99 *Id.; see also* Andrew M. Carter, *The Reader's Limited Capacity: A Working-Memory Theory for Legal Writers*, 11 Legal Comm. & Rhetoric 31, 36 (2014) ("A foundational precept of working-memory theory is that working memory is a limited capacity resource. . . . . Indeed, our ability to hold and process new information can strike one as surprisingly paltry.").

100 Marcel Adam Just & Patricia A. Carpenter, *A Capacity Theory of Comprehension: Individual Differences in Working Memory*, 99-1 Psych. Rev. 122, 122 (1992) ("A listener or comprehender must be able to quickly retrieve some representation of earlier words and phrases in a sentence to relate them to later words and phrases.").

101 Margolin, *supra* note 98, at 605. Though a few different theories address how negation is processed by the reader, they all indicate that negation increases the complexity of the processing. *Id.* at 604–05. One theory, for example, is that someone reading a sentence with negation first processes the positive version of the sentence and then adds the negation. *Id.* at 604.

they are less likely to trust what it says,[102] are less likely to be persuaded by it,[103] and are more likely to have a lower opinion of the writer.[104]

1. The difficulty with negation

People are slower to process statements with negation. In one study, participants were shown a simple picture of a star and a plus sign and a statement about the picture.[105] Participants were asked to indicate whether the statement (e.g., "star is above plus" or "star isn't below plus") was true or false.[106] Participants took longer to respond to the negative statements than to the positive statements.[107]

Statements with multiple negatives are even more difficult for a reader to process.[108] In one study, participants read sentences with zero, one, two, three, or four negatives, and then were asked to decide whether the sentence was reasonable or unreasonable.[109] One sentence used in the study read, "Because he often worked for hours at a time, no one believed that he was not capable of sustained effort."[110] Readers' response times and error rates both increased with the number of negatives used in the sentence.[111]

Researchers have found similar results when the negation was implicit rather than explicit.[112] In one study, participants responded to a question that included either a positive statement ("John remembered to let the dog out.") or its implicit negation ("John forgot to let the dog

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[102] Julie A. Baker, *And the Winner Is: How Principles of Cognitive Science Resolve the Plain Language Debate*, 80 UMKC L. Rev. 287, 288 (2011) ("[T]he more 'fluent' a piece of written information is, the better a reader will understand it, and the better he or she will like, trust and believe it.").

[103] *Cf.* Todd, *supra* note 57, at 117 ("Good organization of an advocate's argument is persuasive because it lightens the readers' cognitive load and permits them to easily follow the writer's paradigm or theme in a way that favorably influences the readers.").

[104] Lawrence M. Solan, *Four Reasons to Teach Psychology to Legal Writing Students*, 22 J.L. & Pol'y 7, 17 (2013) ("In other words, the harder it is to understand a passage, the less we think of the ability of the person writing it, and the more complex the passage turns out to be.").

[105] Herbert H. Clark & William G. Chase, *On the Process of Comparing Sentences against Pictures*, 3 Cognitive Psych. 472, 483 (1972).

[106] *Id.*

[107] *Id.* at 484.

[108] *See* Mark A. Sherman, *Adjectival Negation Multiply and the Comprehension of Negated Sentences*, 15 J. Verbal Learning & Verbal Behav. 143, 148 (1976) ("A second negative adds considerably to comprehension time [but] the most dramatic increase in difficulty does indeed occur upon addition of a third negative . . . . Taken as a whole the 3-negative sentences used here were clearly beyond normal comprehension ability.").

[109] *Id.* at 146, 147.

[110] *Id.* at 146.

[111] *Id.* at 147.

[112] Marcel Adam Just & Herbert H. Clark, *Drawing Inferences from the Presuppositions and Implications of Affirmative and Negative Sentences*, 12 J. Verbal Learning & Verbal Behav. 21, 23–25 (1973).

out.").[113] Researchers also tested similar sentences with either "thoughtful" or "thoughtless."[114] Participants took longer to respond to sentences with implicit negation: response times were longer for "forgot" than "remember" and longer for "thoughtless" than "thoughtful."[115]

People also have more difficulty *understanding* statements with negation. This is what participants in another study reported, having read short paragraphs that contained either a single negation or no negation.[116] In addition, they answered comprehension questions about the paragraphs with negation less accurately.[117] Although rereading the text led to more accuracy in the comprehension questions, the improvement was not significantly different for the paragraphs with negation than for those without it.[118]

Further, people can misremember negative information. Even when subjects' immediate recall of negative information is accurate, as more time passed, the same subjects mistakenly recalled the positive version of the negative information: the "not" got lost when they tried to remember the information later .[119] Participants in another study viewed a room filled with items and then were asked whether or not specific items had been in the room.[120] Participants' initial recall was accurate, but they later incorrectly reported items had been present that they previously said were not.[121]

2. Reducing the difficulty with negation

People seem to have less difficulty with negation in narrative text (stories) than in expository text (essays), though negation in either type of text was still more difficult than text without negation. In one study, participants read short paragraphs that were either narrative or expository and that included either no negation, one negation, or two negations.[122]

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113 *Id.* at 24.

114 *Id.*

115 *Id.* In these word pairs, the negative words are implicit negations of the positive words, but they are also words with negative valence, which will be discussed in section I.C.

116 Sara J. Margolin & Natasha Snyder, *It May Not Be That Difficult the Second Time Around: The Effects of Rereading on the Comprehension and Metacomprehension of Negated Text*, 41 J. Res. Reading 392, 396, 397 (2018).

117 *Id.* at 397.

118 *Id.* at 397, 398.

119 Susan Jung Grant, Prashant Malaviya & Brian Sternthal, *The Influence of Negation on Product Evaluations*, 31 J. Consumer Res. 583, 583 (2004) ("Respondents made accurate immediate discriminations but after a delay mistakenly reported items that they had earlier identified as not present."). For experiments revealing this "lost *not*" tendency, see *infra* section II.B.2.

120 Klaus Fiedler et al., *Do You Really Know What You Have Seen? Intrusion Errors and Presuppositions Effects on Constructive Memory*, 32 J. Experimental Soc. Psych. 484, 506 (1996).

121 *Id.*

122 Sara J. Margolin & Paige A. Hover, *Metacomprehension and Negation: Assessing Readers' Awareness of the Difficulty of Negated Text*, 32 Reading Psych. 158, 161–62 (2011).

Participants read the paragraphs with negation more slowly, reported that those paragraphs were harder to understand, and answered comprehension questions about those paragraphs less accurately.[123] In addition, the effects of negation on comprehension were more pronounced in expository texts than in narrative texts.[124] Although the author did attempt to explain the reasons for these differences in the results, others have theorized that—negation aside—narrative text is easier to understand and remember than expository text because of the characteristics of stories: "Stories are more familiar than essays in many ways, including their resemblance to everyday experience [and] prevalence throughout human history . . . . In addition, stories are often more emotional than essays, and emotion can aid memory."[125] Though those authors did not consider negation, they concluded more generally that their meta-analysis of other studies showed that "people had an easier time comprehending and recalling narrative texts compared to expository ones."[126]

Theories about context do not provide a complete explanation for why statements with negation are more difficult to process,[127] yet providing context does seem to aid readers with the processing task. Most studies about negation processing did not provide context for the negative statements.[128] When they did, however, readers' difficulty in processing "diminish[ed] or disappear[ed]."[129] In one study, participants read a very short story that concluded with a positive or negative statement, e.g., "the water was warm" or "the water was not warm."[130] Earlier in the story, participants had seen a sentence that either provided some explicit context or did not provide explicit context, e.g., the protagonist "wondered whether the water would be warm" or she "wondered what the water would be like."[131] Researchers measured how long it took participants to read each sentence in the story.[132] They found that the explicit context did not significantly affect the reading times for the positive sentences, but

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[123] *Id.* at 163–65.

[124] *Id.* at 166 ("[T]he adverse effect of negation on reading comprehension . . . was particularly substantial for expository text.").

[125] Raymond A. Mar et al., *Memory and Comprehension of Narrative Versus Expository Texts: a Meta-analysis,* 28 Psychonomic Bull. & Rev. 732, 733 (2021).

[126] *Id.* at 745.

[127] Tian & Breheny, *supra* note 33, at 204 (acknowledging open questions about the context explanation for the difficulty of processing negation).

[128] *Id.* at 199–200.

[129] *Id.* at 200, 207.

[130] Jana Lüdtke & Barbara Kaup, *Context Effects when Reading Negative and Affirmative Sentences*, 28 Proceedings of the Annual Meeting of the Cognitive Science Society 1735, 1736 (2006).

[131] *Id.*

[132] *Id.*

did improve the reading times for the negative sentences.[133] When explicit context was absent (she "wondered what the water would be like"), the participants took significantly longer to read the negative sentence.[134] In another study, which used eye-tracking data to analyze the participants' information processing, the researchers found that, while context "can indeed aid the processing of negation, the latter still remained more difficult to process than affirmation, regardless of context."[135]

The difficulty with negation may also be reduced or eliminated when negation is used with specific types of words and concepts. In one study, the researchers presented participants with descriptions of people using descriptive words that were "uni-polar" or "bi-polar."[136] Bipolar descriptions come in pairs where each word in the pair is an easy-to-think-of opposite of the other word.[137]Unipolar descriptions are words that do not have an obvious opposite counterpart.[138] The words *tidy* and *messy* are a bipolar pair because they have opposite meanings and are commonly understood to be opposites.[139] The word *responsible* is unipolar because there is no word that is commonly understood to be the opposite of *responsible* aside from the explicit negation *irresponsible* or *not responsible.*[140]

The participants in this study read a description of a person with either a bipolar descriptive word or a unipolar one.[141] Each description, whether bipolar or unipolar, was either positive ("Tom is a tidy person.") or negative ("Tom is not a tidy person.")[142] Participants then read another sentence about the same person and indicated whether the second sentence logically fit with the information in the first sentence, did not

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133 *Id.* ("[T]he processing of the negative sentences was greatly facilitated when the negated proposition was explicitly mentioned in the prior text.").

134 *Id.* at 1737; *see also* Elena Albu, Oksana Tsaregorodtseva & Barbara Kaup, *Contrary to Expectations: Does Context Influence the Processing Cost Associated with Negation?*, 50 J. Psycholinguistic Rsch. 1215, 1234 (2021).

135 Isabel Orenes, Linda Moxey, Christoph Scheepers & Carlos Santamaría, *Negation in Context: Evidence from the Visual World Paradigm*, 69 Q. J. Experimental Psych. 1082, 1089 (2016).

136 Ruth Mayo, Yaacov Schul & Eugene Burnstein, *"I Am Not Guilty" vs "I Am Innocent": Successful Negation May Depend on the Schema Used for Its Encoding*, 40 J. Experimental Soc. Psych. 433, 440 (2004).

137 *Id.*

138 *Id.* The researchers identified the words for each list through a pretest in which participants were given descriptive words and asked "to write down the first word with an opposite meaning that came to mind." *Id.* at 441. Where pretest participants identified pairs of words as opposites of each other, e.g., "[t]idy/messy," the researchers classified those words as a bipolar pair. *Id.* Where pretest participants could not think of a word meaning the opposite of the original word or merely used negation to give the opposite meaning of the original word, e.g., "talented," the researchers classified that word as unipolar. *Id.*

139 *Id.* at 436–37, 441.

140 *Id.* at 441.

141 *Id.*

142 *Id.* at 437, 441.

fit, or whether it was "impossible to tell."[143] With the Tom example, these participants (who had first read either that Tom was tidy or not tidy) then saw one of the following three sentences and asked to indicate whether the second sentence logically fit with the first sentence:

Tom's clothes are folded neatly in his closet.
Tom forgets where he left his car keys.
Tom likes to have long conversation on the phone.[144]

A unipolar example is the description "Maya is responsible" or its negation "Maya is not responsible."[145] With one of those as the first sentence, participants might have seen one of the following three sentences next.

Maya pays her bills on time.
Maya frequently misses deadlines at work.
Maya likes to read.

After that initial phase of the experiment, in which participants had to answer the question about fit, there was a five-minute "filler task," then participants were tested on their memory of the descriptions.[146]

When the statements involved bipolar descriptive terms, participants answered the fit question faster for statements that logically fit with the first, whether the original description was a positive statement or a negative one.[147] For example, some participants read about Tom being tidy or not tidy. Those who read the positive version were quicker to answer the fit question when the second sentence was "Tom's clothes are folded neatly in his closet," which logically fits with the first sentence about Tom's tidiness. Those who read the negative version, that Tom was not tidy, were quicker to answer the fit question when the second sentence was "Tom forgets where he left his car keys," which logically fits with the first sentence about Tom's lack of tidiness.

When the statements involved unipolar descriptions, however, the results showed a difference depending on whether the first statement was positive or negative. For positive statements involving unipolar descriptions, participants were faster to answer the fit question when the

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143 *Id.* at 436, 441.

144 *Id.* at 437.

145 "Responsible" is on the list of unipolar descriptive words used in the study. *Id.* at 441. The sentences in this example are mine.

146 *Id.* at 442.

147 *Id.* at 442–43.

second sentence did logically fit than when it did not.[148] For the unipolar statements with negation, participants answered more quickly when the second sentence did not logically fit with the first sentence.[149] As an example, if participants read a sentence like "Maya is responsible," they were quicker to answer about logical fit when the second sentence was something like "Maya pays her bills on time," which logically fits with the first sentence. If, on the other hand, participants first read "Maya is not responsible," they were quicker to answer about logical fit when the second sentence was something that did not logically fit, such as "Maya meets deadlines at work."

On the memory task, participants had the best recall of positive statements.[150] They remembered statements such as "Tom is tidy" and "Maya is responsible" better than the negated versions of each, "Tom is not tidy" and "Maya is not responsible." Participants also "were more accurate in remembering the meaning of bi-polar negations . . . than uni-polar negations."[151] Participants were more likely with unipolar negation to make a memory mistake when they forgot the "not," "e.g., remembering 'not responsible' as 'responsible.'"[152]

The researchers concluded that negation "may activate associations . . . opposite to the intended meaning of the negation," causing the reader to "remember the message as if it had not been negated."[153] Yet these effects occur only in situations such as the unipolar descriptions lacking "readily available schema with an opposite meaning" of the negated term.[154] In situations such as the bipolar descriptions, on the other hand, when there is "an alternative opposite schema that can capture the meaning of the negation, then the effect of negation is similar to that of affirmation."[155] Whereas readers have a tendency to misremember negated unipolar descriptions, such as reading "not responsible" and remembering "responsible" instead, those types of mistakes are less likely to occur with negated bipolar descriptions such as "not tidy," which they can easily replace with "messy."

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148 *Id.* at 438, 443.

149 *Id.*

150 *Id.* at 444.

151 *Id.*

152 *Id.*

153 *Id.*

154 *Id.*

155 *Id.*

C. "Agony":[156] Research and theory about negative valence

Like negation, words with negative valence can be harder for people to process. This processing difficulty may, however, be offset by the fact that words with negative valence tend to grab attention.

Researchers have found that people process positively valenced words more quickly than negatively valenced words.[157] One study used the words "cheer, pleasure, delight, fun, humor, joy, comedy, and comfort" and "defeat, despair, sorrow, gloom, misery, sadness, tragedy, and weep."[158] Participants were shown the words in a random order and asked, for each word, to indicate whether the word was positive or negative.[159] The researchers analyzed how long it took participants to classify the words and found that "positive words were . . . classified faster than negative words."[160]

One theory is that the processing difficulty of negative valence may be because words with negative valence are attention grabbing, so the brain has less attention available to devote to other processes.[161] This attention-capturing characteristic partly explains the pull of negativity bias.[162]

Negativity bias is a psychological principle: "[I]n most situations, negative events are more salient, potent, dominant in combinations, and generally efficacious than positive events."[163] "[B]ad is stronger than good."[164] We are more likely to pay attention to negative information,[165] including words with negative valence,[166] and are therefore more likely

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156 Sondheim & Lapine, *Agony*, *on* Into the Woods, *supra* note 2.

157 Unkelbach et al., *supra* note 89, at 542–43.

158 *Id.* at 542.

159 *Id.*

160 *Id.* at 543; *see also* Christian Unkelbach, Klaus Fiedler, Myriam Bayer, Martin Stegmüller & Daniel Danner, *Why Positive Information Is Processed Faster: The Density Hypothesis*, 95 J. Personality & Soc. Psych. 36, 39 (2008).

161 Ken Kihara & Naoyuki Osaka, *Early Mechanism of Negativity Bias: An Attentional Blink Study*, 50 Japanese Psych. Res. 1, 1 (2008) ("Negativity bias occurs because of an attentional bias toward negative stimuli. Therefore, negative stimuli, once having reached awareness, should interfere with other attentional processes.").

162 For legal-writing scholars' take on negativity bias, see *supra* section I.B.

163 Rozin & Royzman, *supra* note 1, at 297. "There are exceptions to this claim, but they constitute a minority of cases and often involve special circumstances." *Id.*

164 Roy F. Baumeister, Ellen Bratslavsky, Catrin Finkenauer & Kathleen D. Vohs, *Bad is Stronger than Good*, 5 Rev. Gen. Psych. 323, 323 (2001). So expressed by psychologists based on a broad review of evidence related to positive and negative events.

165 Elizabeth Gale-Bentz, Naomi E. S. Goldstein, Lindsey M. Cole & Kelley Durham, *Impact of Community-Based Provider Reports on Juvenile Probation Officers' Recommendations: Effects of Positive and Negative Framing on Decision Making*, 43 Law & Hum. Behav. 193, 194 (2019) ("[P]eople attend more to negative information, stimuli, and events than to positive information, stimuli, and events, and they remember the negative more than the positive."); Kihara & Osaka, *supra* note 161, at 1 ("Negativity bias occurs because of an attentional bias toward negative stimuli. Therefore, negative stimuli, once having reached awareness, should interfere with other attentional processes.").

166 Fumiko Gotoh, *Influence of Affective Valence on Working Memory Processes*, 43(1) Int'l J. Psych. 59, 60 (2008) ("[R]esearch has revealed that threat-related words (e.g., death, disease, failure) are more likely to capture attention than emotionally neutral words.").

to remember and be influenced by that information.[167] Think about the last time you had a difficult commute. You probably remember plenty of details about the terrible traffic, crowded trains, rude drivers, and how frustrated or upset you were. When your commute is perfectly smooth and uneventful, on the other hand, you might not even notice, even if a stranger does something helpful like holding a train door or letting you merge.

This is of course true for readers of legal writing, as well. If words with negative valence are attention-grabbing, then this is no less so for negative information, generally.[168] And it goes beyond catching attention: "People engage[] in more thinking and reasoning about bad than good events."[169] And deeper thought means that more is retained. Readers will recall "sentences describing people's undesirable behaviors . . . better than sentences describing desirable or neutral behaviors";[170] they "show[] better recognition memory for negative than positive items," as well as for their sources, and "negative words more successfully than positive words."[171] Readers displayed "slower responses and more eyeblinks" with negative words, "both of which indicate greater conscious processing."[172] For these study participants, "bad information about a stimulus person or new acquaintance [also] carrie[d] more weight and ha[d] a larger impact on impressions than good information."[173]

This negativity bias may offset the slower processing associated with negative valence. Whereas negative valence "can impair working memory performance,"[174] "it is still possible that negative valence could facilitate working memory by attracting attention to critical stimuli."[175] Further, negative valence helps with recall: "Because we are prone to processing bad information more extensively, we are more likely to remember bad things."[176] In one study, participants were shown a word and asked to state

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167 Gregory S. Parks, *Race, Cognitive Biases, and the Power of Law Student Teaching Evaluations*, 51 U.C. Davis L. Rev. 1039, 1066 (2018) ("Research on cognitive biases indicates that negative information is more influential on behaviors and cognitions than equivalent positive information."); Chestek, *Of Reptiles and Velcro*, *supra* note 16, at 606 ("[O]ur brains are more apt to process, and retain, negative information as opposed to positive information."); Smith, *Sociological and Cognitive Dimensions*, *supra* note 16, at 77 ("Negativity bias refers to the tendency of people to be more impacted by negative experiences and information than they are by positive experiences and information.").

168 Rozin & Royzman, *supra* note 1, at 300.

169 Baumeister, Bratslavsky, Finkenauer & Vohs, *supra* note 164, at 341.

170 *Id.* at 343.

171 *Id.* at 343–44.

172 *Id.* at 344.

173 *Id.*

174 Gotoh, Kikuchi & Olofsson, *supra* note 90, at 185.

175 *Id.*

176 Chestek, *Of Reptiles and Velcro*, *supra* note 16, at 610. *But see* Rozin & Royzman, *supra* note 1, at 305 ("[T]he existence of a negativity bias (negative potency) in memory is controversial. . . . Our own consideration of the literature inclines us to support a positivity bias view in memory.").

the color the word was printed in.[177] The words represented desirable and undesirable personality traits (e.g., "sadistic, honest, and outgoing").[178] The researchers found that response times were longer for undesirable personality traits than for desirable personality traits.[179] When the researchers repeated the experiment and asked participants at the end to list as many of the words as they could, participants tended to recall more undesirable than desirable traits.[180]

D. "Stay with Me":[181] Practical considerations about negative language

There are, of course, times when negative language is not just desirable because of negative bias, but necessary. Denial is one of the main functions of negation,[182] and it can require explicit negation. A criminal defendant and the defendant's lawyer will both want to deny that the client is guilty.[183] Although implicit denial is possible,[184] and the defendant and lawyer can avoid the explicit negation altogether by saying the client is innocent, that may not be feasible in every situation. When entering a plea, the client will need to say, "Not guilty." Similarly, if the burden of proof is on the plaintiff, the defendant will want—or even need—to say, "The plaintiff did not meet the burden of proof." The defendant might choose instead to say, "The plaintiff failed to meet the burden of proof." But that would be implicit negation (*failed to* is the equivalent of *did not*) and involve negative valence (*failed*), and so would likely be even more difficult for the reader to process than the explicit denial with explicit negation.

Linguists, like legal writing scholars, have discussed the use of negation in such ambivalent phrases as *not unmindful* and *not unhappy*.[185] And sometimes, to indicate an emotion somewhere between its opposites,

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177 Felicia Pratto & Oliver P. John, *Automatic Vigilance: The Attention-Grabbing Power of Negative Social Information*, 61(3) J. Personality & Soc. Psych. 380, 381 (1991).

178 *Id.*

179 *Id.* at 383.

180 *Id.* at 385.

181 Sondheim & Lapine, *Stay with Me*, *on* Into the Woods, *supra* note 2.

182 Tian & Breheny, *supra* note 76, at 28 ("[A] main function of negation in natural language is denial."); *see also* Bart Geurts, *The Mechanisms of Denial*, 74 Language 274, 274–75 (1998) (providing examples of sentences where "negation is used to make a denial").

183 Geurts, *supra* note 182, at 275 (describing "[t]he cook is not guilty" as a "proposition denial" because it is a denial of the proposition "[t]he cook is guilty").

184 Michael P. Jordan, *The Power of Negation in English: Text, Context and Relevance*, 29 J. Pragmatics 705, 720–21 (1998) (discussing examples of implicit denial).

185 *See supra* notes 33–34 and accompanying text; Horn, *supra* note 76, at 298 ("[A] man may be not unhappy because he is happy or because he is situated in the nonexcluded middle between the two contrarily opposed terms.").

the doubly explicit, self-neutralizing phrase (such as *not unhappy*) might be necessary.[186]

Negations may also be necessary at times to avoid excessive wordiness. "Negations," note some cognitive psychologists, "can be a parsimonious way to communicate information."[187] They give the following example:

> Speaker A: How did that soccer team you coach do last season?
> Speaker B: Fine; but we lost every game when the team did not have a striker.[188]

"No parsimonious affirmative way exists to refer to a team without a striker,"[189] they say. Speaker B might say, "We lost every game when the team lacked a striker," which would eliminate the explicit negation only by introducing implicit negation (*lacked*). The implicit negation version is somewhat more "parsimonious," but no more affirmative than the original.

III. Six principles for using negative language

Deciding whether and when to use negative language is not easy, but it can be easier if we apply the lessons researchers have taught us. Distilled, these lessons suggest six principles to consider in using negative language in legal writing.

Principle 1: Use negation to make an explicit denial.

Although statements with negation can be more difficult for a reader to process,[190] legal writers might still choose to use negation in order to make an explicit denial.[191] Lawyers may want—or even need—to use explicit negation in order to argue that a defendant is not guilty or that the other side has not met a burden.[192] Thus in their brief before the Supreme Court in *New York State Rifle & Pistol Association, Inc. v. Bruen*,[193] the

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186 *See id.* at 299 ("[A] not unhappy person is normally interpreted as 'a slightly-to-moderately happy person.'"). In word pairs such as *happy* and *sad*, the positive term in the pair usually "defines the dimension." Rozin & Royzman, *supra* note 1, at 313. When we want to discuss how happy or sad something is, we refer to that as happiness rather than sadness. *Id.* Further, "the marked (negated) positive term usually represents the negative end of the dimension, whereas the marked (negated) negative term represents the neutral point. Thus, unhappy means sad, whereas unsad means neutral." *Id.* at 313–14.

187 Khemlani, Orenes & Johnson-Laird, *supra* note 76, at 550.

188 *Id.*

189 *Id.*

190 *See supra* section II.B.1.

191 *See supra* section II.D.

192 *See id.*

193 142 S. Ct. 2111 (2022).

respondents explicitly argued, negatively, that the petitioners had not made a necessary showing: "New York's 'proper cause' requirement falls well within the mainstream of historical restrictions on carrying firearms in public. . . . Petitioners thus cannot show that New York's law is an 'extreme' outlier akin to the ban on home handgun possession invalidated in *Heller*."[194]

Similarly, legal writers often need to refute an argument made by the other side, and negation may be the best and clearest way to do so.[195] The respondents in *Bruen* used negation in this way as well. The respondents first noted that, due to extremely high population density in New York City, the requirements for carrying a handgun there are stringent.[196] Then came the negation: "This more exacting showing is not required elsewhere in New York State, contrary to petitioners' suggestion."[197] The respondents used explicit negation—*not*—to directly address a point made in the petitioners' brief. The phrase, "contrary to petitioners' suggestion" no less explicitly indicated the respondents' rejection and refutation of the petitioner's argument.

It is difficult, or even impossible, to imagine how the respondents in *Bruen* could have avoided negation in these situations. To argue something is "not required," an attorney will need to say exactly that. And Professor Stanchi's scholarship indicates that this type of direct response is the best way to refute adverse information when it is possible.

Principle 2: Use negation when no concise positive version is equivalent.

There may be times when negation is needed, despite the potential downsides, because there is no other way to make the point, at least without excessive wordiness.[198] In the fact section of petitioners' brief in *Bruen*, petitioners noted that "[e]fforts to disarm disfavored groups were not limited to the postbellum South."[199] *Disarm* and *disfavored* seem necessary here. Although both terms involve negation in the form of the prefix *dis-*, it is difficult to think of alternate positive terms to use, or to think of a way to rework the sentence to make the same point without negation.[200]

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194 Brief for Respondent at 21, *N.Y.S. Rifle & Pistol Ass'n, Inc., v. Bruen*, 142 S. Ct. 2111 (2022) (No. 20-843) (internal citation omitted).

195 *See supra* notes 61–66 and accompanying text.

196 Brief for Respondent at 9–10, *Bruen*, 142 S. Ct. 2111 (No. 20-843).

197 *Id.* at 10.

198 *See supra* section II.D.

199 Brief for Petitioner at 13, *N.Y.S. Rifle & Pistol Ass'n, Inc., v. Bruen*, 142 S. Ct. 2111 (2022) (No. 20-843).

200 The phrase *not limited*, however, could be avoided: Efforts to disarm disfavored groups existed beyond the postbellum South.

Extra caution is needed, however, in these situations. If there is no clear way to rephrase a statement to avoid negation, it may be that one or more words are unipolar,[201] and unipolar words run the risk that the reader will forget the negation and think instead of the positive version.[202] The words *arm* and *favored* seem to be unipolar: for both, there is no word that springs to mind that means their opposite, aside from the negations *disarm* and *disfavored*. A reader might misremember *arm* and *favored*, instead.[203] (With this particular sentence, however, it is difficult to imagine that the sentence would be misunderstood or misremembered.)

Principle 3: Use negation when needed to convey a middle ground between two opposites.

Legal writers might choose to use the "*not un- . . .*" kind of formula to communicate a sense somewhere between two extremes. One item in the table of contents for the petitioner's brief in *Kennedy v. Bremerton School District*,[204] seems particularly difficult to parse: "Declining to Prohibit Private Religious Exercise Does Not Create Establishment Clause Concerns."[205] The sentence includes three different words of explicit or implicit negation: *declining*, *prohibit*, and *not.* The negation likely makes it hard for the reader, who wants to untangle the negatives, to process the sentence.[206] On the other hand, the authors of the brief might have used that phrasing strategically to convey a meaning somewhere between *allowed* and *prohibited*. Just as most readers understand that *not unhappy* is not the same as *happy*,[207] readers probably understand that *declining to prohibit* is not the same as *permitting*, which implies more of an active role on the part of the school district. The choice of *declining to prohibit* makes the petitioner's position seem softer and therefore easier to agree with: schools do not have to actively permit the private exercise of religion; they should merely refrain from prohibiting it.

In their brief in *Bruen* the petitioners used the "*not un-*" construction in a similar way.[208] In discussing the history of the right to bear arms, the brief's authors note that "the English right was not unfettered." This indicates to the reader that, in historical England at least, the state of

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201 I.e., words without an opposite (*talented*), that must be negated (*untalented*), versus bipolar words, e.g., (*tidy*, *messy*). *See supra* section II.B.2.

202 *See id.*

203 *See id.*

204 142 S. Ct. 2407 (2022).

205 Brief for Petitioner at iv, *Kennedy v. Bremerton Sch. Dist.*, 142 S. Ct. 2407 (2022) (No. 21-418).

206 *See supra* section II.B.1.

207 *See supra* notes 186–87 and accompanying text.

208 Brief for Petitioner at 5, *Bruen*, 142 S. Ct. 2111 (No. 20-843).

the law was somewhere in the middle ground between complete prohibition and complete free-for-all. There were limitations. That rephrasing, however, seems to be a reasonable alternative to the double negative. The authors could have instead said "the English right had limitations." In fact, they used the word *limitations* in the very next sentence of the brief,[209] indicating that they saw it as having the same or similar meaning to *not unfettered* in this context.

These two examples illustrate the nuances involved in so many of these choices about positive or negative language. Both briefs used the *not un-* construction, but only one did so in a way that seems necessary and useful. The petitioner's brief in *Kennedy* used *declining to prohibit* to indicate the middle ground between *prohibit* and *permit.* More than that, though, the phrase conveys a sense that the school district's role was less active than either prohibition or permission. There seems to be no affirmative alternative that would get the same meaning across. The petitioner's brief in *Bruen*, in contrast, used *not unfettered* when *had limitations* would have conveyed the same meaning.

Principle 4: Use negative valence to draw attention.

Although words with negative valence can be more difficult for a reader to process, that is at least partially offset by the fact that words with negative valence capture attention, via negativity bias.[210] Legal writers can, then, choose to use words with negative valence for their attention-capturing effect. In *Bruen*,[211] the petitioners' table of contents included this point heading:

New York's Restrictive Carry Regime Violates The Second Amendment[212]

The words *restrictive* and *violates* have negative valence. So do the words *contrary* and *distorts* in the table of contents for the petitioner's brief in *Kennedy*:[213]

The Ninth Circuit's Contrary Conclusion Distorts the Record, This Court's Cases, and the Constitution[214]

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209 *Id.*

210 *See supra* section II.C.

211 142 S. Ct. 2111 (2022).

212 Brief for Petitioner at iv, *Bruen*, 142 S. Ct. 2111 (No. 20-843).

213 142 S. Ct. 2407 (2022).

214 Brief for Petitioner at iv, *Kennedy*, 142 S. Ct. 2407 (No. 21-418).

Both these examples avoid negation but use negative valence. While the words with negative valence may be harder for the reader to process, they also capture attention. The phrases "restrictive carry regime violates" and "contrary conclusion distorts" both seem to be effective in drawing the reader's focus.

Principle 5: Use more caution with negation when there is little context.

In an appellate brief, the table of contents is often the first place the readers of the brief will see any substantive information about the case.[215] It is, therefore, the place in the brief where the reader likely has the least context to help make sense of any negation. Consider the Argument section of the Table of Contents for the petitioner's brief in *Kennedy*,[216] and, in particular, the point heading for Part II of the Argument:

I.   The Free Speech And Free Exercise Clauses Doubly Protect Coach Kennedy's Religious Exercise
  a.   The First Amendment Robustly Protects the Religious Exercise and Expression of Public-School Employees
  b.   Kennedy's Religious Exercise Was Not the District's Speech
II. The Establishment Clause Does Not Compel Public Schools To Purge From Public View All Religious Exercise Of Coaches And Teachers
  a.   Declining to Prohibit Private Religious Exercise Does Not Create Establishment Clause Concerns
  b.   The Ninth Circuit's Contrary Conclusion Distorts the Record, This Court's Cases, and the Constitution[217]

Point I, which addresses the free-speech and free-exercise clauses, is substantively distinct from Point II, which is about the establishment clause. So context cannot help the reader process the negation in Point II ("does not compel").[218] The authors of the brief might have instead written, affirmatively, "Public Schools May, Consistent with the Establishment Clause, Allow Coaches and Teachers to Engage in some Religious Exercise even in Public View." On the other hand, the negatively valenced *purge* is powerful here. Had they been considering their use of negative language, the authors may have chosen to leave Point II as-is despite the difficulty

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215 *See* Helene S. Shapo, Marilyn R. Walter & Elizabeth Fajans, Writing and Analysis in the Law 376 (7th ed. 2018) ("Because the point headings appear in the Table of Contents at the beginning of the brief, they are often the reader's introduction to the substance of the Argument.").

216 142 S. Ct. 2407 (2022).

217 Brief for Petitioner at iv, *Kennedy*, 142 S. Ct. 2407 (No. 21-418) (all words capitalized as in the brief).

218 *Id.*

readers may have with the out-of-context negation. Alternatively, if the authors revised Point II to be phrased affirmatively as I've suggested, they might also revise II.a to include *purge* and explicit negation. The context provided by an affirmative Point II would help ease the reader's processing of negation in II.a.

Principle 6: Use more caution with negation in expository text.

Text with negation is harder for readers to process in most situations, but the effect of negation seems to be larger in expository text than in narrative text.[219] In the context of legal writing and persuasive briefs, that would indicate that negation is less negative in the statement of facts than in the argument. In the brief for respondents in *Kennedy*,[220] the discussion of the factual background of the case includes this sentence: "The District assured Kennedy . . . that it did 'not purport to control [his] private conduct, including exercise of his religious rights' while 'not on duty' . . . ."[221] Though that sentence is hard to parse, especially with the multiple negatives,[222] the effect on the reader is likely reduced by the fact that it is narrative text; it's part of a story. There is a similarly confusing sentence in the argument section of the brief: "To say that the District was forbidden to step in is not just legally unsupported, but cruel to the students, and disrespectful to their parents."[223] In a non-narrative context, such a sentence is likely more difficult for the reader. The authors could help their readers understand the point more quickly and easily by eliminating some of the negation: "The District had the authority and ability to step in. Any argument to the contrary is legally unsupported, cruel to the students, and disrespectful to their parents." Though this new version does not eliminate all negation (*unsupported* and *disrespectful* remain), it does remove the particularly confusing double negative of "not just legally unsupported" and should be easier for the reader than the original version.

Conclusion

This journey "into the woods" of linguistic research and theory should help legal writers decide when, and when not, to use negative language. The distinction between negation and negative valence, and the research on each type of negative language, can guide writers on how to think

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[219] *See supra* notes 122–26 and accompanying text.

[220] 142 S. Ct. 2407 (2022).

[221] Brief for Respondent at 7, *Kennedy v. Bremerton Sch. Dist.*, 142 S. Ct. 2407 (2022) (No. 21-418).

[222] *See supra* notes 94–97 and accompanying text.

[223] Brief for Respondent at 7, *Kennedy*, 142 S. Ct. 2407 (No. 21-418).

through the choice to use negative or positive language. Yet the principles distilled from this research are surely not the last word on negative language in legal writing. Linguists, psychologists, and others will no doubt continue to shape our understanding of when and how to use negation and negative valence in writing. We might need to reconsider or refine the principles laid out in this article. We might discover reasons to add new principles to the list. The choices and consequences are not simple, but it is worthwhile to think them through.