

Philosophical and Jurisprudential Issues of Vagueness

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I. *Philosophical Issues of Vagueness*

Philosophers seek an account of what vagueness is that resolves the sorites paradox, a conundrum that has troubled philosophers since the 4th century B.C. ‘Sorites’ derives from the Greek word for heap, ‘soros’, and the original “paradox of the heap” turned on the apparently plausible but application-destroying assumption that if n grains of (say) sand do, or don’t, make a heap, then one grain more or less would make no difference to whether it is, or isn’t, a heap. But essentially the same paradox can be run on any, or virtually any,¹ vague term, as the paradox turns on two related appearances that every vague term presents. The first is that there is no precise division to be identified between the things to which the term applies and the things to which it doesn’t apply, and therefore no precise division to be identified between the conditions that would make a vague sentence true and those that would make it false. The second appearance explains the first; it’s that vague terms appear to be what Crispin Wright called *tolerant*,² in the sense that, if a vague term applies, or doesn’t apply, to a thing x , then it applies, or doesn’t apply, to any other thing that differs only minutely from x with respect to that feature of x which secures the term’s application, or non-application, to x . Because the same kind of paradox can be generated using virtually any vague term, ‘sorites paradox’ has long been used in philosophy as a label for any paradox of that kind.

Paradoxes are usefully illustrated as inferences that give three incompatible appearances: that they are valid (i.e. have conclusions that can’t be false if their premises are true); that their premises are true; and that their conclusions are not true. Inferences that present *sorites* paradoxes can take any one of a few forms, but in every one of those inferences either one or

¹ It’s not entirely clear that one could construct a sorites paradox that turned on the vagueness of, say, ‘chair’ or ‘horse’.

² Wright (1976).

more of its premises or its conclusion will exploit the two paradox-generating appearances of every vague term. For example, the following inference presents a sorites paradox.

SI

- (1) A nine-year-old human female is a girl.
- (2) A forty-year-old human female is not a girl.
- (3) \therefore For some number n , an n -year-old human female is a girl,
but a human female one second older than that isn't a girl.

SI presents a paradox because it appears to be valid (it is after all valid if the the least number principle is valid); its premises certainly seem true; and, since it's very difficult to see how one second can make the difference between being a girl and not being a girl, it's very difficult to see how its conclusion can be true. And since the paradox SI presents is owed to the two features that the vague term 'girl' shares with every other vague term, SI presents a sorites paradox.

Since the sorites turns on the two trouble-making appearances that all vague terms present, one should expect that, to whatever extent the sorites has a resolution, it will come from an account of what vagueness is. Saying what vagueness is requires saying what sorts of things may be vague and in what their vagueness consists. It's generally recognized that concepts and linguistic expressions of just about every syntactic category may be vague (connectives such as 'and' and 'or' may be an exception), but there is an important debate, to be touched on later, about whether vagueness is wholly a feature of language and thought or whether extra-linguistic objects and properties may also be vague. It's also generally recognized that to be vague is to admit of borderline cases. For example, 'red' is vague because it's possible for something to be a borderline case of a thing to which 'red' applies, that is to say, a thing to which 'red' neither determinately applies nor determinately doesn't apply,³ and if Mt. Everest is a vague thing, then it's vague because there are times that are borderline cases of times at which the mountain came into existence and places that are borderline cases of places on the mountain. Every philosophical theory of vagueness offers an account of what it is to be a borderline case, and uses that account to proffer its view on how the sorites should be resolved. It's also taken to be a

³ My use of 'determinate' is pre-theoretic and thus leaves open whether a proposition's being indeterminate entails that it's neither true nor false.

defining feature of vagueness that, if a term φ is vague, then so is \lceil borderline φ \rceil , and this entails that there are no precise determinate boundaries at any order of vagueness.

At issue in every theory is whether or not the *law of excluded middle* (every instance of ‘ S or not- S ’ is a logical truth) and the *principle of bivalence* (every statement is true or false) are correct. For suppose Ralph is borderline bald, neither determinately bald nor determinately not bald. Then, no matter how much one knows about the hair situation on Ralph’s scalp and no matter how masterful one’s use of ‘bald’, it’s impossible to know that Ralph is bald and impossible to know that he isn’t bald, and that makes it tempting to conclude that there is no fact of the matter as to whether or not he is bald, which in turn calls into question both excluded middle and bivalence. The law of excluded middle is a mainstay of classical logic and the principle of bivalence is a mainstay of classical semantics. Those who reject excluded middle typically propose some non-classical logic as the correct logic for vague language, and those who reject bivalence typically propose some non-classical semantics, which may say that there are only two truth-values, truth and falsity, but that borderline statements have no truth-value, or they may propose that there are three or more truth-values, or that truth and falsity come in degrees measured by real numbers in the interval $[0, 1]$. There are also those who insist that excluded middle and bivalence hold for borderline statements, and these theorists devote most of their resources to trying to swat away the counterintuitive consequences of their position. Every position on vagueness must also contend with other questions that ineluctably arise in the attempt to say what vagueness is—for example, questions about higher-order vagueness (borderline borderline cases, or borderline borderline borderline cases, or ...), or about the appropriate propositional attitude to have towards a proposition one takes to be borderline, or about similarities between the sorites paradox and semantic paradoxes such as the liar.

Although the problem of vagueness has been with philosophers for about 2,400 years, the number of words they have written on it in the past thirty or so years far exceeds the number they wrote on it in the 2,370 or so years before then. This is in part due to the realization that the sorites can’t be dismissed as an amusing brain teaser or as a defect of vernacular language that poses no serious threat to the semantical or logical issues with which logicians and philosophers of language should be concerned, but also to the ever-increasing use of formal techniques in analytical philosophy. There are many theories of vagueness—indeed, it’s difficult to suppose there is any position in logical space on vagueness where one or more philosophers are not to be

found exercising all the ingenuity they can muster. None of these theories comes close to being recognized as the correct theory of vagueness. Here, simply by way of illustration, are three prominent examples of theories of vagueness.

The *epistemicist* accepts classical logic and bivalence. Because he accepts bivalence, he would say that, notwithstanding Ava's being a borderline case of a thing to which 'girl' applies, 'Ava is a girl' is either true or else false, and thus that it's either a fact that Ava is a girl or else a fact that she's not a girl; and because he accepts classical logic and bivalence and also knows that a nine-year-old human female is a girl but that a forty-year-old human female isn't a girl, he also accepts that there is a number n such that an n -year-old human female is a girl but an $n.0000000317097919838$ -year-old human female—i.e. a human female one second older than n years old—isn't a girl, and so for this theorist the sorites inference SI is sound. But if there is such a number n and it's either a fact that Ava is a girl or a fact that she's not a girl, notwithstanding that she is a borderline case of a thing to which 'girl' applies, then wherein lies the vagueness of 'girl'? To this the epistemicist answers that it lies in the explanation of why it's impossible to know what the cutoff number or the truth-value of a borderline statement is, where epistemicists may differ on what they take that explanation to be.⁴ For the epistemicist, vagueness is a kind of irremediable ignorance.

The *supervaluationist* aims to deny bivalence but to accept excluded middle in a way that enables her to accept *both* that there is a number n such that a human female n years old is a girl but one $n.0000000317097919838$ years old isn't a girl *and* that no number n is such that the statement *that a human female n years old is a girl but one who is $n.0000000317097919838$ years old isn't a girl* is true.⁵ The trick is to be accomplished with her account of truth. For the supervaluationist, a statement is true just in case it's true in every admissible precisification of the language, false just in case it's false in every admissible precisification of the language, and neither true nor false just in case there is an admissible precisification of the language in which it's true and one in which it's false. A *precisification* of a language L is an assignment of denotations to the expressions of L that makes every statement in L bivalent (i.e. true or false), and a precisification of L is *admissible* just in case it respects certain analytical connections

⁴ See e.g. Sorenson (1988) and Williamson (1994).

⁵ See e.g. Fine (1975)

among the expressions of L and assigns to the denotation of each expression everything to which the expression determinately applies, nothing to which it determinately doesn't apply, and then divides the remaining cases in any arbitrary way. So consider borderline bald Harold. Since Harold is a borderline case of a thing in the denotation of 'bald', there will be an admissible precisification in which 'Harold is bald' is true and an admissible precisification in which it's false, and therefore 'Harold is bald' will be neither true nor false. But although it's neither true nor false, the instance of excluded middle 'Harold is bald or Harold is not bald' will be true, notwithstanding that neither of its disjuncts is true, for in every admissible precisification of English one of its disjuncts will be true, albeit not the same disjunct in every admissible precisification. Similarly, the sentence 'There is a number n such that a human female n years old is a girl but one $n.0000000317097919838$ years old isn't a girl' will be true, for in every admissible precisification there will be some number that makes the sentence true, but no number will be the one that makes it true in every admissible precisification.

The *degree-of-truth theorist* recognizes "degrees of truth" intermediate between complete truth and complete falsity, and she measures these degrees by real numbers in the interval $[0, 1]$, where a statement is true to degree 0 if it's false *tout court* and true to degree 1 if it's true *tout court*. Borderline statements are true and false to positive degrees that sum to 1. The degree to which a borderline statement is true is a measure of its place in the statement's penumbra. For example, if the hair situation on borderline Harold's scalp more closely resembles the hair situation on the scalp of a man who is determinately bald than it resembles that on the scalp of a man who is determinately not bald, then the degree to which 'Harold is bald' is true will be greater than the degree to which it's false. Degree-of-truth theorists may differ on the rules they accept for determining the degrees of truth of complex sentences and on the logic they take vague language to require. Many who apply a degree-theoretic notion of truth to vagueness adopt a degree-functional account of the connectives due to Łukasiewicz in which, for example, the degree of truth of a conjunction is the lowest degree of its conjuncts, and the degree of truth of a disjunction is the highest degree of its disjuncts.⁶ That semantics requires a nonclassical logic, for on it excluded middle and non-contradiction fail: if $T(p)$ and $T(\neg p)$ are both 0.5, then

⁶ Łukasiewicz and Tarski (1956).

$T(p \vee \neg p)$ and $T(p \ \& \ \neg p)$ are also 0.5. On a Łukasiewiczian continuum-valued fuzzy logic SI is invalid, for while its premises are true to degree 1, its conclusion is true to a degree close to 0.

II. *Jurisprudential Issues of Vagueness*

These tend to be broadly normative. One issue is when, if ever, vagueness in law is desirable. Since virtually every sentence anyone produces (outside of mathematics) is vague to some degree or other, vagueness in law is unavoidable. Nevertheless, it may always be asked of any statute or other legal text whether a formulation of it that was less or more vague would have been better. It seems obvious to me that some texts would benefit, while others would suffer, from being made more precise. For example, there are good reasons why certain statutes should be ruled “void for vagueness”: no one could know that acts of oral or anal sex between consenting adults were crimes just from knowing there was a law criminalizing “abominable and detestable crimes against nature.” On the other hand, any attempt to replace the “beyond reasonable doubt” charge to the jury in criminal cases with an explicit criterion for a doubt’s being reasonable would surely be disastrous, and the framers of the Bill of Rights did well not to try to be more precise than they were in writing that “excessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted.” Whether philosophers or jurists can come up with useful general conditions for when vagueness in law is, or isn’t, desirable, is a further question.

Another big question concerns what judges should do in the face of indeterminacy of this, that or the other kind. The judge’s duty is to “uphold the law,” but what should be her duty when in a given case it’s indeterminate what it would be to uphold the law, even when the judge has availed herself of all the judicial decisions, legal principles and writings deemed relevant to determining when the law applies and when it doesn’t apply? This is in every case a normative question, as is the further question of what sorts of considerations are appropriate for a judge to consider in trying to answer those questions. There is considerable debate in philosophy about the factual status of normative questions of every kind, and no philosophical theory of any kind, let alone one about vagueness, holds the key to answering them.

III. *The Relevance of Philosophical Theories of Vagueness to Jurisprudential Issues of Vagueness*

Philosophical and jurisprudential issues of vagueness are very different, so why should anyone think that philosophical theories of vagueness are relevant to issues of vagueness in the law? No one should think that, I argued in an earlier article on the topics of this essay. There I concluded that “philosophical theories of vagueness, even if true, have nothing to offer jurisprudential concerns about vagueness. Once she is reminded of certain platitudes about vagueness, the legal theorist needs no further help from philosophers of language and logic.”⁷ By that I did *not* mean that philosophers who work on vagueness have no contribution to make to jurisprudential issues of vagueness, or that works such as Timothy Endicott’s *Vagueness in Law*⁸ don’t make important contributions. At the beginning of this essay I said that “philosophers seek an account of what vagueness is that resolves the sorites paradox,” where, I explained, such theories often propose a specific semantics or logic for vague language, and I offered epistemicism, supervaluationism, and degree-theoretic accounts of vagueness as three examples of the sort of theories I had in mind. It was to such theories that I was alluding when I said philosophical theories of vagueness had nothing to offer jurisprudential concerns about vagueness. The judge who must decide what to do about a case to which a particular law neither determinately applies nor determinately doesn’t apply won’t be helped by learning that a Łukasiewiczian continuum-valued fuzzy logic was the correct logic to use in evaluating vague arguments. Nor will the judge be helped by knowing that epistemicism was correct and that therefore it was either a fact that the law in question applied or else a fact that it didn’t apply,

7 Schiffer (2001: 421). By “platitudes about vagueness” I meant features of vagueness that nearly all theorists take to be data that constrain their theories of vagueness. These “platitudes” include, but aren’t exhausted by, such things as that virtually every expression is vague; that, while some expressions may be more or less vague than others, owing to the limitations of our perceptual and cognitive faculties, it’s impossible to replace our vague terms and concepts with ones that aren’t vague to any degree; that a vague utterance may be determinately true or determinately false; that if a thing is borderline *F*, then it’s conceptually impossible to know that it’s *F* or that it’s not *F*; and that being vague is distinct from being ambiguous, unspecific, uncertain, unclear, or indeterminate (the counterfactual sentence ‘If Verdi and Wagner had been compatriots, Verdi would have been German’ is indeterminate quite apart from the vagueness of ‘compatriot’ and ‘German’). Other such “platitudes” will be mentioned later when I discuss what I call penumbral profiles.

8 Endicott (2000).

when she also knew it was metaphysically impossible for her or anyone else to know what the fact of the matter was. As far as she should be concerned, it should make no difference whether there is no fact of the matter or there is but it's impossible to know what it is.

In a commentary on my (2001) Kent Greenawalt said that he agreed with me “that philosophical theories of vagueness have no direct practical implications for how judges decide borderline cases; judges face a normative question what to do. However,” he continued, “a judge who embraces a particular philosophical theory of vagueness may be influenced in how he conceptualizes determinations of difficult legal issues, and this conceptualization may affect the judge’s method of decision.”⁹ Towards the end of his article, Greenawalt makes clear what he has in mind. Suppose we have two judges, *X* and *Y*, who are equally aware

- that it’s typically the case that sundry laws, legal principles, judicial and administrative precedents, legal writings, etc., may be relevant to determining what the correct resolution of a given legal issue is,
- that there is, nevertheless, in principle always the possibility that, no matter how much legal material is taken into account, it will be indeterminate what the correct legal resolution of the issue is, but
- that a judge can’t simply declare the issue not to have a determinate legal solution and be done with it, but must in every case decide the issue in *some* way,

but who differ in the following respect:

- judge *X* rejects bivalence and believes that if an answer to a legal issue is neither determinately true nor determinately false, then it’s also neither true nor false,

whereas

- judge *Y* accepts bivalence for all statements and thus believes that even if an answer to a legal issue is neither determinately true nor determinately false, it’s still either true or false—except that it’s impossible for anyone to discover which answer is true when none is determinately true.

Given the descriptions of judges *X* and *Y*, what differences in their methods of making judicial decisions does Greenawalt think we should find between *X* and *Y* as a result of the different theories of indeterminate issues they hold?

⁹Greenawalt (2001: 433).

It's not entirely clear. It would support Greenawalt's claim that a judge's method of deciding legal issues may be affected by the philosophical theory of vagueness he accepts if we should expect the following difference between *X* and *Y*: When *X* concludes that a legal issue has no determinately correct answer, he also concludes that the law has "run out," and that he must "turn to non-legal materials to resolve the case, taking account of both a desirable result and a sound legal rule for future cases."¹⁰ But when *Y* concludes that a legal issue has no determinately correct answer, knowing that it nevertheless has a correct answer, he's likely to keep trying to find out what that correct answer is. But *that* can't be what Greenawalt intends: it would be utterly irrational of *Y* to keep searching for the correct answer when he knows there is no determinately correct answer, for it's his view that it's impossible for anyone to know what the correct answer is when that answer isn't determinately correct. Since *Y* must rule on the issue even if it's impossible for him to know what the correct ruling would be, he is in exactly the same position *X* is in when he concludes that there is no fact of the matter as to what the correct decision is. *Y* would be every bit as compelled as *X* to "turn to non-legal materials to resolve the case, taking account of both a desirable result and a sound legal rule for future cases."

Greenawalt's text suggests that the point he had in mind was a difference that would arise between *X* and *Y* when either "confronts an issue she thinks is very difficult; she is not sure how to resolve it."¹¹ He suggests that judge *X*, who holds that an issue has no correct resolution if it doesn't have a determinately correct resolution, "is likely to assume that when she finds an issue to be very difficult" that it has no correct resolution, and that she may "properly turn to non-legal materials to resolve the case," whereas judge *Y*, who thinks that a legal issue has a correct answer even when it's indeterminate what that answer is, will behave differently when confronted with a very difficult legal issue:

Schiffer speaks of theorists who suppose that applications of vague concepts are either true or false as conceiving indeterminacy as a kind of "irremediable ignorance," but it is just in this respect that a judge is crucially different from the person deciding whether someone at the border is bald. She has inexhaustible legal materials, and her judgment is

¹⁰ Ibid: 443.

¹¹ Ibid: 443.

important enough to warrant hard work. If she keeps studying all the materials, the judge may approach closer to what ‘the law requires’. The person gauging baldness has no further inquiry to make The judge is *not* likely to throw up her hands, declare her irremediable ignorance about what the law requires, and proceed to decide on the same bases as the judge who is persuaded she must reach outside the law because the law has no correct answer.”¹²

I find this puzzling. Is the point supposed to be that judge *Y* will have a better appreciation of all that bears on when a resolution is legally correct? That can’t be right, for it was stipulated that *X* and *Y* are equally aware of all that must be taken into account. Is the point supposed to be that *X* will be inclined to think that there are more indeterminate legal issues than *Y* thinks there are? There is nothing to warrant that: *X* and *Y* differ on what constitutes indeterminacy, not on how frequently it’s to be found. Is the point supposed to be that, confronted with the same difficult legal issue, *X* will be quicker than *Y* to assume it has no determinately correct resolution? Again, however, that can’t be right; there is no reason whatever why *X* should seek a determinately correct resolution any less assiduously than *Y* would. Greenawalt has not made good his claim to show that, and how, accepting a particular philosophical theory of vagueness can affect the methodology by which a judge makes legal decisions.

IV. *Penumbra Shift and Penumbra Ignorance*

Now I will suggest that there is a way technical philosophical work on vagueness may be relevant to understanding what judicial interpretation can and can’t be. This source of relevance wasn’t mentioned in my (2001) because I wasn’t then adequately aware of it. At the beginning of this essay I said that philosophers seek an account of what vagueness is that resolves the sorites paradox. I continue to believe that it’s irrelevant to jurisprudential issues of vagueness which such theories are, or are not, correct. But two under-appreciated features of every vague expression bear importantly on issues of judicial interpretation. I call the two features *Penumbra Shift* and *Penumbra Ignorance*. In this section I will explain what they are and

¹² Ibid: 443-4.

discuss one surprising effect they have on the semantics of vague expressions.¹³ In the next and final section, section V, I will illustrate the relevance of Penumbra Shift and Penumbra Ignorance to issues of judicial interpretation by bringing those features explicitly to bear on one particular theory of judicial interpretation, Supreme Court Justice Antonin Scalia's textualism.

Before I can explain Penumbra Shift and Penumbra Ignorance I need first to explain the notion of a *penumbral profile*, and I also need to say something about how I will understand the type/token distinction. Every literally—as opposed to, say, metaphorically—uttered token of every vague expression has a penumbral profile. Two predicate tokens have the same penumbral profile provided it's necessarily the case that, if either token is true/false of a thing, then so is the other; if either token is such that it's indeterminate whether it's true/false of a thing, then so is the other; if either token is such that it's indeterminate whether it's indeterminate whether it's true/false of a thing, then so is the other; and so on. Two singular term tokens have the same penumbral profile provided it's necessarily the case that if one token refers to a thing, then so does the other; if it's indeterminate whether one token refers to a thing, then it's also indeterminate whether the other token refers to it; if it's indeterminate whether it's indeterminate whether one token refers to a thing, then it's also indeterminate whether it's indeterminate whether the other token refers to that thing; and so on. And two sentence tokens have the same penumbral profile provided it's necessarily the case that if either is such that it's true/false, then so is the other; if either is such that it's indeterminate whether it's true/false, then so is the other; if either is such that it's indeterminate whether it's indeterminate whether it's true/false, then so is the other; and so on.

I turn now to how I will understand the type/token distinction. I want to say, for example, that the sentence *type* 'She never married him' expresses no proposition and therefore has no truth-value, but that *tokens* of that sentence type may express propositions and therefore have truth-values. For example, a particular token of that sentence type will express the proposition that Lou Salomé never married Friedrich Nietzsche if in producing that token the

¹³ There are other surprising effects that I won't be able to discuss in this paper. For example, it's assumed by many philosophers of language that an expression's having meaning consists in there being something that it means, but in future work I will argue that Penumbra Shift and Penumbra Ignorance show that, while vague expressions have meaning, there can't be things that are their meanings.

speaker referred to Salomé with his uttered token of ‘she’, referred to Nietzsche with his uttered token of ‘him’ and in uttering the sentence meant that the former never married the latter. But what exactly is an expression token? Physical realizations of expressions—say, realizations in sound or ink—are tokens, but one’s understanding of what an expression token is can’t be limited to such physical realizations if one wants the notion of an expression token in order say such things as that it’s only tokens of indexical sentence types, and never the sentence types themselves, that can have truth-values. For suppose the sentence ‘She never married him’ occurs in a book about Lou Salomé. Books, like expressions, also admit of a type/token distinction. When you say ‘The four books on the table are mine’, you’re talking about book tokens, which are physical objects, but when you say ‘I wrote four books’ you’re talking about book types, which are abstract entities. Now the sentence ‘She never married him’ on page 184 of the book is, like the book it’s in, an abstract entity; yet it expresses a proposition, the proposition that Lou Salomé never married Nietzsche. Should we say that that abstract entity isn’t identical with the sentence type ‘She never married him’, since that abstract entity, unlike the first, expresses no proposition, or should we qualify what was said about the sentence type and now say that indexical sentence types can express propositions *relative to certain occurrences*? A problem with saying the latter is that the abstract entity that is the book about Lou Salomé itself stands in a certain relation to another abstract entity consisting of the same words in the same order but in which the sentence ‘She never married him’ doesn’t express a proposition and so doesn’t have a truth-value. That abstract entity is simply the sequence of expression types that occur in the book, and that entity isn’t identical to the book, for the sequence of expression types existed long before the book came into existence in, say, 1996. Anyway, I don’t really want to get embroiled in these sorts of issues, and I don’t have to, since the bottom line seems clear enough: the sentence ‘She never married him’ in the book expresses the proposition it does because of its relation to intentions the author of the book had in writing it. Henceforth when I speak of expression tokens I should be taken to mean instantiations, physical or abstract, of expression types that count as instantiations of those expression types by virtue of the intentions their authors had in producing them. Actually, for most of this section one may, for all that matters, take expression tokens to be actually produced sounds or marks; the use of ‘expression token’ in reference to abstract entities such as books comes into play when I turn in the next section to issues about the semantic contents of statutes and constitutions.

So much for my two preliminaries. *Penumbral Shift* is the fact that the penumbral profiles of a vague expression's tokens may shift somewhat from one token of the expression to another; that is to say, two tokens of any vague expression may have somewhat different penumbral profiles. For example, asked who snatched her purse, Thelma replies, "A bald guy wearing a grey sweatshirt and track pants," and her utterance may be determinately true notwithstanding the fact that the man who snatched her purse shaves his head but would otherwise have a luxuriant head of hair. But in a conversation about hereditary baldness, the purse snatcher's sister might correct a remark by saying, "No; he's not bald, he just shaves his head," and that utterance, in that context, would count as determinately true. In still another context the question is raised whether a man who shaved his head would be bald if no one would take him to be bald if he stopped shaving his head and let his hair grow out, and in that context it might be true to say, "That's undetermined by the use of 'bald' in everyday speech; such a man would be neither determinately bald nor determinately not bald." In a community in which people typically marry before the age of twenty, an utterance of 'He's a bachelor' may count as true when said of an unmarried eighteen-year-old male, whereas in a conversation among New Yorkers, where for both men and women the average age for a first marriage is between thirty and thirty-five, an utterance of 'He's a bachelor' would most likely not count as definitely true when said of an unmarried eighteen-year-old male, and may even count as false. 'Midtown' is the name of a vaguely defined section of Manhattan. If you are in Times Square you are definitely in Midtown. If you now travel in a straight line in any direction you will eventually definitely not be in Midtown, but at no point will you have crossed an invisible line on one side of which you are definitely in Midtown and on the other side of which you are definitely not in Midtown. An utterance of 'Jack works in Midtown' would very likely count as true if Jack is a lawyer whose firm is located at Park Avenue and 60th Street. But an utterance of 'Fiona lives in Midtown' is more likely to count as false or as neither determinately true nor determinately false if she lives in an elegant co-op apartment at Park Avenue and 60th Street.

The penumbral profiles of two tokens of a vague expression can differ by only so much, but there can be no saying precisely how much is too much, for, as the sorites paradox teaches us, with vague expressions there are no precise boundaries to be drawn at any order of vagueness. The expression 'tall man' (meaning *tall for a man*), for example, is vague, but every literally uttered token of that expression must be true of a man 2 meters tall and false of a man

1.7 meters tall. Yet no number j can be identified as the smallest number such that every literally uttered token of ‘tall man’ will be true of a man whose height is equal to or greater than j meters, and no number k can be identified as the largest number such that every literally uttered token of ‘tall man’ is false of a man whose height is equal to or less than k . The fact that virtually every vague expression has applications that are guaranteed to be correct is crucial to our ability to communicate effectively with vague language. My guess is that indeterminacy isn’t usually an issue with non-general statements of fact, such as utterances of ‘Mike is tall’, ‘His child is a girl’, ‘She lives in Harlem’, etc. Indeterminacy is much more likely to be an issue when a vague generalization is confronted with cases the speaker hadn’t or couldn’t have contemplated, such as, perhaps, an utterance in 1866 of ‘No State shall make or enforce any law which shall abridge the privileges or immunities of citizens of the United States; nor shall any State deprive any person of life, liberty, or property, without due process of law; nor deny to any person within its jurisdiction the equal protection of the laws’.

Penumbral Ignorance is the fact that speakers, and those who understand what they say, neither know what the penumbral profiles of their vague utterances are nor know what determines them. Bob asks Jane whether Frank has any children, and she replies, “Yes; he has two girls.” Jane knows that her utterance is determinately true because she knows Frank has exactly two offspring, both determinately female, one seven years old, the other five years old. Both Jane and Bob understand Jane’s utterance as well as they understand any utterance. Now ‘girl’ is vague: it’s impossible for anyone to identify a number n such that a female child is a girl until she is n days old but not a girl thereafter. There are also physical and psychological properties that may make an individual neither determinately female nor determinately not female. Suppose Bob and Jane—neither of whom is a philosopher, both of whom are intelligent native speakers of English—are now asked whether ‘girl’, as just then uttered by Jane, would apply to an eighteen year old human female, or to a person with two X chromosomes but who had developed hormonally as a male. There is no telling what Jane or Bob would say in response, but whatever they would say would have no special authority. It is simply not a requirement on Jane’s use of ‘girl’ or on her and Bob’s understanding of her utterance that they be able to say of an arbitrarily chosen possible individual whether or not that individual would be a borderline instance—or a borderline borderline instance, or ...—of a thing to which the token of ‘girl’ uttered by Jane applied. Nor need they know. A careful speaker won’t apply a vague

term to a thing unless she is confident that the term determinately applies to it, and she has no reason to ponder *recherché* possible cases that have nothing to do with her concerns in making her utterance. Although speakers don't know what the penumbral profiles of their vague utterances are, they may of course know particular facts about those profiles. For example, there may be three simultaneous utterances of 'Leroy is celibate', one true, one false, and one borderline true/false, and for each of these utterances there may be a suitably informed witness who knows the truth status of the utterance she witnessed. It's of course no surprise that ordinary speakers not only don't know what the penumbral profiles of their utterances are, but also have no idea what determines them. It's perhaps somewhat surprising, however, that no theorist knows what determines them either. That isn't to say that nothing is known. When a vague utterance is made and facts emerge that induce the speaker and her hearer to agree that what was said was neither determinately true nor determinately false, that, all else being equal, may suffice for what was said actually to have that status. But suppose we have an indisputably true token of, say, the vague sentence 'Sabine is a very wealthy Berliner' and then after the fact the question is raised whether the speaker and his hearer would have taken the uttered token of 'very wealthy Berliner' to be true of Sabine if she had been worth only n euros, where being worth that amount isn't one of the amounts that every token of 'very wealthy Berliner' must be true of or false of in order to count as a literally uttered token of that expression. Such counterfactuals, like an utterance of 'She would be happy if she hadn't married Fritz', virtually never have determinate truth-values, and for that reason we probably need to say that it's indeterminate how the speaker and hearer would have regarded the truth status of the token of 'Sabine is a very wealthy Berliner' in that counterfactual situation, and therefore indeterminate what truth status it would have relative to that situation.

Penumbra Shift and Penumbra Ignorance have a surprising effect on reports of what was said in utterances of vague sentences, which effect generates a puzzle for a widely-accepted theory of those reports. The view—call it the Standard View—is that, if in uttering a sentence σ a person x says that S , then a report of what x said in uttering σ is correct only if it reports x as having said that S . If we assume, as I will for expository convenience, that the things we say are propositions of some stripe or other, then the Standard View may be put by saying that a saying report of the form ' A said that S ' is true just in case the referent of the ' A ' term said the proposition to which the 'that S ' term refers. That characterization of the Standard View is OK,

so far as it goes, but to go further with it requires a view about the things to which tokens of vague singular terms refer and the properties expressed by tokens of vague predicates. Suppose, for example, that on Saturday Al and Betty are walking on the beach when Al points in the direction of some dunes and says,

(1) That area is secluded.

To what does the token of ‘that area’ refer, and what does the token of ‘secluded’ express? That question can’t be answered without taking a stand on the issue of ontic vagueness. That issue is a contest between a view I will call *No-Vagueness-in-the-World* and a view I will call *Vagueness-in-the-World*.

No-Vagueness-in-the-World claims that nothing outside of language and thought is vague: there are neither vague properties nor vague things; every property and thing is absolutely precise: every physical object has precise conditions of individuation, and every property has precise conditions of application that everything either satisfies or fails to satisfy. Consequently, the vagueness of a predicate token doesn’t consist in its expressing a vague property, and the vagueness of a singular-term token doesn’t consist in its referring to a vague object. What, then, does it consist in? That depends on which No-Vagueness-in-the-World theorist one asks. The epistemic theorist would say that the token of ‘that area’ uttered by Al refers to a precisely defined area of the beach and that the token of ‘secluded’ refers to a precisely defined property. For the epistemicist, what makes the tokens of ‘that area’ and ‘secluded’ vague is that it’s impossible to know the precise area that is the referent of the token of ‘that area’ or the precise property that is the property expressed by the token of ‘secluded’. No-Vagueness-in-the-World isn’t a feasible option if its truth depends on its conjunction with the epistemic theory. There are various problems with the epistemic theory, but I take the following to be the most serious.¹⁴ Perhaps no one can say in non-semantic terms what determines the thing to which an utterance refers or the property it expresses, but I believe we know enough about how those semantic values are determined to know that it’s extremely implausible that their determinants could determine every thing referred to and every property expressed to be more precise than any scientific measuring device could possibly determine it to be. I shall assume that the epistemic

¹⁴ I discuss objections to epistemicism in several publications but see especially Schiffer (1999) and (2003: 181-7). Timothy Williamson responds to Schiffer (1999) in Williamson (1999).

theory isn't an option, and that therefore, given No-Vagueness-in-the-World, nothing is determinately the referent of a vague singular-term token or determinately the property expressed by a vague predicate token.

A more prudent route for the No-Vagueness-in-the-World theorist to take would be to say that, while no precise area can be such that it's determinately the referent of the token of 'that area' Al produced when he uttered (1), uncountably many precise areas may each be such that it's indeterminate whether it's the token's referent, or indeterminate whether it's indeterminate whether it's the token's referent, or indeterminate whether it's indeterminate whether it's indeterminate whether it's the token's referent, and so on. Call this vast array the *content array for the token of 'that area'*. As regards vague predicates, the more prudent No-Vagueness-in-the-World theorist will say that, while no precise property can be such that it's determinately the property expressed by the token of 'secluded' Al uttered, uncountably many precise properties may each be such that it's indeterminate whether it's the property expressed by the token, or indeterminate whether it's indeterminate whether it's the property expressed by the token, and so on. Call this vast array the *content array for the token of 'secluded'*; the content arrays for the expression tokens contained in a sentence token will in the obvious way determine a content array of precise propositions for the sentence token itself. We should also expect the No-Vagueness-in-the-World theorist to take a broadly supervaluationist line on the truth conditions of the token of (1) ('That area is secluded') Al uttered, in the following way. For every area α in the content array for the token of 'that area' and every property φ in the content array for the token of 'secluded', the pair $\langle \alpha, \varphi \rangle$ may be taken to represent a singular proposition that is true iff α has φ , false iff α doesn't have φ . Then the token of (1) is true iff each of those propositions is true, false iff each of them is false; and if some of those propositions are true while others are false, then the token of (1) will be neither true nor false, or it will be indeterminate whether it's neither true nor false, or indeterminate whether it's indeterminate whether it's neither true nor false, etc., depending on intricacies of higher-order vagueness that I won't now venture into. There are, however, two further things that should be said. The first is that the penumbral profiles of the token of 'that area' and of 'secluded' together with the syntax of (1) (I'll assume that is determinate) will determine the penumbral profile of the token of the sentence (1), and the truth status of the token determined by the singular propositions in its content array must of course be consistent with the token's penumbral profile. For example, if the sentence token's

penumbral profile has it that the obtaining of a certain state of affairs would constitute a borderline case of the token's being true, then the content array of singular propositions determined for the token must entail that it's indeterminate whether the token is true if the state of affairs in question obtains. We may say that, if the content array for a vague expression token determines it to have a certain penumbral profile, then that is also the array's penumbral profile. The penumbral profile of a vague expression token's content array must match that of the token whose content array it is. The second thing that should be said is that, since Penumbral Ignorance entails that it's impossible to know what any expression token's penumbral profile is, then, given No-Vagueness-in-the-World, it's also impossible to know what the penumbral profile of a token's content array is, and therefore impossible to know what its content array is. Of course, that needn't prevent us from knowing that a vague utterance is true or that it's false, or even, if conditions are right, that it's indeterminate whether it's true or whether it's false.

Vagueness-in-the-World claims that there are vague objects and properties, in addition to whatever precise objects and properties there may be. Vague objects and properties are objects and properties that themselves have penumbral profiles. For example, if a certain location is a borderline instance of a location that is in a certain vague area, then that is a feature of the area's penumbral profile, and if a thing is a borderline instance of a certain vague property, then that is a feature of the property's penumbral profile. If No-Vagueness-in-the-World is correct, then, as regards Al's utterance of (1) ('That area is secluded'), no precise area is available to be the content of the uttered token of 'that area', no precise property is available to be the content of the uttered token of 'secluded', and, consequently, no precise proposition is available to be the content of the uttered token of (1). But if Vagueness-in-the-World is correct, then there is a vague area available to be the content of the uttered token of 'that area', there is a vague property available to be the content of the uttered token of 'secluded', and, consequently, there is a vague proposition available to be the content of the uttered token of (1). These are, respectively, the vague area whose penumbral profile matches that of the token of 'that area', the vague property whose penumbral profile matches that of the token of 'secluded', and the vague proposition whose penumbral profile matches that of the token of (1). For suppose, say, that a vague property φ has a penumbral profile that matches that of a vague predicate token τ . Then τ is true of a thing x iff x has φ ; it's indeterminate whether τ is true of x iff it's indeterminate whether x has φ ; and so on. Since the content of a predicate token is that property, if any, whose

application to a thing determines the predicate's application to it (in the sense that the application status of the property to a thing entails the application status of the predicate to that thing), the fact that φ and τ having matching penumbral profiles would seem sufficient for us to deem φ the content of τ .

For every vague object or property there will be an array of precise objects or properties that determines the same penumbral profile, and vice versa, and it's arguably merely a matter of convention whether we say e.g. that the token of 'secluded' Al uttered has as its content that array of precise properties whose penumbral profile matches the token's or that it has as its content that vague property whose penumbral profile matches the token's. Because it will considerably simplify the exposition of what is to follow, I will henceforth assume that every token of a vague singular term that doesn't fail altogether to refer (e.g. 'Atlantis') refers to a vague entity whose penumbral profile matches its penumbral profile and that every vague predicate token expresses a vague property whose penumbral profile matches its penumbral profile. I think it will be pretty obvious how the conclusions I come to relative to Vagueness-in-the-World would be matched, *mutatis mutandis*, by the conclusions I would come to relative to No-Vagueness-in-the-World, but the reader skeptical of the claimed equivalence may simply read me as at best having shown what follows relative to Vagueness-in-the-World.

Now we may return to the puzzle Penumbral Shift and Penumbral Ignorance create for the Standard View of saying reports.

On Saturday, as he and Betty are walking on the beach, Al points in a certain direction and utters (1) ('That area is secluded'). Let α be the vague area whose penumbral profile matches that of the uttered token of 'that area' and is therefore the referent of that token, and let φ be the vague property whose penumbral profile matches that of the uttered token of 'secluded' and is therefore the property expressed by that token. Then the uttered token of (1) expresses the vague proposition $\langle \alpha, \varphi \rangle$, thereby making that proposition the proposition Al said in uttering (1). Now suppose that on Sunday Betty and Carl are walking along the same stretch of Beach, and at roughly the place where Al made his remark the day before to Betty, Betty points in the direction Al pointed in and says to Carl,

(2) Yesterday, Al said that that area was secluded.

We are all very familiar with that sort of saying report, and we should have no trouble accepting that Betty's utterance is true—or at least that native speakers of English familiar with the

circumstances of Al's utterance of (1) on Saturday and of Betty's utterance of (2) on Sunday would unhesitatingly take Betty's utterance to be true. The fact that we readily accept that Betty's utterance may be true creates a problem for the Standard View. For the application of the Standard View to Betty's utterance of (2) entails that her utterance of (2) was true only if the token of the that-clause she uttered—viz. 'that that area is secluded'—referred to $\langle \alpha, \varphi \rangle$, the proposition we're supposing Al to have said, and that in turn entails that the token of 'that area' Betty uttered referred to the vague area α and that the token of 'secluded' she uttered expressed the vague property φ . At the same time, Penumbra Shift and Penumbra Ignorance virtually guarantee that the token of the that-clause Betty uttered won't refer to $\langle \alpha, \varphi \rangle$. For the that-clause token referred to that proposition only if the referent of the token of 'that area' it contained was α , the same vague area that was the referent of the token of 'that area' Al uttered, and only if the property expressed by the token of 'secluded' it, the that-clause token, contained was φ , the same vague property expressed by the token of 'secluded' Al uttered. But Penumbra Shift on its own should lead us to expect that the penumbral profiles of the tokens of 'that area' and 'secluded' Betty uttered are at least somewhat different from those of the tokens of those expressions Al uttered, and that therefore the contents of Betty's tokens will themselves be somewhat different from the contents of Al's tokens. Then, on top of that, Penumbra Ignorance secures that, while Betty might have said that her intention in uttering 'that area' was to refer to the area to which Al referred the day before, she couldn't have intended to refer to α , for, not knowing α 's penumbral profile, she had no way of distinguishing that vague area from the uncountably many very similar vague areas with which it overlapped, and similar reasoning shows that she couldn't have intended her utterance of 'secluded' to express φ . So let α' and φ' be the vague area and the vague property, respectively, whose penumbral profiles match those of the tokens of 'that area' and 'secluded', respectively, that Betty uttered, thereby making $\langle \alpha', \varphi' \rangle$ the referent of the that-clause token Betty uttered. Since $\langle \alpha', \varphi' \rangle \neq \langle \alpha, \varphi \rangle$, Betty's utterance is false if the Standard View is correct.

Our dilemma, then, is this. On the one hand, saying that the Standard View is correct (and that therefore Betty's utterance of (2) is false) would be problematic, for we would then have to accept a very unappealing error theory, in that it seems obvious to us that many saying reports of the form '*A* said that *S*' are true, but given Penumbra Shift, Penumbra Ignorance and

the fact that the expressions in virtually every that-clause are vague to at least some extent, if we say that the Standard View is correct, then we would have to say that virtually every saying report is false. On the other hand, it would also be problematic to say that Betty's utterance of (2) is true, even though the token of the that-clause she uttered refers to the proposition $\langle \alpha', \varphi' \rangle$. For (2) evidently says that $\langle \alpha', \varphi' \rangle$ was the proposition Al said when he uttered (1), and how could that be when the determinants of that proposition weren't operative in the context of Al's utterance but only in the context of Betty's utterance? It's not feasible in this essay to inventory all the positions in logical space that might be offered as solutions to this dilemma and then to assess their relative merits and demerits, but I should think our first choice would be for a solution that allows us to say both that some close relative of the Standard View is correct and that Betty's utterance of (2) may be true, even though the penumbral profiles of the tokens of 'that area' and 'secluded' she uttered differed somewhat from the penumbral profiles of the tokens of those terms Al uttered. It's not immediately clear to me how that could work out unless something like one of the following two views was correct.

The more conservative of the two views says that a token of a sentence of the form (3) *A* said that *P*, which for our purposes we may take to be equivalent to 'The content of *A*'s utterance was the proposition that *P*', doesn't have the truth condition its surface grammar might lead one to think it has. That truth condition is that:

(3) is true iff *A* stands in the having-said relation to the proposition that *P*.¹⁵

If (3) had that truth condition, it's logical form would be

$S(A, p)$,

where *S* is the relation expressed by 'said' in (3) and *p* = the proposition that *P*. But the truth condition (3) actually has, the present suggestion goes, is that:

¹⁵ '*A* stands in the having-said relation to the proposition that *P*' is shorthand for 'the referent of the "*A*" term stands in the relation expressed by the token of 'said' to the proposition that is the referent of the "that *P*" term'.

(3) is true iff, for some proposition q , A stands in the having-said relation to q and the proposition that P is similar to q in such-and-such contextually-relevant respects,

which would give (3) a logical form we might represent as:

$$\exists q(S(A, q) \ \& \ (p \approx q)),$$

where ‘ \approx ’ stands for a contextually-determined resemblance relation. On this proposal, then, Betty’s utterance of (2) (‘Al said that that area was secluded’) was true if the proposition Al said was similar enough to the proposition to which the token of the that-clause Betty uttered referred, where what counts as being “similar enough” depends on such things as the conversational point of Betty’s utterance. A simpler way of expressing the view being proposed would be to say that saying reports of form (3) contain a hidden *roughly* operator, where the nature and degree of roughness in effect determine how similar the proposition referred to in the saying report must be to the proposition actually said.

The second, less conservative, way out of the pickle the Standard View finds itself in thanks to Penumbral Shift and Penumbral Ignorance might be put in the following way. When we look just at Al’s utterance of (1) it seems feasible to say that the content of Al’s utterance, and thus what he said, is $\langle \alpha, \varphi \rangle$, but when we look at Betty’s utterance we find reason to say that Al said the similar but distinct proposition $\langle \alpha', \varphi' \rangle$. The key assumption underlying this dilemma is that vague expression tokens have their contents absolutely, without relativization to anything. But suppose vague expression tokens don’t have their contents absolutely, but only relative to *contexts of interpretation*, where such contexts are contexts in which judgments may be made about the contents of utterances made in other contexts of interpretation. If we accept that sort of relativity, then we should also want to say that Betty’s utterance of (2) contains an implicit reference to her context of interpretation. We should then understand the revised Standard View to say that Betty’s utterance is true relative to her context of interpretation just in case the content of Al’s utterance relative to *that* context is the vague proposition that is the referent relative to that same context of the that-clause token Betty uttered. Since the penumbral

profile of an expression token can't differ from the penumbral profile of its content,¹⁶ it would also follow that an expression token's penumbral profile was itself relative to a context of interpretation. It should be noticed that the relativity posited by the present suggestion is pretty tame, for it is constrained in the same way differences in the penumbral profiles of tokens of a vague expression are constrained. For example, in no context of interpretation can a property be the property expressed by a token of 'girl' relative to that context unless it's necessarily the case that the property is instantiated by every human female no older than twelve years old. There is one advantage that this proposal has over the more conservative proposal that preceded it, although I'm uncertain how much weight the advantage should be given. Suppose that, instead of having simply uttered (2), Betty had uttered

(4) Yesterday, Al said that that area was secluded; but I don't think that's definitely true. It's at best indeterminate whether it's secluded.

It seems to me that if Carl agrees with Betty that the area in question is at best borderline secluded, then he would, and should, further agree with Betty that what Al said the day before wasn't definitely true, even though the penumbral profile the token of (1) ('That area is secluded') had in Al's context determined a proposition that was true. If that really is a feature of the way we speak which a theory of vague language should accommodate, then that favors the second of the two proposals, for only that proposal permits there to be a way Al's utterance may be said to be true and a way it may be said to be neither definitely true nor definitely false.

Each of the proposals just sketched is of course in need of further elaboration. They won't get it here. I offer these sketches primarily by way of illustrating some of the vagaries of interpretation created by Penumbral Shift and Penumbral Ignorance. It's those vagaries that have relevance to theories of judicial interpretation, to which topic I now turn.

V. Penumbral Shift, Penumbral Ignorance and Judicial Interpretation

As the verb 'to interpret' is used in law, two interpretative acts are typically involved in a judge's interpretation of a law-promulgating text (a *text*, for short)—principally, a statute, regulation or written constitution. The first interpretative act is to decide what is to count as the law

¹⁶ As we have already noted, if, for example, the penumbral profile of a predicate token is such that it's indeterminate whether the token is true of a certain thing, then it must also be the case that it's indeterminate whether that thing instantiates the property expressed by the token.

promulgated by the text, and, once that is decided, the second interpretative act is to decide how that law applies to a particular case or cases, particularly to cases to be decided by the judge's court. Theories of judicial interpretation are normative theories of how judges ought to perform interpretative acts of the first kind, and those theories are taken to determine, or at least constrain, interpretative acts of the second kind. In this final section I will illustrate the bearing of what I have so far said in this essay to issues of judicial interpretation by discussing its bearing on one particular theory of judicial interpretation, Supreme Court Justice Antonin Scalia's *textualism*, sometimes called *originalism* in its application to the U.S. Constitution. The discussion of textualism will make salient an entirely unsurprising condition that must be met by any theory of judicial interpretation that hopes to be plausible.

Common law is law based on the principle of *stare decisis*, the principle that “a decision made in one case will be followed in the next.”¹⁷ For a judge to decide whether a decision reached in another case is binding on the case before her, she must first discern the principle of that prior decision, where that requires deciding in what respects her case must be similar to the decided case in order for the decision reached in that case to be binding on her case. Discerning the principle established by a court's decision “is an art, or a game, rather than a science, because what constitutes the ‘holding’ of an earlier case is not well defined and can be adjusted to suit the occasion.”¹⁸ Because of this scope for creativity on the part of the judge, common law judges have considerable scope within which to create law. Federal courts, however, are not governed by common law, for “every issue of law resolved by a federal judge involves interpretation of text—the text of a regulation, or of a statute, or of the Constitution.”¹⁹ Although, he says, he has “no quarrel with the common law and its process,” Scalia does “question whether the *attitude* of the common-law judge—the mind-set that asks, ‘What is the most desirable resolution of this case, and how can any impediments to the achievement of that result be evaded?’—is appropriate for most of the work that [federal judges do].”²⁰ Scalia intends his textualism to be an antidote to the attitude he deprecates. Textualism holds that jurists should take the law promulgated by a text to be determined by, and only by, “the meaning the text had when it was

¹⁷ Scalia (1997: 7).

¹⁸ *Op. cit.* (8).

¹⁹ *Op. cit.* (13).

²⁰ *Op. cit.* (13).

created.” As a theory of constitutional interpretation, textualism is called *originalism* because it holds that judicial interpretations of the Constitution should be determined by, and only by, the “original meaning” of the Constitution, which is to say, “the meaning [the Constitution] had when it was adopted.”²¹ Before we can assess how Penumbral Shift and Penumbral Ignorance might affect textualism we must first know to what ‘the meaning a text had at the time it was created’ is supposed to refer.

Evidently, it refers to a meaning a text may have at one time but not at another time, and such meanings can only be the meanings of expression *types*. The meaning of the word type ‘decimate’ has changed over time, for it once meant “to kill one in ten.” But if we’re talking about the “meaning” of a particular token of ‘decimate’, one can mean only the content of that token, or the meaning the type of which it’s a token had at the time the token was produced, and neither of those two things can change over time. But if the ‘meaning a text had at a given time’ refers to the meanings of the sentence types tokened in the text, then it’s impossible for that meaning to determine any law. That is because a law must specify a condition for something’s being in conformity with the law, and no sentence type can specify such a condition. No sentence type can specify such a condition because if it did the condition would have to be expressed by a predicate type, or conjunction of predicate types, contained in the sentence. Yet predicates in law-promulgating texts will invariably be vague to at least some degree, and therefore if they expressed properties, those properties would be vague properties, and Penumbral Shift entails that no vague predicate *type* (or conjunction of them) can express any vague property. For, necessarily, if a predicate type expressed a property, then that property would be the content of every literally uttered token of the predicate,²² but Penumbral Shift entails that literally uttered tokens of a vague predicate may express somewhat different properties, properties with somewhat different penumbral profiles.²³ So, if textualism is to have

²¹ Remarks Scalia delivered at the Woodrow Wilson International Center for Scholars in Washington, D.C., on March 14, 2005.

²² For example, to say that the predicate ‘prime number’ expresses the property of being a prime number is for all intents and purposes to say that the predicate means that property; but if that is what ‘prime number’ means, then every literally uttered token of ‘prime number’ must express the property of being a prime number, for otherwise it wouldn’t have been literally uttered.

²³ In other words, Penumbral Shift entails that no vague property can be the meaning of a vague predicate. That is of some importance apart from present concerns, not least because it refutes an

any chance of being correct, ‘the meaning the text had when it was created’ must refer to the propositional content expressed by the sentence tokens produced by the authors of the text (in the extended sense of ‘token’ stipulated above on p. 000), and that is a content that is constrained but never determined by the meanings of the tokened sentences. I say this, however, not as an objection to Scalia, but merely to show how textualism’s talk of “meaning” must be understood if it’s not to be dismissible as false right off the bat. And while Scalia does say some pretty confused things about meaning (after all, he’s a judge, not a semanticist),²⁴ he also emphasizes the importance of “context” (“Nothing but conventions and contexts cause a symbol or sound to convey a particular idea”²⁵), and, some of what he writes can be correct only if understood to be about the contents of expression tokens. A good example of that is his explanation of why he dissented from the Supreme Court’s holding in *Smith v. United States*. At issue in that case was a statute that provided for an increased jail term if “during and in relation to [a] drug trafficking

often heard palliative about vagueness (e.g. Mark Sainsbury appeals to the palliative in (1996)). The palliative is supposed to show that vagueness requires no special accommodation in, and poses no threat to, compositional truth or meaning theories. For example, a theorist might say that the meaning ascription

(G) ‘Girl’ means the property of being a girl

is perfectly true as it stands, notwithstanding the vagueness of ‘girl’, and this because, as the used occurrence of ‘girl’ in (G) simply inherits its vagueness from that of (G)’s quoted occurrence of ‘girl’, the vagueness of the used occurrence is the same as the vagueness of the quoted occurrence. Penumbral Shift, however, shows such a claim to be false, for a consequence of Penumbral Shift is that the sentence *type* (G) no more expresses a proposition or has a truth-value than does the sentence type ‘She didn’t do it to him’. Penumbral Shift also shows something considerably more disturbing to those who hope to take theoretical comfort in the palliative, namely, that, while *tokens* of (G) will express propositions and so have truth-values, *every one of those propositions, and therefore every token of (G), must be false*. To see this, let γ be the vague property that is the content of the unquoted token of ‘girl’ in the displayed token of (G). γ will have a penumbral profile that matches that of the token of ‘girl’ whose content it is. Since tokens of that occurrence of ‘girl’ in other tokens of (G) may, and certainly will, have other penumbral profiles, those tokens won’t have γ as their content. At the same time, the referent of the token of “‘girl’” in the sentence token (G) is the word *type* ‘girl’, and therefore the displayed token of (G) is true only if the word type ‘girl’ means γ , which would require γ to be the content of every token of ‘girl’—and that, we know, is precluded by Penumbral Shift.

²⁴ In one of his discussions of meaning, Scalia says that “King Lear would still be King Lear if it were produced by the random typing of a thousand monkeys over a thousand years. And a Bob Hope joke would still be funny if it were sculpted in sand by the action of the desert wind” (2012: section on “Textualism and Its Challengers”; references are to Kindle publication of the book which doesn’t give original page numbers).

²⁵ Op. cit.: section on “Related-Statutes Canon”.

crime [the defendant] uses ... a firearm.” The defendant “used” a gun in a drug trafficking crime in that he offered a drug dealer an unloaded gun in exchange for a certain quantity of cocaine. The Court held that the defendant was subject to the increased jail time, because he had “used a firearm during and in relation to a drug trafficking crime.” In his dissent Scalia made an objection which a philosopher of language might have put by saying that a sentence type of the form ‘*A used an X*’ no more expresses a proposition, and therefore no more has a truth-value, than does the sentence type ‘Bill is tall’: just as in a literal utterance of ‘Bill is tall’ there must be a comparison class *C* such that in uttering the sentence the speaker meant that Bill was tall for a *C* (e.g. an eight-year-old boy or an NBA forward), so in a literal utterance of ‘Smith used a firearm’ there must be something *X* that a firearm might be used to do such that in uttering the sentence the speaker meant that Smith used a firearm to *X* (e.g. threaten a rival or drive a nail). It seemed clear to Scalia that the proposition expressed by the statute was that a defendant who used a firearm *to shoot or threaten to shoot* his victim in the commission of a drug-trafficking crime would be subject to an increased jail term. As Scalia observed, “when you ask someone, ‘Do you use a cane?’ you are not inquiring whether he has hung his grandfather’s antique cane as a decoration in the hallway.”²⁶

Should we, then, understand textualism to be the doctrine that jurists ought to interpret the law promulgated by a text to be nothing more nor less than what the text says, its propositional content? That is close to what it needs to be, but it needs a little more refining. Although there are many issues about the nature of the propositional contents of vague sentence tokens, only one of those issues—the issue of arrays of precise propositions versus vague propositions—has been discussed in this essay. Nevertheless, I believe, and will assume, that a textualist neither puts herself at a disadvantage nor gives herself an advantage by adopting the working hypothesis that those contents are vague propositions whose penumbral profiles match those of the sentence tokens whose contents they are (either absolutely or relative to a context of interpretation or some other parameter). It may, however, seem that it matters a lot to the textualist which account of saying reports (= accounts of what texts say) is correct. For instance, the textualist will clearly want to distance herself from the two theories of saying reports that emerged in the wake of the dilemma Penumbra Shift and Penumbra Ignorance create for the

²⁶ Ibid.

Standard View of saying reports, for both those theories give interpretative weight to the interests of those interpreting a text, and that must be anathema to the textualist. Fortunately for the textualist, she needn't, and shouldn't, get embroiled in the details of the semantics of statements reporting what a text says. Her theory shouldn't turn on which semantic theory turns out to be the best fit for those reports. Her theory needs, quite simply, to be that a judge ought to take the law promulgated by a legal text to be given by, and only by, the set of vague propositions whose penumbral profiles match those had by the sentence tokens that comprise the text in the context in which those tokens were produced.²⁷ Unfortunately for the textualist, although that is the best formulation of her theory, it is nevertheless a formulation that the textualist should reject; for not only would its acceptance by judges *not* be an antidote to the “mind-set that asks, ‘What is the most desirable resolution of this case, and how can any impediments to the achievement of that result be evaded?’,” its acceptance would actually *encourage* that mind-set. Let me explain.

The problem for the textualist is that he not only has Penumbral Shift and Penumbral Ignorance to contend with; he has them *plus* (what we may call) *Judicial Necessity* to contend with. When someone says something we judge not to have a determinate truth-value, it's no big deal: we judge that what the guy said has no determinate truth-value and move on. Judicial Necessity is the fact that that is a luxury judges don't have. More exactly, Judicial Necessity applies to federal judges who must decide cases involving the interpretation of legal texts; it's the fact that a judge hearing such a case never has the option of not deciding the case because it's indeterminate whether the law in question applies to it. Even if a judge knows that the relevant law has no determinate application to the case she is hearing, she must still officially “decide” either that the law does apply to the case or that it doesn't apply to it.²⁸ Now, *even one who is unaware of Penumbral Shift and Penumbral Ignorance* should expect that a judge who is a textualist—say, a Supreme Court Justice (call her *X*)—will not infrequently find herself in the following sort of bind:

²⁷ Please keep in mind that as I'm using ‘token’, the word applies to abstract occurrences of sentences in abstract works that may or may not themselves have physical tokens, such as book all copies of which have been destroyed or a long forgotten statute no copies of which still exist.

²⁸ To rule that a statute is “void for vagueness” is to rule that in the case being heard no law promulgated by the statute was violated because the statute promulgated no legally binding law.

1. The Court is hearing a case in which the issue is whether a certain statute *S* is in violation of a certain amendment *A* to the Constitution. It's clear to *X* and to many other jurists that, regardless of what one ought to understand the *law* promulgated by *A* to be, *A*'s *propositional content* has no determinate application to *S*. (Perhaps *X* is one of the Supreme Court Justices hearing *District of Columbia v. Heller*. In that case the Court had to decide whether or not the District of Columbia's Firearms Control Regulations Act of 1975 was in violation of the Second Amendment to the Constitution. The act prohibited D.C. residents other than law enforcement officers or members of the military from possessing handguns, unless that handgun had been registered under the District's registration law and was then reregistered within 60 days after the act went into effect. The Second Amendment to the Constitution, adopted in 1791, reads: 'A well regulated Militia, being necessary to the security of a free State, the right of the people to keep and bear Arms, shall not be infringed.')
2. Since *X* is a textualist *and* believes that *A*'s propositional content has no determinate application to *S*, *X* must further believe that statute *S* is neither determinately in violation of the law promulgated by *A* nor determinately not in violation of it.
3. Nevertheless, Judicial Necessity requires that *X* either vote that *S* is in violation of the law promulgated by *A* or else vote that *S* is not in violation of that law. Therefore, not only will her vote be hypocritical, in that it won't represent what she believes, it will also be a vote that could only have been made on the basis of considerations other than what by her lights the law requires, and in that sense *X*'s vote must be decided by considerations other than *A*'s propositional content—say, by general principles of morality or public policy, or whatever else might help *X* to decide which outcome would have the best consequences.

One doesn't need Penumbra Shift and Penumbra Ignorance to make the point that the *propositional contents* of texts will not infrequently fail to deliver determinate verdicts on legal issues that fall within their purview. That point can be made just on the basis of what most philosophers who work on vagueness take for granted about it. The importance of Penumbra Shift and Penumbra Ignorance for textualism, and for theories of judicial interpretation generally, is that they should make one appreciate how many cases there would be in which a judge would have to believe that it was indeterminate how the law promulgated by a text applied in those cases, if that law had to be determined solely by the propositional content of the text. This is made even more apparent when one also takes into account two ancillary facts about the kinds of texts judges are required to interpret. First, these are very often texts in which quite vague predicates must be applied to cases that are outside the safe zone of cases with respect to which every token of a predicate must apply/fail to apply simply by virtue of being a token of that predicate; and second, although we don't know exactly what determines the penumbral profiles of tokens of vague expressions, we do seem to know that some weight attaches to the judgments speakers make when their generalizations are tested by cases they hadn't anticipated when they made those generalizations. The problem is that counterfactual judgments about what judgments speakers would have made if their generalizations had been confronted with this, that or the other kind of unexpected case are mostly indeterminate, and because of the indeterminacy of those counterfactuals one seeking to know the application status of a generalization with respect to such a case is bound to judge the application status to be indeterminate. In fact, I submit that this sort of indeterminacy is manifested in most of the cases in which the Supreme Court's decision is reached by a vote whose split just happens to coincide with a split in the political ideology of the Justices.

No one who agrees with the points just made can coherently call himself a textualist. For to agree about the frequent indeterminacy of application of generalizations in the propositional contents of legal texts is perforce to recognize that often the decisions reached by federal judges can't be based *only* on the propositional contents of the legal texts they must interpret but must be based in part on considerations pertaining to the moral and ideological consequences of their decisions, and once the importance of such considerations are recognized, what will there be, really, to distinguish the view of the textualist from the view of a theorist such as Ronald

Dworkin,²⁹ a prime example of the sort of legal theorist Scalia says has the attitude of the common-law judge, “the mind-set that asks, ‘What is the most desirable resolution of this case, and how can any impediments to the achievement of that result be evaded?’”?

Scalia has expounded on textualism in many places, culminating with the publication in 2012 of *Reading Law: The Interpretation of Legal Texts*, a book (co-authored with Bryan Garner) of well over 500 pages. One would expect to find in these writings *some* awareness of the dangers vagueness poses for textualism. In fact, however, one finds virtually no such awareness, and in the Introduction to that book one even finds Scalia saying he hopes his book will demonstrate that “most interpretive questions have a right answer” (000)—although he doesn’t tell us the nature of that demonstration and it’s very clear that the book demonstrates no such thing. I think there may be a few reasons—in addition to the entirely understandable reason that he isn’t very aware of the ubiquity of vagueness or of its trouble-making features—why Scalia doesn’t think the textualist judge will find himself in the sort of dilemma Penumbral Shift, Penumbral Ignorance and Judicial Necessity predict he should find himself in. First, like most of us he can be disingenuous or self-deceiving about the meanings he finds, or about the ideological considerations that are instrumental to his finding the meanings he finds. (In *District of Columbia v. Heller*, mentioned above, the Court voted 5-4 that the District’s Firearms Control Regulations Act of 1975 violated the Second Amendment (“A well regulated Militia, being necessary to the security of a free State, the right of the people to keep and bear Arms, shall not be infringed”) and was therefore unconstitutional. The Opinion of the Court was delivered by Justice Scalia, and in it he wrote that “The Amendment’s prefatory clause announces a purpose, but does not limit or expand the scope of the second part, the operative clause.” OK, so if I say ‘Having noticed there was no milk in the house, I went to the supermarket’, what I said is true if I noticed there was no milk in the house today but went to the supermarket three weeks ago.) Second, Scalia seems to share the attitude, prevalent in legal writings on judicial interpretation, that vagueness in, say, the text of a statute isn’t something that might result in the statute’s being indeterminate in its application to certain cases but merely something one must work around to get a “fair reading” of the text which eliminates the vagueness, as though the vagueness of a text might not be an ineliminable feature of its content. Third, Scalia is often too quick to infer from

²⁹ See e.g. Dworkin (1996).

the fact that speakers at a certain time applied a term to certain things that their application of the term to those things was correct, rather than the result of their mistaken belief that the term applied to those things. Fourth, when all is said and done, Scalia doesn't really accept the textualism he claims to own, the view that a judge ought to understand the law promulgated by a text to be determined by, and only by, "the meaning the text had at the time it was created." In the Preface to *Reading Law*, after saying that judges ought to consider the meaning of a text to be the sole determinant of the law promulgated by the text, Scalia asks how that meaning is to be determined, and his answer is that "nothing but conventions and contexts cause a symbol or sound to convey a particular idea" (ibid.). But then he immediately adds that there are also "jurisprudential conventions that make legal interpretation more than just a linguistic exercise" (ibid.). The jurisprudential conventions to which he alludes are so-called *canons of interpretation*, of which the book lists seventy. Then, lest he be accused of having mischaracterized textualism, he quickly adds that "properly regarded, [these canons] are not 'rules' of interpretation in any strict sense but presumptions about what an intelligently produced text conveys."³⁰ That does fairly describe several of the canons. For example, the "Conjunctive/Disjunctive Canon" is that "*and* joins a conjunctive list, *or* a disjunctive list—but with negatives, plurals, and various specific wordings there are nuances" and the "Punctuation Canon" is that "punctuation is a permissible indicator of meaning." Other canons, however, are clearly not platitudes consistent with the claim that the law promulgated by a text is determined by, and only by, the propositional content of that text, and some of these canons can be brought to bear when it would be indeterminate how a particular law applied to a given case if the law promulgated by the text really were wholly determined by the text's propositional content. Examples include the *Rule of Lenity* ("Ambiguity [which in legal writings usually encompasses vagueness] in a statute defining a crime or imposing a penalty should be resolved in the defendant's favor"); the *Constitutional-Doubt Canon* ("A statute should be interpreted in a way that avoids placing its constitutionality in doubt"); the *Related-Statutes Canon* ("Statutes *in pari materia* are to be interpreted together, as though they were one law"); and the *Prior-Construction Canon* ("If a statute uses words or phrases that have already received authoritative

³⁰ Ibid.: in the section "Sound Principles of Interpretation." All the remaining quotations are also from this section.

construction by the jurisdiction's court of last resort, or even uniform construction by inferior courts or a responsible administrative agency, they are to be understood according to that construction"). Depending on the authority courts permit them to have them, such canons might decrease the number of cases in which a law has no determinate application, but there would still remain many cases in which a textualist judge *should* find himself in the kind of dilemma Penumbral Shift, Penumbral Ignorance and Judicial Necessity will often create for any textualist judge capable of knowing when the propositional content of the text he must apply to his case has no determinate application to that case. It might also be noted that, while certain of the canons of interpretation will result in certain laws having a determinate application which they wouldn't have had but for those canons, it's also the case that those canons force the textualist who acknowledges them to admit the relevance of moral and policy principles in determining what the law should be, for it's in those principles that the canons in question find their justification. The entirely unsurprising upshot of the foregoing discussion of textualism is that no theory of judicial interpretation can hope to be plausible unless it recognizes the legitimate—indeed, inescapable—reliance on moral and other normative considerations in the making of judicial decisions.³¹

³¹ This essay derives from a talk I gave at the conference on “Vagueness in Law” held at New York University in March 2013. My essay benefited from the discussion following my talk, and from the astute observations of my commentator, Andree Weber. A version of it was also given as a talk at Tel Aviv University in December 2014, and the discussion following that talk was also beneficial.

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