

# Obscenity and Community Standards: A Social Choice Approach

Alan D. Miller\*

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\* Division of the Humanities and Social Sciences, Mail Code 228-77,  
California Institute of Technology, Pasadena, CA 91125.  
email: [alan@hss.caltech.edu](mailto:alan@hss.caltech.edu)      web: <http://www.hss.caltech.edu/~alan>

## I. Introduction

In *Roth v. United States* (1957), the United States Supreme Court held that obscenity is “utterly without redeeming social importance” and is not protected by either the First or Fourteenth Amendments the U.S. Constitution.<sup>1</sup> The court ruled that “contemporary community standards” are to be used in determining whether particular works are obscene.<sup>2</sup> When, sixteen years later, the court refined the definition of obscenity in *Miller v. California*, the community standards test was retained as an element of the new rule.<sup>3</sup>

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<sup>1</sup> *Roth v. United States*, 354 U.S. 476, at 484 (1957).

<sup>2</sup> *Id.* at 489. The test provided in *Roth* is: “whether to the average person, applying contemporary community standards, the dominant theme of the material taken as a whole appeals to prurient interest.” The inclusion of “children” in the jury instruction has since been disallowed. *Pinkus v. United States*, 436 U.S. 293 (1978).

<sup>3</sup> *Miller v. California*, 413 U.S. 15, at 24 (1973). The full test provided in *Miller* is: “(a) whether “the average person, applying contemporary community standards” would find that the work, taken as a whole, appeals to the prurient interest; (b) whether the work depicts or describes, in a patently offensive way, sexual conduct specifically defined by the applicable state law; and (c) whether the work, taken as a whole, lacks serious literary, artistic, political, or scientific value.” The test provided in *Miller* remains the current law.

The requirement that obscenity is determined according to “community standards” leads to two natural questions. First, what is the relevant “community” for purposes of adjudicating these constitutional claims? Second, what are “community standards” and how are they related to individual standards, if at all?

The Supreme Court has provided some guidance on the first of these questions. The *Roth* opinion upheld jury instructions stating that all members of the community are to be included: “young and old, educated and uneducated, the religious and the irreligious — men, women and children.”<sup>4</sup> The *Miller* opinion held that the community may be defined locally and not nationally. “It is neither realistic nor constitutionally sound to read the First Amendment as requiring that the people of Maine or Mississippi accept public depiction of conduct found tolerable in Las Vegas or New York City.”<sup>5</sup> There has been very little guidance, however, on the nature of community standards or their relationship to the views of individuals. This second question has been ignored almost entirely.

This paper proposes a general theory of community standards. The theory can be described as follows. First, both individual and community standards are taken to be judgments — categorizations of possible works as either “obscene” or “not obscene.”

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<sup>4</sup> *Roth* at 490. The Court has since ruled that children are not to be included in the jury instruction on the ground that it might lead jurors to exclude constitutionally protected material. *Pinkus, dba Rosslyn News Co. et al v. United States*, 436 U.S. 293 (1978).

<sup>5</sup> *Miller* at 32.

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Every possible judgment is allowed provided it satisfies the following restriction: neither individuals nor the community may consider all works to be obscene. Second, community standards are derived systematically from the individual standards. Every possible method of deriving the community standards is considered. The methods are they evaluated according to normative criteria. These criteria require that the community standard (a) preserve unanimous agreements about the entire standard, (b) become more permissive when all individuals become more permissive, and (c) not discriminate, ex ante, between individuals or between works. One method is shown to uniquely satisfy these normative criteria. This method is the UNANIMITY RULE, which determines a work to be obscene when all individuals agree that it is obscene.<sup>6</sup> Every other conceivable method of deriving a community standard from individual standards must violate one or more of these criteria.

The theory of community standards introduced in this section is general and can be applied in other settings in which multiple views must be aggregated to form a collective standard. Potential applications include related broadcast indecency regulations administered by the Federal Communications Commission, standards of proof used to evaluate evidence in trials, and general standards of behavior such as the “reasonable person” of the common law.

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<sup>6</sup> In the famed Hart-Devlin debate, Lord Devlin defended the use of the unanimity concept in determining, in general, whether an act is immoral. See P. Devlin, *THE ENFORCEMENT OF MORALS* (1965).

The question of how community standards are related to individual standards is distinct from the question of whether the law should regulate obscenity or, more generally, morality.<sup>7</sup> I will not discuss this question or the related question of whether the law should regulate pornography on grounds unrelated to morality.<sup>8</sup> The results described in Part IV have direct implications only for the use of community standards.<sup>9</sup> Furthermore, I make no judgments as to whether the Supreme Court should retain the community standard criterion introduced in *Roth*. The framework introduced in this paper is simply a tool that can be used to clarify and sharpen the arguments of both supporters and opponents of current doctrine.

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<sup>7</sup> This latter question has been hotly debated. See P. Devlin, *THE ENFORCEMENT OF MORALS* (1965); H.L.A. Hart, *LAW, LIBERTY AND MORALITY* (1963).

<sup>8</sup> See MacKinnon, *Not a Moral Issue*, 2 *YALE LAW AND POLICY REVIEW* 321 (1984); Emerson, *Pornography and the First Amendment: A Reply to Professor MacKinnon*, 3 *YALE LAW AND POLICY REVIEW* 130 (1984); MacKinnon, *Pornography, Civil Rights, and Speech*, 20 *Harvard Civil Rights—Civil Liberties Law Review* 1 (1985); Sunstein, *Pornography and the First Amendment*, 1986 *DUKE LAW JOURNAL* 589 (1986).

<sup>9</sup> There may be additional indirect implications. For example, Lord Devlin's justified the regulation of immoral behavior on the ground that it violated community standards. It is not clear which alternatives justifications would be supported by followers of Lord Devlin were the community standards approach to be deemed unworkable.

Part II introduces and explains the axiomatic approach to studying opinion aggregation rules. In this section, the general concept of judgment aggregation is explained and is differentiated from the related problem of preference aggregation. In Part III of this paper I describe the history of the obscenity doctrine as set forth by the courts. Part IV introduces a new theory of community standards and applies the theory to constitutional obscenity law. Other applications of the theory are discussed in Part V. General implications of the theory are discussed in Part VI. Part VII concludes.

## **II. Axiomatic Opinion Aggregation**

In this section I explain judgment aggregation and how it differs from the better-known framework of preference aggregation. I begin first with a general introduction to the axiomatic study of opinion aggregation and follow with discussions of techniques and results in preference aggregation and judgment aggregation.<sup>10</sup>Axiomatic opinion

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<sup>10</sup> The axiomatic approach is a method by which problems of interest are formalized using mathematics or logic, and then possible solutions are analyzed according to properties that they satisfy. Examples of problems studied using the axiomatic approach include fairness (often expressed in terms of the allocation of scarce resources), behavior (by reducing previously unfalsifiable assumptions about human behavior to testable axioms), and aggregation (the combining of several inputs into a single output). The focus of this paper is on opinion aggregation, in which the relevant inputs are individual opinions, and the outcome is a “collective” opinion.

aggregation models can be explained in three parts: (a) the model, (b) the aggregation rules, and (c) the axioms.

The **model** is a formal description of the problem of interest. In an aggregation problem, each voter selects an *input* from a set of choices,<sup>11</sup> and an *outcome* is chosen, often from the same set. The model formally specifies the set of possible inputs and the set of possible outcomes. For example, consider the case of nine judges trying to decide whether a plaintiff should prevail in a case. In the simplest model, each judge chooses “yes” or “no,” and the outcome is chosen from “yes” or “no.”<sup>12</sup>

An **aggregation rule** is a systematic method of choosing an outcome from the inputs. For example, in many democratic countries some decisions are left to the rule of the majority.

This can be formulated as an aggregation rule:

MAJORITY RULE: The outcome with majority support is selected.

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<sup>11</sup> The models I will describe are symmetric in the sense that every voter makes a choice of an input from the same set of choices; however, the aggregation rules need not be.

<sup>12</sup> In this model, the inputs and outcomes are chosen from the same set. While this will typically be the case, we can also consider models where the inputs and outcomes are drawn from different sets. One such alternative model might allow voters to abstain (so that each judge’s input must be “yes”, “no”, or “abstain”) but require the court to make a decision (“yes” or “no”).

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In other countries, some decisions are left to a single individual (known as the “dictator”), who determines the outcome without regard for the inputs of others.

DICTATORSHIP: The outcome supported by the dictator is selected.

These are just two out of a large number of possible rules.<sup>13</sup> Here are a few other possible rules for a nine-judge court:

TWO-THIRDS RULE: The outcome is “yes” if there are six or more “yes” votes.

Otherwise the outcome is “no.”

MINORITY RULE: The outcome with minority support is selected.

YES-IF-ODD: The “yes” outcome is selected if the number of “yes” votes is odd.

Otherwise the outcome is “no.”

PLAINTIFF LOSES: The “no” outcome is always selected.

An **axiom** is a formal definition of a property that aggregation rules might satisfy. Good axioms are simple, clear, and well motivated. I will provide several examples.

The first property I will introduce requires that aggregation rules “treat every voter equally.” The phrase “treat every voter equally” might mean different things to different people, so to formalize this concept in an axiom we need to choose a very specific meaning. One way to implement this property is to require that the outcome should not

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<sup>13</sup> For this model, the set of aggregation rules is finite but large. An attempt to write down every rule would quickly exhaust the paper supply of the known universe.

change if individuals trade votes with one another. For example, assume that Alice voted “Yes” while Bob voted “No.” If tomorrow Bob were to vote “Yes” and Alice were to vote “No,” then Alice and Bob would have traded their votes. If the other individuals did not change their votes, then this trade of votes should not affect the outcome.

*Anonymity:* A trade of votes must not affect the outcome.

DICTATORSHIP clearly does not satisfy the *anonymity* axiom: if the dictator trades votes with an individual who voted differently, the outcome changes. (MAJORITY RULE, TWO-THIRDS RULE, MINORITY RULE, YES-IF-ODD, and PLAINTIFF LOSES all satisfy this axiom.)

The second property requires that “more votes are better.” Again there are many possible interpretations of this phrase, but we can formalize it as an axiom which requires that if a single individual changes her vote from “no” to “yes,” while all other individuals do not change their votes, then the outcome should not change from “yes” to “no.”

*Monotonicity:* If the outcome was “yes,” and one vote changes from “no” to “yes” while no other votes change, then the new outcome is “yes.”

MINORITY RULE does not satisfy the *monotonicity* axiom: if there are four “yes” votes the outcome is “yes,” but if there are five “yes” votes the outcome is “no.” YES-IF-ODD also fails to satisfy this axiom: five “yes” votes lead to the “yes” outcome, but six “yes” votes lead to the “no” outcome. (MAJORITY RULE, DICTATORSHIP, TWO-THIRDS RULE, and PLAINTIFF LOSES all satisfy this axiom.)

The third property requires that “all options be treated in the same way.” One interpretation of this phrase is that the rule should not favor either the plaintiff or the

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defendant. A “yes” outcome indicates that the plaintiff wins; a “no” outcome indicates that the defendant wins. Thus we can formalize this property in an axiom which requires that, if all “yes” votes become “no” votes, and all the “no” votes become “yes” votes, then the result should change (to “yes” if the result was “no,” and to “no” if the result was “yes”).

*Neutrality:* If every voter changes his or her vote, the outcome changes.

TWO-THIRDS RULE does not satisfy the *neutrality* axiom because when the vote is five to four the outcome is “no” regardless of whether the five votes are for “yes” or for “no.” PLAINTIFF LOSES also fails to satisfy this axiom because, under that rule, the outcome never changes regardless of the inputs. (MAJORITY RULE, DICTATORSHIP, MINORITY RULE, and YES-IF-ODD all satisfy this axiom.)

A **characterization theorem** is a statement that expresses an aggregation rule (or a family of such rules) in terms of a set of axioms exclusively satisfied by the rules. Recall that MAJORITY RULE satisfies all three of the axioms introduced, and it was unique in doing so among the examples provided. In fact, MAJORITY RULE is the only aggregation rule that satisfies all of the axioms. A characterization theorem of Kenneth May (commonly referred to as “May’s Theorem”) established that an aggregation rule satisfies

*monotonicity*, *anonymity*, and *neutrality* if and only if it is MAJORITY RULE.<sup>14</sup> That is, (a) MAJORITY RULE satisfies the three axioms, and (b) any rule that satisfies the three axioms must be MAJORITY RULE.

## **A. Preference Aggregation**

### **1. The Condorcet Paradox**

As we have seen, MAJORITY RULE satisfies several potentially desirable properties in a setting with two alternatives. If there are more than two possible alternatives, however, MAJORITY RULE can run into a paradox first discovered by the eighteenth century French nobleman, the Marquis de Condorcet.<sup>15</sup> Consider the simple case of three people trying to choose between three alternatives: apples, bananas, and oranges. (Yes, apples and oranges *are* comparable.) Assume that our three people, Alice, Bob, and Charlie, have the following preferences. Alice prefers apples to bananas, and bananas to oranges (and consequently apples to oranges). Bob prefers bananas to oranges, and oranges to apples, while Charlie prefers oranges to apples, and apples to bananas. These preferences are shown in Table 1.

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<sup>14</sup> May, *A Set of Independent Necessary and Sufficient Conditions for Simple Majority Decision*, 20 *ECONOMETRICA* 680 (1950). The version of the theorem proved by May included a third option, between “yes” and “no,” which we might label “abstain.”

<sup>15</sup> For a statement of the paradox, see K. Arrow, *SOCIAL CHOICE AND INDIVIDUAL VALUES* 3 (2nd. ed. 1963).

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Are apples *socially* preferred to oranges? By MAJORITY RULE, the answer is no. Both Bob and Charlie prefer oranges to apples. But is the answer this simple? Suppose instead we compared both apples and oranges to bananas. By MAJORITY RULE apples are preferred to bananas (Alice and Charlie both prefer apples to bananas) and bananas are preferred to oranges (Alice and Bob both prefer bananas to oranges). If apples are socially preferred to bananas and bananas are socially preferred to oranges, we are lead to the paradoxical conclusion that apples are socially preferred to oranges.

**Table 1: The Condorcet Paradox**

Alice	Bob	Charlie	MAJORITY RULE		
apples	bananas	oranges	<b>oranges</b>	preferred to	<b>apples</b>
bananas	oranges	apples	<b>apples</b>	preferred to	<b>bananas</b>
oranges	apples	bananas	<b>bananas</b>	preferred to	<b>oranges</b>

## 2. Arrow's Theorem

While Condorcet's paradox highlights a problem with MAJORITY RULE, the problem is much broader.<sup>16</sup> Kenneth Arrow's famed impossibility theorem, for which he was awarded the Nobel Prize in 1972, showed that no aggregation rule satisfies a very

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<sup>16</sup> For an argument that MAJORITY RULE is more *robust* than other aggregation rules, see Dasgupta and Maskin, *On the Robustness of Majority Rule*, mimeo (2008).

minimal set of reasonable conditions.<sup>17</sup> To explain his result I will start by describing the Arrovian model of preference aggregation.

In Arrow's model, preferences are described by rankings over alternatives. Alternatives can be thought of as fruits (such as apples, bananas, and oranges), or of allocations of resources and legal rights to individuals in a society. Rankings have two important properties. First, every two alternatives can be compared by each individual. Either Alice prefers apples to bananas, or Alice prefers bananas to apples, or Alice is indifferent between the two. (The Arrovian model allows for ties.) Second, the rankings are *transitive*: if Alice prefers apples to bananas, and bananas to oranges, then Alice prefers apples to oranges. As long as these two requirements are met, individuals' preferences are allowed to take any form. The inputs in the Arrovian model are a set of preferences (one for each individual); the outcome is a single preference (referred to as the *social* preference).

Preference rankings may appear familiar. Economists often make an assumption of "rationality" which means that individuals act as if they have a preference ranking and always choose the best available alternative according to that ranking.<sup>18</sup>

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<sup>17</sup> K. Arrow, SOCIAL CHOICE AND INDIVIDUAL VALUES (2d ed. 1963). The impossibility theorem was one of several accomplishments for which Arrow was awarded the Nobel Prize.

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Arrow introduced three axioms to describe properties that, in his view, an aggregation rule should satisfy. The first property is labeled *Pareto* after the nineteenth century Italian economist who pioneered its use in welfare economics. If every person strictly prefers apples to bananas, then society also strictly prefers apples to bananas.

*Pareto:* If every person strictly prefers one alternative to another, then society must strictly prefer the former alternative to the latter.

The second property states that the comparative ranking of two alternatives is independent of how other alternatives are ranked. Whether apples are socially preferred to oranges should not depend on how people feel about bananas.

*Independence of irrelevant alternatives:* The comparative ranking of any pair of alternatives must not depend on how individuals rank other, irrelevant alternatives.

The third property is a weaker version of the anonymity principle described above. A rule is “dictatorial” if there is a single individual (a “dictator”) whose preferences are always

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<sup>18</sup> The idea of a preference ranking did not originate with Arrow. Modern decision theory, for example, originated with the theory of expected utility developed by John von Neumann and Oskar Morgenstern, who showed in 1944 that preference rankings can be represented by expected utility functions if and only if satisfy two additional conditions. J. von Neumann and O. Morgenstern, *THEORY OF GAMES AND ECONOMIC BEHAVIOR* (1944).

followed by society. That is the aggregation rule is dictatorial if, whenever the dictator strictly prefers apples to oranges, then society also strictly prefers apples to oranges. Arrow required that an aggregation rule, at a minimum, be non-dictatorial.

*Nondictatorship*: The aggregation rule is not dictatorial.

Arrow proved that no aggregation rule satisfies all three conditions. In other words, an aggregation rule satisfies *Pareto* and *independence of irrelevant alternatives* if and only if it is dictatorial. The implications of this theorem were far-reaching. Welfare economics depends on evaluating alternatives according to some measure of social welfare. Arrow's theorem cast doubt on the concept of social welfare as derivable from individual welfare.

### **3. Sen's Paradox**

The unanimity property that underlay the *Pareto* axiom is among the most respected normative principle in welfare economics. If every member of the society strictly prefers oranges to apples, and it seems natural to say that the society prefers oranges to apples. The general problem with *Pareto* is that it says too little. If there is disagreement over a choice (say, one billion people strictly prefer oranges while one person strictly prefers apples) then *Pareto* is silent about what society should prefer.

Amartya Sen described *liberalism* as the ability to dictate personal choices, such as the decision to wear a blue shirt or a white shirt, or whether to read a particular book. In Sen's example, Alice dictates the choice of whether she reads *Lady Chatterley's Lover* if she, and she alone, decides whether to read that book. Sen defined a society as

“minimally liberal” if there are at least two people who can dictate at least one personal choice.

*Minimal liberalism:* There are at least two people who dictate at least one choice each.

Sen showed that no aggregation rule satisfies both *Pareto* and *minimal liberalism*.<sup>19</sup> For this and other contributions to welfare economics he was awarded the Nobel Prize in 1998.

#### **4. Gibbard-Satterthwaite Theorem**

In the Arrovian model of preference aggregation, the inputs are a set of preferences over alternatives (one preference ranking for each individual) and the outcome is a single preference, generally understood to represent the social preference needed to make welfare comparisons of various social states. Philosopher Allan Gibbard and economist Mark A. Satterthwaite, interested in voting mechanisms, both analyzed a different model of preference aggregation. As in the Arrovian model, the inputs were again a set of preferences over alternatives, but the outcomes were the alternatives themselves. The idea behind this model was simple: individuals reveal their preferences and the voting rule selects a single winning choice.

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<sup>19</sup> Sen, *The Impossibility of a Paretian Liberal*, 78 JOURNAL OF POLITICAL ECONOMY 152 (1970).

Gibbard and Satterthwaite defined a voting rule as “manipulable” if an individual with could achieve a more preferred outcome by submitting false preferences. They then asked the following question: which voting rules are not manipulable? Independently, Gibbard and Satterthwaite reached the same conclusion: if there are three or more alternatives, every non-dictatorial voting rule is manipulable.<sup>20</sup> In other words, any voting mechanism can be “gamed.”

## 5. Applications to Law

Because the purpose of this section is to explain preference aggregation and not to provide a general survey of the literature, I will refrain from discussing many other important results in this area.<sup>21</sup> I will discuss three important articles applying this literature to the study of legal institutions.

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<sup>20</sup> Gibbard, *Manipulation of Voting Schemes: A General Result*, 41 *ECONOMETRICA* 587 (1973), and Satterthwaite, *Strategy-Proofness and Arrow's Conditions: Existence and Correspondence Theorems for Voting Procedures and Social Welfare Functions*, 10 *JOURNAL OF ECONOMIC THEORY* 187 (1975).

<sup>21</sup> The results excluded from this section include one recently determined worthy of the Nobel Prize in Economics. In 2007, the Prize was awarded to Leo Hurwicz, Eric Maskin, and Roger Myerson for laying the foundations of mechanism design. Maskin's primary contribution was to define axioms necessary for mechanisms to be “implementable.” See

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Matthew Spitzer used an aggregation model to study multicriteria choice processes used by schools in admissions, the Federal Communications Commission in administrative decisions, and courts in making judicial determinations.<sup>22</sup> A multicriteria choice process is one where several criteria (such as grades, test scores, race, and income, in the form of rankings) are used to make a decision (such as whom to admit to a university). Spitzer showed that organizations using such processes could not satisfy a reasonable set of axioms. This directly implied that agencies such as the Federal Communications Commission could not at once adhere to all of the properties their decision-making process purported to satisfy.

In a related vein, Frank Easterbrook used Arrow's theorem to defend the Supreme Court from criticism that its' decisions were inconsistent.<sup>23</sup> Without significant (and, he argued, undesirable) institutional reform (such as reducing the number of justices from nine to one), decisions of a set of individually consistent justices should be expected to sometimes yield inconsistencies. (Recall that Arrow's theorem states that there is no aggregation method satisfying the above properties that leads to a *consistent* ranking.)

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Maskin, *Nash Equilibrium and Welfare Optimality*, 66 REVIEW OF ECONOMIC STUDIES 23 (1999).

<sup>22</sup> Spitzer, *Multicriteria Choice Processes: An Application of Public Choice Theory to Bakke, the FCC, and the Courts*, 88 YALE LAW JOURNAL 717 (1979).

<sup>23</sup> Easterbrook, *Ways of Criticizing the Court*, 95 HARVARD LAW REVIEW 802 (1982).

Louis Kaplow and Steven Shavell have used a preference aggregation model to argue that it is impossible for a society to be both “fair” and efficient.<sup>24</sup> Suppose that there are two alternatives between which every person is indifferent, which I will label “negligence” and “no liability.” Kaplow and Shavell show that if (a) society is efficient (in the sense that it satisfies Arrow’s *Pareto* axiom) and (b) certain technical assumptions are met, then society must be indifferent between negligence and no liability. This must be so regardless of any fairness criteria which require, for example, that innocent victims be compensated by tortfeasors.

## **B. Judgment Aggregation**

As we have seen, the key inputs in axiomatic preference aggregation models are rankings over outcomes held by individuals. The applications of these models can be positive (to predict individual or collective behavior), normative (to make welfare comparisons), or a

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<sup>24</sup> Kaplow and Shavell, *Any Non-welfarist Method of Policy Assessment Violates the Pareto Principle*, 109 *JOURNAL OF POLITICAL ECONOMY* 281 (2001). See also a criticism in Fleurbaey, Tungodden, and Chang, *Any Non-welfarist Method of Policy Assessment Violates the Pareto Principle: A Comment*, 111 *JOURNAL OF POLITICAL ECONOMY* 1382 (2003), and the reply in Kaplow and Shavell, *Any Non-welfarist Method of Policy Assessment Violates the Pareto Principle: Reply*, 112 *JOURNAL OF POLITICAL ECONOMY* 249 (2004). Kaplow and Shavell have extended their argument in a book, L. Kaplow and S. Shavell, *FAIRNESS VERSUS WELFARE* (2002).

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combination of the two. The preference aggregation framework fits closely with the dominant tradition in economics which assumes that individuals are rational in the sense that they try to maximize the value of outcomes, given their own preference rankings.

There are settings, however, in which individuals are asked to give opinions not directly tied to their preferences. Judges and jurors are asked to opine on the law and facts as they are, and are not asked for their preferences on what the law should be or on who should win the case.<sup>25</sup> Experts are called upon to give opinions within their field of expertise, not to tell us what they may prefer. At times we ask for these opinions to learn about objective truths, such as whether the defendant shot the gun, or whether the assailant was over six feet tall. At other times the truths may be subjective, such as whether the defendant was acting reasonably, or whether the candidate is a moderate. These opinions (whether about objective or subjective facts) are usually referred to as judgments.

Of course, preferences are not entirely irrelevant to the aggregation of judgments. A central component of Critical Legal Studies holds that judges' opinions on the law are affected by their preferences. Juries have been believed to nullify judicial or prosecutorial decisions by refusing to find "guilty" defendants they believe to have committed the acts

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<sup>25</sup> See Kornhauser and Sager, *Unpacking the Court*, 96 YALE LAW JOURNAL 82, at 89 (1986), who argue that "adjudication [is] an exercise in judgment aggregation" as opposed to preference aggregation.

with which they were charged. The Gibbard-Satterthwaite theorem suggests that this problem is, to some extent, unavoidable.

Nonetheless, that preferences might affect the formation of judgments does not imply that the aggregation of one is equivalent to the aggregation of the other. While preferences are thought to exist naturally, judgments are linked to institutions. For example, the judgments that high court judges may make are determined by the rules of the court. The rules may restrict some judges to a narrow menu of choices (such as “yes”, “no”, and “abstain”) or may allow other alternatives (such as the ability to write a dissent or occurrence). Choices made in the design of these rules may affect the outcome of a decision-making process.

While preferences generally take the form of rankings over alternatives, the structures of judgments vary. In the simplest case this is simply “yes” or “no”, as in the example of May’s theorem provided above. In other cases the set of possible judgments will take a more complex form. The standard technique in judgment aggregation is to explicitly model the institution within which judgments are made.<sup>26</sup> From this point, the technique

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<sup>26</sup> Richard Pildes and Elizabeth Anderson have criticized the Arrowian model of preference aggregation on the ground that individual values cannot be adequately represented by a simple ranking over a set of alternatives. Pildes and Anderson, *Slinging Arrows at Democracy: Social Choice Theory, Value Pluralism, and Democratic Politics*, 90 COLUMBIA LAW REVIEW 2121 (1990). To the extent that this critique is taken to be

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resembles preference aggregation: relevant properties are introduced in the form of axioms and aggregation rules satisfying these axioms are characterized.

In many institutions, and subsequently in models of these institutions, individuals are assumed to be honest and forthright. Judges and jurors take oaths to uphold the law, and experts often promise that they are giving expert advice and not personal opinion. As noted above, some would question whether judgment makers are in fact so truthful. While preferences are not explicitly considered in this framework, we can ask (with respect to specific aggregation rules) whether individuals are likely to distort their judgments from personal gain and, if so, we can consider the implications of this incentive problem for institutional design.

While the earliest distinction between preference and judgment aggregation seems to have been made by Amartya Sen,<sup>27</sup> much of the current work judgment aggregation literature (in economics, political science, philosophy, and computer science) arose out of a 1986 article in *Yale Law Journal* by Lewis Kornhauser and Lawrence Sager on the modeling of court decisions.<sup>28</sup> This should not be too surprising: judgment aggregation

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valid, it provides an alternative justification for the study of judgment aggregation as opposed to that of preference aggregation.

<sup>27</sup> Sen, *Social Choice Theory: A Re-Examination*, 45 *ECONOMETRICA* 53 (1977).

<sup>28</sup> Kornhauser and Sager, *Unpacking the Court*, 96 *YALE LAW JOURNAL* 82 (1986).

models are particularly well suited for studying legal institutions. In this section, I will review several existing models of judgment aggregation.

### **1. Kornhauser and Sager: The Doctrinal Paradox**

The first model of judgment aggregation that I will discuss arose out of a different problem with MAJORITY RULE — the “doctrinal paradox” — first introduced by Kornhauser and Sager in the context of multimember courts. To understand this problem, imagine a three three-judge panel that must decide whether the defendant breached a contract. For purposes of this example, there are two elements which must be established: (1) the agreement was enforceable, and (2) the defendant violated the terms of the agreement. The defendant is liable for breach of contract if and only if both of these elements are met. Suppose the judges make the following judgments. The first judge believes that the agreement was enforceable but that the defendant did not violate the terms and, therefore, that there was no breach of contract. The second judge believes that the defendant violated the terms of the agreement but that it was not enforceable and, as a consequence, there was no breach of contract. The third judge believes that the agreement was enforceable and that the defendant violated the terms and, thus, there was a breach of contract. The judges’ views are summarized in Table 2.

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**Table 2: The Doctrinal Paradox**

	enforceable?	terms violated?	breach of contract?
Judge 1	Yes	No	No
Judge 2	No	Yes	No
Judge 3	Yes	Yes	Yes
<b>MAJORITY RULE</b>	<b>Yes</b>	<b>Yes</b>	<b>No</b>

Only the third judge believes that the defendant breached the contract. By MAJORITY RULE, then, there was no breach of contract. However, if we use MAJORITY RULE to aggregate judgments about the elements we reach a different result. Two judges believe that the agreement was enforceable, so by MAJORITY RULE the panel believes that the agreement was enforceable; similarly, two judges believe that the defendant violated the terms, so by MAJORITY RULE the panel believes that the defendant violated the terms. This leads to a paradox. If the panel's decisions are made through MAJORITY RULE, it believes that defendant violated the terms of an enforceable agreement but did not breach the contract.

Three features of this example are particularly important. First, the conclusion and each of the elements are aggregated *independently*. The collective judgment as to whether the agreement was enforceable depends only on the beliefs of the judges about the

enforceability of the agreement; the collective judgment about the conclusion (whether the defendant breached the contract) depends only on beliefs about the conclusion. Second, aggregation is majoritarian: it occurs according to MAJORITY RULE. Third, there is a logical relationship between the elements and the conclusions. In particular, this relationship is conjunction: a defendant breaches the contract if and only if the agreement was enforceable AND the defendant violated the agreement. The doctrinal paradox indicates that independent majoritarian aggregation of logically interconnected propositions can sometimes lead to inconsistencies, at least when there are two elements connected to a conclusion through conjunction (“AND”) and there are three judges.

In recent years there has been renewed interest in the doctrinal paradox as scholars from political science, economics, philosophy, and computer science have taken these ideas from the legal literature and incorporated them into their various disciplines. This resurgence began primarily with the work of political scientists Philip Pettit and Christian List who developed a formal model of the aggregation of logically interconnected propositions and introduced axioms necessary to induce the doctrinal paradox.<sup>29</sup> The mathematics underlying this model have since been substantially generalized and refined.

The doctrinal paradox led to several questions about the design and operation of legal institutions. One question is philosophical: to what extent should court decisions be

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<sup>29</sup> List and Pettit, *Aggregating Sets of Judgments: An Impossibility Result*, 18 *ECONOMICS AND PHILOSOPHY* 89 (2002).

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internally consistent? There are several methods by which we could increase the degree of internal consistency of court decisions, although each of these has its costs. For example, we might encourage judges to change their votes, when necessary, to avoid an internal contradiction in the court's ruling. This would lead to greater internal consistency in the court's rulings, but less internal consistency in the opinions of the individual judges. It is questionable whether judges would be willing to follow a jurisprudential norm encouraging them to vote in an internally inconsistent manner.<sup>30</sup> Alternatively, we could decrease the likelihood of reaching this paradox by changing either the size of the court or the voting rule used therein.

The next question is directly practical: which alternative leads to a "better" outcome — aggregating judgments on the elements or on the conclusion? This question involves a strong assumption that there is never a dispute as to which elements are relevant in a given case. If we ignore this assumption, the question is nonetheless complicated: the answer depends on our understanding of (1) the court's function, (2) how judges form decisions, and (3) the extent to which justices vote strategically. Each of these questions has been the subject of fierce debate.

The court has several functions. Courts resolve disputes, and court decisions provide guidance as to how disputes will be resolved in the future, enabling individuals to modify

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<sup>30</sup> It seems that Supreme Court justices have a mixed record when facing this problem. In some cases individual justices have changed their votes; in others they have not.

their behavior accordingly today. The doctrine of *stare decisis* states that courts should give weight to individuals' interest in reliance on past decisions when making current judgments. The quality of this guidance and, in turn, the weight which judges place on past decisions are both affected by whether we aggregate judgments on the elements or on the conclusions.

The court does not exist for the sole function of providing guidance. We also expect that courts get the "correct" answer. Is there an objectively "correct" answer that judges are trying to uncover? Or is the truth more subjective, in which case perhaps the judge's role is more to reflect the view of the majority of the community. In the latter case, the problem is compounded further: the collective views of the community, as understood through MAJORITY RULE, may be as internally inconsistent as the opinion of the court.

To the extent that there is an objectively "correct" answer, the desirability of aggregating judgments on elements as opposed to judgments on conclusions turns on our understanding of how judges make decisions. Consider the following two views: (a) judges first form judgments about the elements independently, and only then make conclusions, and (b) judges first make an initial judgment about the conclusions, and only then reason about the elements. If the first view is correct, then it seems preferable to aggregate judgments about the elements; if the second view is correct then it would be preferable to aggregate judgments about the conclusions. Of course, it is possible that neither, or both, of the views is sometimes correct.

The answer also depends on the extent to which judges are strategic. If we aggregate judgments on the elements, then a justice might change a vote on an element to get the desired outcome. This may increase the uncertainty as to the justices true beliefs and, accordingly, lower the value of precedent.

### **2. Group Identification**

The “doctrinal paradox” highlights a very general problem with aggregating logically interconnected judgments. Judgment aggregation models can also be used to study specific problems. An example directly relevant to the study of law is the model of group identification introduced by philosopher Asa Kasher and economist Ariel Rubinstein.<sup>31</sup>

Kasher and Rubinstein asked how a neutral observer could objectively determine who is a member of a group when the relevant information consists of subjective beliefs held by the members of the society. While Kasher and Rubinstein were primarily interested in studying an Israeli law known as the “Law of Return,” which provides for automatic citizenship for Jews, this model is applicable to a wide variety of problems. Individuals who use data for empirical purposes (including social science researchers and government policymakers) often need objective methods of obtaining group data. Another problem, more directly relevant to the study of legal institutions, is the allocation of legal rights (and responsibilities). Ultimately, the individuals in a society determine the

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<sup>31</sup> Kasher and Rubinstein, *On the question “Who is a J?”, a Social Choice Approach*, 160 LOGIQUE ET ANALYSE 385 (1997).

composition of the groups (such as ethnic groups or the ‘group of individuals with drivers licenses’) to which these rights are allocated.

To understand the Kasher-Rubinstein model, imagine that each individual is given a ballot with a list containing the names of every person in the society, including that individual. At the top of the ballot is the name of the group in question (such as “Whites”) and the individual’s own name.<sup>32</sup> Each individual circles the names of other people she considers to be a member of that group. An aggregation rule is a method that systematically takes the ballots and returns a list of group members.

**a. Consent Rules**

Using this model of group identification, game theorists Dov Samet and David Schmeidler introduced “consent rules” as a means to study the tension between the liberal and democratic principles which underlie much of western political thought.<sup>33</sup> Consent rules are rules in which an individual’s self-judgment is respected if a sufficient number of individuals consent. The most liberal consent rule is SELF-IDENTIFICATION, in which an individual’s self-judgment is always respected. The most democratic consent rule is

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<sup>32</sup> The ballots are not necessarily secret. This makes sense in many situations—often we presume that an individual has more information about his own status than other individuals; that same individual also often has more of an incentive to lie.

<sup>33</sup> Samet and Schmeidler, *Between Liberalism and Democracy*, 110 JOURNAL OF ECONOMIC THEORY 213 (2003).

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MAJORITY RULE, in which an individual's self-judgment is accorded no special weight in determining that individual's status.

SELF-IDENTIFICATION: The group consists of the people who judge themselves to be members.

MAJORITY RULE: The group consists of the people whom the majority judges to be members.

Samet and Schmeidler characterized the family of consent rules with three axioms. To understand these axioms, I will first introduce a definition. An individual becomes more "welcoming" if (a) at least one person previously listed as a non-member is now listed as a member on the individual's ballot, and (b) no people previously listed as members are now listed as non-members on that individual's ballot. That is, Alice becomes more welcoming if she adds circles to her ballot but removes none. The group becomes more "welcoming" if it admits new members without expelling any of the old members. The first axiom states that if everyone becomes more welcoming, or stays the same, then the group must become more welcoming, or stay the same. This axiom is an analogue of May's axiom of the same name.

*Monotonicity:* If every person either (1) becomes more welcoming or (2) stays the same, then the group either (1) becomes more welcoming or (2) stays the same.

The second axiom requires that each individual's status depend only on the votes about that individual.

*Independence:* For each individual, only the votes about that person affect that person's status.

The third axiom states that the composition of the final group is not affected by exchanges of names. Names are exchanged, for example, if Alice is renamed "Bob," and Bob is renamed "Alice."

*Anonymity:* The membership of the group is not affected by exchanges of names.

All consent rules satisfy *monotonicity*, *independence*, and *anonymity*, and every rule that satisfies these three axioms is a consent rule. While SELF-IDENTIFICATION and MAJORITY RULE are, respectively, the most liberal and democratic consent rules, they are only two points within a larger spectrum of rules. Other consent rules include:

SECOND RULE: An individual's self-judgment is respected if at least one other individual agrees.

MAJORITY-ENTRY RULE: The group consists of the people who both (a) judge themselves to be members and (b) are judged to be members by the majority.

NO GROUP: No one is a member of the group.

The SECOND RULE is slightly less liberal than SELF-IDENTIFICATION. According to this rule, an individual's self-judgment can be disregarded, but only in the extreme case when every other member of the society judges the self-judgment to be wrong. The MAJORITY-ENTRY RULE is a cross between SELF-IDENTIFICATION and MAJORITY RULE. Individuals who self-identify as non-members are deemed non-members, while individuals who self-

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identify as members require majority consent to join the group. NO GROUP is neither liberal nor democratic — every individual's opinion is disregarded.

Consent rules give us a new way to understand liberalism and democracy, not simply as two contrasting ideas, but as points in a spectrum. These rules are important because modern democracies are neither strictly liberal nor democratic but combine elements of majoritarian rule with individual rights.

Modern democracies are neither strictly liberal nor democratic but combine elements of majoritarian rule with individual rights. Consent rules enable us to understand the spectrum between pure liberalism and pure democracy.

### **b. Census Policy**

The Kasher-Rubinstein model of group identification can also help to explain a recent change in federal policy.<sup>34</sup> In 1997, the Office of Management and Budget revised Federal Statistical Policy Directive Number 15,<sup>35</sup> which set the standards for how the U.S. Census Bureau was to collect data regarding race and ethnicity in the upcoming 2000 census. The Office of Management and Budget made two substantial changes to the policy. First, in the past, individuals could only be classified as members of one group.

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<sup>34</sup> For more on the problem described herein, see: Miller, *Group Identification*, 63 GAMES AND ECONOMIC BEHAVIOR 188 (2008).

<sup>35</sup> Statistical Policy Directive No. 15, Race and Ethnic Standards for Federal Statistics and Administrative Reporting, 62 FR 58782, October 30, 1997.

“White” and “Asian” were understood as mutually exclusive: one could not be both. This changed with the 1997 revisions; now individuals could be classified into multiple groups. The second, and more controversial, change was the Office of Management and Budget’s adoption of the policy of self-identification. Individuals were to be free to choose their own status.

By combining the model of group identification with the insights of the doctrinal paradox, we can uncover a connection between these two changes. The conclusions suggest that the Office of Management and Budget made the “right” decision by adopting self-identification.

As explained above, the doctrinal paradox shows that majority rule can lead to a contradiction when aggregating judgments on logically connected premises. Consider the group of “Whites” and the group of “Asians.” According to the new policy, these groups are not logically connected. Knowledge that an individual is “White” does not logically imply any information as to whether that individual is “Asian.” However, the new policy also considers another new group: people who are both “White and Asian.” This new group is logically connected to the others. Individuals who are “White and Asian” are necessarily both “White” and “Asian”; individuals who are members of both the “White” group and the “Asian” group are necessarily “White and Asian.” This is exactly the type of logical relationship (conjunction) found in the doctrinal paradox, and an immediate implication is that MAJORITY RULE may lead to inconsistent aggregation.

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However, we are not done there. First, we need to make an assumption that individual ballots are cast in a manner consistent with the definitions. Alice believes that Bob is in the “White and Asian” group if and only if Alice believes that Bob is in both the “White” group and the “Asian” group. Second, Alice must believe that Bob is in the “White” group, or is in the “not White” group, but cannot be in both. A natural requirement is to assume that the outcome (the resulting groups) must also be consistent with the definitions.

*Separability:* An individual is in the “White and Asian” group if and only if the individual is in both the “White” group and the “Asian” group.

*Negation:* For every group, an individual must either be in the group or not in the group, but cannot be both.

The first axiom is titled “separability” because it requires that the question of who is a member of the “White and Asian” group be separable into two questions: who is “White” and who is “Asian.” We might care about this property for reasons of economy. Gathering data about every possible group could be very time intensive.

The second axiom is titled “negation” because it requires that everyone be a member or a non-member of a group. It implies that the set of non-members of a group is identical to the set of members of the non-group, or, alternatively, that the set of members of a group is identical to the set of non-members of the non-group.

The third axiom assumes that the ballots matter somehow. It excludes rules which simply state that Alice is “White” regardless of what is written on the ballots.

*Ballots matter*: For every group and every individual, there is a set of ballots such that the individual is a member of the group, and there is a set of ballots such that the individual is not a member of the group.

Recall that *separability* and *negation* were motivated by the decision to allow individuals to be classified as members of multiple groups, and by the desire to classify individuals in a consistent manner. *Ballots matter* was motivated by the view that the classifications should be done on the basis of opinions.

SELF-IDENTIFICATION satisfies each of these axioms as well as the *anonymity* axiom introduced by Samet and Schmeidler. Furthermore, SELF-IDENTIFICATION is the only rule that satisfies the *separability*, *negation*, *ballots matter*, and *anonymity* axioms. Any other method of aggregating group judgments must violate one or more of the axioms.

This result supports the choice made by the Office of Management and Budget to adopt a policy of SELF-IDENTIFICATION for use by the U.S. Census Bureau and other federal agencies. For similar reasons, SELF-IDENTIFICATION makes sense for social scientists gathering data about group membership for empirical research: any other policy may lead to problems comparing data produced by different researchers.

Legal rights and restrictions are allocated to groups. Some rights are allocated to pre-existing groups, as in the case of affirmative action in the United States and the law of return in Israel. Others are simply allocated to the group of people granted those rights — for example, the group of licensed drivers. In either case, the use of SELF-IDENTIFICATION

would be problematic as individuals have a strong incentive to manipulate their answers. If SELF-IDENTIFICATION is not used, this implies that the axioms must be violated.

### **III. A History of Obscenity Law**

I begin this section by briefly tracing the history of obscenity law developed in the United States prior to *Roth*. I follow with the development of Supreme Court jurisprudence on the subject between the initial formulation of the “community standards” doctrine in *Roth* and the formulation of the present rule in *Miller*. Because of the large number of cases I focus on those most relevant to understanding the concept of community standards. The section concludes with an explanation and discussion of current law.

#### **A. History prior to Roth**

Prior to *Roth*, the leading definition of obscenity came from the 1868 English case of *Regina v. Hicklin*.<sup>36</sup> In *Hicklin*, local authorities seized over two hundred fifty allegedly obscene pamphlets under a statute allowing for the seizure and destruction of obscene works. The pamphlets were produced by “The Protestant Electoral Union,” an anti-Catholic group, and contained excerpts from the writings of Catholic theologians, both in the original Latin and with translations into English.

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<sup>36</sup> *Regina v. Hicklin*, LR 3 QB 360 (1868). Prior to *Hicklin* prosecutions for obscenity seem to have been extremely rare. See Kalven, *The Metaphysics of the Law of Obscenity*, 1960 THE SUPREME COURT REVIEW 1, at 2 (1960).

Ruling that the test of obscenity was “whether the tendency of the matter charged as obscenity is to deprave and corrupt those whose minds are open to such immoral influences, and into whose hands a publication of this sort may fall”, the court found that as the second half of the pamphlet “would suggest to the minds of the young of either sex, or even to persons of more advanced years, thoughts of a most impure and libidinous character”, it was therefore obscene and could be suppressed, the good intentions of the defendant notwithstanding.

Two features of the *Hicklin* standard are worth noting. First, under this standard obscenity is measured by its effects on “those whose minds are open to such immoral influences” — the most susceptible members of society. If the work could deprave or corrupt anyone then it could be forbidden. Second, works need not be judged as a whole, but could instead be forbidden on the basis of an isolated excerpt. The pamphlets were forbidden on the basis of the “impure and filthy acts, words, and ideas” contained in its second half, even though, as the first part of the pamphlet showed, they were produced to spread a political and religious agenda and not for the purpose of encouraging immorality.

*Hicklin* was quickly followed by American courts, at least as early as 1879 in *United States v. Bennett*.<sup>37</sup> The *Bennett* case provides a clear example of this second feature: the defendant was charged and convicted of distributing an obscene book on the basis of

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<sup>37</sup> *United States v. Bennett*, 24 F.Cas. 1093 (1879).

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select passages contained therein. The defense counsel was not permitted to introduce other passages from the book as evidence on the ground that they were not relevant. In *Rosen v. United States* (1896), the U.S. Supreme Court implicitly approved the standard by upholding jury instructions containing language from *Hicklin*.<sup>38</sup>

Early antecedents of the *Roth* decision can be found in two cases from the early twentieth century. The idea that obscenity should be judged according to “contemporary community standards” can be traced back to the opinion of Judge Learned Hand in *United States v. Kennerley*.<sup>39</sup> Judge Hand ruled that *Hicklin* had long been accepted by federal courts and held that two pages of the book might be found obscene under that standard. While Judge Hand consequently sent the case to a jury to determine whether it was obscene under *Hicklin*, he used the opinion as a platform to voice concerns about that standard.

In his critique, Judge Hand argued that *Hicklin* represented the morality of the mid-Victorian era, but neither that of the present nor future given the direction of contemporary society.

“I question whether in the end men will regard that as obscene which is honestly relevant to the adequate expression of innocent ideas, and whether they will not believe that truth and beauty are too precious to society at large to be mutilated in the interests of those most likely to pervert them to base uses. Indeed, it seems hardly likely that we are even to-day so lukewarm in our interest in letters or

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<sup>38</sup> *Rosen v. United States*, 161 U.S. 29, at 43 (1896).

<sup>39</sup> *United States v. Kennerley*, 209 F. 119 (S.D.N.Y. 1913).

serious discussion as to be content to reduce our treatment of sex to the standard of a child's library in the supposed interest of a salacious few, or that shame will for long prevent us from adequate portrayal of some of the most serious and beautiful sides of human nature...

If there be no abstract definition, such as I have suggested, should not the word 'obscene' be allowed to indicate the present critical point in the compromise between candor and shame at which the community may have arrived here and now? If letters must, like other kinds of conduct, be subject to the social sense of what is right, it would seem that a jury should in each case establish the standard as much as they do in cases of negligence. To put thought in leash to the average conscience of the time is perhaps tolerable, but to fetter it by the necessities of the lowest and least capable seems a fatal policy."<sup>40</sup>

The other important factor of the *Roth* test, that works be judged as a whole, has its origin in a 1922 New York Court of Appeals case, *Halsey v. New York Society for the Suppression of Vice*.<sup>41</sup> *Halsey* involved the English translation of an 1836 French novel, *Mademoiselle de Maupin*, by Théophile Gautier, conceded in the case "be among the greatest French writers of the nineteenth century." The opinion of Judge Andrews stated that while many paragraphs in the book are "undoubtedly vulgar and indecent", the book "must be considered broadly as a whole."

The movement by Federal courts away from the *Hicklin* standard seems to have begun after Learned Hand and his cousin Augustus Hand were appointed to the appellate bench by Calvin Coolidge in the 1920s. Over the course of a decade, the two cousins wrote four opinions collectively overruling *Hicklin* in the Second Circuit.

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<sup>40</sup> *Id.*

<sup>41</sup> *Halsey v. New York Society for the Suppression of Vice*, 234 N.Y. 1 (N.Y. 1922).

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First, in *United States v. Dennett*, the Second Circuit held that while a sex education pamphlet might arouse lust in some children, it was not obscene given the legitimate aim of aiding “parents in the instruction of their children in sex matters.”<sup>42</sup>

Next, In *United States v. One Book Entitled Ulysses by James Joyce*, the Second Circuit affirmed a lower court ruling that James Joyce’s novel *Ulysses* was not obscene.<sup>43</sup> In the opinion, Judge Augustus Hand ruled that while certain passages of the book may be obscene, literary works should be given the same immunity as works on sex education, “where the presentation, when viewed objectively, is sincere, and the erotic matter is not introduced to promote lust and does not furnish the dominant note of the publication.” Following *Halsey*, Judge Hand held that the work was to be judged as a whole, and by that standard *Ulysses* was not obscene. Judge Hand acknowledged that the ruling was a clear departure from the *Hicklin* standard approved by the *Bennett* and *Rosen* decisions, but distinguished *Rosen* on the ground that it dealt with works obscene under any standard. *Bennett* was held to not represent current law in light of more recent precedent.

In the following years, the Second Circuit took several opportunities to reaffirm its claim that *Hicklin* had been overruled. In *United States v. Levine (1936)*, that court ordered a new trial on the ground that the *Hicklin* standard, used in the original trial, had been

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<sup>42</sup> *United States v. Dennett*, 39 F.2d 564 (2nd Cir. 1930).

<sup>43</sup> *United States v. One Book Entitled Ulysses by James Joyce*, 72 F.2d 705 (2nd Cir. 1934).

overruled by the *Dennett* and *Ulysses* decisions.<sup>44</sup> Similarly, in *United States v. Rebhuhn* (1940), the court noted that the “old and abandoned standard of *Regina v. Hicklin*” had been superseded by that of *Dennett*, *Ulysses*, and *Levine*.<sup>45</sup>

## **B. From Roth to Miller**

The question of whether obscenity is protected by the free speech guarantees of the First and Fourteenth Amendments was first addressed by the U.S. Supreme Court in *Roth v. United States* (1957).<sup>46</sup> In *Roth* the Court consolidated two cases: the appeal of Samuel Roth, convicted of violating a federal obscenity statute, and the appeal of David Alberts, convicted of violating the obscenity provisions of the California Penal Code.

Justice Brennan, writing for the majority, held that “implicit in the history of the First Amendment is the rejection of obscenity as utterly without redeeming social importance” and that, consequently, “obscenity is not within the area of constitutionally protected speech or press.” However, while the majority of the court did not want to accord obscenity constitutional protection, it also did not wish to return to the *Hicklin* standard, which was found to place an unconstitutional restriction on non-obscene material legitimately dealing with sex. The court substituted the following test to determine whether the constitution allowed a work to be banned as obscene: “whether to the

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<sup>44</sup> *United States v. Levine*, 83 F.2d 156 (2nd Cir. 1936).

<sup>45</sup> *United States v. Rebhuhn*, 109 F.2d 512 (2nd Cir. 1940).

<sup>46</sup> *Roth v. United States*, supra note 1.

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average person, applying contemporary community standards, the dominant theme of the material taken as a whole appeals to the prurient interest.” The opinion did not define “community standards,” but cited with approval the jury instructions used by the trial court:

“The test is not whether it would arouse sexual desires or sexual impure thoughts in those comprising a particular segment of the community, the young, the immature or the highly prudish or would leave another segment, the scientific or highly educated or the so-called worldly-wise and sophisticated indifferent and unmoved....

The test in each case is the effect of the book, picture or publication considered as a whole, not upon any particular class, but upon all those whom it is likely to reach. In other words, you determine its impact upon the average person in the community. The books, pictures and circulars must be judged as a whole, in their entire context, and you are not to consider detached or separate portions in reaching a conclusion. You judge the circulars, pictures and publications which have been put in evidence by present-day standards of the community. You may ask yourselves does it offend the common conscience of the community by present-day standards. ...

In this case, ladies and gentlemen of the jury, you and you alone are the exclusive judges of what the common conscience of the community is, and in determining that conscience you are to consider the community as a whole, young and old, educated and uneducated, the religious and the irreligious — men, women and children.”<sup>47</sup>

Chief Justice Warren concurred in the judgment but questioned the broad language of the opinion on the ground that it might later be used to suppress material protected by the Constitution. Justice Harlan concurred in the latter case but dissented in the former, on the ground that the Constitution allowed state but not federal regulation of obscenity. Furthermore, he argued that the test introduced was inappropriate in either case: state

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<sup>47</sup> *Id.*

regulation of obscenity should be upheld unless it either “so subverts the fundamental liberties implicit in the Due Process Clause that it cannot be sustained as a rational exercise of power” or “is inconsistent with our concepts of ‘ordered liberty.’” Justices Black and Douglas dissented from the *Roth* judgment on the ground that the Constitution allowed neither federal nor state regulation of obscenity.

Problems with the implementation of the *Roth* test quickly led to attempts to revise the standard. In *Manual Enterprises v. Day*,<sup>48</sup> the Court reversed an appellate court’s ruling upholding a decision by the postal service to seize magazines on the grounds that (a) they were obscene and that (b) they contained advertisements for obscene material. However, the justices could not agree on the grounds for reversing the decision of the appellate court. Justices Harlan and Stewart argued that the magazines were not obscene because they were lacked “patent offensiveness” — they “cannot be deemed so offensive on their face as to affront current community standards of decency” — and, while it was not explicitly mentioned in the *Roth* formulation, patent offensiveness is an element of obscenity. The opinion further argued that the magazines could not be seized because of the advertisements for obscene material without evidence that the publisher knew that the advertisers were offering to sell obscene material.

Neither the concurrence nor the dissent in *Manual Enterprises* addressed the question of whether patent offensiveness was an element of obscenity. The concurrence of Justice

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<sup>48</sup> *Manual Enterprises, Inc. v. Day*, 370 U.S. 478 (1962).

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Brennan, joined by Chief Justice Warren and Justice Douglas, argued that the federal obscenity statute does not permit the post office to seize allegedly obscene material. The lone dissent by Justice Clark claimed only that the material could be seized on the basis of the advertisements.

Problems with the *Roth* standard resurfaced with the appeal of Nino Jacobellis, a manager of a theater near Cleveland, Ohio, of his conviction for possessing and exhibiting the film “Les Amants” (“The Lovers”) by French director Louis Malle.<sup>49</sup> A majority of six reversed the conviction, finding the work to be protected. However, the majority agreed on little else: no single opinion was supported by more than two justices. Justice Brennan, writing again for the court, but joined only by Justice Goldberg, stated that, for purposes of *Roth*, the relevant community was to be defined nationally: “the constitutional status of an allegedly obscene work must be determined on the basis of a national standard. It is, after all, a national Constitution we are expounding.”

In a separate concurrence, Justice Goldberg stated an independent ground for reversal: that the film could not possibly be obscene by “any arguable standard.” Justices Black and Douglas reiterated their belief that the Constitution does not permit censorship of obscene works. Justice Stewart took the opinion that the Constitution allowed only the prohibition of “hard-core pornography.” While he did not define that term and admitted that he might “never succeed in intelligibly doing so,” he argued that “I know it when I

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<sup>49</sup> *Jacobellis v. Ohio*, 378 U.S. 184 (1964).

see it, and the motion picture involved in this case is not that.” Justice White concurred in the judgment but not in any opinion.

Chief Justice Warren and Justice Clark dissented from the judgment on the ground that “community standards” are local and not national. Further, in their view, the role of the Court was not to sit as an “ultimate censor, in each case reading the entire record, viewing the accused material, and making an independent *de novo* judgment on the question of obscenity” but rather to apply a “sufficient evidence” standard of review. Justice Harlan dissented on the ground that states should not be prohibited “from banning any material which, taken as a whole, has been reasonably found in state judicial proceedings to treat with sex in a fundamentally offensive manner, under rationally established criteria for judging such material.”

The *Roth* test was revisited two years later with the appeal of a Massachusetts judgment declaring obscene *Memoirs of a Woman of Pleasure* (also known as *Fanny Hill*) written by John Cleland more than two centuries prior. The Supreme Court reversed, holding the book to be protected. However, again, there was no agreement as to the underlying reasons. The plurality opinion of Justice Brennan, joined by Chief Justice Warren and Justice Fortas, held that the a work could be forbidden only if “the material is utterly without redeeming social value.”<sup>50</sup> Justice Stewart concurred in the judgment, reiterating

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<sup>50</sup> Justice Brennan’s opinion in *Roth* had found that obscenity was “utterly without redeeming social importance”; in *Memoirs* he turned that language into a test. Whether

## Obscenity and Community Standards

his belief that the Constitution protected everything but hard-core pornography. Justices Black and Douglas also concurred, again on the grounds that the Constitution does not permit censorship of obscene material. Justices Clark, Harlan, and White each filed separate dissents. Justices Clark and White reiterated their support for the *Roth* test and claimed that the addition of a “no social value” requirement materially changed that test. Justice Clark added further that the book in question was indeed utterly without redeeming social value. Justice Harlan followed his dissent in *Jacobellis*, arguing that states should have wide latitude in regulating obscenity.

To the extent that the views of individual justices changed between the *Roth* and *Memoirs* decisions, they became more permissive. This can be seen most clearly in the case of Justice Brennan, who authored both opinions. Others, such as Justices Black, Douglas, and Stewart, retained the same views throughout the period: the first two maintained that the Constitution permitted no censorship of obscene material while the third maintained consistently that only hard-core pornography was forbidden.

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this was a reasonable interpretation of his opinion in *Roth* is questionable. While he wrote both opinions, it seems clear that his views on the prohibition of obscenity became more liberal over time. The majority in *Miller* found the *Memoirs* standard to be incorrect. In the aftermath of *Roth*, at least one commentator foresaw the *Memoirs* standard as a natural consequence of the statement that obscenity was worthless: “If the obscene is constitutionally subject to ban because it is worthless, it must follow that the obscene can include only that which is worthless.” Kalven, *supra* note 36.

When the Supreme Court revisited the *Roth* test seven years later in *Miller v. California* (1973), the same trend continued. However, in the intervening period, there were five new justices— four of them having been nominated by President Nixon. The result was that the Court’s liberalizing trend ended, and the “utterly without redeeming social value” element of the *Memoirs* test was replaced by a new element which expanded the amount of proscribable material. The *Miller* decision was also the first in which a majority of the court was able to agree on a definition of obscenity. The standard set forth in *Miller* remains the current test of whether a work is protected by the Constitution.

### **C. Current Law**

The current test of obscenity, as established in *Miller*, is “(a) whether 'the average person, applying contemporary community standards' would find that the work, taken as a whole, appeals to the prurient interest; (b) whether the work depicts or describes, in a patently offensive way, sexual conduct specifically defined by the applicable state law; and (c) whether the work, taken as a whole, lacks serious literary, artistic, political, or scientific value.”<sup>51</sup> A work lacks constitutional protection only if all three elements of the test are met.

The first two elements of the *Miller* test, (a) that the work appeal to the prurient interest, and (b) that the work be patently offensive, are to be evaluated according to community

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<sup>51</sup> *Miller* at 24

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standards.<sup>52</sup> The third element of the test, that the work lack “serious literary, artistic, political, or scientific value,” is to be determined according to the reasonable person standard, and not according to community standards.<sup>53</sup> For purposes of the First Amendment, the value of a work does not “vary from community to community based on the degree of local acceptance it has won.”<sup>54</sup>

The *Miller* court held that in determining whether the first two elements of the *Miller* test have been met, the relevant community may be state or local, and need not be the entire country.<sup>55</sup> More recent decisions have held that local community standards may be used to determine obscenity even in prosecutions under federal law, whether involving the use of the mails,<sup>56</sup> telephones,<sup>57</sup> or the internet.<sup>58</sup> The Court has been clear that both the states and the federal government are to be given wide latitude in determining the relevant geographical community by which community standards are determined. An individual

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<sup>52</sup> *Smith v. United States*, 431 U.S. 291 (1977).

<sup>53</sup> *Pope v. Illinois*, 481 U.S. 497 (1987).

<sup>54</sup> *Id.* at 500.

<sup>55</sup> The court has even held that the jury need not be instructed as to the relevant community. *Jenkins v. Georgia*, 418 U.S. 153, at 157 (1977).

<sup>56</sup> *Hamlin v. United States*

<sup>57</sup> *Sable v. FCC*

<sup>58</sup> *ACLU v. Ashcroft*, 535 U.S. 564 (2002).

posting a website with local community information in San Francisco may be subject to federal prosecution in Memphis, Tennessee.<sup>59</sup>

In general, the court has not required that evidence be used to establish the local community standards. Community standards are to be determined by the trier of fact on the basis of the fact-finders' experience with and understanding of the community. In this sense, any aggregation of individual views into a community standard must be done as a mental exercise on the part of the trier of fact. The court has recognized that jurors in different parts of a large "community," such as a state or the entire nation, may have different perceptions of the standards of that community, but has found that this disparity does not pose a constitutional problem.

As noted above, the origin of the "contemporary community standards" approach can be traced back to a dictum in *United States v. Kennerley*,<sup>60</sup> in which Judge Hand proposed that the definition of obscenity should reflect "the average conscience of the time," indicating "the present critical point in the compromise between candor and shame at which the community may have arrived."<sup>61</sup> In this context, the term "average" is an explicit reference to the common-law concept of the reasonable man. "If letters must, like other kinds of conduct, be subject to the social sense of what is right, it would seem that a

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<sup>59</sup> find cite

<sup>60</sup> *United States v. Kennerley*, 209 F. 119 (S.D.N.Y. 1913).

<sup>61</sup> *Id.* at

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jury should in each case establish the standard as much as they do in cases of negligence.”<sup>62</sup>

The Ninth Circuit Court of Appeals has held that “community standards are aggregates of the attitudes of average people — people who are neither ‘particularly susceptible or sensitive . . . or indeed . . . totally insensitive.’”<sup>63</sup> The Supreme Court has since ruled that the jury cannot exclude the views of the sensitive and the insensitive in determining community standards, as “they are part of the community.”<sup>64</sup> The views of all adult members of the community are to be included. After *Pinkus*, a case in the Southern District of Florida held that the community standard “is a legal concept whereby a single perspective is derived from the aggregation or average of everyone’s attitudes in the area including persons with differing degrees of tolerance.”<sup>65</sup> It is not clear whether “average” is meant to be a synonym for “aggregation”, and if so, whether the term implies a mathematical mean or merely some form of a combination.

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<sup>62</sup> *Id.* at

<sup>63</sup> *United States v. Danley*, 523 F.2d 369, at 370 (9th Cir. 1975), citing *Miller* at 33. This language in *Danley* was followed by *United States v. Wedelstedt*, 589 F.2d 339 (8th Cir. 1978) and *134 Baker Street, Inc. v. State*, 172 Ga. App. 738 (Georgia 1984).

<sup>64</sup> *Pinkus v. United States*, 436 U.S. 293 (1978).

<sup>65</sup> *Skywalker Records, Inc. v. Navarro*, 739 F. Supp. 578 (S.D.Fla. 1990).

One commentator has suggested that the community standard is an average or median in a mathematical sense.<sup>66</sup> However, as another commentator has pointed out, “the notion of an average standard ... implies the existence of a spectrum of tolerance that can be ranked along a single dimension, from least intolerant to most intolerant. The problem with this approach is that a single dimension of tolerance does not exist.”<sup>67</sup> No court nor commentator has yet identified an objective way to order judgments along a single dimension.

An alternative approach was suggested by Lord Devlin in his famous argument that the law should enforce the moral judgments of the society. The argument, which was first given as part of his 1958 Maccabaeian Lecture in Jurisprudence of the British Academy, is worth quoting in full:

“How is the law-maker to ascertain the moral judgements of society? It is surely not enough that they should be reached by the opinion of the majority; it would be too much to require the individual assent of every citizen. English law has evolved and regularly uses a standard which does not depend on the counting of heads. It is that of the reasonable man. He is not to be confused with the rational man. He is not expected to reason about anything and his judgement may be largely a matter of feeling. It is the viewpoint of the man in the street—or to use an archaism familiar to all lawyers—the man in the Clapham omnibus. He might

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<sup>66</sup> See Sadurski, *Conventional Morality and Judicial Standards*, 73 VA. L. REV 339, at 354 (1987).

<sup>67</sup> Boyce, *Obscenity and Community Standards*, 33 YALE J. INT’L L. 299, at 349 (2008). Boyce, however, assents to the principle that community standards “must in some sense be an aggregate of the standards of the individuals who comprise the community.”

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also be called the right-minded man. For my purpose I should like to call him the man in the jury box, for the moral judgement of society must be something about which any twelve men or women drawn at random might after discussion be expected to be unanimous. This was the standard the judges applied in the days before Parliament was active as it is now and when they laid down rules of public policy. They did not think of themselves as making law but simply stating principles which every right-minded person would accept as valid. It is what Pollock called 'practical morality', which is based not on theological or philosophical foundations but 'in the mass of continuous experience half-consciously or unconsciously accumulated and embodied in the morality of common sense'. He called it also 'a certain way of thinking on questions of morality which we expect to find in a reasonable civilized man or a reasonable Englishman, taken at random'.

Immorality then, for the purpose of the law, is what every right-minded person is presumed to consider to be immoral."<sup>68</sup>

In this passage, Lord Devlin suggests an aggregation, but not one that is based on the idea of a mathematical average or median. Rather, the aggregation is based on the concept of unanimity. The law prohibits only those acts that would be prohibited by all. However, Lord Devlin does not consider the relevant community to be the set of all individuals in the society — he rejects the idea that the a law against morality should “require the individual assent of every citizen.” Rather, for Lord Devlin, the relevant community is composed of the set of reasonable persons. This suggests a rule for the trier of fact: determine a work to be obscene when every reasonable person, after deliberation and reflection, would consider the work to be obscene.<sup>69</sup>

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<sup>68</sup> Devlin, *supra* note 6.

<sup>69</sup> It is not clear whether Lord Devlin's own procedure for determining “what every right-minded person is presumed to consider to be immoral” involved aggregation. Lord

## IV. A Model of Community Standards

With this history in mind, I introduce a new model of community standards. I will start with a simplifying assumption that community standards are to be used to determine whether a work is obscene. The specific elements of the *Miller* test will be considered in Section D. The formal description of the model (along with a proof of the main theorem) can be found in the appendix.

### A. The Model

The basic model can be described as follows. First, there is a **community**, which can be any group of individuals. The Supreme Court has required that the community be defined in geographic terms and contain all adults in that community, including the sensitive and the insensitive.<sup>70</sup> Lord Devlin seems to have argued that the community consists only of reasonable persons. Others might propose to restrict the definition to clerics, to parents, or to some other community of interest. The model is general enough to include all of these as special cases.

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Devlin recognized that many people in his era felt that homosexuality was not immoral, and did not claim that these people were unreasonable, yet this did not stop him from arguing that certain homosexual acts should be forbidden.

<sup>70</sup> *Pinkus*.

## Obscenity and Community Standards

Next, there is an infinite **set** of all possible **works** that a reasonable jury might consider obscene.<sup>71</sup> We might loosely understand this as the set of possible artworks but it might also include literary works, scientific publications, and other forms of human expression. It excludes those works determined to be non-obscene as a matter of law.<sup>72</sup>

Individuals from the community make **judgments** as to which works in the set are obscene. A judgment is simply a division of the set into two groups: the obscene and the non-obscene. Judgments are assumed to be well-informed and made after deliberation and reflection. There is a single restriction on allowable judgments: the proportion of works judged to be obscene must be strictly less than one hundred percent.<sup>73</sup> Individuals should all believe that some works, even those lacking serious literary, artistic, political, or scientific value, are allowable. I will occasionally refer to judgments as **individual standards**.

These individual judgments are then aggregated to form a **community standard**. The community standard is subject to the same restriction as the individual judgments: the

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<sup>71</sup> The set is defined as infinite because we cannot write down a list of all possible works. The implications of this modeling choice are discussed further in the appendix.

<sup>72</sup> Works are non-obscene as a matter of law if (a) they have “serious literary, artistic, political, or scientific value” or if (b) no reasonable person could find them to be obscene.

<sup>73</sup> The formal requirement is that for each individual (and the community) the set of works judged to be non-obscene must be of positive measure.

proportion of works judged to be obscene must be strictly less than one hundred percent. I place no other restrictions on the class of allowable judgments or community standards. Individual judgments and community standards are assumed to be purely subjective.

I assume that there is no method by which works can be objectively compared. No court nor commentator has yet identified a plausible method of comparison. The lack of an objective method is largely what makes even personal views on obscenity difficult to define through a rule. Potter Stewart believed that obscenity could only be prohibited if “hard-core pornography” but could not define even that term. He only knew it when he saw it.<sup>74</sup>

However, judgments can be objectively compared. Alice’s judgment is as **permissive** as Bob’s judgment if Alice permits (considers non-obscene) every work that Bob permits.<sup>75</sup>

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<sup>74</sup> A natural method would be to compare works by their component parts, so that any work containing an obscene component would necessarily be considered obscene. However, this would clearly violate the requirement that works be judged as a whole. “The books, pictures and circulars must be judged as a whole in their entire context, and you are not to consider detached or separate portions in reaching a conclusion.” *Roth* at 490. The *Hicklin* standard, which had previously been adopted by some American courts, allowed a work to be judged obscene on the basis of as single excerpt. *Regina v. Hicklin*. The court in *Roth* expressly disapproved this standard.

<sup>75</sup> Note that every judgment is always as permissive as itself.

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Not every pair of possible judgments, however, can be compared in this manner. As a result, judgments cannot be compared objectively along a single dimension. However, I allow for the possibility that every pair of judgments *actually found* in the community can be compared according to their permissiveness.

An **aggregation rule** is a systematic method of deriving the community standard from the individuals' judgments. I suggest two distinct approaches to understanding aggregation rules.

First, the aggregation rule may be understood as an actual procedure used to determine whether a work is obscene. It specifies how the judgments of the members of the community (or of a jury) are to be combined.<sup>76</sup>

Second, an aggregation rule may be understood as a jury instruction.<sup>77</sup> As mentioned above, the community standards are to be determined by the trier of fact as part of a

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<sup>76</sup> The actual procedure may be different from that described in the model. In practice individuals might be asked whether a particular work is obscene according to their standard — and not for the standard itself. In this case, we might try to understand which methods of aggregating judgments about a single work best approximate the community standard.

<sup>77</sup> According to one treatise, standard jury instructions for federal obscenity prosecutions include the following language: “Similarly, you are to judge the work according to the standards of the average person in the present-day community. It is not your role to judge

mental exercise. The aggregation rule instructs the trier of fact on how to aggregate these many envisioned individual standards into a single community standard. Legislators attempting to codify community standards into law might undertake a similar thought exercise.

## **B. Axioms**

An **axiom** is a property of an aggregation rule. I will introduce four axioms. Three of these axioms have the same names as those introduced in the discussion of May's

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the work by your own personal standards [or by the standards of any particular class of people]. In this regard, you should take into account the community as a whole, the sensitive and insensitive, the educated and uneducated, the religious and non-observant, men and women from all walks of life in the community in which you live (or in the community in which you find the materials were intended to be distributed). Also bear in mind that the law accepts the fact that the mores or the customs and convictions of people are not static. What is an acceptable code of morals or conduct today might well have been frowned upon in the past. Therefore, in reaching a conclusion as to whether or not material is obscene, you are to judge it by present-day standards of the community, or, for want of a better expression, by what may be termed the contemporary common conscience of the community.” 2-45 MODERN FEDERAL JURY INSTRUCTIONS-CRIMINAL § 45.01

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Theorem at the beginning of Part II. However, while they are similar, there are important technical and conceptual differences between the sets of axioms.

The first axiom requires that, if every member of the community has an identical judgment of what counts as obscene, then that judgment is the community standard.

*Homogeneity:* If every individual has the same judgment, then it forms the community standard.

The *homogeneity* axiom requires that if the community is perfectly homogeneous, so that every member of the community has identical views about every possible work, then this commonly held belief is the community standard. In some sense, if this axiom is not satisfied, then the community standard must be derived from something other than the individual judgments.

The second axiom involves changes in judgments. Recall that judgments can be objectively compared by how permissive they are relative to other judgments. A judgment is as permissive as another if the former permits (judges non-obscene) every work permitted by the latter. If the entire community becomes more permissive, then the community standard should become more permissive, or not change at all.

*Responsiveness*: If at least one individual standard changes and each individual's new judgment is as permissive that individual's old judgment, then the new community standard must be as permissive as the old community standard.<sup>78</sup>

In other words, the community standard must “respond” in the same direction (more permissive or less) as the community. *Responsiveness* prevents the perverse result in which a defendant is convicted *because* the individuals in the community became more tolerant.

The third axiom requires that the aggregation rule treat every member of the community equally. Alice and Bob *trade standards* if both change their individual standards so that Alice's new standard is Bob's old standard, and Bob's new standard is Alice's old standard. If some individuals trade standards, and the remaining individuals retain their old standards, then the community standard should not change.

*Anonymity*: The community standard is not affected by trades of standards.<sup>79</sup>

The *anonymity* axiom restricts the aggregation rule from assigning different weights to the opinions of different community members.<sup>80</sup>

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<sup>78</sup> While the setting is very different, both this axiom and May's monotonicity axiom imply that an “increase” in each of the inputs (where a judgment is considered larger than another if it is more liberal) cannot lead to a “decrease” in the output.

<sup>79</sup> Recall that an exchange of names is when individuals trade names with one another. See the discussion of *anonymity* on page 8, *supra*.

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The final axiom requires that the aggregation rule treat every work the same way. Suppose we have two groups of works, which we will label “Joyce Books” and “Lawrence Books.” (Assume, for purpose of the example, that each of these groups is the same size.) Alice *switches her judgment* about these two groups if (a) her old judgment about “Joyce Books” becomes her new judgment about “Lawrence Books,” (b) her old judgment about “Lawrence Books” becomes her new judgment about “Joyce Books,” and (c) her judgment about all other works does not change. If every individual switches her judgment about two groups of works, then the community standard should also switch its judgment about these two groups of works.

*Neutrality:* If every individual switches her judgment about two groups of works, then the community standard must also switch its judgment about these two groups.<sup>81</sup>

*Neutrality* requires that any distinction made between “Joyce Books” and “Lawrence Books” must come from the individuals in the community, and not from the aggregation rule.

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<sup>80</sup> Note that this is an axiom on the aggregation rule and not on the community. The opinions of certain individuals can be excluded entirely by defining them as non-members of the community.

<sup>81</sup> Formally, this axiom is restricted only to the case where the two groups have the same number of elements and are of the same proportion.

### C. “Unanimity Rule”

Lord Devlin suggested that, in some sense, unanimous agreement within a society is necessary to justify regulation of immorality: “the moral judgment of society must be something about which any twelve men or women drawn at random might after discussion be expected to be unanimous.” This property can be formalized as an aggregation rule.

UNANIMITY RULE: The works deemed obscene by the community standard are those that every individual judges to be obscene.

Whether this rule is consistent with Lord Devlin’s argument depends on how we define the community whose standards are to be aggregated. If the community consists of the many distinct reasonable persons envisioned by the trier of fact, or the legislator, then this is clearly consistent with Lord Devlin’s understanding of the law. In this case, the UNANIMITY RULE requires that the fact finder not judge a work obscene unless the fact finder believes that every reasonable person would agree. If the community includes every actual citizen, and the rule is intended to be an actual voting procedure, then it is clearly inconsistent with Lord Devlin’s argument, as it “require[s] the individual assent of every citizen”. If, however, the community is simply the jury, then Lord Devlin’s argument supports the use of the UNANIMITY RULE, as it “gives the common man, when sitting in the jury box, a sort of veto on the enforcement of morals.”<sup>82</sup>

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<sup>82</sup> Devlin, at 91.

## Obscenity and Community Standards

The UNANIMITY RULE is a valid aggregation rule. For every set of allowable inputs (where each person makes a judgment in which the proportion of works judged obscene is strictly less than one-hundred percent), the rule leads to a valid outcome (in which the proportion of works judged obscene is also strictly less than one-hundred percent.)

The UNANIMITY RULE satisfies the four axioms of *homogeneity*, *responsiveness*, *anonymity*, and *neutrality*. Furthermore, *any rule that satisfies the four axioms must necessarily be the UNANIMITY RULE.*<sup>83</sup> Every other possible method that can be used to combine individual judgments into a community standard must violate one or more of the axioms.

### **D. Multiple Standards**

Until this point I have assumed that there is a single community standard for obscenity. The U.S. Supreme Court has held that contemporary community standards are to be used in evaluating two (out of the three) elements of the *Miller* test: (a) whether the work

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<sup>83</sup> The full strength of the *homogeneity* axiom is not necessary for the characterization. Recall that *homogeneity* requires that, if every member of the community has an identical standard of what counts as obscene, then that is also the community standard. A weaker version of the axiom requires that, if every member of the community has an identical standard of what counts as obscene, then the community standard must consider as obscene every work considered obscene by the individuals. We could obtain a tighter characterization of UNANIMITY RULE if we replaced *homogeneity* with this weaker axiom.

appeals to the prurient interest, and (b) whether the work is patently offensive. This implies that there are, at least, three types of judgments individuals can make: (1) which works appeal to the prurient interest, (2) which works are patently offensive, and (3) which works both appeal to the prurient interest and are patently offensive. The first two types of judgments are not logically related. As a matter of law, a work may appeal to the prurient interest but not be patently offensive; alternatively, a work may be patently offensive but not appeal to the prurient interest. Were one judgment to imply the other, there would be no need for both elements to appear in the *Miller* test. Each of the first two types of judgments, however, is clearly related to the third. If a work both appeals to the prurient interest and is patently offensive, then it also appeals to the prurient interest.

If there is a single community standard for obscenity, as has been assumed in this paper, then the judgments being aggregated are of the third type. We might label the resulting standard the “prurient interest and patently offensive” community standard. However, one could infer from the Supreme Court opinions that there are two community standards, (a) the “prurient interest” community standard and (b) the “patently offensive” community standard.

A model of two community standards would take the following form. Individuals would make two separate judgments about which works (1) appeal to the prurient interest and (2) are patently offensive. The judgments would then be aggregated to form (a) the “prurient interest” community standard and (b) the “patently offensive” community standard. These two community standards need not be aggregated independently—it is conceivable, for example, that the individual judgments about which works are patently

offensive are somehow relevant in determining the “prurient interest” community standard.

The main result of this paper would not change if we allowed for two (or more) standards. Even if we allow for interdependent aggregation, UNANIMITY RULE is the unique aggregation rule that satisfies the four axioms.<sup>84</sup>

### **E. Other Aggregation Rules**

In this section I will describe some of the types of rules that we can get by giving up one of the axioms. All of the examples provided satisfy three of the axioms but are not UNANIMITY RULE and consequently cannot satisfy all four.

The *homogeneity* axiom requires that if every person has the same individual standard for determining obscenity, then that is also the community standard. Consider the following two rules:

NOT LESS THAN ONE: The works deemed obscene by the community standard are those that every individual judges to be obscene, unless the resulting group of obscene works would comprise less than one percent of the total, in which case no works are obscene.

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<sup>84</sup> In the present example I have assumed that there are two community standards; however, this result would be true were we to simultaneously aggregate three, thirty, or any number of standards.

ANYTHING GOES: No works are ever deemed obscene.

Under NOT LESS THAN ONE, no works are prohibited as obscene unless a substantial quantity of works are unanimously considered obscene. This rule clearly does not satisfy *homogeneity* because it is possible that every member of the community has an identical standard that deems only a very small proportion of the works to be obscene. There is nothing magical about the one percent threshold; other rules could use any other percentage (such as ten percent, one-tenth of a percent, or ten-millionth of a percent). These rules would still violate *homogeneity* (but satisfy *responsiveness*, *anonymity*, and *neutrality*).

At the extreme is the case where the threshold is set at one hundred-percent; this is the ANYTHING GOES rule, where the works are never deemed obscene, regardless of the individual judgments. This rule also violates *homogeneity* but satisfies the remaining three axioms.

The *responsiveness* axiom requires that the community standard move in the direction of the individual judgments. Consider the following three rules:

MAJORITY RULE: A work is obscene if a majority considers it obscene.

SEMI-MAJORITY: A work is obscene if a majority considers it obscene, unless 100% of the works would be deemed obscene. In this case, use UNANIMITY RULE.

VARIABLE THRESHOLD RULES: A work is obscene if  $x$  or more people consider it obscene, where  $x$  varies so that some works are non-obscene.

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MAJORITY RULE is not a well-defined rule. It is possible that some majority considers every work obscene — this would violate the requirement that the proportion of works deemed obscene must be strictly less than one hundred percent. One might argue that the majority will should still be followed whenever possible. For example, SEMI-MAJORITY resolves this problem by (1) using MAJORITY RULE whenever it does not lead to one hundred percent of the works being declared obscene, and (2) using UNANIMITY RULE in the other cases. SEMI-MAJORITY is a VARIABLE THRESHOLD RULE: works are deemed obscene if  $x$  or more people consider them obscene, where  $x$  varies so that some works are non-obscene.<sup>85</sup> SEMI-MAJORITY and other VARIABLE THRESHOLD RULES violate the *responsiveness* axiom: in some cases individuals will be convicted *because* all individuals in the society became more permissive. These rules satisfy *homogeneity*, *anonymity*, and *neutrality*.

The *anonymity* axiom requires that the community standard treat the views of all members of the community in an equal manner. Consider the following three rules:

OLIGARCHY: A work is obscene if all oligarchs consider it obscene.

OLIGARCHY PLUS: A work is obscene if all oligarchs and at least one non-oligarch consider it obscene.

DICTATORSHIP: A work is obscene if the dictator considers it obscene.

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<sup>85</sup> UNANIMITY RULE not a VARIABLE THRESHOLD RULE because the level  $x$  does not vary but is always equal to the number of individuals in the society.

These rules each privilege certain individuals' views (the "oligarchs") over those of the other individuals. For example, OLIGARCHY ignores the views of all non-oligarchs, while OLIGARCHY PLUS considers the views of non-oligarchs but gives them less weight. The set of oligarchs can be limited to parents, to clergy, or to some other community of interest. The DICTATORSHIP is a type of OLIGARCHY where there is only a single oligarch. These rules clearly violate *anonymity* (unless everyone is an oligarch) but satisfy *homogeneity*, *responsiveness*, and *neutrality*.

The *Neutrality* axiom requires the aggregation rule to treat each work, *ex ante*, in the same way. Consider the following two rules:

ULYSSES: All works except *Ulysses* are judged according to UNANIMITY RULE, while *Ulysses* is obscene if a majority considers it obscene.

FOUR-LETTER WORDS: Count the number of four-letter words in each work. A work is obscene if (1) all persons consider it obscene or (2) exactly one individual considers it non-obscene and the work has more four-letter words than any work considered non-obscene by the other individuals.

ULYSSES is a very simple rule — it treats one work, *Ulysses*, differently from all other work.<sup>86</sup> FOUR-LETTER WORDS is more complicated. It uses objective criteria (the number

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<sup>86</sup> For this example, the set of works not subject to the UNANIMITY RULE must, in total, comprise zero percent of the total. Because we are dealing with an infinite set of works,

of four-letter words in a work) to distinguish between works — a book can be banned with less-than-unanimous consent of the society if it contains a very large number of four-letter words. This rule might violate the requirement (introduced in *Roth*) that works be judged as a whole. ULYSSES and FOUR-LETTER WORDS violate *neutrality* but satisfy *homogeneity*, *responsiveness*, and *anonymity*.

## V. Other Standards

The theory introduced in the last part of this paper is general and can be applied to problems other than the question of which works are legally obscene. I will describe three different types of legal standards to which the model can be applied.

First, **standards of offensiveness** are used to determine whether speech, or other forms of expression, may be prohibited on the grounds that it is offensive. Obscenity doctrine provides the clearest example of a prohibition on offensive expression; other examples include the prohibitions on the broadcast of indecent and profane speech regulated by the Federal Communications Commission. Second, **standards of proof** are used to determine whether defendants are guilty (or liable) in criminal (and civil) cases. Commonly used standards of proof include (a) the “proof beyond a reasonable doubt” standard, (b) the “clear and convincing” standard, and (c) the “preponderance of the

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this allows for a finite set of works (or a “small” infinite set) that can be treated as exceptions to the general rule.

evidence” standard. Third, **standards of behavior** are used to evaluate behavior in civil and criminal trials. Examples of standards of behavior include the reasonable person standard, the business judgment rule, and fiduciary duties.

### **A. Standards of Offensiveness**

As noted above, the government may ban obscene speech on the ground that it is extremely offensive. Obscene speech is not, however, the only type of offensive speech which may be prohibited. The U.S. Supreme Court has upheld federal statutes making it a felony to utter “obscene, indecent, or profane language by means of radio communication”.<sup>87</sup>

The Federal Communications Commission has defined indecent speech as “language that describes, in terms patently offens[ive] as measured by contemporary community standards for the broadcast medium, sexual or excretory activities and organs, at times of the day when there is a reasonable risk that children may be in the audience.”<sup>88</sup> Indecency is distinguishable from obscenity in that (a) it need not appeal to the prurient interest, and (b) it must be broadcast at a time when the audience is likely to contain children.

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<sup>87</sup> *Federal Communications Commission v. Pacifica Foundation*, 438 U.S. 726 (1978), upholding 18 USC § 1464.

<sup>88</sup> *Citizen’s Complaint Against Pacifica Foundation Station WBAI (FM), New York, New York*, 56 F.C.C.2d 94 (1975), upheld by *Federal Communications Commission v. Pacifica Foundation*, supra note 87.

## Obscenity and Community Standards

The Federal Communications Commission has defined profane speech as “denoting certain of those personally reviling epithets naturally tending to provoke violent resentment or denoting language which under contemporary community standards is so grossly offensive to members of the public who actually hear it as to amount to a nuisance.”<sup>89</sup>

There are then, three standards of offensiveness used in determining whether certain speech may be prohibited: (1) the “prurient interest” standard, (2) the “patently offensive” standard, and (3) the “grossly offensive—nuisance” standard. Works deemed offensive by each of the first two standards, and which lack “serious literary, artistic, political, or scientific value” are considered legally obscene and are entirely unprotected by the free speech guarantees of the first and fourteenth amendments. Works which are deemed offensive by the second standard and which lack “serious literary, artistic, political, or scientific value” are considered indecent and can be prohibited when children are likely to be present. Works deemed offensive according to the third standard are considered profane and can also be prohibited from being broadcast.<sup>90</sup>

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<sup>89</sup> 19 FCC.Rcd 4975.

<sup>90</sup> It is not entirely clear whether contemporary community standards are to be used to determine if a denotes “certain of those personally reviling epithets naturally tending to provoke violent resentment.” If not, then this is a separate basis for prohibiting offensive speech that does not rely on community standards.

## **B. Standards of Proof**

Standards of proof are used to determine the outcomes of trials. Examples include the “preponderance of the evidence,” “clear and convincing evidence,” and “proof beyond a reasonable doubt” standards. Is it possible to derive the jury’s standard of proof from the standards held by the individual jurors? If so, how can the multiple individual standards be aggregated to form the collective standard of the jury?

A “trial” can be thought of as a complete description of all relevant events that occur in an actual trial, including the testimony given, the facial expressions of the witnesses, and any other details that could possibly affect the jurors’ judgments. Standards of proof are judgments about which trials satisfy the standard in question. For example, in which trials were the charges proven beyond a reasonable doubt? All judgments are allowed provided that some possible trials lead to acquittal.<sup>91</sup> Each juror’s judgment is assumed to be well-informed and made after deliberation and reflection. The collective standard of the jury is then derived systematically from these individual judgments.

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<sup>91</sup> This is formalized in the requirement that the proportion of trials that meet the standard of proof, leading to conviction (or a finding of liability), must be strictly less than one hundred percent.

## Obscenity and Community Standards

This model of trials and standards of proof is formally identical to the model of obscenity introduced in Part III. Because the axioms' meanings vary from setting to setting, I will explain their meanings in this context.

*Homogeneity* requires that when the jury is perfectly homogeneous, so that every juror has an identical judgment about every possible trial, the collective standard of the jury is identical to the commonly held judgment of the jurors.

To understand *responsiveness* we need a definition. A standard is *stricter* than another if every trial that satisfies the latter also satisfies the former. For a given individual, the "proof beyond a reasonable doubt" standard is stricter than the "preponderance of the evidence" standard. *Responsiveness* requires that if (a) at least one individual judgment changes and (b) all individual judgments stay as strict (they do not change or they become stricter), then the collective standard of the jury must stay as strict (either it does not change or it becomes stricter). This axiom eliminates the possibility that an individual could be convicted *because* the individual standards became stricter.

*Anonymity* requires that trades of standards by the individual jurors do not affect the collective standard of the jury. *Neutrality* requires that if every individual switches her judgment about two groups of trials, then the community standard must also switch its judgment about these two groups.

It follows, then, that an aggregation rule satisfies these four axioms if and only if it is UNANIMITY RULE: a trial satisfies the standard of proof according to the collective standard of the jury if and only if every member of the jury believes that the trial satisfies

the standard of proof. UNANIMITY RULE is similar to the unanimous jury rule, according to which a criminal defendant is convicted when every member of the jury agrees, after deliberation, that the charges have been proven beyond a reasonable doubt. In criminal cases, the unanimous jury rule is used in every state and in Federal courts.<sup>92</sup> In civil cases, the unanimous jury rule is used in Federal courts, the District of Columbia, and twenty-seven out of the fifty states. According to this rule, civil defendants are found liable only with the unanimous consent of the jury.

While similar, the UNANIMITY RULE is not identical to the unanimous jury rule. In some cases (such as criminal trials), a unanimous jury is necessary both to convict and to acquit — mixed verdicts lead to mistrials. Under UNANIMITY RULE, by contrast, a unanimous jury is only necessary to convict — mixed verdicts lead to acquittals. One might view acquittals and mistrials as similar. In both cases, the defendant is not convicted. The difference is that jeopardy does not attach in the case of a mistrial.

### **C. Standards of Behavior**

Standards of behavior are used to evaluate whether a defendant's actions were legally acceptable given the circumstances. The most famous of these standards is the "reasonable person" standard used in the determination of negligence. Other standards include those applicable to fiduciaries and corporate directors. Is it meaningful to

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<sup>92</sup> An exception is Puerto Rico. The unanimous jury rule is not used in the military justice system. Manual for Court Martial, Rule 921.

understand the “reasonable person” as an aggregate of a set of presumably reasonable persons?<sup>93</sup>

A standard of behavior can be understood as a judgment as to which actions were acceptable given a particular circumstance. Some actions must always be reasonable. Each individual has a set of standards — one for each possible circumstance. The collective standard of behavior, then, is a set of standards — one for each possible circumstance — formed by aggregating the individuals’ standards. This model is formally equivalent to that described in Section IV.D.

The four axioms also have identical meanings, with the exception that *responsiveness* and *neutrality* now apply to “actions” and not “works.” The characterization theorem therefore applies: an aggregation rule satisfies the four axioms if and only if it is UNANIMITY RULE. An individual fails to act according to the reasonable personal standard (and is therefore negligent) only when every individual agrees that that individual is negligent.

### **D. Additional Considerations**

While standards of offensiveness are closely related to standards of proof and behavior, there are distinctions that might limit the applicability of the model in these latter cases.

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<sup>93</sup> This question first seems to have been raised by Rubinstein, *The Reasonable Man: A Social Choice Approach*, 15 THEORY AND DECISION 151 (1983).

First, I have assumed that standards of offensive are entirely subjective. Works are not objectively obscene. It is not clear that obscene works pose any harm except to the feelings of the individual community members. Standards of proof and behavior, on the other hand, are arguably more objective. Murder, for example, can be objectively defined. The primary goal of a murder trial is to separate the innocent from the guilty, with as little error as possible.<sup>94</sup> It may be acceptable to use a rule which violates some of the axioms if that rule leads to objectively better outcomes.

Second, the view that standards of proof and behavior contain an objective component might imply that they should analyzed through a different model. In particular, I have required that some works must be non-obscene. In the context of standards of proof, this requirement means there must be some possible trials that lead to acquittal; in the context of standards of behavior this requirement means that for every circumstance there must be some actions that are legally acceptable. This excludes jurors and juries that find the defendant guilty (or liable) regardless of the facts.

I have allowed the possibility that a juror (or jury) might always find the defendant to be not guilty, regardless of the facts. For example, a juror is entitled to believe that no works are obscene. There is no reason why an individual must necessarily find some works to be offensive. However, in the context of standards of proof, this possibility

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<sup>94</sup> Of course, not all errors are equal. The conviction of an innocent is generally felt to be far worse than the acquittal of a guilty person.

seems problematic — a juror should believe that some trials meet the “proof beyond a reasonable doubt” standard. (Otherwise the prosecution faces an impossible burden.) If we were to require that every jury must sometimes find the defendant guilty, the result would change.<sup>95</sup> It is possible that, under UNANIMITY RULE, every possible trial would result in an acquittal.

## VI. Implications

The central claim of this paper is that if (a) community standards are an aggregate of individual standards and (b) the aggregation method satisfies *homogeneity*, *responsiveness*, *anonymity*, and *neutrality*, then the community standards must be aggregated through the UNANIMITY RULE: a community can ban an obscene work only when every member of the community considers the work in question to be obscene. If the defendant in an obscenity case is a member of the community, then it would follow that the defendant should be acquitted, unless the defendant also considers the work obscene.

In short, the law can choose one of three paths. First, the law can use the UNANIMITY RULE. Second, the law can use a rule that violates homogeneity, responsiveness, anonymity, or neutrality. Third, the law can stop basing the legal rule on the judgments of individuals in the community.

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<sup>95</sup> No aggregation rule would satisfy the four axioms.

Using the Unanimity Rule seems slightly crazy. If the relevant community consists of all individuals (or adults) within the relevant geographical region, as indicated by jury instructions approved by the Supreme Court, the use of the UNANIMITY RULE would make obscenity laws almost entirely meaningless. Defendants who live in the community would (almost) never be liable. The defendant would be liable when everyone, including the defendant, believes the work in question to be obscene.<sup>96</sup> Of course, a defendant could be prosecuted if he is not a member of the community in which the prosecution is brought. In theory, outsiders could be prosecuted successfully in a conservative region if every person in that region believed the work to be obscene.<sup>97</sup> As a practical matter, however, it seems unlikely that the UNANIMITY RULE would allow for many prosecutions even in conservative states such as Utah.

If, despite this, we decide to press forward with the Unanimity Rule, and if the relevant community consists of all reasonable individuals within the relevant geographical region, then the UNANIMITY RULE could be implemented through a jury instruction. Jurors would

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<sup>96</sup> It would be very difficult to obtain a conviction in this case as: (a) the defendant would probably claim that the work was non-obscene, whatever his true belief, and (b) probably could not be compelled to reveal his true belief under the self-incrimination clause of the Fifth Amendment.

<sup>97</sup> This is not entirely an unthinkable scenario: the Supreme Court has, in principle, allowed for prosecutions for internet obscenity in any community where the work is viewable. See *ACLU v. Ashcroft*.

## Obscenity and Community Standards

be instructed to find a work obscene only if every reasonable person in the community would consider it obscene. However, for this rule to be meaningful, whether a person is deemed ‘reasonable’ must not depend on that person’s judgment.<sup>98</sup>

The UNANIMITY RULE, then, allows for a very limited definition of obscenity. In the present era it is hard to imagine material that would be considered obscene by every reasonable person in even the most puritan of communities in the United States.<sup>99</sup> It seems unlikely that the Supreme Court would accept the UNANIMITY RULE as the proper method for aggregating individual standards or that jurors actually use the UNANIMITY RULE when returning guilty verdicts.<sup>100</sup>

If we do not use the UNANIMITY RULE we have a large menu of options. The law could decide to utilize VARIABLE THRESHOLD RULES, but in doing so would violate the *responsiveness* axiom. Alternatively, the law could accord special weight to the views of

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<sup>98</sup> If whether a judgment is ‘reasonable’ depends on the judgments of other individuals, then the definition is circular.

<sup>99</sup> Perhaps in the mid-Victorian era, and possibly even in Lord Devlin’s time, a jurist could perhaps have viewed individual standards differently.

<sup>100</sup> In his recent dissent in *ACLU v. Ashcroft*, Justice Stevens wrote that by “aggregating values at the community level, the *Miller* test eliminated the outliers at both ends of the spectrum and provided some predictability as to what constitutes obscene speech.” *ACLU v. Ashcroft*, 535 U.S. 564 (2002).

parents or some other community of interest, violating the *anonymity* axiom. Or perhaps the court could abandon the requirement that works be judged as a whole and use a rule similar to FOUR-LETTER WORDS; this would violate the *neutrality* axiom. In one setting or another, each of these has unappealing features. We would have to learn to live with the normative defects of any given rule. It is not clear which method the Supreme Court would endorse, or which method jurors might actually use when choosing to convict. It is clear, however, that every one of these methods must violate one or more of the four axioms: *homogeneity*, *responsiveness*, *anonymity*, and *neutrality*.

Last, the law could cut the connection between the judgments of individuals in the community and the applicable legal standard. There is nothing, per se, wrong with such an approach. It would, however, represent a total sea change in the approach of the Supreme Court.

## **VII. Conclusion**

In this paper I have introduced a new model of community standards. If community standards are derived from individual standards in a manner that (a) preserves unanimous agreements about the standards, (b) moves in the direction (more permissive or less) of the community, and (c) does not discriminate between individuals or works, then the community standard must be consistent with the UNANIMITY RULE. A work is obscene only when every single member of the community considers it obscene.

This analysis indicates that the concept of community standards is problematic. Every aggregation method other than UNANIMITY RULE violates one of the properties above. The properties are, of course, normative — they can neither be shown to be correct through logical proof or through empirical evidence. But each axiom has strong normative appeal, and that is why the model has real bite.

### **VIII. Appendix**

#### **A. Infinite set of actions**

As noted above, the model assumes that there is an infinite set of works. Alternatively, one might choose to model the set of works as finite. Consider the following argument: most works (movies, artworks, books) can be effectively stored on a digital video disc (DVD). While there might be some loss of quality, enough information should be preserved for a decision-maker to make a judgment as to whether the work is obscene.<sup>101</sup> Because a DVD contains a finite amount of information (roughly forty billion bits) there are a finite number of possible DVDs, and so, by this argument, there are a finite number of works.

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<sup>101</sup> If one believes that a DVD does not contain enough information, the following argument would work if we could store enough information on five DVDs, or on five billion.

While the distinction between infinite and finite might seem technical, it is not inconsequential. The central result of this paper would not be true if we assumed a finite set of works. Consider the following aggregation rule: use the Unanimity rule unless (a) everyone believes that every work but one is obscene and (b) at least two individuals agree on which work is non-obscene. In this latter case, define a work as obscene if it is judged obscene by (a) every individual or (b) every individual but one. This rule satisfies the four axioms: *homogeneity*, *responsiveness*, *anonymity*, and *neutrality*. It is not, of course, the UNANIMITY RULE.

Why does this rule work in the finite case but not in the infinite case? Recall that individual judgments and community standards are restricted in the following way: the proportion of obscene works must be strictly less than one hundred percent of the total. Alternatively, the proportion of non-obscene works must be strictly greater than zero percent. This allows the case where only one work out of a finite set is non-obscene, but disallows the case where only one work out of the infinite set is obscene. (One work out of an infinite set comprises zero percent of the total. For that matter, any small (finite) set of works out of an infinite set comprises zero percent of the total.) Every rule, other than unanimity rule, which satisfies the four axioms in the finite case is similar to the rule described above. They differ from unanimity rule when some individuals believe that only a very small number of works is non-obscene. These rules are excluded in the infinite setting because, in that case, individuals cannot believe that only a very small number of works is non-obscene.

## Obscenity and Community Standards

Of course, this is a technical explanation, and not a justification. To justify the decision to assume that there is an infinite set of works, we need to make two additional assumptions.

First, for every work there are very similar works. For example, if we take a book, and change a single letter, or add a word, the resulting book would be very similar to the original one. Alternatively, if we took a painting, and added a drop of paint, the new painting is very similar to the old painting. Of course, by changing the right word, or putting the drop of paint in exactly the right place, we might end up with a substantially different work; the assumption is not that every small change would lead to a similar work, but that there are some changes which would result in similar works.

Second, if an individual considers a work obscene, then that individual considers very similar works obscene. Equivalently, if an individual considers a work non-obscene, then that individual considers very similar works non-obscene.

If we were to explicitly incorporate these assumptions into the model with a finite set of actions, we would be led to the result that UNANIMITY RULE is the only aggregation method satisfying the *homogeneity*, *responsiveness*, *anonymity*, and *neutrality* axioms.

If there is only a finite set of actions, and these assumptions are not made, then it is possible to characterize UNANIMITY RULE by imposing an additional axiom. For example, the *independence* property requires that an aggregation rule consider only the judgments about a particular work when determining the community standard's view of that work.

*Independence*: Whether the community standard determines a given work to be obscene does not depend on the individual judgments about the other works.

This axiom is very restrictive and lacks a strong normative justification. In principle, the views about one film might help us understand whether another film is obscene. We might exclude potentially interesting rules by unnecessarily imposing this axiom on the result. However, *Independence* is a useful property. Independent community standards are easy to verify. To determine the community standard, we need only ask individuals about the work in question.

The UNANIMITY RULE satisfies *independence*. Furthermore, any rule that satisfies *independence*, *homogeneity*, *anonymity*, and *neutrality* must necessarily be the UNANIMITY RULE.<sup>102</sup>

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<sup>102</sup> That UNANIMITY RULE is the unique rule satisfying *independence*, *homogeneity*, *responsiveness*, *anonymity*, and *neutrality* in the case with a finite set of works and a single standard has been long known. See, for example, Monjardet, *Arrowian Characterizations of Latticial Federation Consensus Functions*, 20 MATHEMATICAL SOCIAL SCIENCES 51 (1990).

## B. Formal Proof

In this section I provide a formal proof of the theorem in Part IV. I begin with the formal model described in section IV.A of the paper. I follow by defining the four axioms described in section IV.B, and then introduce the theorem (section IV.C). This section concludes with a proof. For a more complete version of the theorem (including the case of multiple standards discussed in section IV.D) see: Miller, *The ‘Reasonable Man’ and Other Legal Standards*, 1277 CALTECH SOCIAL SCIENCE WORKING PAPER SERIES 1 (2007).

### 1. Notation and the Model

The **community** can be described through a set  $N \equiv \{1, \dots, n\}$  of agents. The space of **works** is denoted by  $(W, \Sigma, \mu)$ , where  $W$  is the set of works,  $\Sigma$  is the  $\sigma$ -algebra of subsets of works, and  $\mu$  is a measure on  $(W, \Sigma)$ . The space  $(W, \Sigma)$  is assumed to be isomorphic to  $([0, 1], \mathcal{B})$ , where such  $\mathcal{B}$  is the set of Borel subsets of  $[0, 1]$ . I assume that  $\mu$  is countably additive, non-atomic, non-negative, and finite. Let  $\Phi_\mu$  be the set of all automorphisms of  $(W, \Sigma)$  which preserve the measure  $\mu$ .

Let  $\mathcal{S} \equiv \{S \in \Sigma : \mu(S) < \mu(W)\}$  be the set of **standards**. The requirement that standards must be of less than full measure reflects the idea that not all works can be obscene. For each  $i \in N$  there exists an element  $S_i \in \mathcal{S}$ . A **profile** of standards is a vector  $S \in \mathcal{S}^n$ . A rule  $f : \mathcal{S}^n \rightarrow \mathcal{S}$  is a mapping from a profiles to **community standards**.

### 2. The Axioms

In this section I provide a formal definition for each of the four axioms used in the paper. An extended discussion of these axioms can be found in section IV.B.

The first axiom, *homogeneity*, requires that if every individual has the same standard ( $S'$ ), then it forms the community standard.

**Homogeneity:** If there is a standard  $S'$  such that  $S_i = S'$  for all  $i \in N$ , then  $f(S) = S'$ .

One standard is **as permissive** as another standard if every work considered obscene by the former is considered obscene by latter. Formally, we can describe this using *set inclusion* and we write  $A \subseteq B$  to denote that standard  $A$  is as permissive as standard  $B$ . The second axiom, *responsiveness*, requires that if the profile changes (from  $S^*$  to  $S$ ) and each individual’s new standard is as permissive as that individual’s old standard (so that  $S_i \subseteq S_i^*$  for all  $i \in N$ ) then the new community standard must be as permissive as the old community standard (so that  $f(S) \subseteq f(S^*)$ ).

**Responsiveness:** If  $S_i \subseteq S_i^*$  for all  $i \in N$ , then  $f(S) \subseteq f(S^*)$ .

The third axiom *anonymity* requires all agents' views to be treated equally. Individuals' standards are traded through a permutation  $\pi$  of  $N$ . For a given permutation,  $\pi(i)$  is the new name of the individual formerly known as  $i$ . For a given profile  $S$ ,  $\pi S \equiv (S_{\pi(1)}, \dots, S_{\pi(n)})$  is the profile which results once standards are traded. (In this case, agents 1 and  $\pi(1)$  have traded standards.)

**Anonymity:** For every permutation  $\pi$  of  $N$ ,  $f(S) = f(\pi S)$

The principle of *neutrality* is similar: it requires that all works be treated similarly. In particular, if every individual changes her judgment about two groups of works, then the community standard must also switch about these two groups. This is formally accomplished through relabeling the works. If  $\phi \in \Phi_\mu$  is a relabeling of  $W$ , the set of works, then for a given profile  $S$ ,  $\phi S \equiv (\phi(S_1), \dots, \phi(S_n))$  describes the profile where individual standards all switch about certain groups of works (but otherwise stay the same). *Neutrality* requires that the community standard which results from the switched profile ( $f(\phi S)$ ) must be identical to the standard which would result from the original community standard switching about the same groups of works (or  $\phi f(S)$ ).

**Neutrality:** For every automorphism  $\phi \in \Phi_\mu$ ,  $\phi(f(S)) = f(\phi S)$ .

### 3. The Theorem

The *unanimity rule* defines a work as obscene if (and only if) every community member considers it obscene.

**Unanimity Rule:** For every  $S \in \mathcal{S}^N$ ,  $f(S) = \bigcap_{i \in N} S_i$ .

**Theorem.** *The unanimity rule is the only rule which satisfies homogeneity, responsiveness, anonymity, and neutrality.*

The proof of the theorem has two steps. First, I show that any work considered obscene by everyone must be considered obscene by the community standard. To see why this must be the case, start with an arbitrary profile (call it  $S$ ), and then consider a new profile  $S^*$  where each person considers a work obscene only if all individuals considered it obscene in the original profile, so that  $S_j^* = \bigcap_{i \in N} S_i$  for all  $j \in N$ . Because each individual has an identical standard, *homogeneity* requires that this be the new community standard.

Because the new profile is as permissive as the old profile, *responsiveness* requires that every work permitted by the old community standard must be permitted by the new community standard. This implies that works not permitted by the new community standard must not be permitted by the old standard, and therefore, for any profile, any work considered obscene by everyone must be considered obscene by the community standard.

Next, I show that any work considered non-obscene by at least one person must be deemed non-obscene by the community standard. To see why this must be the case, pick an arbitrary work  $w$  considered non-obscene by at least one person. We can construct a less-permissive profile such that (a) that person still considers that work  $w$  non-obscene, (b) no two people consider the same work non-obscene, and (c) each person's set of obscene works is the same size. This new profile is entirely symmetric, and it follows from *anonymity* and *neutrality* that either (a) all works considered non-obscene by one or more people are non-obscene, or (b) no works are non-obscene. This latter case violates the restriction in the model that not all works be obscene, implying that the new community standard must consider the work  $w$  to be non-obscene. The original profile is as permissive as this new profile, so by *responsiveness* the work  $w$  must be non-obscene according to the old community standard.

*Proof.* Let  $S \in \mathcal{S}^N$ . Define  $S^*$  as the profile such that  $S_j^* = \cap_{i \in N} S_i$  for all  $j \in N$ . By homogeneity,  $f(S^*) = \cap_{i \in N} S_i$ . Because  $S_i^* \subseteq S_i$  for all  $i \in N$ , responsiveness implies that  $f(S^*) \subseteq f(S)$ . Thus  $\cap_{i \in N} S_i \subseteq f(S)$ .

Let  $w \notin S_1$ . To prove that  $f(S) \subseteq \cap_{i \in N} S_i$ , it is sufficient to show that  $w \notin f(S)$ .

Let  $S^w$  be a profile such that: (1)  $w \notin S_1^w$ , (2)  $S_i \cup S_j = W$  for all  $i, j \in N$ , (3)  $\mu(S_i^w) = \mu(S_j^w)$  for all  $i, j \in N$ , and (4)  $S_i \subseteq S_i^w$  for all  $i \in N$ .

Suppose, contrariwise, that  $w \in f(S^w)$ . Then, by neutrality,  $W \setminus S_1^w \subseteq f(S^w)$ . By anonymity and neutrality,  $W \setminus S_i^w \subseteq f(S^w)$  for all  $i \in N$ . Thus  $\cup_{i \in N} (W \setminus S_i^w) \subseteq f(S^w)$ . Because  $\cap_{i \in N} S_i^w \subseteq f(S^w)$ , this implies that  $f(S^w) = W$ . But this is a contradiction which proves that  $w \notin f(S^w)$ . Because  $S_i \subseteq S_i^w$ , responsiveness implies that  $f(S) \subseteq f(S^w)$  and therefore  $w \notin f(S)$ . This proves that  $f(S) = \cap_{i \in N} S_i$ .  $\square$