# **Copyright and Democracy: A Cautionary Note**

# Christopher S. Yoo\*

I.	THE AMBIGUOUS RELATIONSHIP BETWEEN MEDIA				
	CONCENTRATION AND DIVERSITY				
	A.	Game Theoretic Models	1936		
	B.	Monopolistic Competition Models	1942		
	<i>C.</i>	Public Choice Models	1946		
	D.	Empirical Evidence	1948		
	E.	Implications	1950		
	F.	A Sidebar on Vertical Integration and			
		Transaction Cost Economics	1952		
II.	NETANEL'S UNDERTHEORIZED VISION OF FREE SPEECH				
	A.	Theoretical Foundations of Free Speech	1954		
	B.	Turning Theory Into Policy	1958		
III.	Conci	LUSION			

Democratic theories of copyright have become quite the rage in recent years. A growing number of commentators have offered their views on the relationship between copyright law and the process of self-governance.<sup>1</sup> No scholar has been more committed to de-

<sup>\*</sup> Assistant Professor of Law, Vanderbilt University Law School. The original version of this Comment was first presented at the symposium on "Taking Stock: The Law and Economics of Intellectual Property Rights" held on April 7-8, 2000, at Vanderbilt University Law School. I would like to thank Neil Netanel, as well as the other symposium participants, for their graciousness in sharing their thoughts with me. I would also like to thank Jim Blumstein, Rebecca Brown, Steve Heyman, Bob Rasmussen, Marty Redish, and Nick Zeppos.

<sup>1.</sup> See, e.g., Yochai Benkler, Free as the Air to Common Use: First Amendment Constraints on Enclosure of the Public Domain, 74 N.Y.U. L. REV. 354 (1999); Niva Elkin-Koren, Cyberlaw and Social Change: A Democratic Approach to Copyright Law in Cyberspace, 14 CARDOZO ARTS &

veloping this perspective than Neil Netanel. In an important series of articles, Netanel has pursued a powerful and innovative project that attempts to reexamine copyright through the lens of democratic theory.<sup>2</sup> His core concern is that the concentration of private wealth and power in communications and mass media is creating unprecedented disparities in the ability to be heard.<sup>3</sup> The "speech hierarchy" created by these disparities threatens to undermine the "expressive diversity and robust debate [that] are vital to democratic governance."4 At the same time, Netanel concedes that other aspects of speech hierarchy actually promote democracy, by providing the incentives for the creation of new speech<sup>5</sup> and by fostering an independent sector of authors and publishers with the political and financial wherewithal to guard against the excesses of both big government and big business. The challenge, then, is to structure copyright so that it strikes the "careful balance between exclusivity and access" that democracy needs in order to endure.7 Towards that end, Netanel offers a cluster of reforms designed to steer a middle course between adherents of the "neoclassical approach to copyright," who blend price theory and new institutional economic theory to justify strengthening intellectual property rights, 8 and the "minimalist critics of copyright expansion," who would drastically reduce the scope of copyright protection (if not abolish it altogether).9

One cannot help but admire the sophistication and subtlety of Netanel's approach. Framing the issues as a conflict between competing interests has the natural effect of focusing attention on the tradeoffs inherent in any policy choice. The various aspects of copyright no longer appear as single-dimensional constructs. Instead, Netanel's analytical structure turns them into complex deci-

ENT. L.J. 215 (1996). These debates have crossed over from the academy into the courts. Just last month, the D.C. Circuit heard oral arguments in a case challenging the Copyright Term Extension Act of 1998 on First Amendment grounds. See Eldred v. Reno, No. 99-5430 (D.C. Cir. argued Oct. 5, 2000).

<sup>2.</sup> See Neil Weinstock Netanel, Asserting Copyright's Democratic Principles in the Global Arena, 51 Vand. L. Rev. 217 (1998) [hereinafter Netanel, Global Arena]; Neil Weinstock Netanel, Copyright and a Democratic Civil Society, 106 Yale L.J. 283 (1996) [hereinafter Netanel, Democratic Civil Society]; Neil Weinstock Netanel, Market Hierarchy and Copyright in Our System of Free Expression, 53 Vand. L. Rev. 1879 (2000) [hereinafter Netanel, Market Hierarchy].

<sup>3.</sup> Netanel, Market Hierarchy, supra note 2, at 1879-1882.

<sup>4.</sup> Id. at 1885.

<sup>5.</sup> *Id.* at 1904.

<sup>6.</sup> *Id.* at 1883-84.

<sup>7.</sup> Netanel, Democratic Civil Society, supra note 2, at 364.

<sup>8.</sup> Id. at 306-24.

<sup>9.</sup> Id. at 336-39.

sions that are susceptible to richly textured and highly nuanced resolution. This degree of complexity comes at a high price, however. Unlike perspectives that take a more black-and-white approach to copyright law, which can often draw strong inferences without having to sift through the various shades of gray, Netanel's approach by its very nature requires more. It necessarily requires some means for trading off the opposing interests that Netanel has identified.

This Commentary explores Netanel's definition of the issues at stake and the way he proposes to balance them. Part I examines from an economic perspective one of the key factual premises upon which his proposal is based: the relationship between media concentration and program diversity. Part II analyzes the theory underlying Netanel's contribution to this symposium. Although I find much to admire in it, I find the theory upon which it is based to be too incompletely defended and articulated at this point to support the careful balancing it envisions. The project's success will ultimately depend on the extent to which his further work further defines precisely how copyright interacts with the democratic process.

## I. THE AMBIGUOUS RELATIONSHIP BETWEEN MEDIA CONCENTRATION AND DIVERSITY

Netanel's theory of copyright rests in no small part on a key positive claim: that excessive concentration in media industries is inhibiting the diversity of television programming. In relying on this premise, Netanel follows in the footsteps of a number of distinguished scholars and policy-makers who have raised similar concerns. <sup>10</sup> As Netanel notes, however, the evidence offered in support of this factual inference has largely been anecdotal. <sup>11</sup> There are four strands of economic analysis that attempt to bring greater analytical rigor to these questions. The first relies on game theory, the second applies principles of monopolistic competition, the third applies public choice theory, while the fourth consists of empirical

<sup>10.</sup> See Commission on Freedom of the Press, A Free and Responsible Press (1947); Cass R. Sunstein, Democracy and the Problem of Free Speech (1993); Jerome A. Barron, Access to the Press—A New First Amendment Right, 80 Harv. L. Rev. 1641, 1641-42, 1647-50 (1967); Owen M. Fiss, Why the State?, 100 Harv. L. Rev. 781, 787-88 (1987). The current Chairman of the Federal Communications Commission apparently shares these concerns. See William E. Kennard, Speech Before the National Association of Broadcasters Radio Show (Sept. 2, 1999), available at http://www.fcc.gov/Speeches/Kennard/spwek929.html (visited August 13, 2000); William E. Kennard, Remarks to NAB Radio Convention (October 16, 1998), available at http://www.fcc.gov/Speeches/Kennard/spwek832.html (visited August 13, 2000).

<sup>11.</sup> See Netanel, Market Hierarchy, supra note 2, at 1881-82 nn.9-11.

studies of program choice. <sup>12</sup> Despite their differences in approach, however, all four strands reach similar conclusions. Each line of research suggests that the relationship between media concentration and program diversity may be more complex and more ambiguous than Netanel suggests. <sup>13</sup>

#### A. Game Theoretic Models

The seminal work in the study of the economics of program diversity is Peter Steiner's 1952 article, entitled *Program Patterns and Preferences, and the Workability of Competition in Radio Broadcasting*. <sup>14</sup> This article employed rudimentary game theory to explain the lack of diversity in broadcast programming. Steiner's insight is as simple as it is powerful: Competing broadcast stations can often attract larger audiences by duplicating the most popular program types than they can by offering more diverse programming.

Steiner illustrated his point with a simple numerical example. He began by assuming that the market could be divided into four different program types that would each draw audiences of the following sizes:

#### **PROGRAM TYPE**

	Type 1	Type 2	Type 3	Type 4
Audience Size	210	75	50	31

<sup>12.</sup> For excellent summaries of the literature on program choice, see BRUCE M. OWEN & STEVEN S. WILDMAN, VIDEO ECONOMICS 64-92, 141-42 (1992); Matthew L. Spitzer, *Justifying Minority Preferences in Broadcasting*, 64 S. CAL. L. REV. 293, 304-16 (1991).

<sup>13.</sup> At times, Netanel attempts to draw a parallel between concentration in media markets and the literature that suggests that dominant firms tend to fall short of the optimal level of innovation. See Netanel, Market Hierarchy, supra note 2, at 1895 n.53, 1910 n.108. The economic literature is far from clear on this point. See generally F.M. SCHERER & DAVID ROSS, INDUSTRIAL MARKET STRUCTURE AND ECONOMIC PERFORMANCE 644-60 (3d ed. 1990) (reviewing the multiple strands of this literature). Although agency costs may provide incentives to underinvest in R&D, dominant firms can have a countervailing incentive to overinvest in R&D in an attempt to maintain their strategic position. See Partha Dasgupta & Joseph Stiglitz, Uncertainty, Industrial Structure, and the Speed of R&D, 11 Bell J. Econ. 1 (1980); Richard Gilbert & David Newberry, Preemptive Patenting and the Persistence of Monopoly, 72 AM. Econ. Rev. 514 (1982); Steven C. Salop, Strategic Entry Deterrence, 69 AM. Econ. Rev. 335, 336 (1979). Moreover, as noted earlier, it is not even clear that the innovation literature is the most appropriate parallel. The situation posed by program diversity seems to bear more similarities to the literature of spatial preemption, which presumes that dominant firms will fill the product space. See infra note 75.

<sup>14.</sup> Peter O. Steiner, *Program Patterns and Preferences, and the Workability of Competition in Radio Broadcasting,* 66 Q.J. ECON. 194 (1952). Although Steiner focused on radio, his insights apply with equal, if not greater, force to television.

If there were only one station in the market, it would of course offer Type 1 programming, since broadcasting that format would allow it to capture the largest single audience segment. But consider the choice facing the second broadcaster entering the market. The second station could either offer Type 2 programming (thereby obtaining an audience of 75), or could duplicate the first station's decision to offer Type 1 programming (thereby splitting the Type 1 audience with the first broadcaster and obtaining an audience of 105). Since half of the Type 1 audience is larger than the entirety of the Type 2 audience, it would make more sense for the second broadcaster to duplicate the first broadcaster's decision to offer Type 1 programming. 15

The analysis can easily be extended into scenarios with larger numbers of stations. A third broadcaster would diversify the programming mix by offering Type 2 programming, since the entirety of the Type 2 audience (75) would be larger than one-third of the Type 1 audience (70). A fourth station, however, would once again duplicate Type 1 programming, since one-third of the Type 1 audience (70) would still be larger than half of the Type 2 audience (37.5) or the entirety of the Type 3 audience (50). If this mode of analysis is continued, the model predicts that Type 3 programs will not appear until there are six stations in the market and that Type 4 programs will not emerge until the arrival of the tenth station. 16 The insights of the model are clear. Broadcast stations that are competing for viewers have an economic incentive to duplicate the most popular types of programs. If channel capacity is limited, this duplication crowds out other program types that would have increased the diversity of the programming market.

This tendency toward duplication disappears, however, if the stations are assumed to be under monopoly control.<sup>17</sup> The reason for this is simple. Competitors focus on garnering the largest audience for each individual station, without regard to whether the audience is comprised of new viewers or viewers who were already watching other stations. A monopolist, in contrast, can only profit by attracting new viewers. A second station that only steals viewers from another station already on the air provides no benefits.<sup>18</sup> Thus, unlike competitors, who focus solely on maximizing the viewership

<sup>15.</sup> Id. at 200.

<sup>16.</sup> Id.

<sup>17.</sup> *Id.* at 206-07.

<sup>18.</sup> In fact, simply cannibalizing viewers from another station is actually economically harmful, since the expense of creating a second set of programming wastes resources without creating any benefits. *See* OWEN & WILDMAN, *supra* note 12, at 68.

of individual stations, a monopolist would try to maximize the total viewership of the combined stations. And a monopolist can accomplish this best by maximizing the diversity of its program offerings.

Again, this effect is well illustrated by the numerical example offered above. As noted earlier, a competitor that was introducing the second station into the market would garner the largest audience by offering Type 1 programming. That audience, however, would come entirely at the expense of the first station. If, however, the same company controlled both stations, it would have no incentive to duplicate Type 1 programming, since doing so would force it to incur additional cost without any increase in its audience size or revenues. A monopolist would thus find it more profitable to direct its second station to offer Type 2 programs (thereby obtaining a net increase of 75 viewers rather than splitting the 210 viewers already watching the first station). By logical extension, a monopolist controlling more than two stations would direct each additional station at a different program type, thereby maximizing program diversity.<sup>19</sup> This result, however, depends on several key assumptions. Steiner also used the total number of viewers in the audience as his measure of viewer satisfaction, without making any attempt to assess intensity of preferences needed to perform a conventional welfare analysis.<sup>20</sup> Furthermore, Steiner assumed that viewers will watch only their first choices.<sup>21</sup> Steiner also implicitly limited his analysis to situations in which the number of channels was fixed without considering what would occur if excess channel capacity existed.

In 1977, Jack Beebe extended Steiner's work into a more general model that allowed him to vary many of Steiner's key assumptions.<sup>22</sup> In particular, Beebe explored the following additional possibilities:

Preference Patterns—Beebe relaxed Steiner's assumption that viewers will watch only their first choices by adding

<sup>19.</sup> See id. at 66-68; Spitzer, supra note 12, at 306.

<sup>20.</sup> Steiner, supra note 14, at 196-97. For Steiner's other assumptions, see id. at 197-99.

<sup>21.</sup> *Id.* at 199. Steiner did relax this assumption somewhat in his discussion of his results, exploring what would happen under his model if viewers had second choices. Given that any audience shifts from one program to another would have no impact on total audience size (his chosen measure of viewer satisfaction), Steiner regarded the existence of secondary preferences as immaterial. Steiner did acknowledge that the existence of nonexclusive preferences could potentially have a significant impact on alternative satisfaction measures, such as the fulfillment of first preferences. *Id.* at 204-05.

<sup>22.</sup> Jack H. Beebe, *Institutional Structure and Program Choices in Television Markets*, 91 Q.J. ECON. 15, 15-17 (1977).

scenarios in which viewers will watch second choice programs if their first choice is not available.<sup>23</sup> Building on earlier work by Jerome Rothenberg,<sup>24</sup> Beebe also included scenarios in which viewers who are unable to find either their first or second choices will watch "mass-appeal programming" (referred to in the literature as "common denominator program[ming]").<sup>25</sup>

Viewer Distribution—Steiner observed that increases in the extent to which audiences were skewed toward a single type of program increased the tendency towards format duplication. Beebe tested the sensitivity of Steiner's results by including scenarios in which the distribution of viewers was highly skewed, moderately skewed, and nearly evenly distributed.<sup>26</sup>

*Program Costs*—Another weakness of Steiner's model is that it did not attempt to model the impact of program cost. Beebe incorporated this variable into his analysis by including two different assumptions regarding program cost.<sup>27</sup>

Channel Capacity—The program duplication in Steiner's model flowed directly from the fact that channel capacity was strictly constrained. Again building on Rothenberg's work,<sup>28</sup> Beebe expanded his model by adding scenarios in which channel capacity was unlimited.<sup>29</sup>

Beebe then considered every possible combination of these factors to determine whether monopoly or competition produced greater viewer satisfaction. In addition to examining the number of different program formats offered, Beebe also considered several additional measures of viewer satisfaction. Specifically, Beebe ex-

<sup>23.</sup> Id. at 19, 20 tbl.I.

<sup>24.</sup> See Jerome Rothenberg, Consumer Sovereignty and the Economics of TV Programming, 4 STUD. PUB. COMM. 45, 48-49 (1962) (noting that if common denominator programming exists, competitors would be more likely to duplicate that type of programming before providing more diverse programming).

<sup>25.</sup> Beebe, *supra* note 22, at 19.

<sup>26.</sup> *Id.* at 19-21 & tbl.I

<sup>27.</sup> *Id.* at 20 tbl.I, 21.

<sup>28.</sup> See Rothenberg, supra note 24, at 50.

<sup>29.</sup> Beebe, supra note 22, at 20 tbl.I, 21.

amined the total number of viewers watching and the total number of viewers who found their first choices.<sup>30</sup>

The resulting matrix of seventy-two outcomes yields a wealth of subtle and often surprising results. The most important results for the purposes of this discussion are Beebe's findings regarding program diversity. The model indicates that program diversity is determined largely by the interaction of two factors: program substitution and channel capacity.

Consider first the different assumptions on program substitution. Beebe's model confirmed Steiner's finding that so long as viewers will watch only their first choices, monopoly yields greater program diversity than competition. As noted earlier, however, Beebe considered two additional possibilities: that viewers unable to find their first choices will (only) watch second choice programming, and that viewers unable to find either their first or second choices will watch common denominator programming. Under the first of these assumptions (*i.e.*, viewers will only watch their first or second choices), whether a monopolistic or competitive market structure yields greater diversity varies with the assumption regarding channel capacity. If channel capacity is limited, monopoly tends to produce greater program diversity.<sup>31</sup> If excess channel capacity exists, the model favors a more competitive market structure.<sup>32</sup>

Under the latter set of assumptions (*i.e.*, viewers unable to find first or second choice programs will watch common denominator programming), competition yields greater diversity than monopoly. A monopolist will offer only common denominator programming, since doing so will allow it to capture the entire market without having to incur the expense of producing multiple program types. In a competitive market, however, other stations will offer additional program types, since doing so will allow them to attract audiences away from the common denominator programming offered by the first entrant.<sup>33</sup> Again, channel capacity emerges as an

<sup>30.</sup> Beebe, supra note 22, at 31-32 & tbl.V. Beebe also offered a crude estimate of total surplus. Id. at 32-34.

<sup>31.</sup> Monopoly provides greater program diversity than competition in four of the six scenarios that arise under this assumption and provides the same degree of diversity as competition in the remaining two scenarios. *Id.* at 28.

<sup>32.~</sup> Id. at 28.~ I discuss Beebe's results solely in terms of the number of different formats broadcast. When evaluated in terms of the other measures of viewer satisfaction, the results can be quite ambiguous. See id. at 25.~

<sup>33.</sup> *Id.* at 25-30.

essential consideration.<sup>34</sup> When channel capacity is limited, the market will fail to provide the optimal amount of diversity. If excess channel capacity exists, competitors will offer all economically viable programs.<sup>35</sup>

Thus the preferred market structure ultimately depends on the structure of viewer preferences and the availability of unlimited channel capacity. If viewers will watch only their first choice programming, Beebe, like Steiner, concluded that monopoly always provides total surplus at least as great as competition.<sup>36</sup> When viewers will watch alternative programming, the preferred market structure depends on an interaction of channel capacity and the extent viewers will watch common denominator programming. Without further empirical data regarding consumer preferences, program costs, and advertising revenues, Beebe concluded that it was impossible to say definitively whether monopoly or competition will provide greater program diversity.<sup>37</sup>

A couple of observations about Beebe's work seem appropriate. First, Beebe modeled the effect of program substitution by simplifying the world into three possibilities: (1) that *all* viewers will watch only their first choice programs; (2) that *all* viewers unable to find their first choices will watch particular second choices, but nothing else; and (3) that *all* viewers unable to watch their first or second choices will watch common denominator programming. Obviously none of the three assumptions is strictly true. In the real world, some viewers will watch only particular programs, others will watch only a particular set of programs, and still others will watch just about anything. In no event will *all* viewers behave in the exact same way. Whether Beebe's model supports monopoly or competition as the preferred market structure is therefore ultimately an empirical question of degree.<sup>38</sup>

The fact that none of these categories is an accurate description of the world does not eliminate the utility of Beebe's analysis, however. Simplifying assumptions that reduce a complex reality into a more manageable number of dimensions serve two distinct purposes. First, they facilitate the study of the effect of certain factors by allowing them to be viewed in isolation. Second, by reducing

<sup>34.</sup> Id. at 30, 35.

<sup>35.</sup> *Id.* at 30; see also OWEN & WILDMAN, supra note 12, at 86-87 (noting that under unlimited channels, "competitors offer all economically viable programs").

<sup>36.</sup> Beebe, supra note 22, at 32.

<sup>37.</sup> Id. at 32-35.

<sup>38.</sup> As Matt Spitzer has observed, under these models "intermediate cases yield intermediate results." Spitzer, supra note 12, at 317.

a particular factor into an ideal type, assumptions help expose the manner in which that factor interacts with other factors.<sup>39</sup> Thus it is quite revealing that exclusive preferences (in which *all* viewers watch only first-choice programming) suggest that monopoly would yield greater diversity, while general preferences (in which *all* viewers watch alternative programs) broadly support competition as the preferred market structure. Even though neither assumption is strictly true, they do provide some intuition about the way these factors interact in intermediate cases (the more programs act as substitutes for one another, the more likely competition will provide greater diversity) and also help identify the key empirical questions that merit further study.

Second, Beebe's decision to limit his model to two market structures—monopoly vs. competition—leaves open the question of what would happen under the market structure that most resembles the media market of his day: oligopoly. Fortunately, Beebe's work can be easily extended to cover this scenario. As it turns out, the degree of competition needed to bring out program diversity is relatively low. A routine extension of Beebe's model suggests that in most cases a triopoly with excess channel capacity will bring out the same range of program diversity as full competition.<sup>40</sup>

## B. Monopolistic Competition Models

In 1977, Michael Spence and Bruce Owen inaugurated a different approach to analyze the economics of program choice.<sup>41</sup> In light of the importance of program substitution revealed by Beebe's work, Spence and Owen decided to base their model on principles of monopolistic competition, an approach which assumes that differ-

<sup>39.</sup> The classic statement on ideal types was provided by Max Weber:

An ideal type is formed by the one-sided *accentuation* of one or more points of view and by the synthesis of a great many diffuse, discrete, more or less present and occasionally absent *concrete individual* phenomena, which are arranged according to those one-sidedly emphasized viewpoints into a unified *analytical* construct . . . In its conceptual purity, this mental construct . . . cannot be found empirically anywhere in reality.

Max Weber, "Objectivity" in Social Science and Social Policy, in The METHODOLOGY OF THE SOCIAL SCIENCES 49, 90 (Edward A. Shils & Henry A. Finch trans. and eds., 1949).

<sup>40.</sup> It should be noted that Netanel focuses on the wrong question when he asks whether oligopoly would produce *greater* diversity than competition. *See* Netanel, *Market Hierarchy, supra* note 2, at 1892. The proper inquiry is whether oligopoly would produce *as much* diversity as competition. If so, intervention would yield no net benefits.

<sup>41.</sup> Michael Spence & Bruce Owen, *Television Programming, Monopolistic Competition, and Welfare*, 91 Q.J. Econ. 103, 103-06, 122-25 (1977). For an earlier version, see Bruce M. Owen, Economics and Freedom of Expression: Media Structure and the First Amendment 143-65 (1975).

ent programs act as partial, but imperfect substitutes for one another. Like Beebe, Spence and Owen did not use their model to draw any definitive policy conclusions. To do that would have required additional empirical data that was not available. Instead, Spence and Owen used their analysis to try to gain insight into the way various factors either contributed to or obstructed the realization of the welfare-maximizing level of diversity. Unlike Beebe's model, which either regarded program types as perfect substitutes or nonsubstitutes, Spence and Owen's model allowed them to vary the extent to which programs serve as substitutes for one another.

The model was designed primarily to evaluate whether monopoly or competition represented the preferred market structure. The growth of cable also led Spence and Owen to add another consideration explicitly omitted from Beebe's analysis: whether viewers fared better under pay TV or advertiser-supported TV. Spence and Owen thus examined four paradigmatic cases: competitive pay TV, monopoly pay TV, competitive advertiser-supported TV, and monopoly advertiser-supported TV.43 Like Beebe, Spence and Owen also considered the effect of channel capacity on the optimal market structure.44 Lastly, Spence and Owen evaluated market performance in terms of total producer and consumer surplus, the traditional economic measure of welfare. 45 They therefore report their conclusions in terms of optimal diversity (i.e., how close a particular equilibrium comes to the welfare-maximizing balance between the number of programs and audience size), rather than in terms of the total number of programs produced, an approach that tends to value diversity for its own sake.46

As would be expected of any model based on monopolistic competition principles, the Spence-Owen model indicates that the market for television programs is somewhat inefficient. Because programs are less than perfect substitutes for one another, a provider can always increase price without losing its entire market. In other words, firms operating in monopolistically competitive markets face downward-sloping demand curves and thus always have at least some power over price. This necessarily permits them to price above marginal cost, a pricing decision that inevitably creates

<sup>42.</sup> Spence & Owen, supra note 41, at 105.

<sup>43.</sup> *Id.* at 104, 115-17.

<sup>44.</sup> See id. at 106-14.

<sup>45.</sup> *Id.* at 114-22.

<sup>46.</sup> *Id.* at 106. This is in contrast with the voting-oriented approach of Steiner and Beebe, which measures viewer satisfaction by looking solely at audience size without taking into account variations in viewers' preference intensities.

some deadweight loss. Furthermore, absent perfect price discrimination, the firm's revenues capture only a fraction of the total consumer surplus created by a program. Thus, under monopolistic competition, the market will fail to produce certain welfare-enhancing programs because the revenues fail to cover fixed costs. This bias becomes more pronounced as the fraction of the gross benefits captured by revenues decreases.<sup>47</sup>

This effect is particularly pronounced when programs have steep inverse demand functions. Spence and Owen refer to these programs as "minority taste programs," because they are programs whose benefits are concentrated in a small number of high-intensity viewers. Scholars building on Spence and Owen's work have represented this insight graphically by pointing out that the demand curves for these types of programs are convex to the origin (bowed in). Programs with convex demand curves capture a significantly lower fraction of the total viewer benefits than demand curves that are concave (bowed out). The inability to signal intensity of preferences tends to create a bias against high-cost programs as well.

Spence and Owen also considered whether these biases would exist if the market were a monopoly rather than monopolistically competitive. They concluded that the same biases would exist under monopoly, but that the monopolist's additional incentive to increase prices and reduce production would make them even worse. Although the bias against minority taste programs is present in both advertiser-supported and pay TV, the effect is more pronounced under advertiser-supported TV, since the absence of a direct price signal deprives viewers of the means to reveal the intensity of their preferences. These results generally tended to favor competitive pay TV as the optimal market structure.

Spence and Owen used a different approach to determine which of their four paradigmatic cases was most likely to approximate the optimal number of programs and audience size. Spence and Owen were able to conclude that competitive pay TV would always outperform monopoly pay TV. They found it impossible, however, to determine definitively which of the three remaining candi-

<sup>47.</sup> Id. at 105, 122.

<sup>48.</sup> Id. at 111-12, 122.

<sup>49.</sup> See OWEN & WILDMAN, supra note 12, at 111-12.

<sup>50.</sup> Spence & Owen, supra note 41, at 112, 122.

<sup>51.</sup> *Id.* at 112-13. As Spence and Owen stated, "monopoly tends to produce less 'diversity' and to result in higher prices than monopolistic competition." *Id.* at 112-13.

<sup>52.</sup> Id. at 113, 122-23.

dates (competitive pay TV, monopoly advertiser-supported TV, competitive advertiser-supported TV) would lie closest to the optimum,<sup>53</sup> although a rough empirical calculation tended to favor competitive pay TV over either form of advertiser-supported TV.<sup>54</sup>

This conclusion was subject to two important qualifications. First, they studied what would happen when programs became better substitutes for one another. Their model predicted that as programs began to act as better substitutes for one another, the model tended to disfavor competitive pay TV. Instead, the model first tended to favor competitive advertiser-supported TV, and that in turn would give way to monopoly advertiser-supported TV as programs approached perfect substitution. Note also that the implication of their work is that as products became better substitutes for one another, demand curves necessarily flatten and stations start losing power over price. Thus when programs become perfect substitutes, the bias against minority taste programming disappears altogether.

Second, Spence and Owen looked at the impact of channel capacity on their conclusion; although the general results tended to favor pay TV over advertiser-supported TV, they concluded that the opposite tended to be true if channel capacity were limited.<sup>56</sup> In fact, the Federal Communication Commission's historical hostility towards multichannel media that increased channel capacity suggested that a shift from advertiser support to pay TV was very likely to leave viewers worse off.<sup>57</sup>

In the end, Spence and Owen's conclusions largely parallel Beebe's. Although their model generally suggests that competition among pay TV channels would come closest to providing optimal program diversity, that conclusion becomes suspect if programs become better substitutes for one another and if channel capacity is limited. Again, the fact that Spence and Owen did not possess the empirical data needed to draw concrete policy conclusions about the optimal market structure does not undercut the value of their work. Their analysis still helps to identify program substitution and channel capacity as the key determinants of program diversity and provides some intuition as to how those factors interact.

<sup>53.</sup> Id. at 123.

<sup>54.</sup> Id. at 118-19 & tbl.I, 122-23.

<sup>55.</sup> Id. at 117; see also OWEN & WILDMAN, supra note 12, at 124.

<sup>56.</sup> Id. at 121, 123.

<sup>57.</sup> Id. at 124.

#### C. Public Choice Models

Eli Noam has employed public choice techniques to offer a third model of program choice.<sup>58</sup> Noam conceptualized program variety as a spectrum, ranging from low culture programs (which he calls "low pitch" programs) at one end to high culture programs (which he calls "high pitch" programs) at the other. The model assumes that each viewer has a specific pitch preference and that these preferences are distributed normally across the spectrum.<sup>59</sup> Viewers unable to find programming of their preferred pitch are assumed to be willing to watch other programs in the general range around their first preference, although their willingness to do so is assumed to decline linearly as the distance from the viewer's ideal pitch increases.<sup>60</sup> The use of normal distributions and linear relationships allows Noam to employ a (relatively) straightforward application of geometry and calculus to calculate the optimal program pitch of each broadcast station.

Noam then employed this framework to study the dynamics of program choice in a multichannel television marketplace. <sup>61</sup> The concentration of viewers in the middle of the spectrum will give competing stations some incentives to offer middle-of-the-road programming. The model predicts that this tendency will be counterbalanced by the stations' incentive to distance themselves from one another, since the audiences of stations positioned relatively close to one another will tend to overlap and the sharing of those overlapping audiences will cause revenue decline. <sup>62</sup> Thus in a market consisting of only two stations, each station can optimize its audience by settling into an equilibrium on either side of the peak of the distribution of viewers. <sup>63</sup> Subsequent stations seeking to distance themselves from the incumbents will spread out across the spectrum of available pitches, naturally offering an increasingly broad range of program diversity. <sup>64</sup>

<sup>58.</sup> Eli M. Noam, *A Public and Private-Choice Model of Broadcasting*, 55 PUB. CHOICE 163 (1987).

<sup>59.</sup> Id. at 165.

<sup>60.</sup> *Id.* at 165-66.

<sup>61.</sup> I will forego discussion of Noam's conclusions about the single channel marketplace, *see id.* at 167-74, since those findings are relatively unimportant for the purposes of this Paper.

<sup>62.</sup> Id. at 174.

<sup>63.</sup> *Id.* at 175. In contrast to the work of Steiner and Beebe, Noam's model suggests that television stations will not necessarily duplicate the most popular types of programs. *Compare id., with supra* notes 15-16 and accompanying text.

<sup>64.</sup> Noam, *supra* note 58, at 175. The spread of additional stations across the spectrum of available pitches also has the effect of narrowing the distance between the various pitches of-

The model further indicates that monopoly can offer greater diversity with a lower number of stations than can competition. This is because, as Steiner first discovered, competitive stations will attempt to maximize audiences even when doing so simply steals viewers from other stations. A monopolist, in contrast, seeks to avoid such duplication. Noam therefore concludes that "[t]his would seem to make a monopoly system more efficient in terms of diversity in that diverse viewer preferences can be served with less resources and less duplication."

This analysis reinforces the insights provided by the game theoretic and monopolistic competition models. It emphasizes the essential role that market concentration and channel capacity can play in fostering program diversity. It is also subject to many of the same caveats. As Noam's critics have pointed out, the results under his model will vary with the distribution of viewer preferences and the extent to which programs act as substitutes for one another.<sup>68</sup>

However, Noam extended his analysis to consider something the previous models did not: the impact of public broadcasting on program diversity. Noam drew two key conclusions. First, his model underscores the interdependent nature of the various stations' programming decisions, since one station's adoption of a particular pitch will cause other stations to move away from that pitch. Public broadcasting's commitment to high pitch programming thus threatens to crowd out commercial stations that would also like to offer high pitch programming and has the unintended side-effect of pushing commercial broadcasters towards lower pitch programs. Second, Noam predicts that increases in channel capacity will eventually lead commercial stations to fill programming niches previously inhabited by public broadcasters. Noam's model thus sug-

fered. Thus, under Noam's model, increases in program diversity will lead stations to target increasingly narrow audiences. *Id.* 

<sup>65.</sup> Id. at 179.

<sup>66.</sup> See supra notes 14-19 and accompanying text.

<sup>67.</sup> Noam, supra note 58, at 179.

<sup>68.</sup> See Steven Garber, The Economics and Political Economy of Broadcasting: Challenges in Developing an Analytical Foundation, 55 Pub. Choice 189, 191-95 (1987).

<sup>69.</sup> Noam, *supra* note 58, at 177-78. Noam's model thus calls into question the suggestion that public broadcasters fill niches that commercial stations would leave unserved. *See* Netanel, *Market Hierarchy, supra* note 2, at 1896. It suggests instead that it is the existence of public broadcasting that causes the niche to be unserved in the first instance. For a discussion of the empirical evidence supporting this point, see *infra* notes 79-81 and accompanying text.

<sup>70.</sup> Noam, *supra* note 58, at 183. Following this reasoning. Owen and Wildman suggest that it is no coincidence that questions about continued federal funding for public television arose shortly after cable television experienced a period of substantial growth. *See* OWEN & WILDMAN, *supra* note 12, at 143.

gests that public broadcasting bears some responsibility for lowering the quality of commercial broadcasting and that increases in channel capacity might well prove more effective than public broadcasting in promoting program diversity.

## D. Empirical Evidence

The economic literature has not approached program diversity solely as a matter of pure theory. The core conclusions of the models discussed above have been largely corroborated by a growing body of empirical research.

Market Concentration and Diversity—In the past, the relationship between market concentration and program diversity has proven difficult, if not impossible, to test empirically, since testing it requires comparing actual outcomes with those that would have occurred under different market concentration levels. Because market structure is endogenous to the competitive process, the latter part of this comparison was always based on hypothesis rather than on empirical observation.<sup>71</sup> The substantial relaxation of certain ownership restrictions effected by the Telecommunications Act of 1996<sup>72</sup> led to substantial increases in concentration in local radio markets.<sup>73</sup> In a recent paper, Steven Berry and Joel Waldfogel took advantage of this "natural experiment" to assess empirically the impact of concentration on program diversity.<sup>74</sup> A comparison of panel data collected on 243 U.S. markets in 1993 and 1997 confirmed the factual conjecture first proposed by Steiner: that increases in market concentration lead to increases in program diversity.<sup>75</sup>

<sup>71.</sup> See Steven T. Berry & Joel Waldfogel, Mergers, Station Entry, and Programming Variety in Radio Broadcasting 1 (National Bureau of Econ. Research Working Paper 7080, 1999), available at http://www.nber.org/papers/w7080 (visited September 9, 2000).

<sup>72.</sup> Pub. L. No. 104-104, § 202(b)(1), 110 Stat. 56, 111 (1997).

<sup>73.</sup> Between 1993 and 1997, the average Herfindal-Hirschman Index in the markets under study increased by almost 65%. See BERRY & WALDFOGEL, supra note 71, at 1.

<sup>74.</sup> Id. at 17

<sup>75.</sup> *Id.* at 17-18, 25 tbl.7. Berry and Waldfogel explain this effect largely in terms of spatial preemption theory. *See id.* at 4, 21 (citing Richard Schmalensee, *Entry Deterrence in the Ready-to-Eat Breakfast Cereal Industry*, 9 Bell. J. Econ. 305 (1978)). Such theories presume that incumbents will not simply add new products similar to those already offered. Instead, they will fill the entire product space with new products. *See id.* at 4. Berry and Waldfogel thus conclude that it is more likely that "merged entities might offer more varieties," *id.* at 21, rather than only

Channel Capacity and Diversity—Empirical studies have also consistently confirmed that increasing channel capacity promotes program diversity. First, regressions performed by John Haring on 1972 data regarding the number of different formats in 91 radio markets indicated that program diversity is both positively and significantly correlated with the number of stations in the market. $^{76}$  A similar study conducted by Robert Rogers and John Woodbury on 1987 data similarly found that increases in channel capacity were significantly correlated with increases in program diversity.<sup>77</sup> The relationship between channel capacity and program diversity appears to be even stronger in television than in radio. August Grant's study of programming broadcast on forty-one nationally distributed television networks in 1986 revealed that the increase in channel capacity provided by cable had increased both the diversity of program types and the raw number of programs available during all times of the day.<sup>78</sup>

Public Broadcasting and Diversity—The empirical evidence has also borne out both of Noam's predictions about the relationship between public broadcasting and diversity. A study of the 1993 radio market conducted by Berry and Waldfogel confirmed that public broadcasters operating in the largest radio markets were crowding out commercial stations that wished to program classical music and (to a lesser extent) jazz.<sup>79</sup> In fact, Berry and Waldfogel argue that the complete

diversifying into formats similar to those already offered, as Netanel suggests. *See* Netanel, *Market Hierarchy*, supra note 2, at 1896 n.55.

<sup>76.</sup> John Rankin Haring, Competition, Regulation and Performance in the Commercial Radio Broadcasting Industry 102-03 (1975) (unpublished Ph.D. dissertation, Yale University) (finding the correlation between the number of stations and the number of formats significant at the .01 level). For background information on the data set, see *id.* at 89, 92.

<sup>77.</sup> Robert P. Rogers & John R. Woodbury, *Market Structure, Program Diversity, and Radio Audience Size*, 14 Contemp. Econ. Pol'y 81, 86 (1996) (finding the correlation between the number of stations and the number of formats significant at the .05 level). Rogers and Woodbury did conclude that this effect was numerically rather small and that a 10% increase in the number of station would cause only a 2% increase in the number of formats. *See id.* at 86, 90.

<sup>78.</sup> August E. Grant, *The Promise Fulfilled? An Empirical Analysis of Program Diversity on Television*, 7 J. MEDIA ECON. 51, 63 (1994).

<sup>79.</sup> Steven T. Berry & Joel Waldfogel, *Public Radio in the United States: Does It Correct Market Failure or Cannibalize Commercial Stations?*, 71 J. Pub. Econ. 189 (1999). Their data covered 165 cities, which they divided into quintiles based on size. *Id.* at 195 tbl.1. Berry and Waldfogel estimated that in the largest quintile, each public classical station reduces commercial entry by 0.51 stations, and each public jazz station reduces commercial entry by 0.29 stations. A slightly smaller crowding out effect occurs in the next largest quintile as well, with each public

withdrawal of public classical stations from the 32 largest markets would not result in any reduction in service, since the data suggest that commercial broadcasters currently displaced by public broadcasters would move in to fill the resulting void.<sup>80</sup> They also estimate that 38% of public funding for classical stations and 43% of public funding for jazz stations is allocated to markets that would receive such programming even in the absence of public support.<sup>81</sup>

Grant's study of the television markets reached similar findings, suggesting that the expansion in channel capacity that accompanied the growth of cable had begun to render public broadcasting unnecessary. He concluded that "many of the objectives of public television are being met by cable television" and that "virtually every type of programming offered on public television is not only available on cable television but in greater quantity as well."82

## E. Implications

The economic literature on program choice suggests that the relationship between market concentration and diversity is considerably more complex than one would initially suspect. While broadly supportive of Netanel's concern about the lack of program diversity, all four lines of economic analysis call into question the degree of emphasis he places on media concentration as a contributing factor.

Instead, the economic analyses of program diversity point in other directions. First, they underscore the critical role played by the structure of viewer preferences in general and the importance of program substitution in particular. The preferred market structure ultimately depends on an empirical assessment about how viewers

\_

station reduces commercial entry into classical music and jazz by 0.21 and 0.19 stations respectively. Similar effects were not observed for the three smallest quintiles. *Id.* at 204 tbl.4, 205.

<sup>80.</sup> *Id.* at 207-08. Commercial broadcasters would not completely compensate for the elimination of public jazz stations. Elimination of such stations would cause jazz programming to disappear in 9 out of the 32 largest United States markets. *Id.* at 208. Berry and Waldfogel acknowledge that the withdrawal of public stations from markets below the top two quintiles would cause complete loss of service. *Id.* 

<sup>81.</sup> *Id.* at 209-10. It is thus somewhat misleading to suggest that the Berry and Waldfogel study supports the general finding that public broadcasters tend to fill programming niches that commercial stations leave unserved. *See* Netanel, *Market Hierarchy, supra* note 2, at 1897-98. Even the briefest scan of the abstract reveals that Berry and Waldfogel drew precisely the opposite conclusion.

<sup>82.</sup> Grant, supra note 78, at 63.

will actually behave. Netanel's contribution to this symposium underscores the difficulty in formulating even the most basic intuitions regarding the structure of viewer preferences. At one point, his analysis assumes that programs act as substitutes for one another, but then he later suggests the contrary.<sup>83</sup> As the economic analyses detailed above demonstrate, whether market concentration ultimately hurts or hinders program diversity depends in no small part on the resolution of this key empirical question.

Second, the foregoing discussion emphasizes that diversity also depends upon other aspects of media policy, such as the existence of excess channel capacity, program costs, and whether television is supported by advertisers or by direct viewer payments. Netanel, however, attempts to frame the issues raised by speech hierarchy solely in terms of copyright while holding the broader issues of media policy constant.84 Although his desire to limit the scope of the analysis is understandable, the economic literature demonstrates the importance of broader media policy for the issues Netanel seeks to address and raises serious questions about the advisability of considering copyright in isolation. Moreover, while Netanel is clearly correct that the traditional tools of media regulation have done precious little to promote the types of speech required for democratic self-governance,85 it is far from clear that his proposed reforms will fare any better. If copyright is properly regarded as a balance between countervailing concerns, as Netanel suggests, it is unlikely that small changes in policy would have anything more than minimal effect, since any benefits resulting from the change would be dampened by forces running in the other direction. Even sweeping implementation of his recommendations, which include shortening the length of the copyright term and broadening the existing notions of fair use and transformative use,86 would almost certainly be insufficient to make the mass media accessible to those who currently cannot afford to use them.

<sup>83.</sup> *Compare* Netanel, *Market Hierarchy, supra* note 2, at 1894 (criticizing the assumption that viewers will watch only their first choices as "bear[ing] little relevance to actual conditions in today's media markets"), *with id.* at 1908-09 (suggesting that, although the extent of substitutability remained an open question, a number of factors suggest that programs are less substitutable than other consumer goods).

<sup>84.</sup> Netanel, *Market Hierarchy*, *supra* note 2, at 1888.

<sup>85.</sup> See id. at 1927-29.

<sup>86.</sup> See id. at 1886-87.

## F. A Sidebar on Vertical Integration and Transaction Cost Economics

Up to this point, the discussion has focused on the risks of horizontal integration. At some point, Netanel raises concerns about vertical integration as well. Specifically, he warns that the desire to economize on transaction costs might hurt the diversity of information sources, since those economies encourage companies that deliver programming to viewers to favor vertically affiliated content providers.<sup>87</sup> A more complete discussion of the complex relationship between vertical integration and media policy appears in my other work.88 For now, it suffices to reemphasize one of the core insights of new institutional economics: that reduction in transaction costs can provide firms with real efficiencies that can redound to the benefit of consumers.<sup>89</sup> Rather than reducing program diversity, reductions in transaction costs can provide firms with real efficiencies that can actually enhance ability to provide diverse programming. In fact, the empirical literature indicates that integration substantially increases the efficiency of media firms without increasing their tendency towards anticompetitive activity.90 Although Netanel offers a partial caveat acknowledging the potential transaction cost benefits of externalizing certain costs, 91 he stops short of acknowledging that reducing transaction costs can create internal efficiencies that are equally beneficial.

This perspective casts Time Warner's acquisition of Africana.com in a far different light.<sup>92</sup> The cost reduction created by the integration of distribution and content has the potential to breathe new life into a portal that apparently could not survive on its own.<sup>93</sup> Indeed, access to Time Warner's extensive library of materials of interest to African-Americans may even make it possible for Time Warner to make Africana.com better at satisfying minority

<sup>87.</sup> *Id.* at 1881 & n.11.

<sup>88.</sup> *See* Christopher S. Yoo, Antitrust as a Basis for Media Regulation (unpublished manuscript) (on file with author).

<sup>89.</sup> See generally Oliver E. Williamson, Economies as an Antitrust Defense: The Welfare Tradeoffs, 58 Am. Econ. Rev. 18, 21-23 (1968) (discussing the tradeoff between transaction cost efficiencies and the inefficiencies of market concentration); Oliver E. Williamson, Economies as an Antitrust Defense Revisited. 125 U. PA. L. Rev. 699, 706-09 (1977) (same).

<sup>90.</sup> See Robert B. Ekelund, Jr. et al., Market Power in Radio Markets: An Empirical Analysis of Local and National Concentration, 43 J.L. & ECON. 157 (2000).

<sup>91.</sup> See Netanel, Market Hierarchy, supra note 2, at 1917-18 (citing Robert P. Merges, Intellectual Property and the Costs of Commercial Exchange, 93 MICH. L. REV. 1570, 1573-74 (1995)).

<sup>92.</sup> See Netanel, Market Hierarchy, supra note 2, at 1896-97.

<sup>93.</sup> See id. at 1897.

tastes. On balance, it seems quite possible that the combination with Time Warner might do more that just allow the continued existence of Africana.com; it might actually play a critical role in making its programming even more diverse.

#### II. NETANEL'S UNDERTHEORIZED VISION OF FREE SPEECH

The success of Netanel's project depends on more than just the validity of his positive premises regarding the relationship between media concentration and program diversity; Netanel must of course establish his theoretical foundations as well. In his contribution to this symposium, Netanel introduces a new theoretical basis for his vision of copyright. In contrast to his previous work, which drew primarily on the "civil society" movement for theoretical support, 94 the current article explicitly grounds his project in two competing principles commonly associated with the First Amendment. On the one hand is the "free speech principle," which Netanel defines as "the idea that liberal democracy depends upon and is largely manifested by uninhibited, robust, and wide-open debate from diverse and antagonistic sources."95 On the other hand is what he calls the "free press principle," which he defines as democracy's dependence on "an institutional media with the political independence and financial strength to reach a mass audience and engage in sustained investigative reporting."96

While Netanel's free press principle is an important development itself worthy of extended discussion, I would like to focus the balance of this commentary on an evaluation of his free speech principle as a foundation theory. Theory can provide insights in one of two ways: It can either provide better questions or better answers. My concern is that Netanel's free speech principle is not yet

<sup>94.</sup> Netanel, *Democratic Civil Society, supra* note 2, at 361-64. The civil society movement emphasizes the need for a sphere of voluntary, nongovernmental associations that can serve both as a counterweight to the state and as a place where democratic skills and values can be fostered. For additional background, see generally *Symposium on Legal and Constitutional Implications of the Calls to Revive Civil Society,* 75 Chil.-Kent L. Rev. 289 (2000); *Symposium: Law and Civil Society,* 72 Ind. L.J. 335 (1997).

<sup>95.</sup> Netanel, *Market Hierarchy, supra* note 2, at 1881 (internal quotation marks omitted); accord id. at 8.

<sup>96.</sup> *Id.* at 1906; *accord id.* at 1884. For other leading articles exploring the relationship between copyright and the First Amendment, see Benkler, *supra* note 1; Robert C. Denicola, *Copyright and Free Speech: Constitutional Limitations on the Protection of Expression*, 67 CAL. L. REV. 283 (1979); Paul Goldstein, *Copyright and the First Amendment*, 70 COLUM. L. REV. 983 (1970); Melville B. Nimmer, *Does Copyright Abridge the First Amendment Guaranties of Free Speech and the Press?*, 17 UCLA L. REV. 1180 (1970); L. Ray Patterson, *Free Speech, Copyright, and Fair Use*, 40 VAND. L. REV. 1 (1987).

sufficiently developed to determine whether his theory satisfies either criterion. When analyzed closely, Netanel's version of free speech seems to be neither as self-justifying nor as self-executing as he appears to assume.

## A. Theoretical Foundations of Free Speech

Although Netanel does not provide much detail about his vision of free speech, its basic outlines can be discerned from his overall argument. Throughout his argument, Netanel repeatedly discusses free speech almost entirely in terms of the extent to which it promotes democratic self-governance. Netanel's focus on the democratic process can also be discerned from the manner in which he frames his free speech inquiry. He envisions free speech as requiring a balance between competing considerations. On the one hand is the need to provide sufficient financial incentives to encourage the creation and dissemination of original expression and to support the independent expressive sector upon which democracy depends. On the other hand is subsequent authors' need for ac-

<sup>97.</sup> See e.g., Netanel, Market Hierarchy, supra note 2, at 1881 (placing the free speech principle "[a]t the center of our understandings of political equality and democratic governance"); id. at 9 ("The Free Speech Principle posits that expressive diversity and robust debate are vital to democratic governance."); id. at 43 ("[O]ne need not and ought not conclude that a wholly non-hierarchical, decentralized expressive arena would better serve democratic values and governance."); id. at 50 ("Liberal democratic values would thus be ill-served by speech hierarchy's eradication."); id. at 51 ("Indeed, copyright helps enable commercial media . . . to fund the democracy-enhancing functions . . . embodied in the Free Press Principle.").

<sup>98.</sup> See id. at 1884-85, 1926, 1929.

<sup>99.</sup> *See id.* at 1915, 1924-25. In his previous work, Netanel referred to this as copyright's "production function." Netanel, *Democratic Civil Society, supra* note 2, at 347-51.

<sup>100.</sup> See Netanel, Market Hierarchy, supra note 2, at 1884, 1924-25. Netanel refers to this as copyright's "structural function." Netanel, Democratic Civil Society, supra note 2, at 352-62. In his most recent work, Netanel adds his free press principle to this side of the balance. See Netanel, Market Hierarchy, supra note 2, at 1917-20. Interestingly, Netanel's free speech principle clearly values the media for its institutional qualities. This is in contrast to his previous work, which cited the need for an independent sector of "authors and publishers" without any such overtones. See Netanel, Democratic Civil Society, supra note 2, at 352-62. Viewing the press in this manner is not without controversy. Commentators have vigorously debated the merits of viewing the press as an institution whose unique role merits special protection. See, e.g., LEONARD W. LEVY, EMERGENCE OF A FREE PRESS (1985); David A. Anderson, The Origins of the Press Clause, 30 UCLA L. REV. 455, 460-62 (1983); Randall P. Bezanson, The New Free Press Guarantee, 63 VA. L. REV. 731, 732-33 (1977); Vincent Blasi, The Checking Value in First Amendment Theory, 1977 AM. B. FOUND. RES. J. 523, 602-11; David Lange, The Speech and Press Clauses, 23 UCLA L. REv. 77, 107-19 (1975); Leonard W. Levy, On the Origins of the Free Press Clause, 32 UCLA L. REV. 177, 202-06 (1984); Anthony Lewis, A Preferred Position for Journalism?, 7 HOFSTRA L. REV. 595, 600-01 (1979); Melville Nimmer, Introduction—Is Freedom of the Press a Redundancy: What Does it Add to Freedom of Speech, 26 HASTINGS L.J. 639, 640, 653-58 (1975); Potter Stewart, "Or of the Press," 26 HASTINGS L.J. 631, 631, 633-37 (1977); William W.

cess to previous works.<sup>101</sup> Netanel thus views speech almost solely in instrumental terms, valuing it to the extent it exposes the electorate to the diversity of information necessary for meaningful exercise of sovereign power.<sup>102</sup> Speech thus is valued for its ability to provide grist for the democratic mill. His approach focuses on the effect that speech has on listeners; the benefits to speakers play a subsidiary role.

It is not at all surprising that at this stage Netanel focuses primarily on tracing the implications of his free speech principle for copyright and spends relatively little time justifying his choice. His article in this symposium represents the principle's first statement, and it is completely appropriate for him to begin by attempting to establish its operational value before turning to its theoretical foundations. Furthermore, there is a "worthy tradition" supporting this conception of free speech. 104

That said, such visions of free speech are far from uncontested. In their most extreme form, democratic-process theories contend that the First Amendment acts as an affirmative mandate that gives new artists the right to draw on the works of other. This is in direct conflict with the prevailing view of the

Van Alstyne, *The Hazards to the Press of Claiming a "Preferred Position*," 28 HASTINGS L.J. 761, 764-68 (1977).

101. See Netanel, Market Hierarchy, supra note 2, at 1899-900; Netanel, Democratic Civil Society, supra note 2, at 362-63.

102. Netanel contends that he does not mean to rule out other versions of free speech. He nonetheless argues for his instrumental, democracy-centered version of free speech as an appropriate starting point for analysis, given the "widespread belief . . . that expressive diversity is both a precondition for and an element of liberal democracy." Netanel, *Market Hierarchy, supra* note 2, at 1881 n.7 It is difficult to see, however, how this concession can accommodate other visions of free speech in any meaningful way. It does not change the fact that Netanel views free speech in the first instance as a balance between the exclusivity and access calibrated to create the information needed for democratic self-governance. Other free speech values can only arise as posterior concerns after the primary democracy-reinforcing balance has been struck. Netanel's approach will thus provide little solace to those who see expressive diversity as only one of several preconditions for liberal democracy and who see other considerations as being sufficiently important to merit incorporation into the primary calculus. It is also hard to envision how any set of countervailing considerations, no matter how weighty, could ever be sufficient to overcome something regarded as a "precondition" for liberal democracy.

103. HARRY KALVEN, JR., A WORTHY TRADITION: FREEDOM OF SPEECH IN AMERICA (Jamie Kalven ed., 1988).

104. See Alexander Meiklejohn, Free Speech and Its Relation to Self-Government (1948); William J. Brennan, Jr., The Supreme Court and the Meiklejohn Interpretation of the First Amendment, 79 Harv. L. Rev. 1 (1965); Owen M. Fiss, Free Speech and Social Structure, 71 Iowa L. Rev. 1405, 1409-11 (1986); Harry Kalven, Jr., The New York Times Case: A Note on "The Central Meaning of the First Amendment," 1964 Sup. Ct. Rev. 191; Cass R. Sunstein, Free Speech Now, 59 U. Chi. L. Rev. 255, 275-77 (1992).

105. See, e.g., Eldred v. Reno, 74 F.Supp.2d 1, 3 (D.D.C. 1999); Copyright Extension Stifles Creativity, Lawyer Tells Court, N.Y. TIMES, Oct. 6, 2000, at C1.

First Amendment, which defines free speech as freedom from government interference. Thus even advocates of the democratic approach to free speech have been forced to concede that a shift to this type of affirmative free speech principle would require nothing short of a revolution in First Amendment doctrine and theory. 106

This criticism can be avoided by treating free speech as a policy guide rather than a constitutional mandate. Even viewed in this manner, Netanel's approach would still provoke rather pointed disagreement from some free speech theorists. Its sole focus on the interests of the listeners and the priority it places on the democratic process would have little resonance with those who view rights as moral constructs that protect fundamental attributes of personhood. To these scholars, it is thus incorrect to view speech in purely instrumental terms. <sup>107</sup> It is to be protected not as a means to another end, but rather as an end in and of itself. <sup>108</sup>

Other scholars who would not object to taking an instrumental approach to speech would take issue with Netanel's decision to make democracy logically prior to free speech. Rather than treating democracy as the meta-principle that defines the extent to which

106. See Cass R. Sunstein, The Partial Constitution 200-01 (1993); Fiss, supra note 104, at 1422; see also Frederick Schauer & Richard H. Pildes, Electoral Exceptionalism and the First Amendment, 77 Tex. L. Rev. 1803, 1806-07 (1999) (conceding that "it is plainly true that a negative conception of the First Amendment generally, and freedom of speech in particular, have held sway, both in the literature and in the case law, over the past several decades" while arguing for a positive conception of free speech).

Consider, for example, Netanel's focus on the disparity of wealth as a source of First Amendment concern. By viewing the First Amendment as an affirmative obligation to redress certain inequalities, this approach has the effect of adding a substantive component to the First Amendment's equality aspect. See Fiss, supra note 10, at 784 (1987) (arguing for using the conflict between the anti-discrimination principle and the "group disadvantaging principle" under the Equal Protection Clause as a model for the First Amendment); Kenneth L. Karst, Equality as a Principle in the First Amendment, 43 U. CHI. L. REV. 20, 43-52 (1975) (arguing that the First Amendment's principle of equality should extend beyond a prohibition on government control of speech content to embrace also an affirmative duty to provide equal access to the media). It should come as no surprise that the conflict between formal and substantive equality is just as hotly contested under the First Amendment as it is under the Equal Protection Clause. See Robert Post, Equality and Autonomy in First Amendment Jurisprudence, 95 MICH. L. REV. 1517 (1997); Martin H. Redish & Howard M. Wasserman, What's Good for General Motors: Corporate Speech and the Theory of Free Expression, 66 GEO. WASH. L. REV. 235, 283-88 (1998).

107. See, e.g., RONALD DWORKIN, FREEDOM'S LAW 202-04 (1996). In fact, the extent to which Netanel is himself comfortable with regarding democracy as the meta-principle underlying copyright is not completely clear. His earlier work appeared to disapprove of viewing copyright in instrumental terms. See Neil Weinstock Netanel, Copyright Alienability Restrictions and the Enhancement of Author Autonomy: A Normative Evaluation, 24 RUTGERS L.J. 347, 400-02, 422-23 (1993).

108. See, e.g., Ronald Dworkin, Taking Rights Seriously 193, 269 (1977); Immanuel Kant, The Philosophy of Law 64 (W. Hastie trans., photo. reprint 1887) (1974).

free speech should be valued, these scholars regard democracy itself as an instrumental device designed to further some other metaprinciple, such as self-development<sup>109</sup> or liberty.<sup>110</sup> Perhaps most tellingly, even those who would agree with Netanel's decision to place democratic self-governance at the center of his free speech principle might complain that he has taken an unduly truncated view of what the democratic process really requires. Democracy depends no less on the ability of individuals to control their own destinies than it does on the existence of discourse sufficient to support political decisionmaking. Netanel's exclusive focus on the interests of the listener arguably undervalues the democratic values nurtured by the exercise of speaker autonomy.<sup>111</sup> And finally, Netanel's single-mindedly democratic approach would be unlikely to convince those free speech theorists who reject any single foundation principle in favor of a more plural approach.<sup>112</sup>

Of course, I do not mean to suggest that the mere existence of alternative conceptions of free speech somehow proves that Netanel's free speech principle is "wrong." Although many scholars have proffered theories designed to provide a unitary approach to free speech, no particular version of the free speech principle has yet won the day. It is entirely appropriate for Netanel to establish his theory under its own terms before defending its relative merits. But the lack of scholarly consensus does underscore that

<sup>109.</sup> See, e.g., C. Edwin Baker, Human Liberty and Freedom of Speech 50 (1989); Martin H. Redish, Freedom of Expression: A Critical Analysis 30 (1984).

<sup>110.</sup> See Rebecca L. Brown, Accountability, Liberty, and the Constitution, 98 COLUM. L. REV. 531, 538 (1998).

<sup>111.</sup> See generally Robert Post, Meiklejohn's Mistake: Individual Autonomy and the Reform of Public Discourse, 64 U. Colo. L. Rev. 1109, 1114-23 (1993) (considering the importance of public discourse in democracy).

<sup>112.</sup> See, e.g., THOMAS EMERSON, THE SYSTEM OF FREE EXPRESSION 3-11 (1970); Daniel A. Farber & Philip P. Frickey, Practical Reason and the First Amendment, 34 UCLA L. Rev. 1615, 1615-17 (1987); Steven H. Shiffrin, The First Amendment and Economic Regulation: Away from a General Theory of the First Amendment, 78 Nw. U. L. Rev. 1212, 1215-17, 1251-55 (1983).

<sup>113.</sup> I will admit that I have my doubts about theories that value speech solely to the extent that it provides the information necessary for the democratic process. By focusing on the interests of listeners as citizens, these theories undervalue the importance of individual autonomy. Such theories necessarily depend upon some independently derivable conception of the public good (or, at a minimum, some conception of the ideal democratic process) that governments can impose upon individuals. As such, they are hard to reconcile with the traditional vision of free speech, which forbids government imposition of any single conception of the good. For a further development of this view, see Christopher S. Yoo, Digital Television and the Future of Public Interest Broadcasting (unpublished manuscript) (on file with author).

<sup>114.</sup> Frederick Schauer and Richard Pildes argue that "it may still be too early in the First Amendment day" to reject conceptions of the First Amendment based on "democratic deliberation, collective self-determination, [and] guarding against the abuse of power." Schauer & Pildes, *supra* note 106, at 1806-07.

Netanel's vision of free speech is a contested proposition. At some point, Netanel will have to engage in the broader free speech debate and attempt to establish the normative superiority of his approach.

# B. Turning Theory Into Policy

Evaluation of Netanel's proposed reforms requires more than just a clearer justification for the free speech principle upon which he relies. Any approach that seeks to identify deficiencies in the democratic process must have some baseline from which to measure the need for reform. As Robert Post has observed, theories that subordinate individual rights of expression to collective processes of deliberation "require[] a standard by which the quality of the thinking process of the community can be assessed. How otherwise could it be known whether public discourse is actually meeting the common needs of all the members of the body politic?" 115

A close analysis of two of Netanel's proposed reforms might help illustrate the problems that the absence of such a baseline can pose. Consider first Netanel's proposal to shorten the term of copyright protection. 116 Consistent with his approach, Netanel sets up the problem as a balance between two considerations with countervailing effects on the democratic process. On the one hand, the copyright term must be long enough to "support a vibrant, diverse, and innovative sector for the creation and distribution of original expression." On the other hand, "once copyright has given sufficient support to creative autonomy, copyright's constitutive objectives are better served by placing works in the public domain than by continuing to transfer consumer surplus to copyright owners." 118

Although Netanel's statement of the problem is clear enough, his resolution of the problem is less than definitive. Netanel begins

<sup>115.</sup> Post, *supra* note 111, at 1112 (internal quotation marks omitted). Richard Fallon similarly notes that since, "[c]laims to positive liberty are often at stake on both sides of debates about regulating speech, . . . a positive libertarian conception of autonomy would need to specify how competing claims to positive liberty ought to be weighed." Richard H. Fallon, Jr., *Two Senses of Autonomy*, 46 STAN. L. REV. 875, 884, 885 (1994); *see also* Larry A. Alexander, *Trouble on Track Two: Incidental Regulations of Speech and Free Speech Theory*, 44 HASTINGS L.J. 921, 946-47 (1993) (debating whether broadcasting is sufficiently diverse and demanding criteria for identifying the importance of information, appropriate diversity, and appropriate balance).

<sup>116.</sup> See Netanel, Market Hierarchy, supra note 2, at 1914. Since Netanel's contribution to this Symposium necessarily provides only a sketch of his policy recommendations, I will follow his suggestion and draw on the discussion of those recommendations in his earlier work. See id. at 1914 & n.142.

<sup>117.</sup> Netanel, Democratic Civil Society, supra note 2, at 369.

<sup>118.</sup> Id.

by suggesting that when copyright's constitutive goals are placed at the forefront, "it would seem . . . that the relatively negligible and, possibly, fleeting trade benefits of lengthening the term would be outweighed by the resulting impairment of public access and expressive diversity." Interestingly, Netanel immediately qualifies that conclusion, noting that "a longer term, or at least some form of protection, may be warranted as an incentive to publishers to keep public domain works in circulation." The end result is thus far more vague and tentative than expected. In the end his recommendation fails to provide much guidance as to how the welter of opposing considerations should be balanced.

Similar ambiguities surround Netanel's discussion of a problem that has long plagued political-process theorists: the degree of protection to be accorded to works of popular culture. 121 To his credit, Netanel confronts the problem directly. He begins by recognizing that "[m]any creative works have broad political and social implications even if they do not appear or even seek to convey an explicit ideological message."122 Thus, he concludes, "[w]hen taken as a whole, therefore, expressive works created for symbolic impact or broad audience appeal must, no less than copyright-supported political analysis, be seen as a vital part of democratic selfgovernance."123 Recognizing the importance of artistic and popular speech does not necessarily require equating those types of speech with political speech, however. As Netanel observes, "While artistic speech does make a certain contribution to democratic governance, it may be that political speech . . . has a greater and more direct importance for democratic governance and thus should be treated

<sup>119.</sup> Id

<sup>120.</sup> *Id.*; *see also id.* at 370 ("the democratic approach might well support the extension of limited copyright-like protection for those who 'publish' pubic domain works in digital format").

<sup>121.</sup> See J.M. Balkin, *Populism and Progressivism as Constitutional Categories*, 104 YALE L.J. 1935, 1958-63 (1995) (detailing the problems both Meiklejohn and Sunstein face in dealing with nonpolitical expression).

<sup>122.</sup> Netanel, *Democratic Civil Society, supra* note 2, at 350. According to Netanel, "[e]ven what may seem to be abstract, 'pure' artistic expression may challenge accepted modes of thought and belie the efforts of governments or cultural majorities to standardize individual sensitivities and perceptions." *Id.* Netanel extends this analysis to include low forms of art as well. Although works of popular culture are primarily designed to entertain, "as it entertains, it often reveals contested issues and deep fissures within our society, just as it may reinforce widely held beliefs and values." *Id.* Thus, Netanel concludes that "the realm of popular culture serves, to a considerable extent, as both as a resource and a playing field for the exercise of democratic culture and civic association." *Id.* at 351. He states, "popular culture is worthy of legal support because, on the whole, it has instrumental value to democratic culture." *Id.* at 351 n.310.

<sup>123.</sup> Netanel, Democratic Civil Society, supra note 2, at 351, 369.

differently in the First Amendment context."<sup>124</sup> The proper question, then, is not what label to attach to a specific type of work; the proper question is what role that work plays in the larger democratic process. Again, although this seems like a perfectly sensible analysis of the problem in terms of Netanel's theory, in the end it seems simply to restate the problem rather than answer it.

The problem here is not the general difficulty of translating a general theory into specific answers. If that were the source of my criticism, it would apply with equal force to every theory with which I am familiar. My point is that Netanel's conception of free speech necessarily requires that he have some ideal vision of the role speech plays in the democratic process. Absent such a vision, there can be no basis from which to evaluate the current state of affairs from either the standpoint of Netanel's free speech principle or his free press principle. Simply placing democratic governance at the center of his theory of copyright is insufficient to identify the areas that are in need of reform without some explanation of the relationship between speech and the political process. This indeterminacy makes it impossible to evaluate the need for and the direction of Netanel's proposed reforms in any meaningful way.

The failure to articulate any details about his vision of the ideal democratic process puts Netanel in good company. As Richard Fallon has noted, the same problem has plagued almost all attempts to articulate positive visions of the First Amendment. 125 That said, I suspect that the need for further articulation will weigh especially heavily on Netanel. What sets him apart from other scholars is his refusal to regard speech hierarchy either as an unmixed blessing or as an unmitigated evil. He recognizes the roles that economies of scale and the profit motive play in supporting the creation of the works of original expression upon which democracy depends. 126 Beyond economics, Netanel acknowledges that speech hierarchy has beneficial effects at the institutional level as well. First, speech hierarchy serves a prophylactic function. In the spirit of Vincent Blasi's work, 127 Netanel emphasizes the need for an independent media industry with sufficient strength and independ-

<sup>124.</sup> Netanel, Democratic Civil Society, supra note 2, at 369, 352 n.312.

<sup>125.</sup> See Fallon, supra note 115, at 886.

<sup>126.</sup> See Netanel, Market Hierarchy, supra note 2, at 1890 & n.42, 1903. For more extended treatment of this argument, see Netanel, Democratic Civil Society, supra note 2, at 347-49; Netanel, Global Arena, supra note 2, at 248-50.

<sup>127.</sup> See Blasi, supra note 100.

ence to withstand attempts at government interference. <sup>128</sup> Second, the media serves a broadly synthetic function as well, playing "a vital role in laying a foundation for public discourse." <sup>129</sup> It does so by "shaping a rough consensus regarding what are the important public issues that need to be addressed." <sup>130</sup> At the same time, his concerns about concentration and his discussion of the suppression of Jeffrey Wigand's interview make clear that he is well aware of the countervailing considerations. <sup>131</sup>

The fact that Netanel sets out his theory as a "careful balance between exclusivity and access" makes the theory of the democratic process underlying his approach especially critical. Unlike scholars who view speech hierarchy in more one-dimensional terms, he cannot support his position theoretically and rhetorically with generalizations. By its very nature, Netanel's approach will force him to struggle with tradeoffs ranging from the delicate to the incommensurable. This makes the details of his vision even more important for him than for other scholars and places him under a heightened obligation to explicate how to strike the appropriate balance. If the problem ultimately proves completely intractable, as Netanel candidly concedes it might, his theory risks devolving into mere ad hoc arbitrariness.

In this regard, Netanel faces challenges that are quite similar to those that faced the scholar whose work I think Netanel's most resembles: Lee Bollinger. Like Netanel, Bollinger framed the issues in terms of a conflict between the threat to democratic decisionmaking posed by the growing market concentration and inequalities of wealth on the one hand and the role an independent press can play in checking government excesses on the other hand. Like Netanel, Bollinger proposed that the best way to accommodate these competing interests was to subject part of the media to regulation while making sure that another part remained

<sup>128.</sup> See Netanel, Market Hierarchy, supra note 2, at 1884, 1906; Netanel, Democratic Civil Society, supra note 2, at 351-62; Netanel, Global Arena, supra note 2, at 267-72.

<sup>129.</sup> Netanel, Market Hierarchy, supra note 2, at 1921.

<sup>130.</sup> Id. at 1921.

<sup>131.</sup> See Netanel, Market Hierarchy, supra note 2, at 1908-11.

<sup>132.</sup> Netanel, Democratic Civil Society, supra note 2, at 364.

<sup>133.</sup> As Netanel admits, "it is difficult, *if not impossible*, to determine with any degree of precision the term of copyright that would lead to optimum support for creative autonomy, while still allowing for sufficient user access." *Id.* at 369. (emphasis added); *see also* Netanel, *Market Hierarchy, supra* note 2, at 1298 ("The optimal mix of speech hierarchy versus source diversity can hardly be discerned with anything remotely approximating mathematical precision.").

<sup>134.</sup> LEE C. BOLLINGER, IMAGES OF A FREE PRESS 26-32, 137-40 (1991).

independent of government regulation. Ultimately, Bollinger's enterprise failed because of his inability to offer a principled justification for drawing the lines where he did. To my mind, the success of Netanel's project will turn in no small part on his ability to answer the same challenge.  $^{137}$ 

#### III. CONCLUSION

Netanel has advanced an innovative project that brings a fresh approach to the analysis of copyright law. By emphasizing democratic theory, his work adds a new perspective to the largely economic-oriented debate that has dominated copyright law in recent years. Just as importantly, Netanel's work offers an analytical framework that easily and forthrightly confronts the sensitive tradeoffs inherent in such complex policy decisions. At its utmost, it even has the potential of providing a common ground on which the various strands of copyright scholarship can come together.

To my mind, the success of Netanel's endeavor will ultimately depend largely on his ability to address two groups of questions that remain largely unanswered. The first involves the proj-

<sup>135.</sup> Id. at 85-86. 109-17.

<sup>136.</sup> See, e.g., Lucas A. Powe, Jr., American Broadcasting and the First Amendment 212-15 (1987); Matthew L. Spitzer, Seven Dirty Words and Six Other Stories 46-49 (1986); Martin H. Redish & Kirk J. Kaludis, The Right of Expressive Access in First Amendment Theory: Redistributive Values and the Democratic Dilemma, 93 Nw. U. L. Rev. 1083, 1125 (1999); Geoffrey R. Stone, Imagining a Free Press, 90 Mich. L. Rev. 1246, 1257-60 (1992). Even Cass Sunstein, who is largely sympathetic to Bollinger's position, concluded that it fell short of "fully grappling with some hard factual, predictive, and theoretical issues." Sunstein, supra note 106, at 112; accord id. at 111 ("Bollinger's claim is too abstract, too speculative, insufficiently empirical")

<sup>137.</sup> Indeed, it is conceivable to me (and perhaps even likely) that Netanel will have to confront the issue that lay at the heart of Bollinger's thesis: that different media should be subjected to different regulatory regimes. It has long been clear that television has a much more dramatic impact on the political process than other media. See LARRY J. SABATO, THE RISE OF POLITICAL CONSULTANTS 117 (1981) ("[T]elevision is the most important source of campaign information for voters, and it has been so since 1952."); Martin Schram, The Great American Video Game, in MEDIA POWER IN POLITICS 188, 190 (Doris A. Graber ed., 2d ed. 1999) (offering a similar observation); Theodore H. White, America in Search of Itself: The Making of the President, 1956-1980, at 165 (1982) (same). Furthermore, the degree of access provided under the current system and the costs of providing access vary widely across the different types of media. Netanel's focus on democratic governance thus provides a strong argument against keeping the scope of copyright uniform across all media. Doing so would destroy one of the advantages Netanel sees to using copyright instead of media policy to redress the problems of speech hierarchy, since any attempt to regulate media in a differential manner would likely be subject to First Amendment challenge. See Arkansas Writers' Project, Inc. v. Ragland, 481 U.S. 221, 228-31 (1987); Minneapolis Star & Tribune Co. v. Minnesota Comm'r of Revenue, 460 U.S. 575, 583, 585, 591-92 (1983); Grosjean v. American Press Co., 297 U.S. 233 (1936).

ect's theoretical foundations, since Netanel's project depends upon acceptance of a vision of free speech that to this point has not been adequately defended. The second focuses on the articulation of this theory. If democratic self-governance is to serve as an organizing principle, Netanel needs to provide a more complete description of the democratic process to which he aspires as well as some additional description about how that idealized process interacts with empirical reality. Although it remains to be seen whether such additional elaboration is forthcoming, the industry and insight with which Netanel has pursued this project leads me to suspect that we have not heard the last from him on these issues. I, for one, will await his further work along these lines with great interest and anticipation.