

Listeners' Choices

James Grimmelman

***Abstract:** Speech is a matching problem. Speakers choose listeners, and listeners choose speakers. When their choices conflict, law often decides who speaks to whom. The pattern is clear: First Amendment doctrine consistently honors listeners' choices for speech. When willing and unwilling listeners' choices conflict, the willing listeners win. And when competing speakers' choices conflict, listeners' choices among them break the tie. This essay provides a theoretical framework for analyzing speech problems in terms of speakers' and listeners' choices, an argument for the centrality of listener choice to any coherent theory of free speech, and supporting examples from First Amendment caselaw.*

***Author:** Professor of Law, Cornell Tech and Cornell Law School. This is a revised version of a draft presented at the 26th Ira C. Rothgerber, Jr. Constitutional Law Conference at the University of Colorado Law School on April 13, 2018, and the final published version will appear in a symposium issue of the *University of Colorado Law Review*. I presented even earlier versions of this essay at the 2013 Intellectual Property Scholars Conference, the 2014 Freedom of Expression Scholars Conference, and the Cornell Information Science Colloquium in fall 2017. My thanks to the participants there for their comments, and to Aislinn Black, Jack Balkin, Bryan Choi, Don Gifford, Mark Graber, Kate Klonick, Lawrence Solum, Alexander Tsesis, and Felix Wu. The final published version of this essay will be available under a Creative Commons license.*

I. INTRODUCTION	3
II. MATCHING SPEAKERS AND LISTENERS.....	4
A. Matching Problems.....	4
B. Speech as a Matching Problem.....	7
C. Scarcities.....	11
A. Bandwidth.....	11
B. Attention.....	14
C. Ignorance.....	15
III. THE CENTRALITY OF LISTENER CHOICE.....	18
A. Willing Listeners.....	18
B. Unwilling Listeners.....	22
1. One-to-Many.....	25
2. Many-to-One.....	27
3. One-to-One.....	31
C. Targeting, Selection, and Separation Costs.....	33
IV. EXAMPLES	40
A. Mail.....	40
B. Doorbells.....	46
C. Drive-Ins.....	48
V. CONCLUSION.....	51

I. INTRODUCTION

The elevator pitch version of the First Amendment is that it protects speakers' choices about what to say. To a first approximation, the government must be neutral among viewpoints and topics, which means letting speakers say whatever they want. The principal task of First Amendment theory and doctrine is to explain when and why deviations from this neutrality principle are justified. A secondary set of doctrines then deal with a few peripheral questions about how speakers speak.

In this essay, I propose to flip the script. What would First Amendment theory and doctrine look like if we started from the *how* of speech, rather than the *what*? I will reinterpret what Thomas Emerson called "the system of freedom of expression"¹ as *a mechanism for matching speakers with listeners*. I will consider how speakers decide to whom to speak, how listeners decide to whom to listen, and how law can create and resolve conflicts among speakers and listeners. In so doing, I will abstract away almost completely from the content of speech. This essay is concerned with how speakers and listeners find each other, not what they say to each other once they do.

From a matching perspective, *listeners' choices matter more than speakers'*. The paradigm case for free speech involves a matched pair of a willing speaker and a willing listener. A consistent commitment to protecting these willing speaker-listener pairs results in a system of First Amendment law that regularly defers to listeners' choices. In cases involving speaker-speaker conflicts, listeners break the tie. And when speakers prevail in speaker-listener conflicts, it is often because other listeners tip the balance.

Part II of this essay will briefly describe the concept of matching problems, show how free speech can be recognized as one, and

1 THOMAS IRWIN EMERSON, THE SYSTEM OF FREEDOM OF EXPRESSION (1970).

highlight a few recurring constraints on possible speaker-listener matchings. Part III will look closely at different configurations of willing and unwilling speakers and listeners to tease out the matching issues they raise, with particular focus on listeners' choices among speakers. Part IV will discuss a few canonical Supreme Court cases as examples of listener-driven matching. And Part V will conclude with a few thoughts on listeners' rights and fake news.

II. MATCHING SPEAKERS AND LISTENERS

A. Matching Problems

In mathematics, a “matching” is a way of pairing up the members of two sets. A “matching problem” is the challenge of finding a matching satisfying various constraints. One familiar example is the “marriage problem”: given a set of male-identifying persons, a set of female-identifying persons, and their mutual preferences about whom they would more and less like to spend their lives with, find a way of pairing everyone off that makes everyone happy.² Other familiar matching problems include shoes and feet, airplane seats and passengers, organ donors and transplant recipients, articles and law reviews, clerks and judges, and medical students and residency programs.³ The unifying feature of these problems is that they involve pairwise interactions between members of two asymmetric groups, where the individual preferences about with whom to interact are complex, heterogeneous, and frequently incompatible.

2 D. Gale & L.S. Shapley, *College Admissions and the Stability of Marriage*, 69 AM. MATH. MONTHLY 9 (1962).

3 For a readable general-audience overview of real-life matching problems and their solutions, see ALVIN E. ROTH, WHO GETS WHAT — AND WHY: THE NEW ECONOMICS OF MATCHMAKING AND MARKET DESIGN (2015).

Matching problems typically have numerous possible solutions; different algorithms for choosing matchings yield different solutions. Mathematicians who study abstract matching problems and operations researchers who study real-world matching problems frequently try to characterize those solutions as better or worse along various dimensions, and to find algorithms that yield better matchings. Some of their results are striking. For example, consider the 1962 paper by David Gale and Lloyd Shapley that essentially kicked off the study of matching problems. They considered an algorithm for the marriage problem in which each unengaged man proposes to the unengaged woman he most wants to marry, and each woman accepts the proposal of her favorite current suitor. The disappointed men whose proposals were rejected repeat the process by proposing to the next woman on their list; women break their engagements if a better suitor comes along. A little surprisingly, this chaotic and hard-hearted expression of patriarchy in action is guaranteed to result in a matching in which everyone gets married. Even more surprisingly, the resulting matching is *stable*: there is no pair of disappointed lovers who would each prefer the other to their actual spouse. And still more surprisingly (or perhaps not surprisingly at all), this algorithm makes men happier than women: out of all possible stable matchings, it selects the one that does best at satisfying the men's preferences. If it is the women who propose to men, exactly the reverse is true: the resulting stable matching is the one that does best at satisfying the women's preferences.

The stable marriage problem is a toy mathematical example. But real-life matching problems have high stakes and finding a good matching algorithm is immensely important. The residency match is

a good example of the practical politics of matching.⁴ Medical students “propose” to residencies, so that the system is designed to favor students’ preferences among programs over programs’ preferences among students, while retaining stability. (Without stability, disappointed programs might quietly try to sound out their preferred students — but with it, they know that any student who matched would up at a residency program the student preferred to them.) There is an additional twist so that student couples can enter the match as a pair and receive geographically compatible matches if possible, but without favoring one member of the couple over the other. Organ donations are another example where designing good matching mechanisms has immense payoffs.⁵ Sometimes people would be happy to donate a kidney to a loved one who needs one, but is biologically incompatible. But if they can donate the kidney instead to a stranger who needs one and who *also* has a loved one willing to donate, that frees up a different kidney that might be compatible — or could be given to a third recipient to free up a third kidney, and so on. By finding a matching with long “chains” built up from these pairs, organ donation algorithms enable many people who desperately need transplants to receive them.⁶

We do not need to go further into the mathematical details of matching problems here.⁷ My points are few, and simple. First,

4 See generally Alvin E. Roth & Elliott Peranson, *The Redesign of the Matching Market for American Physicians: Some Engineering Aspects of Economic Design*, 89 AM. ECON. REV. 748 (1999).

5 See, e.g., Alvin E. Roth et al., *Kidney Exchange*, 119 Q. J. ECON 457 (2004).

6 See Itai Ashlagi et al., *Nonsimultaneous Chains and Dominos in Kidney-Paired Donation — Revisited: NEAD Chains and DPD Chains in Kidney-Paired Donation*, 11 AM. J. TRANSPLANTATION 984 (2011).

7 For those who are interested, two elegant and illuminating treatments of matching algorithms can be found in JON KLEINBERG & ÉVA TARDOS,

matching problems are everywhere. Second, matching problems have better and worse solutions. A world with algorithms that find kidney donation chains is better than a world without those algorithms; fewer people die waiting for a kidney to become available. Third, “better” and “worse” are often relative, and political. A world where men propose to women is better for men; a world where women propose to men is better for women. Fourth, all real-life matching problems are “solved” in the sense that there is a matching. At any given time, time certain people are married to certain other people. That is a matching. Fifth, there many different mechanisms for finding matchings. Some, like school assignments in many districts, are explicit: they are the output of purpose-built algorithms. Some, like the placement of feet in shoes, are implicit: they rely on uncoordinated social processes. And sixth, the choice of mechanism bears on both the quality and the fairness of the resulting matching. As the divorce rate attests, the real-life marriage matching is neither optimal nor stable.

B. Speech as a Matching Problem

Speech is a matching problem. Speakers speak; listeners listen. In each case, the question is *to whom?* I might, at any given moment, be listening to a politician’s speech, to an advertisement for dish soap, to a friend’s endless nattering about baseball, or to a street-corner drunk’s alarming rant, to name just a few. The politician might, at any given moment, be speaking to a national audience on C-SPAN, to a

ALGORITHM DESIGN (2005) and DONALD E. KNUTH, STABLE MARRIAGE AND ITS RELATION TO OTHER COMBINATORIAL PROBLEMS: AN INTRODUCTION TO THE MATHEMATICAL ANALYSIS OF ALGORITHMS (1989). An exhaustive treatment of the stable marriage problem and its many extensions is DAN GUSFIELD & ROBERT W. IRVING, THE STABLE MARRIAGE PROBLEM: STRUCTURE AND ALGORITHMS (1989).

potential donor on the telephone, to a colleague, a sibling, a reporter, or a therapist, to name just a few more.

Some numbers may illustrate the scale of the problem. Suppose that, at any given time, one billion out of the earth's seven billion people are speaking in some form, and another billion are listening. That gives each listener a billion different choices of where to direct her attention.⁸ But that is just one listener. The number of ways to find a speaker for every listener is vastly larger. Each such matching is a list a billion lines long (the number of listeners); each line in such a list has one of a billion possible values (the number of speakers.⁹ The number of possible matchings is thus one billion to the billionth power, or

8 See generally JAMES GLEICK, *THE INFORMATION: A HISTORY, A THEORY, A FLOOD* (2011). Information overload is hardly a new problem. See generally ANN M. BLAIR, *TOO MUCH TO KNOW: MANAGING SCHOLARLY INFORMATION BEFORE THE MODERN AGE* (2011); ALEX WRIGHT, *GLUT: MASTERING INFORMATION THROUGH THE AGES* (2008).

9 Here is a simplified illustration of the problem. Suppose there are two listeners, Alice and Bob, and three speakers, Xu, Yaz, and Zelda. Then there are nine possible matchings:

- Alice listens to Xu and Bob listens to Xu.
- Alice listens to Xu and Bob listens to Yaz.
- Alice listens to Xu and Bob listens to Zelda.
- Alice listens to Yaz and Bob listens to Xu.
- Alice listens to Yaz and Bob listens to Yaz.
- Alice listens to Yaz and Bob listens to Zelda.
- Alice listens to Zelda and Bob listens to Xu.
- Alice listens to Zelda and Bob listens to Yaz.
- Alice listens to Zelda and Bob listens to Zelda.

If there are n listeners and m speakers, then there are m^n distinct matchings that assign each listener a speaker. Here, $n=2$ because there are two listeners, and $m=3$ because there are three speakers, for a total of $2^3=9$ possible assignments.

$10^{9,000,000,000}$. That is a one followed by nine billion zeroes, a number that defies human comprehension. And yet, every minute of every day, speakers and listeners settle on one of these different matchings.

And matching matters. Whatever information policy goals we have, different matchings will serve them differently. Consider a matching in which the Qin Emperor speaks and everyone on earth listens, a matching in which people talk only to their closest neighbor, and a matching in which each speaker has a randomly chosen pen pal. Each of these matchings is badly deficient. The first is dictatorial, the second fragmented, the third chaotic. We should hope to do better. Not matching is not an option; one way or another, the choice will be made. The alternative to matching speakers with listeners is no speech.

A few factors are particularly important in determining which of the $10^{9,000,000,000}$ or so matchings we end up with. Most obviously, speakers and listeners constantly make *choices*. When Spike comes up to Liz at a party and starts shouting in her ear, he is a speaker selecting her as a listener. When Liz flees to the den and turns on the Orioles game instead, she is a listener selecting different speakers: the game's announcers. Sometimes, third parties—such as the state or media intermediaries—make these choices for them. When a flash-flood warning starts scrolling across the bottom of the screen, the government and the TV station have intervened between Liz and the announcers to redirect the Emergency Warning System's speech to her, instead. Every matching is a product of billions of human choices.

These choices are not unbounded. They take place within an extensive framework of geographic, linguistic, economic, cultural, and technological constraints. Spike lives in Missouri, not Malaysia; he doesn't speak Malaysian; he doesn't have the money for a plane ticket; and, to be honest, not that many people, here or in Kuala Lumpur, are interested in his conspiracy theories about the Federal Reserve. And

past choices by speakers and listeners, by governments, and by third parties, play out in present constraints. Spike's decision to major in Spanish affects whom he can effectively speak to or listen to. So do the signing of the Anglo-Dutch Treaty of 1824, and the countless other past events, large and small, that we collectively refer to as "history." Speakers and listeners make choices, but they make them against a backdrop of choices already made, choices that make certain matchings infeasible.

Although there are good reasons to try in general to honor the matching choices made by speakers and listeners, it would be inadvisable to honor every such choice. Indeed, it would be impossible. Three intrinsic limits are important.

First, "choice" itself is a constructed category: the ways in which actual practice falls short of the ideal of fully-informed rational decision-making create *internal* limits on choice. Some things we do end up being unintentional choices about speech, as when George W. Bush referred to a *New York Times* reporter as a "major league asshole" in front of a microphone he didn't realize was on, or when a tenant rents an apartment near a nightclub that's far louder than she expects. Other times we make conscious choices to speak or to listen that we later regret, as when I saw *Snake Eyes* on opening weekend.

Second, some combinations of choices are physically or logically impossible. These are *structural* limits on how many choices it is possible to honor at once. If I want every person on earth to hear me simultaneously as I issue my ransom demands from my evil lair deep within the Sun, it is simply not going to happen. If two aging arena-rockers both want to play to a sold-out crowd at Madison Square Garden on the same evening, there is no way to make both of them happy. If I want to tell you about trademark law and you would rather watch *Game of Thrones*, one of us is going to be disappointed. Physical,

geographical, and infrastructural factors create structural limits on choice; so do disagreements among speakers and listeners.

Third, choice is not the only important value. As a society we put *external* limits on choice by trading it off against other important values. These values are familiar in free speech theory: they are the harms to society and to third parties that weigh against speakers' right to say whatever they want. A bomb-bearing listener and a speaker explaining where inside a train station to detonate a bomb to cause maximum carnage might choose to communicate with each other. But there is a strong social interest in minimizing carnage; we have good reasons to interfere with their choices here.

C. Scarcities

Three recurring constraints on speaker and listener choices are important enough to require separate discussion. They are speakers' limited capacity to get their speech to listeners (*bandwidth*), listeners' limited capacity to listen to multiple speakers at once (*attention*), and listeners' limited information about what speakers will say in the future (*ignorance*).

A. Bandwidth

Basic features of media—capacity, range, audience, and cost—shape who can use them to speak to whom. Compare a fiber-optic network with a network of tin cans connected by string. A major fiber-optic cable can transmit many thousands of high-resolution cat videos per hour; a pair of tin cans can handle one low-fidelity voice conversation. Fiber-optic networks can reach billions of people while the tin cans let you reach one at a time. Fiber-optic networks span the globe; the tin cans won't get you from here to the corner. But while almost anyone can build and deploy a local-area point-to-point personal tin-can network, transcontinental cable-laying has always been reserved for the few, the regulated, the well-capitalized.

Pre-modern media sharply limited the set of speaker-listener matchings. They had low capacity, variable but typically limited range, small audiences, and moderate to low costs. An unamplified public speaker can be heard by a few hundred people who must be gathered in the same place as the speaker; a handwritten letter can travel the globe but can only be read by a handful of people at once. Some kinds of matchings are simply incompatible with these limits; a listener circa 220 A.D. in Rome would not have been physically capable of hearing the speech of a speaker in Xi'an.

The mass media that dominated the twentieth century—particularly television, radio, and mass-produced artifacts like newspapers, books, and records—were different. They had larger and growing but still limited capacity, large audiences, national and then worldwide range, and high costs. This made bandwidth a crucial bottleneck between speakers and listeners, and one with a characteristic structure. A limited set of speakers could make use of these media, but those with access could then reach very large audiences. These media enable matchings in which a few speakers reach large numbers of listeners, but not enable matchings in which large numbers of speakers each reach smaller but dispersed audiences.

Contrast the characteristic twenty-first century medium: the Internet, an astoundingly high-capacity network that spans the globe, has billions of users, and enables famously “cheap speech.”¹⁰ There are disparities among speakers, to be sure, of wealth, class, power, nationality, gender, language, education, and many others. Not everyone can push out a two-hour high-definition video to a million viewers precisely at midnight—but almost anyone can get a book's worth of text to a few hundred or few thousand readers within minutes, or

10 See Eugene Volokh, *Cheap Speech and What It Will Do*, 104 YALE L.J. 1805 (1995).

280 characters to millions of readers within seconds. To a first approximation, anyone can speak to a worldwide audience of any size for the cost of a basic smartphone: currently under \$20.

These shifts in media also shift power to choose among possible speaker-listener matchings. Wherever there is a speech-transmission bottleneck, there is also a speech-selection bottleneck. Almost all the speech-selection power in mass media rests with those who choose which speech will be “pushed” through those media. Speakers either have access to the medium or not; listeners’ choices are limited to ordering from the speech menu placed before them, and the menu is not long. In such an environment, the capacity constraints both force an upstream choice among speakers and make that choice inherently controversial. Speakers, government, conduit operators, and various interest groups will all have claims about which speakers should be given access. Listeners’ choices may provide rhetorical support for certain ways of deciding among speakers, and some of those ways will attempt to ascertain what listeners in general would prefer, but individual listeners will not be able to exercise choice *as listeners* over which speakers receive access.

The Internet is different, because transmission capacity no longer creates a chokepoint that forces an early upstream choice of a sharply restricted set of speakers. Speaker-listener matchings are no longer determined in the first instance by access to the mass media; listeners no longer experience the sharply restricted set of choices among speech characteristic of the mass media. Provided they know it exists and where it is to be found, listeners can “pull” the speech they want from its source. This can shift some control over speaker-listener matchings downstream, closer to listeners.¹¹

11 Interestingly, it is generally older work, from the first flourishing of legal scholarship about the Internet, that best articulates the close connection

B. Attention

There is an important asymmetry between speakers and listeners. Speech, being information, is infinitely replicable, and is consumed nonrivalrously by listeners. Thus, there is nothing in the nature of speech itself that prevents a speaker's message from reaching the entire world, given sufficient time, effort, and expense. A speaker might lower her voice for reasons of privacy or discretion. But she does not have to. Speaking to one listener does little to detract from her ability to reach a second.

The *vis vitae* of listening, however, is not speech but attention, and human attention is always and everywhere limited. Speakers consume listeners' attention rivalrously: if I am reading a book, I will have a much harder time also paying attention to the news on the radio. Unlike speakers, listeners *must* choose. Listeners have an overwhelming array of choices in the modern media environment. But they still only have two eyes, two ears, and one brain.

Limited attention particularly matters now because there are billions of speakers in the world, and millions of them are trying to reach a public audience. And since media bandwidth no longer stands in the way, almost all of their speech is actually available to interested listeners. In this sense, listeners are saturated with choices; there are millions of speakers who are ready, willing, and able to address them. But it also means that these speakers are competing fiercely with each other for audiences. An underlying constraint on speech—listeners' limited

between an abundance of speech and listener choice. See Eugene Volokh, *Freedom of Speech in Cyberspace from the Listener's Perspective: Private Speech Restrictions, Libel, State Action, Harassment, and Sex*, 1996 U. CHI. LEGAL F. 377; Volokh, *supra* note 10; Jerry Berman & Daniel J. Weitzner, *Abundance and User Control: Renewing the Democratic Heart of the First Amendment in the Age of Interactive Media*, 104 YALE L.J. 1619 (1995).

attention—which once was more deeply buried is now closer to the surface.¹²

Attention functions differently than older scarcities. For one thing, it is distributed: each listener controls only a tiny fraction of the world's supply. For another, it can be taken involuntarily: just try to read on the subway when there is a crying baby or an apocalyptic preacher standing next to you. For a third, it can be attacked indirectly. As Zeynep Tufekci powerfully argues, censorship today is best understood as *denial of attention*: a government can thwart an opposition movement either by keeping media from reporting on protests (traditional “censorship”) or by flooding the media with distractions, disinformation, and noise, so that few people watch the news reports or believe them.¹³ Keeping people from knowing about speech can be just as effective as keeping the speech itself from them; so can keeping them too distracted to pay attention to it.

C. Ignorance

Another important asymmetry between speakers and listeners is also inherent in the nature of speech. Speakers produce information; listeners consume it. As a result, listeners always choose from a position of partial ignorance in a way that speakers do not. Speech, being information, is subject to Arrow's information paradox. A listener who

12 Herbert Simon, *Designing Organizations for an Information-Rich World*, in *COMPUTERS, COMMUNICATIONS, AND THE PUBLIC INTEREST* 37, 40–41 (M. Greenberger ed., 1971) (“Hence a wealth of information creates a poverty of attention and a need to allocate that attention efficiently among the overabundance of information sources that might consume it.”); Tim Wu, *Is the First Amendment Obsolete?* (Emerging Threats, Knight First Amendment Institute 2017) 7.

13 ZEYNEP TUFEKCI, *TWITTER AND TEAR GAS: THE POWER AND FRAGILITY OF NETWORKED PROTEST* 239 (2017).

has not yet heard speech is not capable of making a fully informed evaluation of it.¹⁴ Once she has heard the speech, she is in a better position to assess whether it is worth listening to—but by then it is too late. The speech cannot be unheard.

To repeat, this is a matter of asymmetry between speakers and listeners. Speakers have excellent knowledge of the speech they are about to engage in. Listeners have no such advantage: if you someone catches your eye on the sidewalk, you can guess what they want, but you don't know. Maybe they want to rant at you about the gold standard, or tell you about an art gallery opening, or ask for directions to the train station, or get your signature on a political petition.

One common manifestation of listeners' limited knowledge—or at least one commonly asserted in the free-speech literature—is a preference for familiar speech over unfamiliar. Some listeners are like six-year-olds demanding to watch *The Little Mermaid* for the eighty-ninth time: they know what they like and see no need to venture beyond it. Others are like Sam I Am turning up his nose at green eggs and ham. They are unwilling to give speech a proper hearing, even if in hindsight they would have been glad to have heard it.

Another manifestation of listeners' ignorance is that speakers are sometimes in a position to deceive listeners about their speech. Click-bait is a simple example. This Headline Promises Shocking Revelations. The Article Will Underwhelm You. False speech also plays on listeners' ignorance. A fully informed listener would not typically choose speech that is fraudulent or defamatory; more often, listeners

14 This is also a version of the learner's paradox from Plato's *Meno*. "How will you look for it, Socrates, when you do not know at all what it is? How will you aim to search for something you do not know at all?" PLATO, PLATO: FIVE DIALOGUES: EUTHYPHRO, APOLOGY, CRITO, MENO, PHAEDO 71 (John M. Cooper ed., G. M. A. Grube trans., 2nd ed. 2002).

to actionably false speech are listening to it only because the speaker has successfully hidden its falsity from them.

And a third way in which listeners' ignorance plays out is that simply *finding* the speech they want can be a massive challenge in an age of informational abundance.¹⁵ Easing the transmission bottleneck makes the underlying selection problem salient in a new way. It was easy to see what was on TV when there were only three channels; now, not so much. The characteristic media companies of the Internet age are selection intermediaries: search engines, portals, advertising networks, social networks, news aggregators, recommendation engines, marketing analytics providers, and the many others who specialize in pairing up speakers and listeners. These intermediaries have a significant informational advantage over speakers and listeners, and thus a significant power to shape speaker-listener matchings by making different suggestions. They vary not just in how much of this power they retain for themselves, but also in whether they tilt more towards listeners or speakers in their matchmaking. Search engines are highly listener-directed: different queries let users seek out different speech.¹⁶ Advertising engines that let marketers slice and dice their target eyeballs along thousands of demographic and behavioral axes are highly speaker-directed. Facebook's algorithmic News Feed is somewhere in between: it nudges users into reading friends' posts in a default, Facebook-selected order, while giving users some controls to tweak that order and the ability to speak directly to or listen directly to specific other users they choose.

15 Speakers face a version of this problem: they don't know which potential listeners in the world would be most receptive to their speech. But while speakers are ignorant about *listeners*, listeners are ignorant about the *speech itself*.

16 See James Grimmelmann, *Speech Engines*, 98 MINN. L. REV. 868 (2013).

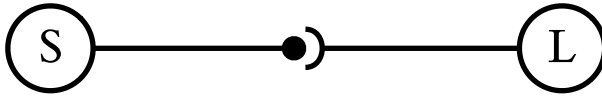
III. THE CENTRALITY OF LISTENER CHOICE

So much for what we *can* do about speaker and listener choices. Now for what we *should* do. Or perhaps, I should say, what we *must* do. This part will make a simple argument: any theory of free speech that does not take listener choice seriously fails as a theory of free speech. It is not necessary to delve deeply into the normative justifications for free speech. Whatever those justifications are, they must protect the entire communicative pathway from speaker to listener. And once they do, they cannot effectively protect speakers with willing listeners unless they also frequently protect unwilling listeners from unwanted speakers. This conclusion follows from the structural constraints on speaker and listener choice imposed by other speakers and other listeners; it is, I will argue, inherent in the nature of speech in a world with many people in it.

This is a content-neutral analysis. It genuinely does not care what the speech at issue is. It does not matter what good it does for speakers, listeners, or society. It does not matter what harms it is capable of. I will use speeches about the mayor as an example, but absolutely nothing will turn on the specifics. The only thing we need to know about the speech is which listeners the speakers are trying to reach, and which speakers the listeners would like to hear. We do not need to look inside their choices or inquire after their reasons; it matters only that the speakers and listeners have some such reasons, reasons they consider sufficient.

A. Willing Listeners

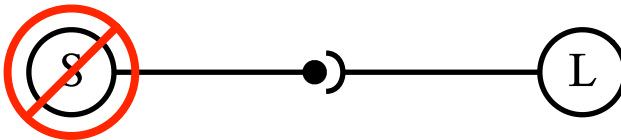
The standard justifications of free speech take as their paradigm case a willing speaker facing a willing listener. We can depict this case graphically, and with a simple hypothetical:



Core Free Speech: S gives a speech criticizing the mayor. L is in the audience.

This is the paradigm case for free speech. S is a willing speaker, L a willing listener. They form a matched pair: L wants to hear what S has to say. In such a setting, it is possible to be imprecise about whose interests are at stake, because it does not really matter. Speakers and listeners pull the same oar; treating the relevant interests as belonging purely to speakers, purely to listeners, or jointly to speakers and listeners makes no significant difference.

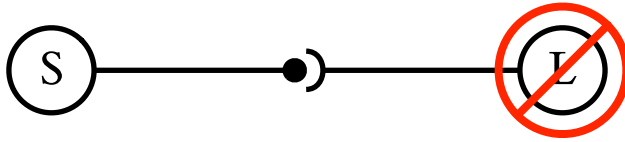
To emphasize the point, consider the different ways that the authorities could interfere with the speaker-listener relationship between S and L .



Arrested Speaker: S gives a speech criticizing the mayor. L is in the audience. The police arrest S .



Air Horns: S gives a speech criticizing the mayor. L is in the audience. The police stand in the room blowing air horns.



Arrested Listener: *S* gives a speech criticizing the mayor. *L* is in the audience. The police arrest *L*.

In *Arrested Speaker*, the police have prevented *S* from speaking. This is an obvious and obviously unconstitutional restriction on speech. The net effect is that *L* is unable to hear to what *S* has to say. This is censorship, pure and simple.

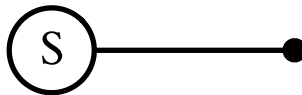
In *Air Horns*, the police have not literally prevented *S* from speaking. But the air horns are just as effective as an arrest in figuratively silencing *S*. This too is censorship. The First Amendment cares about more than just *S*'s ability to vibrate her vocal cords or to scribble on a piece of paper. *S*'s freedom of speech will be poorly protected indeed if the government can interdict her speech before it reaches *L*.¹⁷ There is nothing wrong in general with police use of air horns: they are useful, for example, to warn citizens of serious danger from a building demolition. Rather, the problem in *Air Horn* is that the police officer has used the air horn to thwart an act of communication involving both a speaker and a listener. The idea of a listener is inherent in speech, and hence is also inherent in free speech.

Although *Arrested Listener* is a little less common, it too is a restriction on speech. Just as in *Air Horns*, the police have not literally prevented *S* from speaking. But arresting the audience has the same effect as arresting the speaker or blowing air horns: again, *L* is unable

¹⁷ See *Procunier v. Martinez*, 416 U.S. 396, 408 (1974) (“Communication by letter is not accomplished by the act of writing words on paper. Rather, it is effected only when the letter is read by the addressee.”).

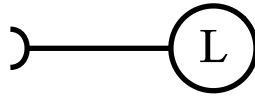
to hear what *S* has to say. If *Arrested Speaker* is a paradigm case of a restraint on speech, then so are *Air Horns* and *Arrested Listener*. What matters is that the state has broken the communicative pathway from speaker to listener, not where along the pathway it has acted. The right to receive speech is the “reciprocal” of the right to speak; each is meaningless without the other.¹⁸ A system that does not protect the freedom to listen will not effectively protect the freedom to speak, and vice versa.

This may sound like an expansion of the domain of free speech. In a sense it is: the protected communicative pathway extends farther, until it reaches a listener. But in another important sense it is a contraction. We are not concerned with speech as speech (involving only a speaker), but with speech as communication (involving both a speaker and a listener). On the former, core free-speech protections attach when someone speaks; interference with the success of the speaker’s project is suspect. On the latter, core free-speech protections attach when someone speaks and someone listens; interference with the success of their joint communicative project is suspect. This is a narrower principle, because it requires both a speaker and a listener. We can test this principle’s reach with a pair of cases:



Lonely Speaker: *S* gives a speech criticizing the mayor in a forest with no one else around, until the police arrive to arrest *S*.

18 *Virginia State Bd. of Pharmacy v. Virginia Citizens Consumer Council, Inc.*, 425 U.S. 748, 757 (1976). (“If there is a right to advertise, there is a reciprocal right to receive the advertising”)



Lonely Listener: *L* stands in a forest listening with no one else around, until the police arrive to arrest *L*.

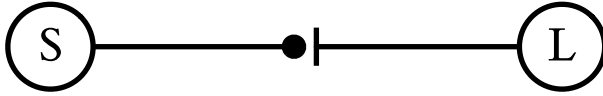
We might regard these as free speech cases. Or we might not. A theory focused on speakers' and listeners' personal liberty might regard these arrests as problematic; a theory focused on democratic discourse might not. It is possible to articulate theories of free speech that do and do not protect speakers without listeners and listeners without speakers, a strong indication that these cases are not of the same importance to free speech as cases with both. *Arrested Speaker*, *Air Horns*, and *Arrested Listener* are core cases for free speech; *Lonely Speaker* and *Lonely Listener* are not.

B. Unwilling Listeners

Unwilling-listener cases are not typically thought of as central to free speech. That is a mistake. They are not infrequent aberrations; they are far and away the most common case. Their ubiquity makes them invisible. Most lack the high drama of the Westboro Baptist Church's funeral protests.¹⁹ But that is because our system sorts them out almost automatically, as a matter of course. Most unwanted speakers never even get close to their victims. Screening out vast oceans of unwanted speech is an essential feature of any system that makes free speech possible. Getting the paradigm willing-listener case right depends as a practical matter on getting immense numbers of unwilling-listener cases right as well. And if we do not, it is not just listeners, but speakers who suffer.

¹⁹ *Snyder v. Phelps*, 131 S. Ct. 1207 (2010).

In willing-listener cases like *Air Horn*, the state had an option—do nothing—that would satisfy both *S* and *L*. But if *L* is an unwilling listener, the state has no such option. Consider:



Bored Audience: *S* gives a speech criticizing the mayor. *L*, who is within hearing range, would like to get up and leave.

S and *L* have a structural conflict; no matter what the state does, there is no matching that will make everyone happy. If the state leaves matters alone (or sends a police officer to silence *S*), *L* will be happy and *S* will not. But if the state intervenes by stationing a police officer to keep *L* in her seat, *S* will be happy and *L* will not.²⁰ We need some

-
- 20 Readers who prefer to break the tie in favor of state passivity should consider another hypothetical:

Loud Speakers: *S* sets up an amplifier and speakers on the sidewalk in front of *L*'s house and gives a speech at 95 decibels. *L* would prefer not to listen.

Loud Speakers has the same structure of speaker and listener choices as *Bored Audience*: a willing speaker facing an unwilling listener. The difference is that in *Bored Audience* the listener has an effective self-help technique to win the speaker-listener conflict, whereas in *Loud Speakers* it is the speaker with the effective self-help. Thus in *Loud Speakers*, if the state does nothing, it satisfies *S* but not *L*. If it intervenes to make *S* go away or unplug the speakers, it satisfies *L* but not *S*. It is easily possible to distinguish *Loud Speakers*, see generally *Kovacs v. Cooper*, 336 U.S. 77 (1949) (upholding municipal ordinance prohibiting the use of amplified sound trucks), but not on the basis of a general rule about state versus private action. Whatever line we draw will have the effect of determining how people can and cannot speak and when they must or need not listen to others' speech, and will have to be normatively justified in view of those

basis on which to decide, as between *S* and *L*, whose choices will be respected.

It is common to assert that in such cases the Supreme Court has chosen to favor speakers rather than listeners. As Chief Justice Roberts reiterated in *Snyder v. Phelps*, “[T]he Constitution does not permit the government to decide which types of otherwise protected speech are sufficiently offensive to require protection for the unwilling listener or viewer.”²¹ This view is not so much wrong as incomplete. There are three patterns of unwilling-listener cases, and they raise different kinds of issues. The simplest involve *one-to-one* speech, pitting a speaker who wants to be heard against a listener who does not want to hear.²² Other cases involve *one-to-many* speech, in which a speaker addresses a large and possibly indeterminate audience, not all of whom are interested in what she has to say. Finally, some cases involve *many-to-one* speech, in which multiple speakers compete for the attention of a listener. The confusion and consternation that often attends this part of First Amendment law often stems from a failure to distinguish among these patterns.

The existence of one-to-many and many-to-one cases complicates the story. Paradigm cases of unwilling listeners involving one-to-one speech appear to pose a choice between favoring speakers’

consequences. Appealing to property law (e.g. that *S* speaks from a public sidewalk or that *S* creates a nuisance) merely begs the question, as the contours of property law are themselves contestable in terms of the balance they strike between *S* and *L*.

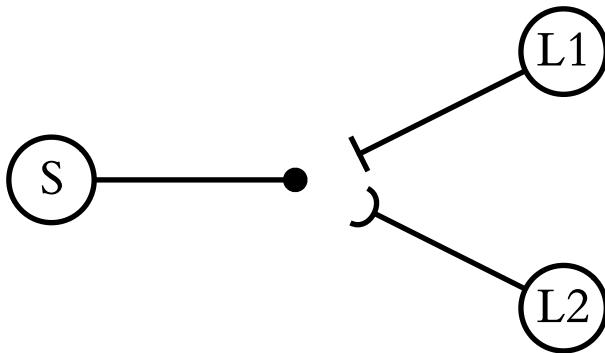
²¹ *Snyder v. Phelps*, 131 S. Ct. 1207, 1220 (2011) (quoting *Erznoznik v. City of Jacksonville*, 422 U.S. 205, 210 (1975)).

²² The helpful terminology to distinguish “one-to-one” speech from “one-to-many” speech is taken from Eugene Volokh, *One-to-One Speech vs. One-to-Many Speech, Criminal Harassment Laws, and “Cyberstalking,”* 107 NW. U. L. REV. 731 (2013). I have added the term “many-to-one.”

attempts to be heard and favoring unwilling listeners' attempts not to hear. But in one-to-many cases, there is also a listener-listener conflict: some would like the speaker to continue, while others would like her to shut up. Whatever the state does will frustrate some listeners. And in many-to-one cases, there is also a speaker-speaker conflict: each speaker would like to prevail over the others. Whatever the state does will frustrate some speakers. *There is no general speaker-favoring or listener-favoring solution to unwilling-listener cases*: some speakers and some listeners will inevitably be disappointed. One-to-many cases show that favoring unwilling listeners over speakers can frustrate other listeners, while many-to-one cases show that favoring speakers over unwilling listeners can frustrate other speakers. But paradoxically, these intractable tensions help us understand what is truly at stake even in one-to-one cases.

1. One-to-Many

Speaker-listener conflicts are only rarely just about a speaker and a listener. Often, other listeners may be interested in the outcome. Consider:



Controversial Protest: *S* gives a speech criticizing the mayor and would like to reach as many listeners as possible. *L1* and *L2* are within hearing range. *L1* is not interested in listening to *S*; *L2*

is.

Controversial Protest has *Bored Audience* embedded within it, because *L1* is an unwilling listener. *S* would prefer to speak to her, while *L1* would prefer not to be spoken to. Just as in *Bored Audience*, it is not possible to make both *S* and *L1* happy. Silencing *S* favors *L1* over *S*, but allowing *S* to continue favors *S* over *L1*. Again, we must decide, as between *S* and *L1*, whose choices to respect.

But we also have another decision to make, because *L1* and *L2*'s choices are in tension as well. If *S* continues, her speech will reach both *L1* and *L2*, satisfying *L2* but frustrating *L1*. If *S* shuts up, her speech will reach no one, satisfying *L1* but frustrating *L2*. The two listeners' choices about *S* cannot both be honored; one of them will go home unhappy. We cannot make the decision between them simply by appealing to a principle of satisfying all listeners' choices, or as many as possible. If we intervene in the name of listeners' choices to satisfy *L1*, we also harm listeners' choices by frustrating *L2*, and vice-versa. *Controversial Protest* poses both a speaker-listener and a listener-listener conflict.

These two decisions are linked: *S* and *L2* are united against *L1*. If *S* speaks, both *S* and *L2* are satisfied; if *S* does not, both are frustrated. And this observation holds the key to the hypothetical, because there is something distinctive and special about *S* and *L2* in free speech terms. They are a willing speaker addressing a willing listener—the paradigm case for free speech. Put another way, *Controversial Protest* also has *Core Free Speech* embedded within it. Thus, if *S* is silenced in *Controversial Protest*, the state interferes with speech just as much as it does in *Arrested Speaker*²³ (just with a different proposed justification). If *S* is allowed to speak, the state frustrates *L1*'s desire not to listen,

23 Or in *Air Horns* or *Arrested Listener*.

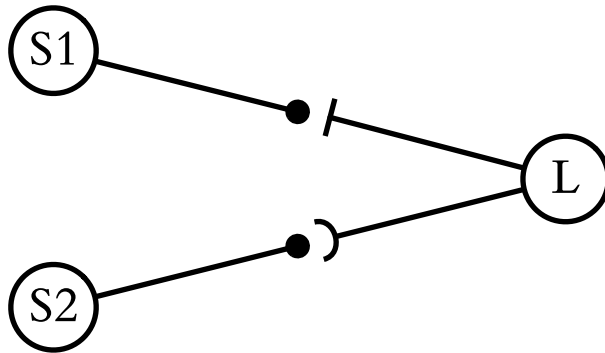
but this is not the paradigm case of preventing desired speech from reaching its audience.

Thus, any coherent free speech principle will tend to favor willing listeners over unwilling ones. If L_1 's and L_2 's choices as listeners are inextricably bound up with and opposed to each other, then the pro-speech outcome comes closer to the core willing-listener ideal for free speech than the anti-speech outcome. Listener choices for speech trump listener choices against speech when the two conflict. Moreover, the difference between *Bored Audience* (in which S 's claims as a speaker against the unwilling L were ambiguous) and *Controversial Protest* (in which S 's claims as a speaker against the unwilling L_1 are unambiguous) is precisely the presence of the additional, willing listener L_2 . Without L_2 , this is a hard case; with L_2 , it becomes an easy one.

It follows that we should be careful not to mistake one-to-many for one-to-one cases. Sometimes—as with harassing telephone calls—there really is only a single relevant listener. But at other times—as with funeral protests—there may be other listeners. This can be a relevant consideration, a reason to treat these cases differently.

2. Many-to-One

Just as other listeners may have an interest in the outcome of a speaker-listener conflict, so too may other speakers. Consider:



Dueling Speeches: S_1 is giving a speech criticizing the mayor. In the room next door, S_2 is giving a speech praising the mayor. L would like to attend S_2 's speech.

S_1 and S_2 are both speakers. They would both like to speak to L . But those goals are incompatible; L can only attend one of the two speeches.

S_1 and S_2 , however, do not have equal claims on L 's attention. As against S_2 , L is a willing listener. Thus, *Dueling Speeches* has *Core Free Speech* embedded within it. The police officer who compels L to attend S_1 's speech rather than S_2 's in *Dueling Speeches* has interfered with S_2 's ability to communicate with L just as much the police officer who arrests L in *Arrested Listener*. The same considerations that led us to say the state interferes with S 's freedom of speech in *Arrested Listener*²⁴ should lead us to say that it also interferes with S_2 's freedom of speech by dragging L from S_2 's audience into S_1 's. The effect on S_2 's speech is the same.

S_1 has a harder time making a similar claim. As against S_1 , L is an unwilling listener, because L would rather be listening to S_2 . (This is *Bored Audience* again, embedded within *Dueling Speeches*.) If the state assists L in escaping from S_1 's auditorium, S_1 may be frustrated, but

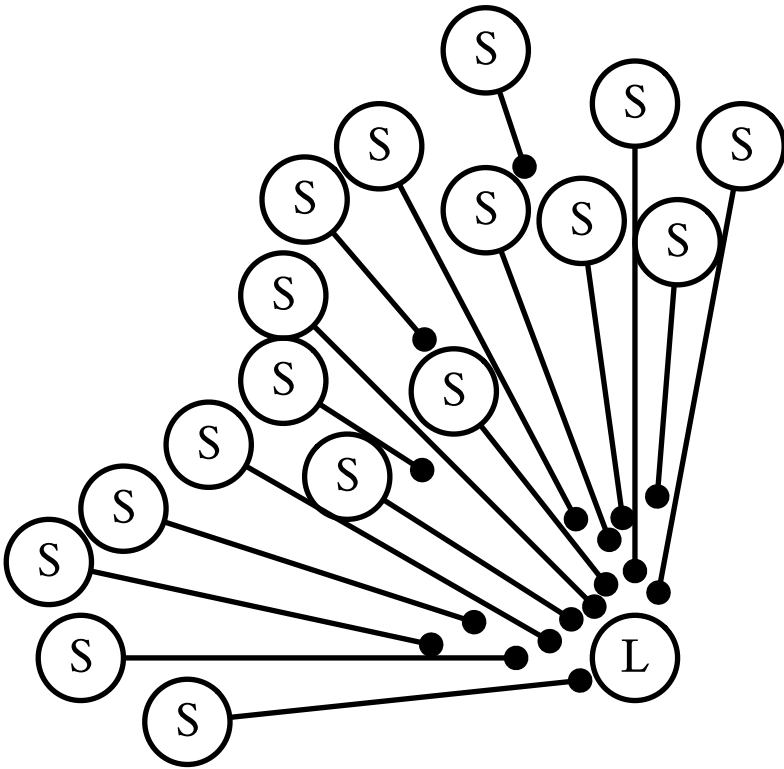
²⁴ Or in *Air Horns* or *Arrested Speaker*.

this is the lesser harm of taking sides in the tug-of-war between speaker and listener, not the greater harm of standing between a willing speaker and a willing listener. The two conflicts in *Dueling Speeches*— S_1 versus S_2 as speakers competing for the same audience, and S_1 versus L as a speaker trying to reach an unwilling listener—are bound up with each other. L is simultaneously a unwilling listener (to S_1) and a willing listener (to S_2).

Once again, the asymmetry here comes entirely from a single source: L 's choice as a listener selecting among speakers. On any theory of free speech that cares about listeners' choices in their own right, this is an easy tie to break. L chooses S_2 , not S_1 . But even a theory that purports to care only about speakers' choices will still tend to prefer S_2 to S_1 , because S_2 and L stand in the paradigm free-speech relationship of willing speaker and willing listener, whereas S_1 and L do not. To choose between S_1 and S_2 without taking L 's choices into account, a speaker-regarding theory would need to appeal to the personal characteristics of S_1 or S_2 , or to the respective value of pro-mayoral and anti-mayoral speech. Neither is an attractive starting point for a theory of free speech, because it is usually thought that any viable theory of free speech ought to be largely neutral as to speakers and largely neutral as to viewpoints.

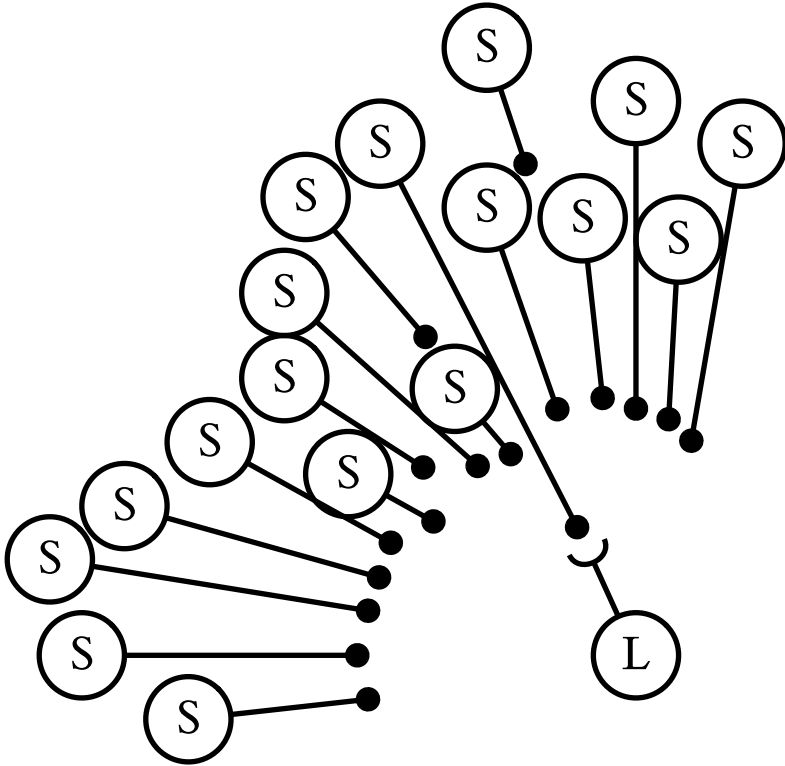
I would say that we should be careful not to mistake many-to-one cases for one-to-one cases, but that is not quite right, because *every* unwilling-listener case has something of a many-to-one flavor to it. There are so many would-be speakers in the world that an unwilling listener is probably being deprived of the chance to listen to someone else. Thus, there is an asymmetry at work. Zoom out from *Bored Audience* and you may or may not find additional listeners, but you will almost always find additional speakers. You may or may not be looking at *Controversial Protest*, but you are almost certainly looking at *Dueling Speeches*.

Indeed, in a world with inexpensive worldwide high-bandwidth digital media, there are always millions of speakers trying to reach every listener in the world. If they had their way, *everyone* would listen to them. Even setting aside these speech megalomaniacs, every listener with Internet access is always and everywhere faced with a choice among perhaps a billion possible speakers:



The only way that a listener can attend to any one preferred speaker is by tuning the other billion out. Or, to put a sharper point on it, the only way any speaker can ever be heard by anyone is by beating out the other billion. It is a minor miracle that speech is possible at all in the modern world. It requires a combination of technologies, norms, and legal support to ensure that all the other speakers back off enough that a listener can hear the one speaker as to whom she is a willing

listener. And yet that is what the 21st-century system of freedom of expression accomplishes, billions of times a day. *Every successful communication from a willing speaker to a willing listener is a triumph of listener choice.*



3. One-to-One

In light of these one-to-many and many-to-one cases, the one-to-one cases like *Bored Audience* should appear in a new light. What looks like a one-to-one case may not be: it may be a one-to-many case or a many-to-one case in disguise. Both *Controversial Protest* and *Dueling Speeches* contain *Bored Audience*, which means that even a case matching the *Bored Audience* pattern of a willing speaker facing an unwilling listener may not only be about the conflict between them. It may match

a larger pattern as well, and if it does, we should zoom out until we see the other listeners straining to hear and the other speakers straining to be heard.

When there are other willing listeners, their choices as listeners help us break the *Bored Audience* speaker-listener deadlock in favor of the speaker, who has a broader and willing audience. And when there are other speakers, this time the listener's choice helps break the *Bored Audience* deadlock in favor of the listener, who is choosing among speakers, not merely choosing whether or not to listen. Narrowly, these considerations cut in opposite directions: additional listeners give the speaker's desire to speak more weight, while additional speakers give the objecting listener's objections more weight. But in a broader sense, both of these considerations are appeals to listener choice.

It follows, albeit tentatively, that there are plausible free-speech reasons to promote listener choice even in one-to-one unwilling-listener cases. In *Bored Audience* and similar cases, this means taking the side of the listener rather than the speaker. In every other type of case discussed above—willing listeners, many-to-one unwilling listeners, and one-to-many unwilling listeners—the basic commitments of free speech required us to adopt a principle of favoring listeners' choices. To be sure, we are not *required* by those commitments to extend the listener-choice principle to one-to-one unwilling-listener cases, but neither are we *prohibited* from doing so. Siding either with listeners or with speakers, or deciding between them on a case-by-case basis, is consistent with those commitments. But given how uniformly the listener-choice principle applies in every other type of case, it is plausible and attractive in one-to-one unwilling listener cases as well.

Thus, a listener-choice principle treats one-to-one and one-to-many cases quite differently: the unwilling listener in a one-to-one case can have her choice not to be spoken to respected, while the

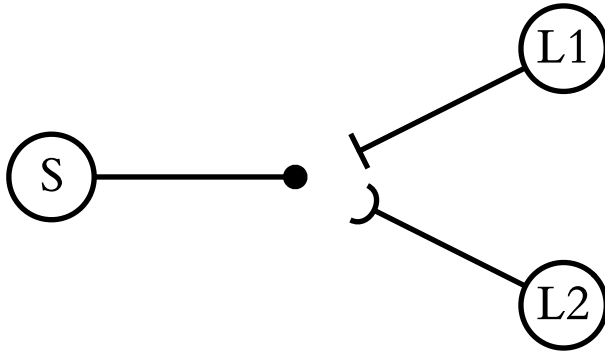
unwilling listener in a one-to-many case will have to put up with the unwanted speech. The reason is not that the unwilling listener's choices themselves are more or less significant in one type of case versus the other, but rather that in a one-to-one case, a listener's choices affect no other listeners, while in a one-to-many case, the listeners' choices are unavoidably intertwined. A street-corner orator necessarily reaches multiple listeners, whereas a telephone harasser does not bring other listeners into the picture. His speech is limited to one, highly unwilling listener. Serving him with a no-contact order will not interdict any speech to a willing listener (because there are no other listeners), but it will facilitate the speech of other speakers (because his victim can go back to reading a novel).

This is not a conclusive argument for listener choice in all settings. The details depend on contextual factors and normative arguments. Different foundational theories of free speech will make very different prescriptions here. My point here is only that we end up surprisingly far in the direction of favoring listeners' choices even in one-to-one cases *without needing to resort* to contextual factors and normative arguments.

C. Targeting, Selection, and Separation Costs

Speakers and listeners don't just have preferences about speech, they also *act* on those preferences. The speaker who chases a listener down the block and the listener who runs away are engaged in a struggle over whether they will end up matched; if one or the other stands still, she concedes that struggle to the other.

But if speakers' and listeners' actions can create structural conflicts, they can also resolve those conflicts. Consider *Controversial Protest* again:



Controversial Protest (redux): S gives a speech criticizing the mayor and would like to reach as many listeners as possible. $L1$ and $L2$ are within hearing range. $L1$ is not interested in listening to S ; $L2$ is.

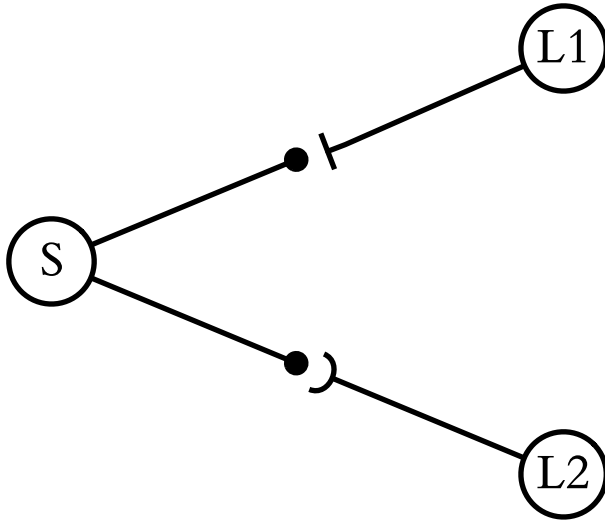
S and $L2$ form a willing-listener willing-speaker pair; S and $L2$ have irreconcilably opposed preferences. The point of *Controversial Protest* was that there is an additional listener-listener conflict between $L1$ and $L2$; the state's choice of whether or not to silence S can resolve that conflict only by disappointing one of the two. Given the core commitment to protecting speakers addressing willing listeners, it followed that S should be allowed to speak.

Unlike the conflict between S and $L1$, which is inherent in their preferences, the conflict between $L1$ and $L2$ is contingent. It stems from the assumption that either S speaks to both $L1$ and $L2$ or S speaks to neither of them. If we relax this assumption, it should be clear that another and arguably better matching is possible: S speaks to $L2$ but not to $L1$.²⁵

²⁵ Of course, there is also the matching in which S speaks to $L1$ but not to $L2$, but that would just be perverse. $L1$ and $L2$ would gladly trade places and S would not object, so this is not a stable matching.

	<i>S speaks to L1 & L2</i>	<i>S speaks to L2</i>	<i>S speaks to no one</i>
<i>S</i>	Good	Okay	Bad
<i>L1</i>	Bad	Good	Good
<i>L2</i>	Good	Good	Bad

In this matching, both $L1$ and $L2$ go home happy because their respective preferences (not to listen and to listen) have been honored. If we are committed to listener choice, this is a distinct improvement over the previously available options of speaking to both or to neither. It is still not possible to make both S and $L1$ happy; their preferences conflict no matter what. But again, if we are committed to listener choice, we will be less bothered by disappointing S than by disappointing $L1$. When $L1$ and $L2$ participate in a one-to-many case with S , their opposed preferences interfere; when they participate in distinct one-to-one cases with S , their preferences are independent. Every listener does as well or better when a one-to-many case is transformed into an aggregation of independent one-to-one cases.



That leaves open the question of how to get there from here. This is where speakers' and listeners' actions come in. Suppose they are in a park, a few dozen feet apart. Any of the three of them could go a long way toward solving the problem by walking a short way. *S* could come closer to *L2*; *L2* could come closer to *S*; or *L1* could go further away from the others. Whoever gets up and moves, the end result is the same: *S* can speak in a way that is audible to *L2* but not to *L1*. In addition to these unilateral measures, there may be hybrids that combine action from two, or even all three. So *S* and *L2* could each walk halfway toward the other. Or *S* could post a flyer announcing his intention to speak against the mayor at noon by the duck pond. *L2*, who is interested, will go to the duck pond at noon; *L1*, who is not interested, will stay away.

Frequently, speakers and listeners collaborate in this sorting process, voluntarily and without any state intervention. Take the description of a book on a dust jacket, which lets readers decide whether they want to read the book. The resulting sorting into interested readers and disinterested non-readers suits both speakers (authors and

publishers) and listeners (readers). The ubiquity of these collaborative choice structures should not blind us to their importance in achieving good matchings.

However it takes place, sorting is not free. Call the costs involved “separation costs.” In the park example, there is a literal separation: someone must move to create a greater distance between S and L_2 than between S and L_1 . More often, separation is a metaphor. In the book example, the publisher pays someone to draft the dust jacket copy, and pays to print the dust jackets. Readers pay with their time when they skim the dust jacket and reflect on it. Here, the separation costs are willingly borne, but they are costs nonetheless.

Sometimes separation costs may be cheap, sometimes they may be prohibitively expensive. Some separation costs will fall on speakers to target their speech, some on willing listeners to opt themselves in, some on unwilling listeners to opt themselves out. Some separation costs may even fall on third parties or the government (perhaps the parks department maintains the bulletin board S used to post the flyer). The parties will quite naturally prefer that someone else do the necessary work of separating willing from unwilling listeners.²⁶ To decide whether we should expect or require someone to bear separation costs, we will have to consider their magnitude and incidence, and compare them to the costs of foregone or unwanted speech.

We should be asking, in a sense, who is the least-cost-avoider of unwanted speech. The answer to that question will always depend on contextual details and frequently on the content of the speech. But it

²⁶ Of course, S may prefer that the problem not be solved at all: he has a better case to address the unwilling L_1 if that is the only way he can reach the willing L_2 . Not every speaker wants to reach unwilling listeners; musicians want to reach fans, not make enemies. But even those speakers who are perfectly willing not to address unwilling listeners would still prefer not to bear the separation costs.

is possible to make some general observations. A few distinctions are significant:

First, there is a duality between making speakers responsible for *targeting* their speech only to willing listeners and making listeners responsible for *selecting* only the speech they wish to hear. An email marketing list is speaker-targeted; an inbox spam filter is listener-selected. Asking listeners to “avert their eyes” or make the “short, though regular, journey from mail box to trash can”²⁷ requires listener selection; asking telemarketers not to call numbers on the Do Not Call list requires speaker targeting.²⁸

Second, there is a similar duality between making willing listeners *opt in* and making unwilling listeners *opt out*. Both are species of listener selection, but they differ in terms of whether willing or unwilling listeners are more responsible for taking action. Do Not Call is opt-out; those who do not wish to be called must register with the list. But cable television channels are opt-in: those who wish to receive them must affirmatively subscribe.

Third, separation costs depend both on the cost of physically *acting*, and on the cost of acquiring the necessary *knowledge* on which to act. It is easy to throw junk mail away unopened, but harder to tell whether there is junk mail within an unmarked envelope. Contrariwise, it is easy to know that there is a DJ stage at the block party outside, not so easy to ignore it.

In general, the lower a party’s separation costs, the more often First Amendment doctrine asks that party to bear them. The argument that unwilling viewers should avert their eyes reflects in part a belief that it would be more costly to make willing viewers wear

²⁷ *Lamont v. Commissioner of Motor Vehicles*, 269 F. Supp. 880, 883 (S.D.N.Y. 1967).

²⁸ See 16 C.F.R. § 310.4(b)(1)(iii)(B).

special glasses. But the captive audience doctrine deals with situations in which unwilling listeners are not effectively able to avert their eyes; we do not ask people to wear earplugs and blindfolds inside their own homes.

Law sometimes asks parties to collaborate in lowering each other's separation costs. Amplification limits require speakers not to use technology that overwhelms listeners' ability to sort themselves out.²⁹ Do Not Call requires listeners to volunteer a little information that is helpful to accurate speaker targeting; Caller ID requires speakers to provide a little information that is helpful to accurate listener selection.

In many real-life settings, the actual system in use is a complex hybrid of these various separation techniques. Take spam. Our current hybrid system for sorting email expects speakers, willing listeners, and unwilling listeners all to play a part.³⁰ Unwilling listeners who wish not to receive commercial promotions from a given sender are expected to make an opt-out request. Senders, however, are required to make those opt-outs simple and convenient, and to honor such requests. To facilitate low-cost selection by unwilling recipients deciding which emails to read, senders are required not to use certain kinds of deceptive metadata on their emails. And willing recipients who do want a company's mailings are frequently expected to affirmatively opt themselves in to promotional emails. Notice how these devices are all reasonably low-cost, how none of them interfere directly with speech to a willing listener, and how they collectively combine to create a system that facilitates the separation of willing and unwilling recipients. It is hardly a perfect system, but from a free speech perspective, it is far from a disaster, either. It does a reasonable job at

²⁹ *Ward v. Rock Against Racism*, 491 U.S. 781 (1989).

³⁰ See 15 U.S.C. ch. 103; 16 C.F.R. pt. 316.

separating willing from unwilling listeners, and thus at facilitating speaker and listener choice.

IV. EXAMPLES

The previous part made a series of structural claims about speaker-listener matching. Despite working at an absurdly high level of abstraction, it showed that any coherent system of free speech will tend to favor willing listeners over unwilling listeners, favor a willing listener's preferred speaker over competing speakers, consider protecting unwilling listeners from when other listeners are not implicated, and try to help willing and unwilling listeners separate themselves.

There is a tentative listener-choice principle running through all of these points. Listeners' choices to hear speech provide a *prima facie* reason to permit it; listeners' choices not to hear speech provide a *prima facie* reason to protect them, but one that can be overcome by other listeners' choices to hear it when the two conflict. That conflict, in turn, can be defused when it is possible to disaggregate willing and unwilling listeners' choices.

To repeat, these principles were derived solely from abstract theory and with no reference to the contents of speech or listeners' reasons for their choices. And yet they perform surprisingly well when exposed to actual cases involving specific speech and the real speakers and listeners who care about it. This part examines a few canonical Supreme Court cases and finds them consistent with these general principles.

A. Mail

Start with a matched pair of cases involving the United States mails. In *Lamont v. Postmaster General*, the Court struck down a statute

interdicting “communist political propaganda.”³¹ in *Rowan v. Post Office Department*, it upheld a statute allowing householders to prohibit delivery of “erotically arousing or sexually provocative” matter.³² The relevant difference between the two was listener choice.

Lamont dealt with section 305(a) of the Postal Service and Federal Employees Salary Act of 1962, which required the Postal Service to detain “communist political propaganda” from certain countries mailed into the United States, and deliver it “only on the addressee’s request.”³³ The Postal Service implemented the statute by screening all mail from those countries and sending a reply card to the addressee of any piece of mail determined to be statutory agitprop.³⁴ If the recipient filled out the card and returned it to the Postal Service, it would then deliver the mail; if the card was not returned within twenty days, the mail would be destroyed.³⁵ The two cases decided in *Lamont* involved the detention of material that today seems almost absurdly tame: the public exchange of stilted and grandiose open letters between the Chinese and Soviet Communist Parties as they jostled over the direction of international communism. In both, the American recipients filed suit challenging the constitutionality of section 305 rather than return the reply card.

31 381 U.S. 301, 302 (1965).

32 397 U.S. 728, 730 (1970).

33 *Lamont*, 381 U.S. at 302. A separate statute, the Foreign Agents Registration Act of 1938, defined the term “political propaganda,” and section 305(b) then defined “communist political propaganda” as political propaganda “issued by or on behalf of” certain specified countries. *Id.* at 302 n.1.

34 *Id.* at 303–04.

35 *Id.*

The Supreme Court avoided standing difficulties by invoking listeners' rights, rather than speakers'.³⁶ The statute, it held, "amounts in our judgment to an unconstitutional abridgment of the *addressee's* First Amendment rights."³⁷ Moreover, it justified this conclusion by detailing the system's burdens for listeners; the Court noted the "affirmative obligation" it thrust on addressees, and the chilling effect of needing to request delivery of "communist political propaganda."³⁸ In a concurrence, Justice Brennan explicitly and eloquently grounded willing listeners' rights in the First Amendment:

It is true that the First Amendment contains no specific guarantee of access to publications. However, the protection of the Bill of Rights goes beyond the specific guarantees to protect from congressional abridgment those equally fundamental personal rights necessary to make the express guarantees fully meaningful. I think the right to receive publications is such a fundamental right. The dissemination of ideas can accomplish nothing if otherwise willing addressees are not free to receive and consider them. It would be a barren marketplace of ideas

36 The senders were located abroad and the mail they sent was issued on behalf of foreign governments. Thus, not only were the senders not before the court, it was unclear that they had any First Amendment rights to assert. *See id.* at 307-08 (Brennan J., concurring). The modern First Amendment status of speech by foreigners remains unsettled, although "aliens abroad are presumed not to enjoy First Amendment rights." Timothy Zick, *Territoriality and the First Amendment: Free Speech At—And Beyond—Our Borders*, 85 Notre Dame L. Rev. 1544, 1549 (2010). *See also* Bluman v. Federal Election Com'n, 800 F. Supp.2d 281 (D.D.C. 2011), *aff'd*, 132 S.Ct. 1087 (2012).

37 *Id.* at 307 (emphasis added).

38 *Id.*

that had only sellers and no buyers.³⁹

Lamont uncontroversially elevated listeners to the same plane as speakers. In similar cases where willing speakers and willing listeners oppose a government seeking to interpose itself between them, it does not particularly matter who is the plaintiff. Allowing either to sue when their interests are “inextricably meshed” avoids difficult and distracting questions about standing to assert each other’s First Amendment rights.⁴⁰

Rowan took a further and more interesting step. The Postal Revenue and Federal Salary Act of 1967 established a procedure for householders to notify the Postmaster General that they had received “erotically arousing or sexually provocative” advertising material from a specified sender.⁴¹ Upon receiving such a notice, the Postmaster General was required to order the sender “to refrain from further mailings to the named addressee.”⁴² Notably, whether the mail was in fact arousing or provocative was left to the “sole discretion” of the householder, and as the statute was construed by the Court, future mailings

39 *Lamont*, 381 U.S. at 308 (Brennan, J. concurring) (citations omitted).

40 *See, e.g.*, *Procurier v. Martinez*, 416 U.S. 396, 409 (1974). *Procurier* involved prisoners’ correspondence, so by focusing on the rights of their pen pals both as senders and as recipients, the Court could sidestep the question of “the extent to which an individual’s right to free speech survives incarceration.” *Id.* at 408. *See also Kleindienst v. Mandel*, 408 U.S. 753 (1972) (recognizing First Amendment interests of would-be audiences for Belgian socialist denied visa to enter the United States, while subordinating those interests to the plenary Congressional power to exclude aliens).

41 *Rowan v. Post Office Department*, 397 U.S. 728, 729–30 (1970).

42 *Id.* at 730.

from that sender to that addressee were prohibited regardless of their content.⁴³

In many respects, the statute in *Rowan* was the more speech-restrictive of the two. It barred speech outright, rather than merely imposing an inconvenience (the reply card) on it. It could be applied to any advertising mail, not just mail advocating on behalf of communist governments. It applied to United States senders, not just aliens abroad. It imposed the threat of coercive punishments against speakers, not just the interception of their speech. And it vested unfettered and unreviewable discretion to apply a vague statutory standard in a private party. From a speaker-centric perspective, the statute in *Rowan* is more offensive; with *Lamont* on the books, it seems like an easy case for invalidation.

But when the Supreme Court decided *Rowan*, it *upheld* the statute, and unanimously. Chief Justice Burger's opinion rests on listeners' rights as listeners. It starts by acknowledging the tension between speakers' and listeners' interests:

But the right of every person “to be let alone” must be placed in the scales with the right of others to communicate.

. . . .

To make the householder the exclusive and final judge of what will cross his threshold undoubtedly has the effect of impeding the flow of ideas, information, and arguments that, ideally, he should receive and consider.⁴⁴

As between the two, it clearly favors listeners:

Nothing in the Constitution compels us to listen to or view

⁴³ *Id.* at 734–35.

⁴⁴ *Id.* at 736.

any unwanted communication, whatever its merit; we see no basis for according the printed word or pictures a different or more preferred status because they are sent by mail.⁴⁵

And it finishes with a clear statement of unwilling listeners' place in the scheme of the First Amendment:

We therefore categorically reject the argument that a vendor has a right under the Constitution or otherwise to send unwanted material into the home of another. If this prohibition operates to impede the flow of even valid ideas, the answer is that no one has a right to press even "good" ideas on an unwilling recipient.⁴⁶

The difference between *Lamont* and *Rowan* is the willingness or the unwillingness of the listener. *Lamont* is a simple violation of the core willing-speaker willing-listener free speech principle. *Rowan* comes out as it does because mail is a one-to-one medium. The separation problem was substantially solved by giving each residence its own postal address.⁴⁷ Because mail is individually targetable, it is reasonable to ask senders to refrain from mailing unwilling recipients. To be sure, it might also be reasonable to ask recipients to throw away unwanted mail. But by the logic of listener choice, in a one-to-one case, no core violation of free speech is committed if we ask senders rather than recipients to bear this cost.

45 *Id.* at 737.

46 *Id.* at 738.

47 Substantially, but not completely. The statute in *Rowan* allowed parents to add the names of children 19 and under to the removal lists; Justice Brennan's concurrence raised the possibility that teenagers might be more willing recipients than their parents. *Rowan*, 397 U.S. at 741.

Moreover, note that the statute in *Rowan* required unwilling recipients to opt out by sending a reply card, rather than requiring willing recipients to opt in. By giving senders one bite at the apple, the opt-out rule tends to favor willing listeners over unwilling, achieving a more speech-protective result. And a burden that is reasonable for unwilling listeners may not be reasonable for willing ones. The same procedure—sending a reply card—was struck down in *Lamont* as an unconstitutional burden on speech.

B. Doorbells

The same distinction appears in the Supreme Court's cases on door-to-door solicitation, of which *Martin v. City of Struthers* provides a good example.⁴⁸ Struthers, Ohio, had an ordinance prohibiting door-to-door distribution of "handbills, circulars or other advertisements."⁴⁹ A Jehovah's Witness, fined \$10 for violating the ordinance, argued that it was unconstitutional.

Justice Black's opinion striking down the ordinance under the First Amendment is notable for the contrast it draws between the government's decisions and the homeowner's. In one notable passage, it makes the same point four times in three sentences:

We are faced in the instant case with the necessity of weighing the conflicting interests of the appellant in the civil rights she claims, as well as [(1)] *the right of the individual householder to determine whether he is willing to receive her message*, against the interest of the community which by this ordinance offers to protect the interests of all of its citizens, [(2)] *whether particular citizens want that protection or not*. The ordinance does not control anything but the distribution of literature, and in that respect it [(3)]

48 319 U.S. 141 (1943).

49 *Id.* at 142.

*substitutes the judgment of the community for the judgment of the individual householder. It submits the distributor to criminal punishment for annoying the person on whom he calls, [(4)] even though the recipient of the literature distributed is in fact glad to receive it.*⁵⁰

Crucially, the opinion explains (albeit in dictum) that laws punishing trespass by unwanted callers remain constitutional: “This or any similar regulation leaves the decision as to whether distributors of literature may lawfully call at a home where it belongs — with the homeowner himself. A city can punish those who call at a home in defiance of the previously expressed will of the occupant”⁵¹ Subsequent caselaw involving unwanted newspaper deliveries confirms that homeowners can indeed stop unwanted speech by giving proper notice.⁵²

As before, knocking at doors is a one-to-one medium, so it is possible both to protect speakers and to ask them to target their speech only to the willing. And as before, the compromise on the ground requires the unwilling to opt out rather than requiring the willing to opt in. The state may *enforce* a homeowner’s desire not to be spoken to, but it may not *presume* such a desire—even where the presumption

⁵⁰ *Id.* at 143–44 (emphasis added).

⁵¹ *Id.* at 148.

⁵² See, e.g., *Tillman v. Distribution Sys. of Am.*, 224 A.D.2d 79, 88 (N.Y. App. Div. 1996) (“The State need not, and in our opinion, should not, compel anyone to read, to buy, or even to touch, pick up, or handle a newspaper of which the individual in question wants to have no part.”). Cf. *Reddy v. Plain Dealer Pub’g Co.*, 991 N.E.2d 1158 (Ohio. Ct. App. 2013) (denying relief where homeowner had not provided newspaper with notice of his objection). Different considerations apply, of course, beyond the home, because there the interests of other listeners besides those with property-based exclusionary rights are implicated.

is rebuttable. This rule has the effect of giving speakers the chance to engage listeners to see whether they choose to hear more. Some, indeed many, of those listeners will not, and these cases arise because they object to having been bothered. But these ultimately unwilling listeners cannot prevail over those who prove willing to entertain the speaker's message. The protection of unwilling listeners' choices both depends on and is limited by the protection of willing listeners' choices.

C. Drive-Ins

Finally, consider *Erznoznik v. City of Jacksonville*.⁵³ The University Drive-In Theatre in Jacksonville screened *Class of '74*, which featured "pictures of uncovered female breasts and buttocks."⁵⁴ A city ordinance prohibited showing such anatomy "if such motion picture, slide, or other exhibit is visible from any public street or public place."⁵⁵ The drive-in's screen was visible from two public streets and a church parking lot. A prosecution and a declaratory judgment constitutional challenge ensued; the Supreme Court found the ordinance unconstitutional.

Of Jacksonville's various asserted justifications for the ordinance, the only one that need detain us here is the theory that the city could "protect its citizens against unwilling exposure to materials that may be offensive."⁵⁶ The opinion itself presents the issue as a clash between speaker and listeners, describing the clash as one "pitting the First

53 422 U.S. 205 (1975).

54 *Id.* at 206 n.1.

55 *Id.* at 207.

56 *Id.* at 208. As a measure to protect children, the ordinance was overbroad. *Id.* at 212-14. As a traffic control measure, it was underinclusive. *Id.* at 214-15.

Amendment rights of speakers against the privacy rights of those who may be unwilling viewers or auditors” and calling for “delicate balancing.”⁵⁷ But outside the home, Justice Powell wrote:

Much that we encounter offends our esthetic, if not our political and moral, sensibilities. Nevertheless, the Constitution does not permit government to decide which types of otherwise protected speech are sufficiently offensive to require protection for the unwilling listener or viewer. Rather, absent the narrow circumstances described above, the burden normally falls upon the viewer to “avoid further bombardment of [his] sensibilities simply by averting [his] eyes.”⁵⁸

Since “the offended viewer readily can avert his eyes” by looking away from the drive-in screen, the Court allowed the drive-in to continue showing racy B movies.

This much is standard-issue unwilling-listener rhetoric. But the real story of *Erznoznik*—the story of willing listeners—comes in the footnotes. First, the drive-in was not screening *Class of '74* to shock unsuspecting passers-by. It was trying to reach willing viewers (also known as paying customers) rather than unwilling ones. As footnote 6 observed, “Presumably, where economically feasible, the screen of a drive-in theater will be shielded from those who do not pay.”⁵⁹ Thus, the ordinance did not simply burden the drive-in as a speaker; it also burdened the drive-in’s customers as listeners. Footnote 7 acknowledged that the case involved both “the rights of those who operate drive-in theaters and the public that attends these establishments.”⁶⁰

⁵⁷ *Id.* at 208.

⁵⁸ *Id.* at 210-11 (quoting *Cohen v. California*, 403 U.S. 15, 21 (1971)).

⁵⁹ *Id.* at 210 n.6.

⁶⁰ *Id.* at 211 n.7.

That makes *Erznoznik* a one-to-many case, and to prohibit showing *Class of '74* to protect the choices of unwilling viewers would interfere with the choices of willing ones.⁶¹

An exchange between dissent and majority makes clear that *Erznoznik* was a case about separation costs. Chief Justice Burger argued in dissent that it was difficult for disinterested viewers to look away, saying, “[T]he screen of a drive-in movie theater is a unique type of eye-catching display that can be highly intrusive and distracting.”⁶² But even crediting the discredited idea that visual media compel obedience, screening out the movies would have been far more difficult on the drive-in’s end. By one estimate, it might have cost \$250,000 to erect a sufficient wall—a cost so high as to seriously interfere with the drive-in’s willingness to speak (and thus its ability to reach willing listeners).⁶³ As footnote 7 of the majority opinion explained:

The effect of the Jacksonville ordinance is to increase the cost of showing films containing nudity. In certain circumstances theaters will avoid showing these movies rather than incur the additional costs. As a result persons who want to see such films at drive-ins will be unable to do so.⁶⁴

61 Indeed, there is more than a hint in the case that the problem from Jacksonville’s point of view was not *unwilling* viewers on public streets but *willing* ones. Justice Powell’s recitation of the facts states, “There was also testimony indicating that people had been observed watching films while sitting outside the theater in parked cars and in the grass.” *Id.* at 207. One does not take a seat near a drive-in to avoid the movie; one takes a seat to enjoy it.

62 *Id.* at 221 (Burger, C.J., dissenting).

63 *Id.* at 211 n.8.

64 *Id.* at 211 n.7.

As between the drive-in and passers-by, the latter were the least-cost avoiders of the speech conflict here.

This point deserves amplification. When we deal with unwanted one-to-many speech, we are always asking at least two questions. The first is a question of separation costs: whether we are truly dealing with a one-to-many case, or simply with the aggregation of numerous but independent one-to-one cases. Only once we have an answer to this question about the pragmatics of the situation can we properly consider the speech itself and the question of its value or harm to speakers and listeners. Cases like *Erznoznik* that make sweeping statements about what listeners must endure may in fact stand only for much narrower propositions about what they must endure when targeting is infeasible. Mail and knocking at doors are targetable; drive-in theaters much less so. These kinds of cases raise different issues, and it is not possible to lump all unwilling-listener cases together. We must be more careful about the actual structure of the flows of speech from speakers to listeners, and about whose choices influence those flows. Only then can we properly articulate whose interests are truly at stake, and what conflicts the law must mediate.

V. CONCLUSION

Speaker-listener matching is a general, rigorous, and illuminating way of analyzing difficult First Amendment problems. It provides a new and I think useful way of understanding how speaking and listening are different but interdependent, and of identifying the relevant relationships in First Amendment cases. It does not always apply, but when it does it helps bring out recurring patterns.

One such pattern, which I have discussed in detail, is listener choice. This is a golden age for scholarship on listeners' rights.⁶⁵ Recent work includes powerful normative arguments for putting listeners alongside speakers at the center of free speech theory, and thoughtful listener-oriented analyses of a diverse array of First Amendment doctrines. Those who are committed to listeners' rights may find the matching framework congenial in a few ways. First, it provides a concrete way of recognizing listeners' agency, of talking about their *choices* rather than about their *interests*.⁶⁶ Second, it shows that listeners make choices *for* speakers and not just *against* them, and thus helps align listeners' and speakers' rights. Third, it shows how some conflicts among speakers and listeners can be accidents of history — so that with appropriate physical, technical, or legal interventions, the conflicts dissolve. And fourth, it shows that listener choice really is a recurring pattern:

- In one-to-many cases, willing listeners' choices prevail over unwilling listeners' choices.
- In many-to-one cases, listeners' choices break the deadlock among competing speakers.

65 The literature on listeners' rights is extensive, and a proper survey would require an article-length literature review. In addition to the other articles in this volume, significant recent highlights include Leslie Kendrick, *Are Speech Rights for Speakers?*, 103 VA. L. REV. 1767 (2007); Toni M. Massaro et al., *SIRI-OUSLY 2.0: What Artificial Intelligence Reveals About the First Amendment*, 101 MINN. L. REV. 2481 (2017); BURT NEUBORNE, *MADISON'S MUSIC: ON READING THE FIRST AMENDMENT* (2015); Seana Valentine Shiffrin, *A Thinker-Based Approach to Freedom of Speech*, 27 CONST. COMMENT. 25 (2011).

66 And speakers' choices, but speakers have not suffered from lack of attention to their choices.

- In one-to-one cases (once they are properly distinguished from one-to-many cases) unwilling listeners' choices are less of a threat to free speech than they are sometimes said to be.
- Some one-to-many cases can be disaggregated into one-to-one cases through appropriate separation, and this disaggregation promotes listener choice.

These observations are pragmatic rather than profound. They are not an argument for listeners' rights across the board. Instead, they suggest that in a world with many competing speakers and many diverse listeners, the structural limits of speaker-listener matching will tend to push any system of freedom of expression towards respecting listeners' choices in many cases. Whatever your theory of freedom of speech, this is usually a good thing.

But listeners' rights are not the only direction in which the theory of speaker-listener matching can go. I would like to briefly sketch another, which I think is equally important. We have a tradition of free speech theory and First Amendment doctrine that obsesses over the problem of bandwidth scarcity. Much of what we think we know about speakers and listeners — think of spectrum, public fora, and compelled disclosures, to name just a few — takes it for granted that law will have to mediate conflicts among speakers and listeners over limited speech-transmission resources. But in this century, the scarcities that matter are attention and information, not bandwidth. The problem is not that speakers have a hard time reaching listeners, or that listeners are denied the ability to hear the speech they want. The problem is that listeners are flooded with speech, far more than they can possibly listen to, and that they know extremely little about that speech, so little that they can't even make minimally informed choices about which speech to listen to.

“Fake news” is a bad way to describe the problem, but the problem is there, whether we have a good term for it or not.⁶⁷ Something has gone very wrong with the matching process in the last few years, especially but not exclusively online, something that is hard even to see from within traditional content-focused theories of free speech. Fake news and filter bubbles are problems of attention and ignorance.⁶⁸ They have to do with the content of speech, yes, but much more to do with how content spreads from speakers to listeners.⁶⁹

Free speech theory needs to come to grips with attention and ignorance as foundational concepts.⁷⁰ In an age of virality, presidential tweets, and recommendation engines run amok, attention is *the* resource that powerful speakers fight over, and listener ignorance is often their weapon of choice.⁷¹ Preserving a safe space for a democratic

67 Some sources on the issues involved include Robyn Caplan et al., *Dead Reckoning: Navigating Content Moderation After “Fake News”* (Data & Society 2018); James Grimmelmann, *The Platform is the Message*, GEO. L. TECH. REV. (forthcoming); Alice Marwick & Rebecca Lewis, *Media Manipulation and Disinformation Online* (Data & Society 2017); Mark Verstraete et al., *Identifying and Countering Fake News* (University of Arizona 2017); Claire Wardle, *Fake News. It’s Complicated*, First Draft (Feb. 16, 2017), <https://firstdraftnews.com/fake-news-complicated/>.

68 On filter bubbles, see CASS R. SUNSTEIN, #REPUBLIC: DIVIDED DEMOCRACY IN THE AGE OF SOCIAL MEDIA (2017); ELI PARISER, THE FILTER BUBBLE: WHAT THE INTERNET IS HIDING FROM YOU (2011).

69 See Zeynep Tufekci, *It’s the (Democracy-Poisoning) Golden Age of Free Speech*, WIRED, Jan. 16, 2018, <https://www.wired.com/story/free-speech-issue-tech-turmoil-new-censorship/>.

70 Some initial work along these lines includes Jasper L. Tran, *The Right to Attention*, 91 IND. L.J. 1023 (2016); Wu, *supra* note 12.

71 See TIM WU, THE ATTENTION MERCHANTS: THE EPIC SCRAMBLE TO GET INSIDE OUR HEADS (2016).

culture will require new efforts to protect attention from hijacking and misuse, and new tools to channel it to places where it can be used for good.⁷² The truly unifying work on what a coherent First Amendment law of attention and ignorance would look like remains to be written. I hope that it will not be long. The problem is urgent.

⁷² See generally Jack M. Balkin, *Digital Speech and Democratic Culture: A Theory of Freedom of Expression for the Information Society*, 79 N.Y.U. L. REV. 1 (2004).