

# The Social Norms of Waiting in Line

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*This article examines the rules and practices of waiting in line as a system of informal order, showing that despite its reputation for drudgery, the queue offers rich insights about social norms and the psychology of cooperation. The article begins by investigating the implicit customs of physical waiting in line, uncovering the surprisingly complex unwritten rules (and exceptions) that give queues stability even in the absence of legal governance or state enforcement. Yet the prevailing norms literature typically explains informal order by reference to close-knit groups that can impose sanctions on violators of extralegal rules. This raises a puzzle: Why do queue norms repeatedly produce informal, yet reliable, order among total strangers unlikely to interact again? This article answers this question by looking to social-psychological research showing that people tend to be strong reciprocators rather than selfish utility maximizers. This model makes sense of both our tendency to defer to line norms as well as the disproportionate sanctions with which defectors from these norms meet.*

## I. INTRODUCTION: THE PUZZLE OF THE WAITING LINE

The phenomenon of lining up to wait is so commonplace that we rarely pause to reflect on it. But perhaps because this experience is so familiar, and so tedious, it is easy to overlook the strangeness of this fact: queues happen, over and over again, spontaneously. When the number of people seeking some good or service exceeds the supply of people available to provide it, patrons typically form a physical waiting line,<sup>1</sup> starting with the first person closest to the point of service, and prioritizing each subsequent line member in ordinal succession. What makes the social phenomenon of lines so peculiar is that they do not have to happen at all. No federal law specifies line protocol or imposes penalties for cutting in. People waiting in an interminable queue for their morning coffee could rush the counter, or fight to the death, or engage in an elaborate rock-paper-scissors tournament to see who will be served first. But even in this context where no law governs and we tend to be terribly eager, even desperate, to get what is at the end of the queue, we do not act terribly or desperately. Just the contrary: we line up and wait, (mostly) nicely.

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1. This is true in high-queueing societies, at least. The practice of lining up is very much culturally and contextually contingent. I define the scope of this article's analysis along both of these axes in Section II.

This article explores the waiting line as a system of informal social order in two parts. The first is descriptive: Section II investigates the informal but widely accepted principles—social norms—governing the operation of queues. In analyzing lines from the perspective of social norms, this article joins a long tradition of legal scholarship that describes and explores the extralegal regulation of human conduct. The cornerstone work in this field is Robert Ellickson's study of norm-based regulation of cattle trespass among Shasta County ranchers (Ellickson 1991). Scholars of law and society have subsequently studied the use of social norms to regulate conduct among diamond merchants (Bernstein 1992) and cotton traders (Bernstein 2001), southern California surfers (Nazer 2004) and Tokyo tuna traders (Feldman 2006), roller derby girls (Fagundes 2012), and tattoo artists (Perzanowski 2013).

Section II adds to this scholarship by mapping the geography of the informal rules governing waiting in line. It lays out both the essential conventions that apply to everyday lines and the more elaborate rule systems that arise in longer lines where people are more invested in the outcome. The former principles are familiar; even schoolchildren know not to queue jump. But the convoluted rules that govern, for example, Krzyzewskiville could form the basis for an advanced law school seminar.<sup>2</sup> Section II also explores zones of disconsensus about queue norms. Can a line-waiter allow his or her friends and family to join the waiter when he or she reaches the front of the queue? Is it permissible to trade places with someone you have paid to wait in line for you? The hot-blooded responses people exhibit in response to these disputed practices provide a window into the core beliefs about fairness that animate the rule structure of the waiting line.

Section III engages a question that arises in all norms scholarship: Why do people obey queue norms in the absence of formal rules or state enforcement? While answers to this question vary, they usually rely on the assumption that those governed by the norms at issue will be engaged in repeated interactions with one another due to their membership in the same close-knit group (Ellickson 1991, 177–83). But queues do not arise only among groups of familiars; on the contrary, they tend to be formed by total strangers. The waiting line is a distinctive phenomenon that demands a distinctive explanation. Why do people observe norms in loose-knit groups where they are likely to have only single-shot interactions with others? Lior Strahilevitz identified this as “the puzzle crying out for an explanation” (Strahilevitz 2003a).

To resolve this puzzle, this article turns to a body of social science research showing that people exhibit a surprisingly high degree of instinctive cooperation. There is little evidence that we are all selfish *homines economici*; rather, we tend to be strong reciprocators, inclined to cooperate when we see others doing so, provided that we do not see anyone free riding at the expense of our

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2. This is the student waiting line for Duke basketball tickets, mercifully called “K-ville” for short. Its rules, which cover tenting, walk-up lines, wristbanding, registration, and line checks for regular games, big games, and the North Carolina game, are publicly available at <http://www.kvillenation.com/kville-policy-full.pdf>.

generosity (Frey 1997; Kahan 2003; Dohmen et al. 2009). And queue norms and practices dovetail neatly with both the collaborative and punishing sides of our inclination toward reciprocity. Physical waiting lines send a clear and strong signal about the prevalence of mass cooperation. The sight of a thousand or even a few people waiting patiently in line communicates the essence of human cooperation (and tends to understate defection) in a way designed to trigger others' instinct for reciprocity. Moreover, the outsized rage people exhibit at breaches of queue protocol—especially the odious practice of line cutting—provides an effective disincentive for the small but problematic percentage of the population that is inclined not to cooperate. These noncooperators threaten to unravel informal systems of order by creating a widespread perception of free riding. However, the very real chance that they will meet with shouts, fists, or worse keeps even the relative minority of committed line-cutters at bay and preserves the stability of queues. As the conclusion to this article remarks, the mundane character of the line belies its richness as a source of insight for life and law alike.

## II. THE NORMS OF THE LINE

It is often said that there is no law against cutting in line.<sup>3</sup> This is not quite true. There is one. In Washington State, cars that drive along the break-down lane to jump in front of the line of vehicles waiting for the Puget Sound ferry can be cited for a moving violation, fined \$101, and sent to the back of the queue (Lindblom 2005). However, the absence of state-created law governing line cutting is not the end of the story; it is the beginning. The social institution of queuing up under conditions of scarcity arose and persists in the absence of any legally imposed behavioral requirements or threats of state sanction. Rather, a complex but stable series of social norms govern how we line up, when we can cut in, and how violations are adjudicated and enforced. The queue may thus be the purest example of what Robert Ellickson famously called “order without law.” This section maps the domain of the social norms that govern physical waiting lines, noting areas of consensus as well as disconsensus, and exploring how violations of these norms are enforced. While this article will mention, by contrast, other kinds of waiting lines like online lists or vehicular traffic,<sup>4</sup> it will focus primarily on physical queues of individual people waiting for some good or service.

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3. For example, the three lawyers who responded to an online query about whether line cutting was illegal concurred that it was not. Is it illegal to cut someone in line in a public place? *AVVO.COM*, <http://www.avvo.com/legal-answers/is-it-illegal-to-cut-someone-in-line-in-a-public-p-594895.html>.

4. Traffic in particular furnishes a different setting in which different conclusions about line waiting obtain (Vanderbilt 2008, 45–51). This article discusses the implications of the contrast between physical waiting lines and automotive ones in note 59.

## A. The Rules of the Waiting Line

### 1. Substantive Rules

The origin of the practice remains murky,<sup>5</sup> but lining up is now an ever-present feature of modern life.<sup>6</sup> Queues arise informally and spontaneously, but closer analysis reveals that four interrelated social norms constitute this social practice. The first is *form a line*. That is, when waiting, the proper way to do so is to stand directly in back of the person who began waiting just before you, forming a straight line (as opposed to a scrum, or a mob, or a double helix). The queue provides a very clear physical signal of ordinality, indicating unambiguously where each person's priority spot belongs relative to each other's.<sup>7</sup> The second basic maxim of the line invokes the most visceral reactions: *no cutting*. Once the line is established, you may join it only by going to the back and lining up behind the last person. Intruding into the line at any other point, especially toward the front but even at the rear, is not permitted and often harshly sanctioned. Norms against line jumping are so strongly felt that people frequently regard *no cutting* as a point of national pride,<sup>8</sup> and even a core principle of human decency.<sup>9</sup> The third core principle of the line is a corollary of the first: *first come, first served* (FCFS). This tenet determines the scope of a line-waiter's entitlement: a right to be served in the order of his or her spot in the queue, roughly tracking property law's first possession principle.<sup>10</sup> A spot in line thus becomes "a kind of mobile property in land, a portable space which is uniquely and recognizably his or hers and is defensible against all comers" (Gray 2010, 4). The foregoing norms determine the acquisition of a place in line and the nature of a line-waiter's entitlement. A fourth rule, *wait your turn*, dictates both how to maintain your space in line and what conduct may lead to losing it. The first valence of *wait your turn* is straightforward: keeping your line priority requires ongoing physical possession of your place in the queue.<sup>11</sup> It is not enough

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5. Thomas Carlyle appears to have coined the phrase "waiting in a queue" in 1837—ironically in praise of the tendency of the French to form orderly lines (Winterman 2013).

6. An IPSOS survey from 1985 pegged the average amount of time Americans spend waiting in line at thirty minutes per day.

7. This signaling function also eliminates any blurriness about status that may arise were people to simply and informally keep track of when they arrived without lining up (Rose 1994, 269–70).

8. Foreign exchange students to universities in Devon and Cornwall were given "lessons" in queuing by their British hosts. As one local policeman remarked: "In Britain we are the biggest queuers on earth. We're saying to [foreign students], don't push in." Foreign Students Given Queuing Lessons, *BBC News*, August 5, 2002.

9. One wag described President Obama's line cutting at an Austin barbecue joint "a heinous violation of the social contract" (Chan 2014).

10. The waiting line thus represents one example of the spontaneous formation of property-like interests in open-access resources where FCFS serves as a basic organizing principle. For a survey of this phenomenon and other examples of it, see Leonard and Libecap (2015). Whether FCFS is normatively desirable is contested. Its justifications vary widely depending on context (Perry and Zarsky 2014), and some have even argued that "last-come, first served" would be the most efficient option of all because it would encourage people to minimize the deadweight loss of line waiting itself (Platz and Osterdal 2012).

11. The notion of physical occupancy is central to both informal possession, such as with claim staking during the California gold rush (MacDowell 2004, 782), and acquisition of formal property rights such as adverse possession; see, e.g., Tex. Civ. Prac. & Remedies Code § 16.021.

to simply show up, claim a space, and leave to go wait in a more comfortable place; you have to stay and wait in that physical place in order to maintain your priority (Mann 1970; Brady 2002). Queue priority is thus not just about being earlier in time, but about continuing to signal your priority claim by virtue of your physical presence (Brady 2002, 161). *Wait your turn* thus also implies a strict principle of abandonment: if you leave the line, you lose your space, period.<sup>12</sup> Departing the line means you immediately forfeit your priority, just as abandoning your property means you have relinquished legal ownership of it (Hansen 2010).

## 2. Sanctions, External and Internal

These rules may lack the force of law, but violating them may still lead to state sanctions under some circumstances.<sup>13</sup> While the overwhelming majority of people simply join queues politely, when they do not, the primary penalty comes in the form of external sanctions—namely, opposition from other line members. Popular accounts of violations of *no cutting*, for example, reveal a variety of responses. One English line vigilante reports that when a pushy businessman barged in back of him in a line for public transport and refused to leave, the line-waiter simply allowed everyone else in line to cut ahead of him and the businessman just to teach the latter a lesson.<sup>14</sup> Similarly, the pilot episode of the television series *30 Rock* featured lead character Liz Lemon in a conflict with a man who she felt had cut in line at an outdoor hotdog cart. Her solution: buying all the hotdogs and distributing them to the people who had waited patiently in line, making sure the queue-jumper got nothing. One etiquette consultant suggested photographing line-cutting “miscreants” and engaging in online shaming via social media (Grotts 2013).

Some empirical studies have assessed violations of *no cutting*, finding results that match these narratives. In famed social psychologist Stanley Milgram’s final study, he had confederates intrude into waiting lines and found responses ranging from verbal objections to violence (Milgram 1986, 684).<sup>15</sup> Milgram and others have found that the responsibility for enforcing the no-cutting rule usually falls on the person directly in back of the cut. The likelihood that someone will object to queue jumping thus falls off dramatically farther back in the line from the intrusion. The research on line intrusion shows that not all line-cutters will be sanctioned. In Milgram’s study, for example, even when someone cut directly in front of someone else in a queue, the intrusion met with total indifference around 25 percent of the time,

12. The park rules at Six Flags Over Texas, for example, warn that “Guests are not permitted to exit the line and return for any reason,” on penalty of park ejection with no refund. Park Policies, SixFlags.com, <https://www.sixflags.com/overtexas/plan-your-visit/park-policies>.

13. For instance, an unscrupulous man who posed as a federal agent to skip in front of long gas lines following Hurricane Sandy was arrested for impersonating a federal official (Malady 2013).

14. This anecdote was recounted on a Metafilter.com thread, “Cutting in Line,” <http://ask.metafilter.com/104881/Standing-In-Line#1516290>.

15. The likelihood of objection appears related to the number of line-cutters. People objected 54 percent of the time when one person cut immediately in front of them, but 91 percent of the time when two or more people cut immediately in front of them. Bernd Schmitt replicated Milgram’s results in a similar study, finding that wholly unexplained line intrusion by a single person led to a verbal or violent objection about half the time (Schmitt, Dubé, and Leclerc 1992, 813).

and met with an aggressive physical objection—such as a firm tap on the shoulder or a shove out of the queue—only about 10 percent of the time (Milgram 1986, 684). But in that relatively small number of cases where violence erupts, things can go very wrong, very quickly. Local news outlets frequently report episodes of “line rage” resulting in fights or worse. A woman waiting in line at a St. Louis pawn shop, for example, savagely assaulted another woman who had cut in front of her in the service queue (Huda 2014).<sup>16</sup>

Service providers themselves may also monitor line cutting and impose penalties for it. The park policies of Six Flags Over Texas, for example, warn that “line jumping” is conduct that is “offensive to park guests and may be cause for ejection without refund.”<sup>17</sup> Six Flags Over Georgia has a hotline that patrons can call to report line cutting, and its employees often follow through with complaints by ejecting line jumpers or at least making them go to the end of the queue.<sup>18</sup> Police may participate in enforcing line integrity, especially where the line intruder is disruptive enough that the conduct may amount to a substantive crime like assault (of other queue members) or disturbing the peace (Marco 2009). This kind of police support of line norms is not always available; people who complained to the Capitol Police about impermissible intrusion into waiting lines for Supreme Court arguments were disappointed to meet with near-total indifference (Blackman 2013).

Not all sanctions operate externally. As Robert Cooter has observed, nonlegal regulatory systems persist also because of internal sanctions (Cooter 1996, 1694). Internalized norms will lead people to follow norms due to negative emotions like guilt or positive ones like a desire to participate in constructive social behavior. Milgram’s line-intrusion experiment inadvertently showed the strength of internal sanctions in queue norms. His experimental intruders procrastinated at length, paced nervously near the line, and took as much as a half-hour before working up the nerve to intrude into the queue (Milgram 1986, 685–86). When they did, they often exhibited physical symptoms such as “pallor and nausea” due to “the inhibitory anxiety that ordinarily prevents people from breaching social norms” (Milgram 1986, 686).<sup>19</sup>

### 3. Exceptions

The norms of the queue bear a number of exceptions, of which the most familiar permits line jumping in cases of necessity. When check-in waits at the terminal grow long, for example, many airlines seek out customers who are due to leave soon and allow them to move to the front of the line so they do not miss their flights

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16. Across the globe, line-cutting incidents have resulted in the deaths of the queue intruders. See St. Louis Man Convicted of Fatal-Shooting after Line-Cutting Dispute at Liquor Store, *St. Louis Post-Dispatch*, March 21, 2014 (USA); The Row in the Rubbish Dump Queue that Left a Man Dead, *Daily Mail Online*, November 27, 2006 (Great Britain); Mustafa (2013) (Malaysia).

17. Park Policies, SixFlags.com, <https://www.sixflags.com/over texas/plan-your-visit/park-policies>.

18. Patrons of the theme park reported this at *Line Cutters Should Be Arrested*, *Theme Parker Blog*, November 9, 2011, <http://www.themeparker.com/Geekly/line-cutters-should-be-arrested-2/>.

19. Milgram concluded, consistent with Cooter’s internalized-norm account, that this evidence “indicates that the internal restraints against intruding into lines play a significant role in assuring the integrity of the line” (Milgram 1986, 686).

(Allon 2012). Emergency-room protocol sensibly allows patients who have suffered serious injuries or heart attacks to be seen ahead of longer-waiting folks with mere sprained ankles or stubborn sinus infections (Perry and Zarsky 2014, 1646–47). Necessity may also furnish ad hoc exceptions to *wait your turn*. As we have seen, very long lines employ shift systems and otherwise relax the physical occupancy principle when queues last so long that people cannot reasonably be expected to remain standing for the duration of the wait. Most people agree that even in shorter lines, departures from queue norms can be tolerated (typically after receiving permission from people adjacent in the line) to accommodate concerns about things like health, disability, or child care, so long as the exception is requested and approved by one's line-waiting neighbors (Dehn 2006, 4–14). All these exceptions flow from the same intuition that underlies other necessity defenses in law.<sup>20</sup> We depart from line norms in the relatively rare cases when the marginal cost of upsetting the traditional order of the queue is overborne by far weightier concerns, such as disrupted travel, serious health concerns, or the demands of the human excretory system (Sugarman 2005).

Not all lines are created equal, and thus not all line norms operate in quite the same way. For example, queues to get tickets for major sporting events or long-awaited movie premieres last for many hours or even days.<sup>21</sup> The major variation in these lines relates to *wait your turn*, where necessity leads to greater tolerance for departures from the physical line. Leon Mann's classic work on the days-long queues for tickets to the Australian Rules Football Grand Final found norms permitting people to leave a placeholder like a box or a sweater to represent their place (Mann 1969, 345; Brady 2002, 158–59). Lines that last a long time may also exhibit shift systems, where an entire group lays claim to a space, permitting all group members to keep the space so long as some members remain to physically occupy it.<sup>22</sup> For example, students waiting in K-ville to see Duke basketball games queue in groups (sometimes resulting in an elaborate tent city), and norms permit some members of each group to rotate out at a time so they can get food, attend class, and escape the inclement winter weather,<sup>23</sup> but strict norms still cabin these modified approaches to *wait your turn*. The place-marker system allows only brief departures from line (Brady 2002, 159), and others in line will heavily sanction its abuse—including by destroying markers left by those absent from the line and refusing to let them retake their space (Mann 1969, 346).<sup>24</sup> Missing even a single tent check in K-ville, for example, means losing your place in line, with no exceptions.<sup>25</sup>

20. For general statements of the necessity defenses to trespass and conversion, see Restatement (Second) of Torts §§ 218A, 263(1).

21. Or at least they used to. With the advent of the Internet, the need to queue for physical tickets has declined—though as the persistence of phenomena like K-ville illustrates, they have not disappeared.

22. *Id.*; Mann, *infra* note 39 at 345.

23. See Krzyzewskiville Official Policy 2014–15 at 12–14, revision 2.0.0. October 22, 2014, <http://www.kvillenation.com/kville-policy-full.pdf>.

24. Mann, *infra* note 39 at 346 (reporting that people who stayed out of the AFL final line for too long returned to find the boxes and sweaters they left as placeholders burned, and were refused reentry into the line).

25. Or at least I think it does. Here's the relevant zero-tolerance language from the official K-ville rules: "There is no grace given for walk-up line students regardless of your status as a tenter or non-tenter. Tentering grace does not excuse a student from their walk-up line responsibility." K-ville rules, *supra* note 23 at 14.

In these more extensive queues, the need to maintain order among larger groups also warrants not only more elaborate norms but also the development of systems to administer them. In the long lines for general-admission access to concerts by cult bands like Pearl Jam or U2, certain individuals—often particularly hardcore fans—will emerge to make sure that others in line comply with increasingly complex line norms (Helweg-Larsen and LoMonaco 2008, 2380). But these norms pale in comparison with the formality and complexity of those governing K-ville. Since they first emerged in the mid-1980s, the protracted lines for tickets to Duke men's basketball games have become a university institution (Sarowitz 2001). The elaborate norms governing these queues are contained in a twenty-five-page document that determines such issues as how many members of a tenting group must be present at all times (one-fourth), which restrooms may be used by those waiting in line (preferably the portapotties provided for K-ville, but failing that those in the IM Gym), and even where blue body paint must be applied (only on soft surfaces such as grass). K-ville also requires numerous people to enforce its byzantine rule structure. Line monitors, for example, perform random checks to make sure groups have enough members waiting in each tent to retain their place.<sup>26</sup> There is even a formal administrator in charge of K-ville and its rules who enjoys a cabinet-level position in the Duke student government.

#### 4. *Disconsensus*

While most people—or at least, most people in high-queuing cultures—agree on the foregoing basic rules of waiting in line, zones of disagreement remain. The most contentious of these is “subinfeudation”:<sup>27</sup> having one member of a group stand in line, and then invite in the rest of the group only when the point of service draws near. The advantages of this approach for the subgroup are obvious (all members get to the front of the line with only one having to wait), but other members of the line typically contest its fairness. After all, subinfeudation permits the nonwaiting group members to advance to the front of the line without doing the hard work of standing, violating both FCFS and *wait your turn*. As a result, most institutions formally ban this practice. The official park policies of Six Flags Over Texas exemplify the strong no-subinfeudation view, forbidding “saving places in line ... for any reason.”<sup>28</sup> Robert Samuel, the founder of the line-waiting service Same Old Line Dudes (SOLD) requires

26. For a visual directory of K-ville line monitors, all of whom appear delighted to be doing this work, see <http://www.kvillenation.com/lms> (visual directory of beaming line monitors).

27. Kevin Gray first articulated this clever adaptation of the term for subdivision of a serf's plot of land during the Middle Ages to the practice of multiplying one's own spot in line to include a group of one's cohorts (Gray 2010).

28. Park Policies, SixFlags.com, <https://www.sixflags.com/overtexas/plan-your-visit/park-policies>. The Kennywood amusement park takes a similarly strong position against subinfeudation: “Guests may not: Save places in line for themselves or others; let friends, family, or others later join them in line or take their place in line; push past or bypass others; or leave and return to ‘their space.’” <https://www.kennywood.com/plan-a-visit/park-policies>. Two commenters in an online thread recounted a tale of reporting attempted subinfeudation at an amusement park ride queue, resulting in security ejecting the entire group—line-cutters and spot-savers alike—from the line. Comments of Hemi and C. W., The Polite Spine Shows Up at the Amusement Park, *EtiquetteHell*, July 6, 2012, <http://www.etiquettehell.com/?p=3361>.

that clients pay for one line-waiter for every person who will take a place in the queue because violating the “even ratio” approach would risk retaliation by other queue members (Yannetta 2014).<sup>29</sup> In 2007, violence broke out when a woman at a Missouri Wal-Mart joined her cousin in a checkout line, leading to a violent, racially charged fracas as well as the line-cutter’s arrest and eventual guilty plea to two misdemeanors (Mattingly and Smith 2009).

Yet the norms around subinfeudation remain conflicted. Unlike with cutting, anecdotal reports of subinfeudation are frequent. Disney officials, for example, report that outright cutting into lines is rare at their amusement parks, but complaints about subinfeudation persist and remain their leading queue-related complaint.<sup>30</sup> In some settings, subinfeudation is encouraged, as in India’s gender-segregated lines, when men are expected to join their wives in the “ladies’ queue” (Basu 2004). The widely accepted shift systems that arise in longer lines such as Duke’s K-ville are essentially modified versions of subinfeudation, in that they allow some members of a group to reserve a line spot for many others. By contrast, people in the very long lines for general access admission to Pearl Jam concerts widely agreed that people in line could not have even one person join them, even if it was a spouse who was coming straight from work.<sup>31</sup> A recent attempt at drafting a hypothetical “Queue Bill” sought to resolve the disconsensus about subinfeudation by proposing that each member of a line should be permitted to let one and only one person to join her, on the condition that those invited to join did not have the privilege of inviting anyone else to join the queue (Dehn 2006).

## B. The Varieties of Queue Norms

### 1. Cultural Variation

Within some cultures, the practice of queueing as outlined above is taken for granted. Americans, for example, tend to take the norms of the queue very seriously, and treat them as having independent moral force. One US observer stated that “[c]utting in line is cheating, and everyone knows it. Children know it most acutely, know it in their bones” (Junod 2012). Sweden also ranks among the world’s highest-queueing societies (Kelly 2009), and at the height of the Nigerian oil shortage in the late 1970s, patrons at petrol stations waited in well-organized lines despite the pressure of a resource crisis (Wiseman 1979, 317–19). But not all nations take the queue this seriously. For example, concern for queue priority in Switzerland is low, and lining up is not standard practice when waiting for service.<sup>32</sup> In fact, when the Swiss postal service sought to implement single waiting

29. Yanetta (2014) quotes Samuels as saying, “I always tell people that if you want us to wait in line for you, it has to be an even ratio. That’s what keeps it calm.”

30. Other than, of course, the elephantine length of lines for Disney amusement park rides themselves.

31. E-mail from Jessica Shoemaker (on file with author).

32. One observer wrote, “[f]or such a polite society, the Swiss can’t queue. At bus stops, train platforms, and cable car stations, it’s a free for all. Scrum down, elbows out, and every man woman and child for themselves.” Diccon Bewes, *There’s No Q in Switzerland*, February 15, 2010, <http://www.dicconbewes.com/2010/02/15/theres-no-q-in-switzerland/>.

lines in its banks, government officials and customers alike roundly objected (and all eventually compromised on a numbered waiting system). Mainland China also tends to be a lower-queuing culture,<sup>33</sup> so much so that prior to the 2008 Beijing Olympics, the government engaged in a norm-building program to encourage its citizens to form and wait patiently in lines for public transportation and events (Macartney 2007). However, at least according to anecdotal evidence, the practice of lining up in Mainland China does not appear to have taken off after the Beijing Olympics.<sup>34</sup> Like all cultural generalizations, these claims should be taken with a liberal dose of salt. British self-congratulation about orderly queuing does not seem to account for the tendency of Londoners to rush up to tube cars and bendy-buses regardless of how long they have waited (Winterman 2013). In crowded US bars, bartenders serve patrons regardless of FCFS, perhaps because of the disorder introduced by patrons' inebriation. And some firsthand observations from China report that respect for queues has seen some improvement in recent years.<sup>35</sup>

Still other cultures favor entirely different approaches to securing priority in waiting situations. Take-a-number systems, such as the kind recently implemented at banks in Tehran,<sup>36</sup> require more front-end investment, but provide clear priority to customers and avoid the discomfort of having to stand in a queue. Many countries, especially Latin ones, advert to a more informal, but still reasonably effective, systems of order whereby a person entering a waiting situation asks the group, "who's last?" (hence the Spanish name of the system, *quien es ultimo?*), and then takes care to approach the point of service after the person preceding them (Fernandez 2013). This approach secures priority not by creating the physical representation of ordinal priority, but by depending on interpersonal monitoring among line members. As long as each person vouches for the person whose turn follows theirs, *quien es ultimo* works well—and indeed we sometimes see use of this protocol even in strong-queuing cultures where only a few people are waiting for service. *Quien es ultimo* suffers by comparison to the queue in that it fails to give clear visual signals of one's relative place in line, since you know only who precedes you, not how many people precede them. It is also not useful when the number of people waiting is high, since in a large mob people will lose track of the individual immediately before them.

## 2. Service Providers

Those waiting in line typically insist on strict adherence to FCFS, except when the provider of the service or good for which everyone is waiting permits

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33. The emphasis on Mainland China is critical; residents of Hong Kong tend to observe fairly strong queuing norms (Fountain 2005).

34. An attempt to get people to line up for the iPad 2, for example, degenerated into a full-scale riot when a non-Chinese employee objected to a perceived line intrusion. Five Injured as Riot in iPad 2 Launch Forces Apple to Close Beijing Store, *Daily Mail Online*, May 9, 2011.

35. For one group of such observations, see Why Does It Seem that Queuing in China Is Less Orderly than in Other Countries? *Quora*, March 4, 2013, <http://www.quora.com/Chinese-Etiquette-and-Behavior/Why-does-it-seem-that-queuing-in-China-is-less-orderly-than-in-most-Western-countries>.

36. For a discussion of this recent move at Tehran banks, see No Queuing in the Banks of Tehran, *InterNations Blog*, <http://blog.internations.org/2012/03/no-queuing-in-the-banks-of-tehran/>.

systematic deviations from this norm (Schmitt, Dubé, and Leclerc 1992, 811; Alexander 2012, 877–80).<sup>37</sup> Service providers frequently favor some classes of customers with shorter lines or the ability to skip waiting altogether. Disneyland, for example, is one of many amusement parks that permits patrons with disabilities to stand in shorter lines (or skip lines altogether). Another familiar variant on this approach is to favor with shorter lines customers who pose lighter service demands, such as express lanes in supermarkets for shoppers with ten or fewer items. These deviations from FCFS are rooted in concerns about fundamental fairness (e.g., accommodating the heightened difficulty disabled patrons may have waiting in line) or efficiency (e.g., calibrating wait times and service demands by allowing customers who require less attention to wait less time for service). By contrast, though, some service providers may permit preferred customers to experience reduced or no wait time due to “elite” status. Airlines, for example, allow those who buy first-class tickets or earn frequent-flyer status to enjoy shorter security-line waits and early boarding privileges. Bouncers for fashionable nightclubs permit especially good-looking or well-connected people to enter the venue regardless of their place in the waiting queue. These exceptions to FCFS possess less intuitive appeal because they are not rooted in widely understood or shared concerns like need or speed of service, but serve rather as a tool for the service provider to encourage consumer demand or to cherry-pick a desired clientele. Yet in none of these instances do those in line object to deviation from FCFS,<sup>38</sup> suggesting that businesses’ capacity to deliver goods and services on their preferred terms trumps organic queue norms (Schmitt, Dubé, and Leclerc 1992, 811).

### 3. *Queue Markets*

Another factor complicating queue norms is the increasing commercialization of waiting in line. This practice first arose in Washington, DC, where the small number of public seats available for Supreme Court arguments and congressional hearings produces long—sometimes overnight—waits outside federal buildings (Copeland 2005).<sup>39</sup> Since the 1990s, several companies have made available employees who will secure one of these coveted seats by queuing in exchange for an hourly rate (Kliff 2012).<sup>40</sup> For decades, paid line waiting remained peculiar to Washington political events, but it has quite recently become prevalent in the private sector as well. Consumers can now hire employees of New York’s SOLD or TaskRabbit.com to wait in line for the latest iPhone, Black Friday sales, or

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37. Patrons also defer to service providers’ choice of allocating waits, such as the alternative use of physical queues or take-a-number systems. Customers also tend to obey service providers’ decision to locate lines in certain physical locations (Schmitt, Dubé, and Leclerc 1992; Alexander 2012).

38. In an analogous illustration, southern California motorists expressed no objections to an express freeway lane, apparently because it was made available both to those who paid an access fee and to carpools (Strahilevitz 2000).

39. For an overview of the history and lore of DC line-waiters, see Copeland (2005), *The Line Stops Here*, *Washington Post*, March 2, 2005, and Tamara Lytle, *It Pays to Wait in Line in DC—If You Know a Lobbyist*, *Orlando Sentinel*, December 24, 2007. Mann noted the practice of paid line waiting in his studies of queues for Australian football tickets during the 1960s and 1970s (Mann 1969, 343).

40. The going rate is \$40–\$50 per hour at places like Quick Messenger Service and Linestanding.com (Kliff 2012).

even a coveted cronut (Pinsker 2014; Zhang 2014). Also at the nexus of lines and markets is the “VIP line” approach to queues. Knott’s Berry Farm, for instance, sells a “hate to wait” pass that allows patrons willing to pay a greater admission charge the privilege of skipping to the front of three lines for the park’s thrill rides (MacDonald 2010). Universal Studios offers a “front of the line” pass that permits visitors to skip to the front of the queue once at each of the park’s rides.

These practices appear to violate foundational queue norms such as *wait your turn* and FCFS, and they are far from universally beloved. Cultural critics have observed that the prevalence of VIP line privileges introduces a visible degree of social stratification that can degrade the amusement park experience for those who cannot afford them (Junod 2012). One study of patrons’ attitudes toward VIP lines confirmed that while they enhance the experience of those who have access to them, they generate bitterness and a negative attitude toward the venue in those who do not (Alexander 2012). These concerns are exacerbated when the commercialized line is for a public event rather than merely a private amusement park. Michael Sandel has suggested that paid line waiting for Supreme Court arguments or congressional hearings affronts essential democratic principles of equality among citizens by making access to democratic process dependent on one’s ability to pay for it (Sandel 2012, 33–35). The Supreme Court has recently endorsed this view, issuing an advisory rule preventing paid line-standers from keeping proxy places in the lawyers’ line for oral argument seats.

Yet despite this expressed distaste, the commercialization of queues grows increasingly common and sees none of the informal sanctions that accompanies deviation from line norms. What explains the toleration of this trend, despite serious concerns about it? In terms of paid line waiting, the private side of the practice has engendered relatively little expressed objections. This may be an incident of the property-like character of line spaces, which once acquired include not only a right to exclude others, but apparently also a right to transfer (Grotts 2013). Line-waiting services are careful to avoid abuses of their services, scrupulously requiring that clients must hire a separate employee for each individual who plans to join the line—a policy that the proprietor of SOLD credits with avoiding any objections from others in line (Zhang 2014). Paid queuing for events that are part of democratic processes raises weightier concerns than markets in lines for iPhones or cronuts, but remains difficult to prevent. It is far from clear who among those waiting in the long lines outside the Supreme Court is a for-hire line-waiter or just a citizen especially interested in the upcoming argument (Kliff 2012). Considering that the paid-waiting industry has persisted for nearly thirty years, it is unclear whether the practice even violates queue norms (unlike the clear consensus against, e.g., line cutting), or has become implicitly accepted over those decades. VIP queues likely persist for this latter reason as well. While they engender resentment and likely take away from the experience of regular patrons, they are official policies of the amusement parks that provide them. This means that while most customers may dislike them, VIP queues do not represent norm violations—or at least they illustrate again that patrons defer to service providers over informal social rules.

#### 4. *Technological Interventions*

The queue is a familiar, but also somewhat dated, means of organizing waiting. In recent years, technological interventions have rendered certain kinds of queues a thing of the past. The long lines that used to form for concert tickets no longer arise now that TicketMaster.com permits people to compete for desired concert seats from the comfort of their Internet-connected homes. Google recently added a feature called “Popular Times” to its maps application that will allow users to see how long a line is at a given business establishment (Lufkin 2015). This will not eliminate queues—if you have just the noon hour for lunch, the app will not make that particular queue any shorter—but it will reduce waits by causing people who prefer to avoid long lines to avoid them, and will allow consumers with flexibility to distribute their consumption to lower-demand times. On the other hand, apps like Preo allow circumvention of lines altogether. They enable customers to preorder food and drinks, and then pick it up from an express counter rather than waiting in line to order and then waiting again for their order to be prepared (Baker 2014). One could also imagine more direct technological interventions in lines. Consider, in light of the aforementioned acceptance of queue markets, an app that allowed people in a given line to bargain away spaces they do not value very highly to those behind them in the queue, or even outside it altogether, who place a higher value on them. Technology could facilitate this kind of Coasean reordering of queues, allowing people in line to discreetly sell and swap their spaces via smart phone. All these innovations promise to reduce the inefficiencies of the waiting line; however, a fully connected future may be queue-free. Apps could allow patrons to place themselves on virtual queues for service, and the provider could simply ping users when their turn has arrived, rendering the standing line a thing of the past.

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This section explored the informal order of the social practice of waiting in line. While there is general consensus about the essential rules that govern this practice, there are also numerous exceptions and variations, as well as disconsensus, especially between groups and across cultures. The answer to this descriptive inquiry raises a more difficult one: Why does this form of social order arise and persist? The following section takes on this question, investigating the queue in light of leading theories of social norms and recent advances in behavioral research to craft an explanation.

### III. EXPLAINING THE EMERGENCE AND PERSISTENCE OF THE LINE

It is hard to spend a day in modern US society without waiting in at least one queue or another. Their very ubiquity causes us to take lines for granted, so we do not typically reflect on the social practice of queuing despite its pervasiveness. Yet a moment’s reflection reveals the deep counterintuitiveness of lines: that in a culture with an increasing sense of impatient demand for material goods and a

decreasing sense of community, the overwhelming majority of people wait politely in queues,<sup>41</sup> respecting the priority of complete strangers who they are unlikely to ever see again. The fact that this system of order emerges spontaneously and without legal threat or command makes it even more puzzling. This section propounds a solution to this problem. It begins by showing that lines present a distinctive problem that is not explained by existing norm accounts. It then locates an explanation for the persistence of the queue in a theory of humans as strong reciprocators who are not thoroughly selfish, but inclined to cooperate instinctively, as well as to punish those who do not (Gintis and Bowles 2011).

### A. Friends, Strangers, and Social Norms

There are norms and there is law. Both are systems that give rise to social organization, albeit in importantly different ways. Per what Robert Cooter has termed the “imperative theory” of law, a law is a behavioral obligation backed by a state sanction (Cooter 2000, 1579). By contrast, then, a norm is a behavioral obligation that is not backed by a state sanction. The distinction between law and norms is not a matter of detail or specificity. Some laws (such as the Equal Protection Clause of the US Constitution) operate only as broadly drawn commands,<sup>42</sup> while some norm-based systems are highly elaborate and carefully administered (Fagundes 2012, 1108–31). Rather, the difference is that law is a top-down command that emanates from the state, while norms are bottom-up systems of order that emerge from aggregated social practices (Cooter 1996, 1643). Norms thus almost certainly predate law as means of regulation, since unwritten behavioral expectations emerged prior to the state in the earliest human societies. The persistence of coherent, identifiable norm-based governance systems dates to at least the Middle Ages, especially with respect to mercantile law (Donahue et al. 1998), though these practices are more commonly called “customs” rather than “norms” in the literature. A major—perhaps the major—question that has occupied the substantial legal literature on social norms is why such order emerges and persists in the conspicuous absence of law.

While theories of norm compliance differ, nearly all of them rely on the existence of one shared feature: the close-knit group (Ellickson 1991, 177–83). The study of norms tends to focus on their operation in clearly defined groups whose members enjoy frequent, repeated interactions. Some scholars have argued that people defer to norms because they seek to accrue benefits from other group members. Eric Posner’s signaling theory, for example, suggests that people comply with norms because they want to signal to other group members that they are good cooperators, thereby increasing the chances that others in the group will agree to cooperate with them in future interactions (Posner 2000). Richard McAdams’s esteem theory

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41. Again, this analysis is necessarily limited to high-queuing societies. See the discussion of cultural variation in line norms above.

42. This clause states merely that no state shall “deny any person within its jurisdiction the equal protection of the laws,” US Const. amend. XIV, § 1, leaving courts to invest this open-textured term with meaning.

similarly suggests that people conform to social norms because they seek the esteem of other group members, and that they can gain status by showing themselves to be willing to defer to rules that the collective has established (McAdams 1997, 342). Both theories assume the existence of groups in which the members are likely to have repeated interactions. The desire to signal your status as a good cooperater or to gain group esteem matters only if you think you are going to have to see the members again so you can cash in on the goodwill you have created.

People may also follow norms not because they seek to gain something from the group, but because they fear some sanction, such as informal punishments doled out by other group members. For example, Ellickson's account of norms among Shasta County ranchers found that a leading reason for the widespread norm compliance he observed was the risk of negative social sanctions (Ellickson 1991, 130–31). Some of these social sanctions were nonviolent. Ranchers who failed to follow group cattle-trespass norms often found themselves stigmatized by other ranchers, or were made the subject of negative gossip (Ellickson 1991, 57–58). These sanctions were usually effective, but where they did not do the job, affronted community members sometimes resorted to violence (Ellickson 1991, 58). This could range from merely herding trespassing cattle into a location very difficult for their owner to retrieve, to castrating or even shooting stray cattle—a practice apparently tolerated by local law enforcement (Ellickson 1991, 58–59). Other non-legal systems of order also rely to a large extent on social sanctions for enforcement. Roller derby girls, for example, have effectively deployed social stigma to deter the use of pseudonyms properly claimed by other skaters (Fagundes 2012, 1127).

None of these accounts can explain the persistence of queue norms for the simple reason that they all apply to norms in close-knit groups that give rise to the reasonable probability of repeated interactions with other group members.<sup>43</sup> Lines, by contrast, arise not in close-knit groups, but in loose-knit ones where people are brought together only by the coincidence of needing to wait for the same good or service. Interactions in queues are thus likely to be only single-shot affairs rather than the repeated meetings that would enable group members to build social capital with, or fear longer-term reprisal from, one another.<sup>44</sup>

Other explanations for the persistence of norms do more to make sense of the spontaneous order of the queue. Robert Cooter's internalization theory, for example, regards norms as informal behavioral commands that people follow instinctively

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43. Though scholars have understood McAdams's theory as applying mostly to close-knit groups (Strahilevitz 2003a, 537), McAdams suggests that it could explain norms among loose-knit groups as well (McAdams 1997, 388). I find this extension of the esteem theory flawed for two reasons. First, McAdams gives no explanation for the obvious problem that gaining esteem has no value outside a group where your status will matter in the future. Second, while we may fear the stated disapproval of others or feel guilt for incurring it, these are not really products of a desire for group status derived from esteem, but wholly distinct explanations for the persistence of norms—stigma sanctions and internalization-based guilt, respectively—that I will discuss separately below.

44. McAdams's group esteem theory may, however, help explain norms in higher-investment lines, when people will frequently interact with each other for extended times. The emergence of yeoman-like "line Nazis" in GA queues at U2 concerts or line monitors in K-ville are good examples of people taking on norm administration responsibility in a way that may lead them to gain "hero status" in their subculture (McAdams 1997, 374).

rather than due to fear of punishment or because they seek some benefit (Cooter 2000, 1577–80). People adhere to such norms (like tipping even in restaurants that they will not visit again) because doing so makes them feel generous (Benabou and Tirole 2006), and failing to conform would lead to self-sanctions like guilt and shame (Cooter 1996, 1661–62). Moreover, the sanctioning story invoked by Ellickson and others may apply outside close-knit groups. People may follow social norms when they fear an immediate reprisal for not doing so. Even if you do not believe in tipping and do not plan to visit a restaurant again, you still might leave 15 percent if you fear that an incensed waitstaff member will punch you out for not doing so. Both accounts help explain adherence to line norms. The practice of queuing up is widely internalized (Gray 2010, 4), so much so that deviating from it causes anxiety and even nausea (Milgram 1986, 686), and research has shown that breaching line etiquette by cutting may indeed lead to a violent response (Milgram 1986, 686).

These latter accounts help illuminate, but do not completely explain, the stability of queue norms. These norms are, at least in high-queueing cultures like the United States, widely internalized. Yet they are far from completely internalized, as illustrated by frequent accounts of conflicts sparked by line cutting and the need to remind people of queue etiquette with written policies. The internalization story is more of a conclusion than an explanation. If norms are widely internalized, what dynamic explains how they got that way? Nor can a purely rational-choice sanctions story fully explain line norms. If people waited in line only because they feared sanctions for doing so, we should expect to see much more strategic behavior, such as sneaking into lines via subterfuge or very strong or brazen people simply intimidating their way into the front of queues.<sup>45</sup> The mere existence of third-party sanctions for line-norm defection appears confounding when viewed from the perspective of those exacting the sanctions. Why do people ever engage in or risk highly costly violent confrontations to stop others from cutting when it only exacts a marginal amount of time lost waiting? Why do people so often object to cuts that take place in back of them (Helweg-Larsen and LoMonaco 2008), when that conduct inflicts no tangible loss on them? Both internalization and sanctions seem to tell part of the story of lines, but not quite all of it. I seek to resolve this tension, and provide a complete explanation for why people cooperate in queues, in the ensuing subsection.

## B. A Strong Reciprocator Model of Waiting in Line

None of the prevailing theories advanced in law's secondary literature quite fits with the widespread social tendency to form orderly lines when waiting for some service or amenity. This reflects the distinctiveness of the queue. It is a site where people who are total strangers follow an unspoken script for collective

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45. Miners during the California gold rush, for example, frequently engaged in strategic attempts to bluff other miners off of their claims when those claims were perceived as either especially desirable or weakly defended (MacDowell 2004, 782).

behavior that respects priority and produces an orderly outcome. The fact that lines tend to comprise loose-knit groups involving single-shot interactions means that standard norm theories that depend on close-knit groups giving rise to repeated interactions cannot make sense of this practice. Nor can internalization or sanctions accounts entirely explain the spontaneous order of waiting lines. This subsection thus provides an explanation for the emergence and persistence of queues that draws on research on psychology and human motivation to reconcile the notion of sanctions and internalization to provide a complete theoretical account of the waiting line. This account relies on three main premises: the human tendency toward strong reciprocation; queues as especially salient coordination devices; and distinctive features of lines that both conceal and deter defection.

### **1. From Bad Men to Strong Reciprocators**

One vision of the legal actor that finds favor in legal scholarship is *homo economicus*, the Millian construct that presumes people are invariably concerned only about maximizing their self-interest.<sup>46</sup> This intuition finds acceptance as an assumption of, for example, classical law and economic approaches to crime and social organization (McAdams 1997, 1650), but recent evidence has revealed that it fails to completely describe human behavior. Psychologists and sociologists have convincingly shown that people are not solely self-interested individuals who are looking out only for themselves at the expense of others, but are in fact strong reciprocators whose first inclination is to contribute to group well-being, even if it comes at some cost to them (Goulder 1960; Titmuss 1971). “A strong reciprocator,” as Herbert Gintis explained, “is predisposed to cooperate with others and punish non-cooperators, even when this behavior cannot be justified in terms of self-interest, extended kinship, or reciprocal altruism” (Gintis 2000). Ernst Fehr elaborated on this notion, distinguishing in particular positive and negative reciprocation: “[a] person is a strong reciprocator if she is willing (i) to sacrifice resources to be kind to those who are being kind (= strong positive reciprocity) and (ii) to sacrifice resources to punish those who are being unkind (= strong negative reciprocity)” (Fehr et al. 2002).

Studies from a range of societies undertaken under many different conditions show that while not all humans are strong reciprocators, this tendency is widespread within populations and across cultures. The best evidence for this comes from the classic public goods game. In this experiment, subjects in groups of four are each given a number of points, redeemable at the end of the experiment for real money (Fehr and Gächter 2000). In the standard treatment, each subject must place some amount of his or her choosing in a common account, and keep what remains in the subject’s private account. The experimenter then tells the subjects how many total points were contributed to the common account, and adds to each private account 40 percent of this total. The optimal strategy to maximize one’s own gains is simple:

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46. John Stuart Mill described a typical human as “a being who inevitably does that by which he may obtain the greatest amount of necessaries, conveniences, and luxuries, with the smallest quantity of labour and physical self-denial with which they can be obtained” (Mill 1836).

donate nothing (Gintis 2000, 171). Yet surprisingly, test subjects in public goods games actually start off sharing generously, giving on average half their private account to the common account, as the strong reciprocity account would suggest. This level of contribution tends to decline over time, though, and after ten rounds, most players behave in an entirely self-interested manner, often contributing nothing to the common account (Fehr and Schmidt 1999). As the strong reciprocator model would predict, the reason given by cooperative subjects for their increasing noncooperation is that they felt angry at others who contributed less than they did, and lowered their contributions as a way of punishing them (Andreoni 1995). Indeed, in public goods games where subjects are allowed not only to withhold contributions to the common account, but also to fine noncooperative players, subjects consistently take this opportunity to punish—even at a cost to themselves (Ostrom et al. 1992). Related studies found that employees who received what they perceived to be a fair wage tended to do a good job even if they were paid before performing any work and had no chance of interacting with their employer again (Gintis 2000, 155–57). A host of other studies have provided even more support for the strong reciprocator model (Guth and Tietz 1990; Camerer and Thaler 1995; Roth 1995).

The notion of strong reciprocity must be disaggregated into its positive side, where people tend to cooperate instinctively (“positive reciprocity”), as well as a negative side, where people tend to retaliate against those who defect from norms (“negative reciprocity”). As the experimental evidence indicates, the tendency toward positive reciprocity may be our default setting (Dohmen et al. 2009), but is neither immutable nor without limit. “Individuals prefer to contribute if they believe others are contributing,” as Dan Kahan explained, “but they will free-ride if they believe others are inclined to free-ride” (Kahan 2003). Most people default toward cooperation and will go along with norms, until and unless they perceive free riding. But while the tendency toward cooperation is widely shared, the commitment to cooperation in the presence of defection is not. Some are particularly likely to cease reciprocating at the first suggestion that others are defecting; while others will reciprocate even in the presence of a relatively high level of perceived cheating. There are also the pernicious folks who will always cheat to benefit themselves regardless of group norms, and the Mother Teresa types who continue reciprocating even when norm systems have collapsed and everyone else is simply looking out for their own interests (Kahan 2003).

Researchers investigating the human tendency toward positive reciprocity have thus found that the strongest driver of collective behavior is not the threat of punishment for deviation, but a sincerely held belief that others are reliably reciprocating as well (Blank 2011).<sup>47</sup> With tax compliance, for example, there is almost no

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47. The notion of norm internalization plays a complicated role in this dynamic. The strong reciprocator model suggests that people follow norms not because they believe them to be right, but because they believe others believe them to be right. This does not mean that the norms are not internalized, but does suggest that there is a different explanation for why people follow them. Cooter argued that people follow internalized norms because they would feel personal shame for not doing so; the strong reciprocator theory, by contrast, indicates that people follow norms because of an instinctive positive draw toward cooperation with others.

relationship between the harshness of penalties and the rate at which people pay their tax bill (Cooter and Eisenberg 2001, 1725).<sup>48</sup> But what *does* predict whether people will pay their taxes? As the strong reciprocator model would suggest, the answer is: whether they perceive other people to be paying their taxes (Kahan 2003). One study found that when a group of people was informed that the general rate of tax compliance was much higher than is commonly assumed, members of that group reported more income and claimed fewer deductions than individuals in a control group (Coleman 1996). By contrast, in some European countries—Russia and Greece in particular—it is widely believed that no one pays taxes unless personally threatened by the government with penalties. The result is a much lower rate of tax compliance. Other research has borne out this conclusion. Lior Strahilevitz, for example, explained the willingness of anonymous users of pre-Grokster peer-to-peer networks to share sound recordings in terms of a generalized perception that most other users shared files (Strahilevitz 2003b, 563–71).

The strong reciprocator model predicts that people will not only cooperate positively when others do likewise, but also that they will punish defectors, even at substantial personal cost (Fehr et al. 2002, 2). Subjects in public goods games, for example, will spend their own resources just to punish those they perceive to be insufficiently cooperative (Ostrom et al. 1992). A large-scale study of both positive and negative reciprocity found that these qualities exist independently of one another (Dohmen et al. 2009, 599), and that positive reciprocators tend to be happier and more materially successful than negative reciprocators. However spiteful and pointless the tendency toward negative reciprocity may seem, research has shown it to have surprising social benefits (Friedman and Singh 2004, 157–58), especially when retaliation is carefully targeted in a way designed to signal general disapproval of noncooperative behavior (Kahan 2003, 10).

The strong reciprocator model provides the best explanation for why people wait in line.<sup>49</sup> Lines represent a classic form of collective action in which a large number of people engages in conduct that benefits the overall group (waiting politely, respecting priority) while resisting purely self-interested behavior (cutting in front of others).<sup>50</sup> The strong reciprocator model suggests that people do not queue up because they fear punishment, or because they are mindlessly following an amoral coordination practice, or because they seek status or economic benefits from others in line. Rather, it suggests simply that standing in line is primarily a classic

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48. The dynamic explaining this counterintuitive result appears to be that when the state emphasizes draconian penalties for tax noncompliance, people infer that cheating is widespread—which makes them less willing to pay their own taxes (Schwartz and Orleans 1967).

49. These cooperative proclivities may have their roots in innate biological tendencies with evolutionary explanations, such as the tit-for-tat strategies observed in humans and animals alike (Axelrod 1984). It is important to distinguish the notion of reciprocal altruism (which is rooted in tit-for-tat) from the strong reciprocity model used in this article. Reciprocal altruism is a rational-choice theory model whereby each act of altruism can be explained by some material advantage that is gained from another person—securing future acts of reciprocity, for example. By contrast, strong reciprocity “is robust in the face of changes in the probability of future interactions” and leads people to punish defectors even when the cost of inflicting those sanctions appears disproportionately high (Gintis 2000).

50. As Brady observed: “Probably the single most important feature of lines is their reliance on trust and cooperation” (Brady 2002, 162).

expression of the kind of adherence to cooperative norms that is part of our psychological makeup (Fehr et al. 2002, 16–18). This model also explains the outsized “queue rage” that we see when rude people try to cut into lines, even when the cut does not inflict any delay on the enforcer, because it suggests that the instinct to punish norm violations does not come only from a sense of seeking compensation for harm inflicted by the norm violation (Gintis 2000, 177). Finally, and most importantly, strong reciprocity also accounts for something that other theories cannot: the tendency of people to honor these queue norms even among strangers (Gintis 2003). Unlike, for example, reciprocal altruism, this theory suggests that people will cooperate even at personal cost and in the absence of any expectation of future reward—which is precisely what happens countless times every day in waiting lines (Malady 2013).

But in order to be confident that the strong reciprocator theory accounts for widespread obedience to queue norms, we have to explore two further issues. First, the strong reciprocator model does not (indeed, cannot) predict a high degree of cooperation unless people recognize the presence of cooperative behavior in the first place. So for strong reciprocation to explain the social practice of queuing in societies where it is prevalent, there must be a widespread perception that queue norms exist and are widely followed. Second, informal systems of order are stable but vulnerable to collapse in the presence of widespread defection. This raises a pair of questions: Why don’t we see committed defectors cutting in line more often? Why doesn’t even a low level of defection destabilize, or undermine entirely, the institution of the queue?

## **2. Strong Reciprocators and Super-Salient Signals**

Strong reciprocity leads people to cooperate reflexively, even when it would be in their immediate self-interest not to, so long as they believe that others are cooperating as well. In some cases, this belief can come from active information dissemination, such as civic campaigns that inform residents of a municipality that their neighbors are pursuing recycling strategies (Carlson 2001, 1290). Peer-to-peer file-swapping systems convinced their anonymous, loose-knit users to share their files by telling them that the clear majority of users voluntarily chose to do so as well (Strahilevitz 2003a). However, the practice of waiting in line is a broad and diffuse social practice, not limited to a particular place or online community, so there can be no central administrator to inform people of their obligation to queue politely. So if widespread obedience of line norms depends on the belief that other people are also cooperating with them, where does this belief come from?

The belief comes from the physical waiting line itself. Lines are intrinsically expressive phenomena that by their very existence communicate the fact of widespread cooperation in a way that triggers the instinct to reciprocate. Queues crop up repeatedly throughout our daily lives, providing an object lesson in how their norms work and, more importantly, signaling the fact that people cooperate with them. The operation of a line communicates to observers an overwhelming degree of deference to the elemental norms that govern queue conduct. The presence of a physical waiting line in itself expresses that the line—as opposed to a race or a

mob or *quien es ultimo*—is the appropriate form of social organization when faced with shortages of service provision (*form a line*). The provision of service to earlier arrivals expresses widespread agreement that queues should be organized by a principle of ordinal priority rooted in first possession principles (FCFS). The visible willingness of people in line to queue up, even despite the discomfort and anxiety generally produced by the act of waiting, expresses the rule that we should respect the priority order of the line (*wait your turn*) even when it is costly and unappealing to do so. And the general absence of people jumping the queue expresses the pervasiveness of the prohibition against that practice and the socially offensive nature of queue jumping (*no cutting*).

The physical form of the line itself also serves as a particularly powerful device for communicating cooperation. The line itself embodies to onlookers the notion of unspoken cooperation among strangers, with anywhere from a few to a few thousand materialistic people patiently waiting for some good or service they urgently desire. The form of a line—narrow and straight and usually reasonably well organized—symbolically communicates order and efficiency. On a map, a line is both the cleanest way to indicate distinctions between territories, as well as the quickest way to get between two points.<sup>51</sup> Lines tend to arise in contexts characterized by high degrees of deference to group practices, both in human society (military formations, marching bands) and the insect kingdom (the tendency of ants to form lines epitomizes their highly collectivist behavior [Garnier et al. 2013]). While people waiting in a diffuse group may have agreed on a relatively functional system of priority—such as *quien es ultimo*—the sight of a disorganized crowd occupying a space does not clearly indicate that norm to uninformed onlookers (Fernandez 2013). By contrast, a queue of people or cars provides a tangible indication of generally accepted deference to ordinal priority. At least in the United States, the social meaning of lines is well understood—indeed, internalized—because of the extent to which the practice of queuing is inculcated at an early age. Starting in kindergarten, children are made to form and wait in lines several times per day, and queuing up remains something we do daily—perhaps even multiple times per day—as adults, repeatedly reinforcing the practice and its governing norms. This repetition means that people are primed to believe that most other people are queuing politely, so that we usually follow queue norms without even assessing whether a given line exhibits a high degree of cooperation (Strahilevitz 2003a, 568).

Numerous psychological studies support the theory that lines function as intrinsically powerful symbols of cooperation. First, cooperative behavior tends to spur even more cooperation, resulting in a “reciprocity cascade” (Strahilevitz 2003a, 568). This is in part because the perception of cooperative behavior creates a positive feedback loop, whereby deference to preexisting cooperation validates the behavior of those whose conduct is being imitated. “Imitation is not only the most sincere form of flattery,” Lior Strahilevitz argued, “it also validates and solidifies the behavior of the person who is being imitated” (Strahilevitz 2003a, 568). Lines possess stability, then, not only because their very presence signals cooperation to those outside the line, but also because when people in line see others joining the

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51. We also invoke lines to express order and logic, as when we speak of “lines of reasoning.”

line politely, they become even more likely to comply with (and enforce) queue norms (Mann 1969). Second, and related, we begin with a default expectation that others behave like us, and since most people are instinctively cooperative, we tend to default to an expectation that others will also comply with social norms. The tendency of waiting lines to embody and even magnify cooperation with applicable norms thus reaffirms the generally held presumption that others tend to follow the rules of the queue (Orbell and Dawes 1991).

Lines signal cooperation for another reason that is as much instrumental as symbolic. The presence of people moving along in an organized fashion toward a mutually desired end not only communicates their shared cooperation, but also suggests that waiting in line is an effective strategy for achieving that end. The alternative to an orderly queue is a violent, chaotic mob, which is what often results when line integrity deteriorates.<sup>52</sup> There is no telling whether one will get what one wants in a mob situation; by contrast, queues indicate to potential waiters that if they are patient, things will work out (Malady 2013). Finally, it is worth mentioning a final instrumental reason that people may choose to line up even when the payoff of standing in line seems to dwarf the costs of the drudgery of waiting: sometimes lines are not drudgery at all.<sup>53</sup> On the contrary, they can be fun ways to make friends and participate in a cultural tradition (Mann 1969, 342), and communicate publicly the extent of your interest in a good or devotion to a cause (Brady 2002, 163). Enjoying queuing may not be typical, but it is also not unheard of, and some nontrivial amount of cooperation with line norms may thus be explained simply because people like the experience of waiting in line and have no reason to want to defect.

### 3. *Committed Free-Riders and Efficiently Random Enforcement*

The super-salience of lines as signals of widespread cooperation explains their emergence and persistence as means of securing priority when waiting. But accounting for the stability of the queue also requires exploring why it is not undermined by defection. For while most of us tend to follow cooperative social norms unless we perceive significant free riding, a stubborn minority of people will not (Antoci et al. 2009). These are dedicated cheaters who will defect from norms even in the presence of overall cooperation, and they pose a threat to any informal system of order because their noncompliance risks causing those who are only weakly committed to the norm to cheat as well, which may in turn cause neutral and even tolerant reciprocators to defect (Kahan 2003, 9). The result may be the opposite of the kind of norm cascade that causes people to widely adhere to social conventions. This inverse of the norm cascade may be termed a “defection avalanche,” one that upsets the equilibrium of the informal system of order and leads to its collapse

52. The riots that erupted outside Beijing Apple Stores during the 2011 release of the iPad 2 illustrate the point. Five Injured as Riot in iPad 2 Launch Forces Apple to Close Beijing Store, *Daily Mail Online*, May 9, 2011.

53. Disney, for example, has done such a masterful job of incorporating games and visual effects into lines for its rides that some patrons express regret when they reach the end of the queue and have to board the rides. See interview with Disney representative (on file with author).

(Kahan 2003, 9). If the driver of norm cascades is the general human tendency to cooperate, the driver of defection avalanches is the ubiquitous human desire not to be seen as a sucker—and to abandon the cooperative instinct when others appear to be doing so as well.

However pervasive and seemingly stable the social institution of queuing may seem, it is also vulnerable to defection avalanches. People clearly have an initial inclination to wait in line for service, but if they perceive that others are not doing the same, a once-stable queue may descend into outright chaos. During the 2011 unveiling of the new iPad 2 in Beijing, for example, Apple employees insisted that customers observe the usual practice of lining up in priority order outside the Apple Store in the days and hours before the new devices went on sale. This worked at first, but when a small but visible number of people persistently intruded into the queue ahead of others, all hell broke loose: fights erupted, people rushed the door, and the police had to come in and resolve the situation.<sup>54</sup> Much the same can occur even in higher-queuing cultures. In the United States, orderly lines of people waiting for shopping deals early on Black Friday frequently degenerate into dangerous mobs when stores finally open their doors, sometimes leading unfortunate shoppers to be trampled to death.<sup>55</sup> Even in Great Britain, a country that happily embraces self-effacing myths about queue obsession, politely ordered lines of people waiting for buses will collapse into angry scums if the doors of an arriving bus do not match up with the location of the front of the line.<sup>56</sup>

These examples, while dramatic, remain anomalous—at least in high-queuing societies. Yet no one is obliged by formal law to do so, so why don't dedicated cheaters cut in more often, threatening defection avalanches? Part of the answer is the correlate of lines' capacity to strongly communicate cooperation. Casual observation of a line is unlikely to reveal much defection, even if it does happen, because the overwhelming visual cue of a line is quiet, patient order. What rare defection does take place is unlikely to signal a degree of free riding large enough to cause cooperators to abandon the queue. This is true for three reasons. First, line-cutters are likely to take great care not to be detected, in which case their conduct will not undermine the preexisting sense that everyone is cooperating with line norms.<sup>57</sup> Second, many violations of line norms are ambiguous or hard to enforce. What appears to be a queue jump may simply be someone returning to join his place in line after requesting and receiving permission to leave to use the restroom. Third, line norms are internalized enough that people are unlikely to be vigilantly monitoring queue integrity at all times, so that occasional or marginal rule violations may go undetected entirely. Line-standers probably assume that

54. The facts of the Beijing iPad riot of 2011 were recounted in the *Daily Mail Online*, see note 33.

55. One macabre website actually keeps track of Black-Friday-related deaths and injuries (eight and ninety-six, respectively, to date). <http://blackfridaydeathcount.com/>.

56. One old saw is that the British will join a queue even if they don't know what it's for—which may have actually happened during World War II in rationing lines. But at bus stations in London, queue norms often break down and chaos ensues (Winterman 2013).

57. Along similar lines, Joshua Blank argued that the US policy of keeping citizens' tax records private furthers compliance by concealing instances of noncompliance or underenforcement that would otherwise risk a defection avalanche (Blank 2011).

others share their tendency to wait patiently and not cheat, since, as a general matter, people assume that others share their inclination toward cooperation (Orbell and Dawes 1991, 517).

Another reason that lines tend not to descend into defection avalanches lies in the dark side of strong reciprocity: the punitive tendencies of the negative reciprocator. The tendency to punish free-riders even at great personal costs is familiar in life (consider, e.g., the tendency of jilted lovers to seek cruel revenge [Gintis 2000, 177–78]) and well supported by numerous studies (Dohmen et al. 2009, 596). This model aligns neatly with the anecdotal and experimental evidence on queues. Cutting into a line is rude, but exacts only a marginal amount of lost time on people behind the intruder, and no time losses at all on people in front of the intruder. Yet people in line often (though not always<sup>58</sup>) react aggressively and even violently to cutters, sometimes even engaging in physical altercations to preserve line integrity (Milgram 1986, 685). The possibility of running into these outsized sanctions makes queue jumping a risky and unwise proposition.<sup>59</sup> Saving a few minutes by cutting in line hardly justifies the risk of getting publicly humiliated, punched in the face, or worse, even when discounted by the probability of enforcement.<sup>60</sup>

Line sanctions likely work well for a final reason: the proximity and numerosity of possible enforcers. People are less likely to defect when they are in the presence of, or at least observable by, their fellow cooperators (Ostrom 1998, 6–7). This effect is magnified when possible defectors can be seen by those who might sanction them, and particularly when there are multiple possible people who may exact punishment for norm violation. Queues bear almost all of these features. A would-be line-cutter would have to intrude under the watchful eye of anywhere from a few to hundreds of people, all of whom may well decide to visit severe sanctions for flouting queue norms (Bateson 2006). This combination of physical scrutiny by and numerosity of potential punishers contributes to the disproportionate costs borne by anyone who seeks to cut in, and further diminishes the likelihood of defection. Finally, the numerosity of people in lines promises the possibility of group sanctions against norm violators. As Mann found, those in a queue may join together to shame or sanction a line-cutter (Mann 1969, 347), sharing the burdens of enforcement in a way likely to lower their costs while increasing the intensity of the deterrent to the defector (Boyd et al. 2010).

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58. The inconsistency of retaliation to violations of *no cutting* is entirely consistent—indeed, predicted perfectly by—the strong reciprocity theory. Lashing out at a queue-jumper is an instance of negative reciprocity, which is not nearly as widespread a tendency as positive reciprocity. Yet negative reciprocity is a common enough trait that any would-be line-jumper has to consider the risk of reprisal.

59. This is not true, however, in traffic queues, which exhibit much more line jumping, and thus a greater tendency to descend into defection avalanches (Vanderbilt 2008). This is likely because defectors in cars fear sanctions less (motorists are much less able to inflict verbal abuse or physical violence on fellow drivers who push into a patiently waiting line of cars), and because the defection from FCFS is visible and obvious (it is hard for a car to sneak into a line of waiting traffic unnoticed).

60. This may be why, according to anecdotal evidence, most line cutting in North America is done by adolescents, often at amusement parks. Teenagers likely care the least for (and may even embrace violating) queue norms, and have higher risk tolerances for the violence and conflict that may result if they cut in.

This section has explained the spontaneous order of lines in research showing that humans tend to be strong reciprocators rather than entirely selfish rational utility maximizers. Positive reciprocation (the tendency to follow along with perceived cooperative behavior) explains why people reflexively line up and wait for services, while negative reciprocation (the tendency to sanction only perceived violations of cooperative behavior) explains why line cutting is relatively rare and does not trigger defection avalanches. This account illuminates an underexplored corner of the law and norms literature: the phenomenon of emergent order among loose-knit groups. Traditional explanations, such as fear of social sanctions or desire for group esteem or future cooperation, may work for close-knit groups but cannot fully account for why queues emerge. At the very least, strong reciprocity provides an explanation of norms in the understudied loose-knit group. This could mean that close- and loose-knit groups require different theories of norm compliance (Strahilevitz 2003b), but an alternate, more ambitious version of this thesis is that strong reciprocity explains norms in *both* kinds of groups. The theory that people comply with extralegal rules because of an innate tendency to reciprocate with known forms of social cooperation (and to strongly sanction the few outliers who defect) may explain norm compliance just as well, if not better, among those who are acquainted as it does among strangers. Whether this account provides the best account for norm compliance in close-knit groups is a deep question that lies beyond the scope of this article, but it is well worth at least noting the plausible conjecture that strong reciprocity could be not just a framework explaining why spontaneous order emerges in loose-knit groups, but a grand unified theory of social norms.

#### IV. CONCLUSION: FROM WAITING LINES TO LAW'S LISTS

Physical waiting lines represent only one version of the social phenomenon of queuing, which replicates itself in numerous private settings such as wait lists for tables at fancy restaurants and order of preference for the best concert seats on Ticketmaster.com. As Perry and Zarsky have shown, queues organized by FCFS pervade law as well, from reimbursing defendants in the Deepwater Horizon class action to organizing UCC security interests to deciding which needy patient will receive a recently harvested organ (Perry and Zarsky 2014). This article's analysis of the norms of the physical waiting line yields implications for law's use of ordinal priority as well. The instinctive tendency to form queues, rooted in the instinct toward strong reciprocation, illustrates the gravitational pull of this organizational strategy, but this descriptive claim explaining the ubiquity of the waiting line does not mandate or even recommend its wholesale incorporation into law's lists. As numerous scholars have shown, FCFS is not necessarily the most efficient way to distribute resources in all scenarios (Trine and Osterdal 2012; Perry and Zarsky 2014).

The pervasiveness of the waiting line should be understood as a caution rather than a normative blueprint for how law should construct waiting. Yet the power of the FCFS-queuing default risks obscuring the many ways in which traditional

queues may fail to optimize resource allocation. Of course, the deep-rooted sense of reciprocity that gives rise to the FCFS default must be part of the conversation about whether and how to use queues in law. Since the discipline of the waiting line constructs people's expectations about how lists should operate, law risks non-compliance when it deviates from FCFS as an allocative device. The strong reciprocator model suggests that such resistance to alternate ordering schemes is largely due to the perceived unfairness of other such schemes. So while waiting lines invariably reveal their allocative scheme through visible use of FCFS, this is not the case with the many nonphysical waiting lists law uses. This suggests that when law seeks to deviate from FCFS, it should take care to conceal its alternate allocative scheme to avoid the resistance such a move may otherwise engender.

People hate waiting in line. William James lamented waiting as "empty time" (James 1891, 411), and one modern essayist termed standing in line "a form of imprisonment" (Morrow 1984, 65). But while no one enjoys the experience of queuing, the much-maligned institution of the line offers a treasure trove of insights about social order and human nature. The complex system of social norms on which the waiting line depends provides an object lesson in how and why loose-knit groups defer to those norms in the absence of expected repeat interactions. These lessons about the physical waiting line in turn provide guidance, and caution, for how to construct the many lists law uses to allocate social resources.

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