

Counting on Courtesy:
Normative Infrastructure on an Overcrowded Transit System

Ethnographies of Mass Transportation Submission

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The subway door opens smoothly and recedes into its pocket with a mechanical hum, then a soft thud. At around 3pm on a school day, many of New York City's subway trains abruptly fill up with teenagers, and this sparsely populated Brooklyn bound F train proves to be one of them. Nine kids spill through the doorway, shattering the sleepy silence, while the doors sit open for maybe ten or fifteen seconds. A boy who looks to be 14 or 15 years old, curly black hair protruding from under his maroon hoodie, pushes through the turnstile and jogs across the platform to the open door of the train. He stands in the doorway of the car and looks back at the turnstiles. A chime sounds, and a yellow indicator light above the door flashes. Inside a housing at the top of the door, an actuator converts electricity into 45 pounds of horizontal force. The boy is ready for the door when it comes, and places both palms against its edge, bracing himself with his legs and countering its force with the musculature of his wiry frame. He looks like he has done this before.

The door jolts backward, recoiling as if offended, and then comes at him again, showing the conductor's frustration at the delay.¹ The boy pivots sideways, facing the

¹ This informal practice, referred to by conductors as "popping the doors" – it is meant to discourage door holding, but is not endorsed by their employers, the Metropolitan Transit Authority (MTA). Occasionally, during my observations at this time of day, I've seen the doors popped preemptively at stations where large

turnstiles, and wedges his foot and elbow against the door. Now a voice crackles over the public address system, presumably the conductor's. "Do not block the doors, so this train can leave the station." The boy holds his ground, still staring toward the turnstile, waiting for an imaginary travel companion to appear at any moment.

At this point, an interesting thing happens. Passengers who were scrupulously avoiding eye contact look at each other in order to roll their eyes in frustration. A man who appears to be in his 20s glances up from his mobile phone to mutter, "Come *on*, man," loud enough to be audible to those around him. One of the kids who just boarded the train, possibly a friend of the boy in the doorway, turns away from his conversation to say, with frustration, "Stop holding the door, nigga! Let these nice people get where they're going." This gets the other kids laughing, but he seems to be at least partially serious, as he continues to look expectantly at the boy holding the door. By alluding to the "nice people" on the train, he makes explicit the implicit social mathematics of the situation: many of us are waiting on one. He could have said, "Let *me* get where I'm going," but he didn't. In my subway car, something that I will call a "normative infrastructure" is grinding into motion, and is exerting a qualitatively different type of pressure on the boy than the edge of the door, seeking to succeed where the material object is failing. The boy looks over his shoulder at the other passengers, looks back at the turnstile, and abruptly steps out of the train onto the platform. The doors close.

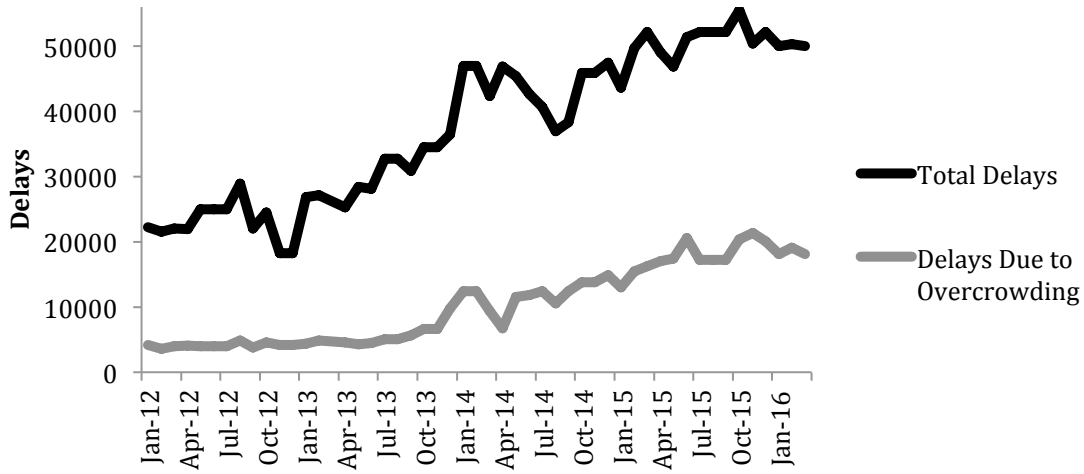
Say "infrastructure" to most people and they think of large material systems comprised of inanimate objects. A highway system is infrastructure. A tollbooth is infrastructure. Reluctantly, some people might be convinced to include the humans who

groups of teenagers had boarded the train, a staccato whirring and thunking that evokes the gnashing of a metallic mouth, which, compared with Mr. Pellet's polite request and the door chime, offers a sterner warning that the doors are about to close.

maintain and operate these systems – construction crews and toll collectors, for example – people whose professional work is a necessary complement to the material substructure of the system. The situation described above, however, suggests an even broader and more inclusive understanding of infrastructure. What ultimately brought the episode to an end, permitting the train to proceed down the tracks, was something else entirely – an emergent phenomenon, a form of psychological pressure that grew out of the collective social dynamics of the situation, drawing strength and coherence from shared understandings that passed through the air during the moments when the boy was holding the door, and that weighed more heavily upon the situation as time went on. Instead of being situated in the network of things and people that comprise the “infrastructure” of the subway, conventionally defined, normative infrastructure resides in the culture and the ongoing social awareness of its users. And it is as integral to the movement of trains through the system as the steel rails that lie beneath us as we rumble through the dark. In this sense, it is not much of an exaggeration to suggest that, far from serving the public, the New York City subway system *is* the public.

In recent years, a steady increase in ridership, crowding, and delays on the subway is calling into question the health and resilience of the behavioral codes that guide passengers’ behavior on the system. Between early 2012 and late 2015, the frequency of weekday delays more than doubled across the system. According to the MTA’s own data, delays specifically caused by overcrowding quadrupled during this time, an indication that passengers are holding and blocking doors, or refusing to load smoothly. In trends that appear to be related, the frequency of more serious forms of passenger misbehavior have increased of late. There has been a noticeable increase in criminal disorder on the system’s trains, including upticks in assaults and reported sex crimes. (See Figures 1 and

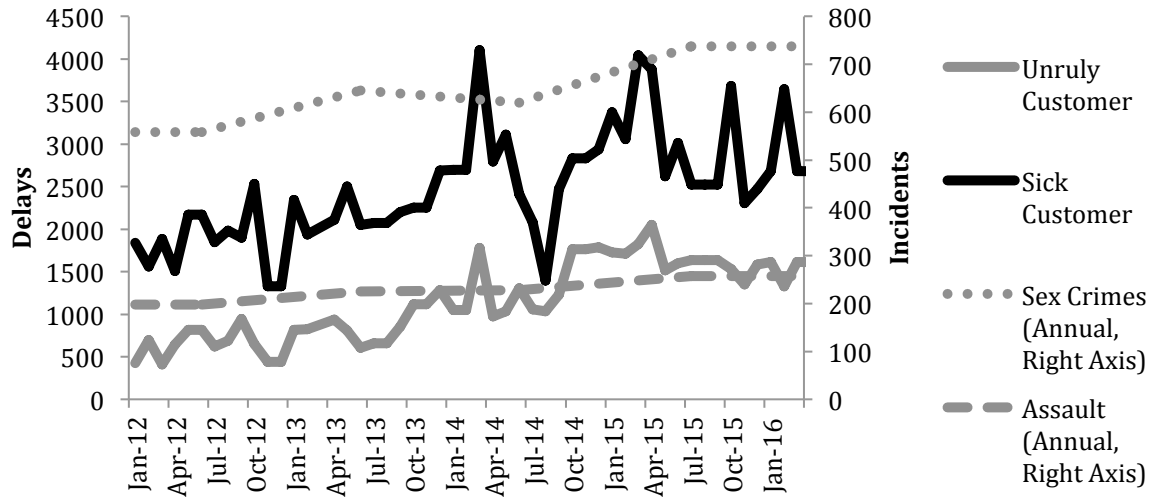
Figure 1: Monthly Weekday Terminal Delays on New York Subway, by Cause: 2012 - 2016



2.) These indicators suggest a broader and more cataclysmic breakdown in the normative infrastructure of the subway.

Rather than accommodating one another, as we might expect, the system and its riders are locked in an uneasy, often dysfunctional embrace. When the subway is stretched to the limits of its capacity, the normative infrastructure that typically governs passenger behavior breaks down. In this article, I investigate the dynamics of this troubled relationship, drawing on field notes gathered during three months of almost daily participant observation in the New York subway. During the first stage of research, which took place between early October and mid November 2015, I rode the train and observed platforms and concourses at all times of day and night, gathering observations on passenger behavior under normal conditions. During the second stage of research, from early February to late March 2016, I focused my fieldwork on the busiest lines in the system – the 4, 5, 6, and the N, Q, R, concentrating my observations at the system’s

Figure 2. Delays Due to Unruly and Sick Customers, Assaults, and Reported Sex Crimes on the New York Subway: 2012 - 2016



points of access, particularly station entrances and subway doors, at times (6:15am – 9:00am and 4:30pm – 7:00pm), when the human burden on the system is at its peak.

Based on my findings from these I argue that the patterned behavior of subway riders can be seen as a reactive adaptation to a system that fails, in its material design, to anticipate human psychological and physiological needs, imposing uncertainty and physical difficulty. With regard to the material environment of the subway, the normative infrastructure compensates for these shortcomings under normal conditions – it disambiguates and it humanizes the alienating subterranean landscape of the system. However, when this sociotechnical system is placed under pressure due to crowding, the normative infrastructure breaks down in ways that reveal the underlying stresses that it places on its human constituents.

A Feral Technology

One might think that over the 110 years of its existence, the subway system and its riders would adapt to one another – that the system would “learn” (Brand 1994) – resulting in a happy marriage between an infrastructure and its users. Social researchers who have examined the adoption of new technologies and infrastructures have often seen exactly this kind of process at work. Over time, a troubling new technology finds its place in society. We “domesticate” new technologies (Silverstone and Haddon 1996), a process that involves figuring out how to incorporate them into existing social structures and routines in a way that causes minimal disturbance. In response to feedback from the society it serves, the technology itself is made less disruptive through iterative redesign and modification.

At the same time, social and cultural practices evolve in response to a new technology’s opportunities and constraints. The telephone produced new social norms and institutions, as did the radio, the automobile, and the home dishwasher. Every important innovation results in a new cohort of people who know how and when to make use of it. Similarly, new infrastructure “constructs its subjects,” as Hoehne (2015) observes, following Foucault (1980). When a new transit system is built, it requires new social norms and forms of self-discipline. Eventually, through this recursive process, infrastructure and society become used to one another. Sociotechnical systems and their users move toward adaptation, compromise, and equilibrium. A technology that first appeared foreign is familiarized and naturalized – or “black boxed” in the terminology of Actor Network Theory (Latour 2005).

But this is not at all what has happened in the New York subway. Since it opened in 1904, subway riders have often been unable to take it for granted. For one thing, the



material environment of the subway is inherently ambiguous. The spatial logistics that guided the subway's construction, compelling engineers to build over or under existing infrastructure and through uneven geology and topography, insured that no two stations in the system are laid out in an identical fashion (Hood 2004). Every underground station has its quirks: long, narrow platforms; blind turns and strange angles; stanchions that obstruct the conductors' view of the passengers or passengers' view of each other. As George Tooker conveys, in a 1950 painting entitled *Subway*, the system can seem an alienating labyrinth. Its mazelike and idiosyncratic qualities frustrate riders' ability to apply spatial knowledge acquired at one station to another, and prevents the use of signage to resolve this spatial ambiguity. As a result, the subway favors arcane knowledge acquired through practice, resisting easy interpretation by newcomers and presenting even accomplished riders with uncertain situations.

The ambiguities embedded in the system are exacerbated by periods of massively fluctuating demand. During the 1920s – 1950s, the subway experienced its first crisis brought on by a demand for service that far outstripped system expansion. Crowding on

its trains reached such extremes that women's associations in the city rebelled outright, decrying the conditions as indecent and demanding expanded service or gender segregated cars (Brooks 1997). Crowding did not just problematize the social norms associated with public civility, it produced system wide delays that made the subway temporally unreliable as well as spatially ambiguous. In the 1960s – 1980s, the system experienced the opposite problem - a spiral of declining ridership and disinvestment that turned the system's platforms and trains into frighteningly empty, poorly maintained spaces conducive to social and physical disorder. During this period, mechanical breakdowns in the system reached epidemic levels, adding a different dimension of risk to the experience of riding the subway. In the last two decades, ridership is again on the rise, and has reached levels at which service reliability is again at the mercy of prolonged and unpredictable delays due to the physical (and as we will see, psychological and social) problems that occur when crowding coincides with spatial and temporal ambiguity.

The uncertain and unpredictable nature of the subway's built environment alone, however, did not prevent its eventual domestication. These rough edges might have been smoothed, given adequate funding, along with organized planning and management. But attempts to improve the system, and at times, even to insure its basic maintenance, have fallen victim to chronic fiscal deficits and delays that can be traced to the reward structure that confronts the subway's political managers. The mere prospect of the fare hikes or service interruptions necessary to make substantial capital improvements that would drastically expand or improve service provoke outrage among the city's voting public (Plotch 2015). The result is a particular brand of inertia that has prevented efforts to make the system more user friendly or expand the network in ways that would reduce the pressure caused by fluctuations in demand. In the tradeoff between adequate present

levels of service and improved future service, near-term considerations have generally prevailed, producing a system that often seems to be on the brink of physical and organizational catastrophe, but that rarely goes over the edge.

Partly by virtue of the engineering and design challenges that had to be overcome simply for the subway to operate as planned, the system became what it continues to be – a stark and utilitarian network of stairwells, passageways, concourses and platforms that, with the exception of public art projects intended to lighten the mood, is ambiguous, impersonal, and uncompromising. The social life of the subway, as others have observed, is a vibrant landscape, loaded with social meaning (Ocejo and Tonnelat 2014). But this thriving human cultural ecosystem takes place within a stark and uncompromising material environment that theorizes its passengers as incompletely human. Due to the constraints on the system’s design, expansion, and maintenance, the infrastructure of the subway constructs its riders as orderly automatons. It is indifferent to their psychological subjectivity. In this sense, the subway remains wild and untamed by the society that made it: a feral technology, resistant to riders’ desires for predictability, reliability, space, comfort, and ease of use. In the give-and-take that typically takes place between a technology and its users, the subway system offers little. And it asks much in return.

The Normative Infrastructure: Coordination and Reserve

Over the century in which the New York Subway has existed, a normative behavioral code has developed among its passengers that can be viewed as a cultural and behavioral response to the material and technological shortcomings outlined above. Subway etiquette, unlike the codes of behavior that prevail elsewhere, for example around the

dinner table or in the classroom (Elias 1969), consist of practices that emerged in and around a specific sociotechnical system, are unique to that system, and, crucially, bear directly upon its function, facilitating or impeding the system's ability to do what it is supposed to do. Through their repeated enactment and discursive representation, these practices have been assigned an ethical value, or moral valence, within the cultural context of subway: they comprise a *normative infrastructure* that complements and extends the material infrastructure of the system.

Normative infrastructure arises in response to ambiguity, filling in bits and pieces of information concerning what to do in a specific environment or a particular scenario. In the case of, say, a highway system in the United States, norms are extensively codified and regulated – many are institutionalized as state and local traffic codes. And drivers' understanding of these norms is not just certified (via a licensing system), but enforced: if they still experience some ambiguity in the road system, a traffic ticket can help to clear it up. The subway, on the other hand, is rife with ambiguity. The range of potential behaviors is much greater – the possibilities more nuanced – than when interaction is channeled through the clunky, inexpressive metal box that is an automobile.² As a result, although the subway has rules, there are no stoplights or yield signs governing passengers' movement through the system. Informal infrastructure – “etiquette,” rather than a set of codified and enforced rules and regulations – takes on a more important role in the subway, helping passengers coordinate their behavior in cases where the built environment does not constrain it.

² See Chapter 1 in Katz (Katz, Jack. 2001. "How Emotions Work." Chicago: University of Chicago Press.) for a discussion of the interactional and expressive constraints of the automobile.

Coordination

The most prevalent form of normative infrastructure on the subway consists of behaviors that remove the ambiguity from the collective action problems that arise in its unique material settings, suggesting a course of action that is legitimized by a sense that the system itself requires it. Up to a degree, passengers share a stake in the overall speed and reliability of subway service, so the system can be construed in a collectivist fashion – as a communal public good that requires small sacrifices from the individuals who use it, for the good of all. In the everyday practice of riding the subway, this logic runs through the background of the coordination problems that are spatially concentrated around the system’s various points of entry – for example, stairwells, turnstiles, and car doors:

5:46pm, Weekday in Late January. Canal Street Station: A steady stream of passengers is exiting the 6 train and making its way toward the turnstiles, or heading down the tunnel toward the connecting lines. At the bank of turnstiles, the stream separates into rivulets that flow quickly and methodically through the turnstile gates, one passenger at a time. A smaller, incoming stream of passengers is making its way through one of the turnstile openings, the outgoing passengers having ceded it to the incoming riders. At this point, with the train still in the station, a young white woman in casual work clothes breaks away from the back of the incoming line, during a brief interruption in one of the outgoing streams, and heads toward an empty turnstile. An outgoing passenger, a middle-aged black man in a blazer, simultaneously moves forward on the other side, ready to exit. There is the briefest of pauses on both sides at this point, as the mutual visibility of the two people produces a moment of concentrated ambiguity, and then the outgoing passenger steps aside, or more accurately, angles himself toward the adjacent turnstile on his right, merging the line behind him with the flow toward that opening. Meanwhile, the incoming passenger, without acknowledgement, pushes through, with a newly formed line of incoming passengers behind her. The train’s doors close before she can reach them, and she throws up her hands in frustration and glowers back at the turnstiles.

Which turnstile to use is a virtually meaningless choice when other passengers are not vying for the same narrow openings. But when traffic is simultaneously entering and

exiting, the situation becomes more complex. Lines form at one or more turnstiles, while streams of exiting passengers emerges from others. The material form of subway turnstiles, unlike doors, does not place a visible barrier, even a transparent one, between people approaching from opposite directions, producing an instantaneous coordination game that pit the interests of those who would enter from those who would exit. The resolution assigns different openings to outgoing or incoming traffic on an ongoing basis, a norm that holds unless a train is audible or visible at the platform, as it was in this case, in which case incoming passengers may receive priority.

Similar coordination games prevail at other potential chokepoints in the system. At station entrance stairways, an informal expectation holds that passengers will stay to their right (a norm that is not nearly as widely observed or as stringently enforced on the New York Subway as on the London Underground). On escalators, passengers are expected to stand on the right side and walk on the left side. At train doors, all exiting passengers are expected to be let off before anyone enters. In every case, small individual sacrifices are legitimized by the assumption that they make serve more efficient and pleasant for all.

Reserve:

Under typical conditions on the subway, passengers do not engage one another, due in part to a cultural and psychological mechanism embedded in the normative infrastructure of the subway – a “reserved” attitude that some theorists suggest is an adaptation to the distinctly urban condition of being surrounded by crowds of strangers (Simmel 2005 [1903]). Goffman’s (2009 [1972]) “civil inattention,” a polite form of disengagement that

people undertake in socially awkward contexts, offers an apt explanation of behavior on typical rush hour trains. They are expressively anemic environments, in which hundreds of strangers travel alone together in cramped quarters that stand to magnify the implications of any conspicuous act. While a sparsely inhabited late night train might be noisy with groups of drunken carousers, a crowded rush hour train is an interactional desert. This expressive minimalism takes on added meaning when a crowded train experiences an unexplained delay, helping to suppress the kind of outward expression of anticipation and frustration described above.

In my third week of participant observation, a crowded F train I was riding screeched to a halt during the evening rush hour. A muffled, inaudible announcement followed, and then the train remained stationary for close to 20 minutes while the problem was resolved. The passengers around me (I counted 48 within my field of view) waited silently and impassively, the hum of the ventilation system and some barely audible pulsating music on nearby headphones the only sounds. After perhaps ten minutes, a teenager removed his backpack and sat on it, creating an improvised stool. A man and a woman whispered to one another just within earshot. The pages of my notebook, which were quickly filled up during time spent on crowded station platforms, record almost nothing about this period, outside of my own internal ruminations.³ The dogged outward reserve of passengers in such situations becomes its own form of normative constraint, discouraging displays of frustration, anger, or fear that might destabilize the interaction order.

³ As a claustrophobe, I find these periods in the subway system difficult, in part because the social context of a crowded train requires composure, adding social anxiety to the anxiety produced by confinement, forcing a level of external, expressive control over an uncontrolled and uncomfortable cognitive and emotional state.

Counting on Courtesy

As described above, during two sustained periods during its history, the harsh and ambiguous material landscape of the subway has experienced the added burden of severe crowding and delays. First, in the 1920s through the 1950s, the system was stretched to its limit, as escalating popularity was combined with a fiscal inability to fund expansion plans. During the lean years of the 1960s – 1980s, when the city declined socially and economically, ridership declined as well. But again, starting in the 1990s, ridership again mounted, and by the early 2010s, the problems caused by crowding and passenger misconduct had reached crisis levels for the MTA.

In order to resolve these issues and insure reliable service, the transit agencies that operate the subway have repeatedly attempted to bolster normative infrastructure through behavior modification campaigns. In the 1920s through the 1950s, advertisements in subway cars advised passengers not to be “door boors,” or “space hogs”, illustrating these requests with drawings by cartoonist Amelia Opdyke Jones, or “Oppy” depicting a heavysset male figure with a porcine nose. The victims of his rudeness were typically female – a young woman being pushed onto the tracks by the door boor in his hurry to get down the platform, or an elderly woman hitting him with a bag, while a caption reads, “Hit him again, lady! We don’t like door blockers either.” Even when the advertisements seek to encourage coordinated collective behavior, rather than discourage individual transgression, they make appeals to morality. “Have a heart for others, please load in line,” an advertisement reads, depicting two scenes, side by side: one in which loading and unloading passengers clash in the open doorway of a subway car, resulting in a tangle of limbs and cries of pain; and another, framed within a heart-shaped motif, in

which depicts passengers smile at their compatriots as they unload and load the car in orderly, single file lines.

In the early 1950s, Oppy's Subway Sun advertisements were joined by audible etiquette advice offered by television actors and other well-known celebrities and broadcast via public address system in the busiest stations. Just as the visual advertisements humanized and moralized appropriate passenger behavior, the recorded announcements pursued a similar strategy:

Attention all high school students. I know you feel good about getting out of class, but remember the men and women who are riding in that subway with you are people like your own fathers and mothers. Be respectful to them. Don't shove or horseplay in the coaches.

In the early 1960s, the agency turned to a still different tactic for adding normative meaning to its passenger behavior campaigns. A talking kitten known as Etti-Cat appeared on posters inside subway cars, offering a combination of stories and advice. "I'm flabbergasted!" Etti-Cat says, in the first of these posters, "All I did was to give a seat to a little white haired lady and they pinned a medal on me!" By personalizing their claims upon passenger etiquette, the transit agencies that operate the subway have attempted to activate and deploy normative infrastructure on behalf of systemic needs. When there is no flexibility in the material infrastructure, due to fiscal and political constraints on system expansion, an apparent area of "give" has been the norms that set informal limits on the space and time necessary to accommodate a given number of passengers.

In the latest crowding crisis, the Courtesy Counts campaign has produced a series of illustrated etiquette advisories, each one encouraging or discouraging a specific type of behavior. Instead of the "door boor", the new posters illustrated positive and negative

behaviors through green or red stick figures, offering a depersonalized representation of normative behavior that permits us to freely fill in the faces of courtesy or rudeness with our imaginations. “Keep The Doors Clear So Others Can Board,” one reads, depicting a green male figure struggling through a crowd of red male door blockers in business attire. “Bottom Line: Blocking doors blocks traffic and slows service for everyone.” A poster targeting “manspreading” – a presumptively masculine practice that involves sprawling one’s legs to the left and right, drew substantial amounts of interest from the media. “Dude, Stop the Spread,” the poster reads. “It’s a Space Issue.”

But not only has the most recent attempt at appropriate normative infrastructure been insufficient to alleviate delays and passenger misbehavior on the subway – it has coincided with the worst deterioration in passenger etiquette in decades. As delays due to crowding have mounted, other, related types of delays, due to sick passengers and unruly customers, have also increased, hinting at the physiological and psychological stress induced by an overburdened system.

When the Abnormal Becomes Normal

If courtesy campaigns and other forms of social control enacted by the transit agencies have proven limited in their ability to resolve passenger incivility, this may be due to the simple fact that passengers already know the rules. The normative infrastructure of the system functions fairly well – from the standpoint of system efficiency and reliability – when ridership is relatively low. It is when the material infrastructure is overburdened by human demand that problems arise. This suggests that breakdowns in the normative infrastructure are not due to the kinds of gaps in public awareness that public education campaigns might successfully address, but to something else entirely. My fieldwork at the

subway's busiest stations and times suggested that effervescent emotional states catalyzed by ambiguous and crowded conditions led to lapses in etiquette and breakdowns in the normative infrastructure upon which the system depends.

If the subway were a tamer and more predictable infrastructure, passengers might be able to take the temporal rhythm of the system for granted during their routine movements around the city. A precise timetable theoretically governs the arrivals and departures of a given train, but the rider's experience of time on the subway tends to be impressionistic and subjective. Elapsed time is measured against a baseline that we derive from experience, indicating how frequently trains should arrive, and how fast they should move at any given time of day. In an era of chronic delays, these expectations are routinely contradicted, heightening awareness of the passage of time and provoking psychological stress. Passengers seek to disambiguate the situation and thus relieve the resulting discomfort:

9:11am, Monday, late February, 2016. Newkirk Avenue Station. The B train is delayed. The express side of the platform is thick with passengers, while the Q train just left a few minutes ago, leaving the local side of the platform clear. I've been waiting for 12 minutes for the B train at a time of day when it should be arriving every 3-4 minutes. As the crowding on the platform intensified, several passengers began periodically walking to the yellow-painted edge of the platform and looking down the tracks. Eventually, they colonized this area completely, their bodies angled toward the direction from which the train will eventually come. Looking down the platform in the direction of Coney Island, from around the midpoint of the platform, I count eight passengers standing at its very edge. Their positions are forcing other passengers, those particularly intent on seeing as far down the tracks as they can, to lean out over the tracks and crane their necks.

I notice a short man in an orange windbreaker who is standing several feet inside the yellow paint, but making frequent trips into the danger zone. Again and again, at rapid intervals, he paces out to the edge and leans out over the tracks, lifting his left leg to place his upper body at a 45 degree angle. He goes and looks again. And again. Every 20 - 30 seconds or so. The waiting – the indeterminacy of the train's arrival – is visibly more

than he can bear. A nervous energy fills the air, fueled by our collective anxiousness and expectancy. Subjective emotional states are absorbed and subsumed within a collective hum of frustration and anticipation. I was already running late for an appointment and have now lost hope of being on time, but this concern has moved into the background. It is us against the train. Us against the absence of a train.

To point out the obvious, passengers do not speed the arrival of the train by craning their necks or leaning dangerously over the track bed to look for it. This behavior, though perhaps understandable, is not rational. It speaks of a basic conflict between the broken rhythms of delayed train service and an aversion to ambiguity that is hardwired within human psychology. Our anxiousness to get on the train, when combined with the uncertainty concerning when it will arrive, creates psychological discomfort that we attempt to resolve by peering down the tracks. We know that will not make the train arrive quicker, but we also understand that seeing the train on its way will ease our discomfort.

On subway platforms, as in any crowd situation, collective emotional states are intensified by the behavior of individual actors, like the man in the windbreaker described in the fieldnotes above. Whether or not “courtesy is contagious,” as a discontinued MTA behavior modification campaign suggested, the psychological experience of impatience and frustration, when externalized on a crowded platform or in a packed train, can spill over and affect other passengers. Internal, subjective reactions to temporal ambiguity can effervesce into a form of what Collins (2004) calls “emotional energy”:

12:40am, Saturday, early December. Canal Street Station. The platform is narrow at this stop, leaving not much space between the tracks and a wall running the length of the platform. It is cold and damp. I just arrived on the platform, but can tell that the Brooklyn-bound train is extremely late. Riders line the platform in ragged lines – many with their backs to the wall, others standing directly in front of them. There is just enough space between this waiting crowd and the tracks for passengers to walk along the

yellow caution strip, although this brings them within inches of the platform's edge.

Periodically, a man down the platform is shouting, "Where's the fucking train?" After he does this two or three times, at seemingly regular intervals, I start walking in the direction of the voice, hoping to catch a glimpse of him. I hear it again, and I realize I am close to its source, within maybe 30 or 40 feet, but there are so many people on the platform that I can't pinpoint it. Finally, he shouts as I pass next to him, and I am able to identify the shouter. He is a tall, white man in his twenties, standing with his back against the wall. He has slightly shaggy brown hair and is dressed in a nondescript, casual fashion, except for some conspicuously high-tech blue running shoes. I am surprised to find that he does not appear visibly anxious in the slightest. He is not peering down the platform into the darkness of the tunnel, as others are, but is instead staring blankly into the space directly in front of him, his gaze perpendicular to the tracks.

"Where's the fucking train?" he shouts, for the fifth or sixth time. I settle into the crowd near him, and realize that rather than seeming alarmed by his shouting, others nearby are trying to engage him in an affirmative way. A middle-aged woman directly in front of me looks toward him when he shouts again and nods enthusiastically as if in support of his line of inquiry. A younger man to my right echoes him quietly. "Where's the fucking train?" he says, after the next shout. "Where is it?"

In these examples, the reserve that typically dominates within the subway was pushed past its limits by the unpredictability of the system.

The temporal uncertainty that pervades the subway when it is crowded, however, creates problems that are more than psychological in nature. For lack of information about when the next train will come, veteran passengers will attempt to cram their bodies onto a packed train to avoid another lengthy delay. As an MTA official admitted to a *New York Times* reporter, "the crush is a result of poor service reliability." Riders who have experienced years of erratic service can come to rely on an educated pessimism. "Every train became the last train in the minds of many of our customers" (MacFarquhar 1997). When platforms and the trains become crowded, riders behave in ways that create additional delays, producing vicious circles that push service further and further off

schedule. Rule following deteriorates, for reasons that may be selfishly rational or unthinking and mimetic. Against the norm of letting others exit before entering a subway car, passengers are more likely to push their way onto a train, creating chaos at the doors and producing bottlenecks that extend the “dwell time” or the amount of time that any given train spends motionless at a platform before leaving.

On-schedule service requires that dwell times stay below 45 seconds, but this limit is often exceeded when the trains and platforms are crowded. According to the MTA, an additional 30-second delay in closing the doors at one station can delay up to 9 or 10 subsequent trains. Assuming that each train holds several hundred passengers, this suggests that thousands are routinely delayed by idiosyncratic moments of poor subway etiquette that stem from the uncertainty produced by erratic service.

But door holding and pushing on board are not the only behavioral consequences of an overburdened system: far more egregious breaches of the normative infrastructure occur on crowded trains and cause accordingly longer delays. In 2015, as ridership and delays mounted rapidly, the MTA observed an increase in unwell and “unruly” passengers on the system, including an increase in the number of physical altercations. On several occasions during my participant observation, I observed disputes between passengers that were caused by crowded and ambiguous conditions on the train or around the doors, and that, in turn, led to further delays.

6:10pm. Inside the A train - 14th Street. The train is crowded, but not quite a sardine can. Lots of passengers getting on and off at each stop. A heavysset black guy and a Latino guy of medium build, both apparently in their 20s, collide when simultaneously attempting to pass through the doors. The Latino guy is knocked sideways as he exits, while the black guy continues into the car and sits in a newly vacated seat, seemingly oblivious. A moment passes as more people enter the train and take positions in the car. Just as the doors are closing, the Latino guy appears again, holding one door against the door frame with both hands. “Hey” he says. “Hey!”

Eventually the larger man looks up. “You should learn to say excuse me,” the Latino guy says. “Huh?” the black guy responds. “You should learn to say excuse me,” the Latino guy repeats, angrily. “Okay,” the black guy answers slowly and with pronounced indifference, looking back at a graphic novel he has pulled out of his bag. “No, *not* okay,” the Latino guy says, still blocking the door. “How about this?” the black guy says, now seething with rage. “Fuck you, okay? Not today. Not today motherfucker.” At this point, many other passengers are observing the interaction, but seem to become almost instantaneously tired of the drama. “Let it go Papa” says a Latina woman who looks to be in her late 50s or 60s, seated to my left. She is addressing the Latino guy in the door, and it occurs to me that I don’t know if she means to let the door go or to let the quarrel go. The quarrel is stopping the door. “Next time be more polite!” the Latino guy says. Several people – I don’t see who – now audibly grumble or sigh to my left and right. The Latino guy nods emphatically, as if to indicate he’s made his point, and lets the door close. The black guy proceeds to chuckle and mutter under his breath for the next few minutes. All I can make out is “Hispanics.”

On another occasion during my research, on an extremely crowded, moving B train during the morning commute, two men came to blows over accusations that one had shoved the other as the train bounced and shimmied down the tracks. Several onlookers pulled the larger man back, while the other slipped and sprawled on the floor under our feet. “He fucking pushed me!” he yelled up at us.

Temporal ambiguity on the system does not just produce messy entrances and exits, and the cascading delays that result from routine moments of disorder. It spills over into qualitatively different categories of problems that are fostered by tense, chaotic, and ambiguous conditions on trains and platforms. These problems – for example, fainting spells and fights – amount to significant breakdowns in the normative infrastructure of the system, producing a feedback loop of escalating delays and growing distrust on the part of passengers who respond by behaving even more poorly.

Conclusion

This study has suggested the term normative infrastructure to refer to a set of habituated, morally loaded practices that develop within and through a material infrastructure, resolving its ambiguities. Typically, these practices are legitimized by an implicit logic that I call systemic justice, whereby individual sacrifices are legitimized via claims to the needs of the sociotechnical system. In the case of the New York Subway, this code of passenger etiquette has evolved in response to the uncertainty built into the system itself and preserved by chronic fiscal shortfalls and a lack of political will. Looking forward, this analysis does not suggest a bright future for the system, as physical expansion to relieve crowding seems likely to hold the only hope of restoring the reliability and effectiveness of the system amid a breakdown of the normative infrastructure.

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