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## The subway as fourth place: anomie, flânerie and the “crush of persons”

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### ABSTRACT

Sociologically speaking, what kind of place is the subway? If urbanism is defined as the experience of being surrounded by strangers, then the subway is a quintessentially urban space. But social scientists remain polarized in their views of this space, alternately describing the subway as an antisocial environment, a liminal “non-place”, or a space of multicultural contact. In this paper, we describe the social life of the subway, analyzing an original data-set compiled through detailed observations of the behavior of more than 4,000 passengers on the New York City subway system. We use logistic regression to model the factors that influence how passengers direct their gaze and configure their bodies while riding mass transit, and interpret our results with the help of “subway diaries” kept by 18 research subjects over the course of a week. Our findings help to reconcile conflicting images of social interaction in crowded transportation spaces: the subway is a “fourth place”: a utilitarian space in which context-specific norms serve to flatten social distinctions, allowing a passive form of social contact constrained by the presence and prevalence of other passengers in the subway car.

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Sociologically speaking, what kind of place is the subway? The “folklore” of the subway describes a hostile, antisocial environment (Davis and Levine 1967), and some empirical work supports this notion. Social interactions between strangers on public transportation can be territorial or adversarial (Evans and Wener 2007; Fried and DeFazio 1974; Kim 2012), perhaps justifying the subway’s reputation as a “stereotyped symbol of urban alienation” (Lofland 1998, 30). Alternately, following Augé (1995, 78–82) the subway can be theorized as a “non-place”, lacking a distinct social identity or structure. Urban planners have long implicitly endorsed this logic, regarding mobility as a nuisance factor that separates the productive static destinations in a city (Lyons and Urry 2005). Time on the subway is regarded by some theorists as liminal, an “in-between time” (Berry and Hamilton 2010), that passengers spend in blank suspense, “like an audience at a theater in which no play is ever given” (Davis and Levine 1967).

On the other hand, interactions of a sort *do* take place in the subway. These encounters imbue the act of riding the subway with social significance, transforming the subterranean movement of bodies into mobility – a culturally and socially meaningful act (Cresswell 2010; Jensen 2009). Riding the subway requires a degree of interactional skill – even when subway riders do not communicate directly, they perform “facework” (Goffman 1967), “actively interpreting the environment in a complex process of foregrounding and backgrounding meaning” (Jensen 2006). Several theorists have suggested that these kinds of encounters are, in fact, far from trivial, and may help to encourage “conviviality” (Amin 2012; Gilroy 2004, xv) “cosmopolitanism” (Anderson 2011; Butcher 2011), or, at the very least, “tolerated multiplicity” (Wilson 2011). Following Cresswell (2005), the “moral geography” of the subway is, on its surface, relatively inclusive and democratic. Unlike other modes of transport, the subway belongs to no one in particular, and compels interactions that cross-lines of social difference.

But there is very little consensus among social scientists concerning how to conceptualize the subway as a social space. One explanation for this polysemic quality is the expressive minimalism that prevails in such settings, which confounds the easy interpretation of moods and mental states. Following Levine, Vinson, and Wood (1973, 209), Jensen (2006) points out that subway riders perform a “nonshow”, purposefully hiding their thoughts and emotions. The dominant social norm is “civil inattention” – a polite avoidance of physical or visual contact (Goffman 1963). According to Bissell (2010) emotion in such settings is expressed through “communicative registers ... that transcend the limiting grammars and vocabularies of discourse”. This stoicism makes the subway an “ethnographic trap” (Tonnelat and Kornblum 2017) – a blank canvas that invites researchers to project their own preconceptions onto the object of study, obscuring the subjective meanings at play in the social setting.

In order to avoid this pitfall, researchers have resorted to an innovative program of behavioral research, deducing passengers’ subjective affective and cognitive states from their seating patterns (Fried and DeFazio 1974; Maines 1977) or their silent reactions to social contact (Aranguren and Tonnelat 2014; Evans and Wener 2007; Purifoye 2015; Raudenbush 2012). Although limited in interpretive depth, this program of research is vital. The subway, like the commuter train and the public bus, has often been overlooked by social science (Sheller and Urry 2006), but is an important social setting in its own right. If urbanism is defined as the experience of being surrounded by strangers (Lofland 1985; Massey 2005; Wirth 1938), then the subway is a quintessentially urban space, perhaps unparalleled in its capacity to gather unacquainted city dwellers and compel them to share close quarters. It is crucial to understand the minimalistic social encounters that occur in the subway, even though these encounters resist participant observation, conversation analysis, and other analytical approaches typically used to study interaction.

In this paper, we describe the social life of the subway, using two distinct analytical methods. First, we analyze an original data-set compiled through detailed observations of the behavior of approximately 4,000 passengers on the New York City subway system. Drawing our hypotheses from existing theory and research, we use logistic regression to model the factors that influence how passengers direct their gaze and configure their bodies while riding the subway. Our findings link an environmental condition – crowding – with objective patterns of observed behavior. We then turn to a different methodological approach, in order to understand the subjective, interpretive processes at work behind these behavioral patterns. We introduce a qualitative data source: “subway diaries” (Ocejo and Tonnelat 2014)

kept by 18 research subjects over the course of a week. Our findings, taken as a whole, help to reconcile conflicting images of social interaction in crowded transportation spaces. Rather than a dystopic social environment, a transitional and impersonal space, or a vibrant multicultural melting pot, the subway is best conceptualized as a “fourth place”: a utilitarian environment in which prescriptive behavioral norms act to flatten social distinctions, allowing an elective form of transient social engagement that is enabled and constrained by the presence of strangers.

## 1. The subway: a land of strangers

Many urban theorists have identified “stranger interaction” (Lofland 1998) as a definitive characteristic of the modern city (Amin 2012; Lofland 1985; Massey 2005; Simmel [1903] 2005). Confronting a multitude of unfamiliar faces is a condition that occurs with heightened frequency in large, dense, and heterogeneous settlements (Wirth 1938). As previously suggested, the subway distills this aspect of urban experience, bringing together crowds of strangers and forcing them to coordinate their behavior within confined space. It follows that conflicting impressions of the subway hinge upon different psychosocial models of stranger interaction – different assumptions regarding how people react when surrounded by a large and anonymous crowd of fellow travelers. Existing theories support two contradictory sets of hypotheses linking environmental conditions in the subway with patterns of observable interpersonal behavior.

### 1.1. Crowding, shielding, and avoidance

One understanding of the subway stems indirectly from the somewhat dark view of social psychology espoused by a number of twentieth Century urbanists. According to Simmel ([1903] 2005), the ability of urban residents to maintain their equanimity amid the “metropolitan crush of persons”, is contingent upon a set of compensatory social norms – a “protective organ” (16) that has developed in modern urban society. A studied indifference to others serves to maintain “intellectual distance” between strangers, especially in the “dense crowds of the metropolis” (16). By shielding themselves from the sensory environment of the city, urban dwellers avoid the stress and loneliness that arises in crowded, anonymous conditions.

The cognitive “overload” theory (Milgram 1970) has since been debunked (Fischer, Baldassare, and Ofshe 1975). But the other part of Simmel’s argument – that urban dwellers employ a variety of social practices to negate the undesirable sensory experiences of city life – has survived very much intact. As Lofland (1998), following Goffman (1963), observes, urban residents typically exhibit “civil inattention” in the crowded public spaces of the city, thus avoiding unwanted intimacy in cramped conditions that make social contact unavoidable. This insight aligns Simmel’s argument with symbolic interactionism or dramaturgical sociology. Rather than an environmental stimulus provoking an automatic psychological response, crowding can be seen as an aspect of a social setting that encourages a corresponding set of interactional practices. Levine, Vinson, and Wood (1973) extended this very argument into the subway, suggesting that riders perform a calculated display of indifference and stoicism.

Following this logic, the subway can be understood as essentially a space of social avoidance, where crowded conditions intensify the need for strategic varieties of “facework” (Jensen 2006), including interactional tactics that place intellectual distance between oneself and others. Goffman (1963) provides specific guidance on how avoidance might be manifested in a crowded subway car. Cramped elevators and train cars, he writes, pose a “where to look” problem that is solved with the help of various “involvement shields”. Books and newspapers serve a “situational function”, providing “a screen that can be raised at any time to give ourselves or others an excuse for not initiating contact” (137–139). In recent years, mobile phones, tablets, and other electronic devices have become fixtures of social activity in urban public space, offering additional implements of civil inattention and permitting users to “filter” (Milgram 1970) the sensory experience of their surroundings (Ayaß 2014; Baron 2008; Benediktsson et al. 2015; Bull 2007; Katz, Lever, and Chen 2008). Alternately, subway passengers may seek disengagement by closing their eyes until they reach their destination, a tactic that has the additional benefit of completely blocking the visual stimuli of a crowded subway car (Levine, Vinson, and Wood 1973).

Building on this line of theory and research, we hypothesized that passenger density (or more colloquially, “crowding”) would influence the behavior of subway riders in important ways. As passenger density rises in a given subway car, we theorized, passengers would be more likely to direct their visual attention to printed or digital media or to take refuge behind closed eyelids, thus filtering the sensory impact of their environment and deterring unwanted interaction with fellow passengers.

*H1: As passenger density rises within a given subway car, passengers will be more likely to use “involvement shields,” focusing their visual attention on print or digital media or wearing earphones.*

*H2: As passenger density rises within a given subway car, passengers will be more likely to shut their eyes.*

*H3: As passenger density rises within a given subway car, passengers will be less likely to direct their visual attention to other passengers.*

## **1.2. Engagement and the audience role**

On the other hand, subways have also been conceptualized as vibrant social settings that play a special role precisely because they do gather crowds of anonymous strangers. Subways, buses, and trains afford contact across lines of social difference, leading theorists to suggest that mass transit spaces may play a role in fostering “conviviality” (Amin 2012; Gilroy 2004), or “cosmopolitanism” (Anderson 2011), and thus hold a unique promise within increasingly diverse urban society. This line of argument presumes that fleeting social contact with strangers in crowded urban space can be positive rather than aversive, an empirical assumption that receives backing from a separate, but equally influential branch of urban sociology (Jacobs 1961; Whyte 1980). Rather than producing loneliness or stress, crowded public spaces offer social connection, emotional attachment, and entertainment. Instead of anomie, they can be seen as promising flânerie, adding esthetic interest and pleasure to acts of everyday mobility (Jensen 2009).

In her taxonomy of tactics for stranger interaction, Lofland (1998) refers to the prevailing social condition in these cases as “audience role prominence”. When the surrounding social milieu is sufficiently engaging, urban dwellers will slip into the role of the audience, directing

their attention to those around them, albeit discretely. Raudenbush (2012) distinguishes these “concealed interactions” from verbal interaction or prolonged visual contact (i.e. staring), describing passengers who “survey the people around them, but do so casually, not focusing too long on any one person and withdrawing their gaze quickly if others look back at them”, a tactic that is at least somewhat conscious on the part of subway riders (Ocejo and Tonnelat 2014). Lofland (1998, 31) suggests that the most crucial determinant of audience role prominence is “how much will be available for the voyeuristic pleasures of the audience”, a variable that depends upon the amount of human activity present in a given space. This line of theory and research runs contrary our first set of hypothesis, suggesting that passenger density will increase, rather than decrease passengers’ engagement:

*H4: As passenger density rises within a given subway car, passengers will be less likely to use “involvement shields.”*

*H5: As passenger density rises within a given subway car, passengers will be less likely to close their eyes.*

*H6: As passenger density rises within a given subway car, passengers will be more likely to direct their visual attention to other passengers.*

In order to describe the subway as a social setting and test the hypotheses above, we opted for a mixed-method design that combined a quantitative analysis of behavioral data gathered through systematic social observation with a qualitative analysis of subjective textual accounts of riding the subway. Systematic social observation involves the direct observation of social behavior in real time and in its natural setting, and is an approach particularly well suited to studying behavior in public space, where trained observers can often conduct observations without influencing the behavior of interest (e.g. Whyte 1980). As previously discussed, structured observation of public behavior has been used to good effect in studying the social interactions that occur within mass transit systems (Aranguren and Tonnelat 2014; Evans and Wener 2007; Fried and DeFazio 1974; Maines 1977, 1979). The principal advantage of this mode of analysis is that it does not rely upon subjective accounts (survey responses, interviews, diaries, etc.), and is thus less susceptible to the biases that can affect self-reported measures of behavior (Sampson and Raudenbush 1999). By modifying this approach to afford observations by a trained team of observers, we directly follow the work of Maines (1977, 1979), whose work analyzed patterns of proximity on the New York City subway several decades prior to this study. Of course, strictly behavioral analysis involves a tradeoff, as the resulting data beg interpretive questions that they cannot answer. For this reason, in a second, qualitative stage of analysis, we examined subjective accounts compiled by frequent riders of the subway, in order to aid our understanding of the quantitative findings.

## 2. Quantitative methods: measuring behavior

For our first, quantitative analysis, we analyzed a data-set containing 5,108 observations of subway passenger behavior. The observations were carried out by a team of 138 trained observers over a five-week period during October and November of 2016. Observers were all affiliated with Hunter College, a medium sized public university in the heart of New York City, and included faculty members and graduate students in urban affairs and applied social research, as well as undergraduates enrolled in a course on sociological research methods. All observers participated in a 75 min training session, conducted a set of practice

observations prior to beginning their data collection, and attended a series of follow-up sessions intended to foster consistent data collection standards.

Each observer was assigned an observation period, to insure that observations covered all times of day and days of the week. The geographic assignment of each observer to an area of the subway system was based upon a convenience sample, as observers were assigned to carry out their observations on a subway line they typically rode to school or work. The resulting data-set, however, included a broad cross-section of the subway system, covering 23 different subway lines and 197 different neighborhoods across all five boroughs of the city.

Each member of the research team was responsible for observing 40 different passengers.<sup>1</sup> The sampling method was designed to approximate as closely as possible a random sample of the passengers in the interior of any given car. Observers were instructed to enter any subway car through the rear set of doors, turn toward the front of the train, and take a natural, comfortable position, as if simply riding from one place to another. They were to carry out their first observation on the passenger who was closest to them and within their field of vision, their second observation on the passenger next closest to them and in their field of vision, and so on. Apart from strict proximity to the observer's initial position, there was no other sampling criterion applied with the exception of age: observations were not to include children estimated to be 12 years old or younger. Although this method may have resulted in a slight oversampling of passengers who choose to ride toward the interior of the subway car, as opposed to near either end, we believe that it incurred little sample bias with regard to passenger demographics, activities, or other variables of interest.<sup>2</sup>

To record their observations, students used a smartphone application that had been configured for this study. The application prompted and directed observers' observations through a series of closed-ended "yes" or "no" questions and drop-down lists, incorporating a skip logic in order to clarify and facilitate data entry. In carrying out these observations, observers were to remain as discrete as possible, a stipulation that was facilitated by the smartphone app, which made data entry inconspicuous.

The dependent variables in the quantitative analysis are dichotomous measures indicating the object of the passenger's visual attention (staring into space; looking at other passengers; looking at a book; looking at an electronic device; eyes closed, etc.).<sup>3</sup> In addition to these behavioral indicators, a series of independent variables were recorded by observers, included a series of ascribed demographic variables, such as the passenger's gender, approximate age, and race and ethnicity, as well as several other individual-level variables of interest, for example, whether the passenger was standing or seated, and traveling alone or as part of a group. We also included a measure indicating whether the passenger was likely to be an extreme racial or ethnic minority in the subway car. Using 2014 5-Year American Community Survey (ACS) data aggregated to the neighborhood level, we measured the demographic composition of the neighborhood that the subway was passing through when the observation took place. Research suggests that passengers who represent a racial or ethnic minority in relation to their surroundings may experience "shunning" or physical avoidance on mass transit (Anderson 2011, 220–222; Maines 1977; Swyngedouw 2013), as well as a nuanced variety of social sanctions (Purifoye 2015). Even in the absence of clear aversion or hostility on the part of fellow passengers, visible racial, ethnic, or religious markers may lead passengers to feel conspicuous and seek to avoid potentially uncomfortable social contact (Ocejo and Tonnelat 2014). We thus hypothesized, conservatively, that when subway



passengers represent a fairly extreme racial or ethnic minority (less than 10% of the population) in the neighborhood through which they are riding, they would be less likely to visually engage other passengers and would be more likely to take refuge behind involvement shields.

Observers coded a series of contextual variables as well, including a precise count of the number of passengers in the rear quarter of the subway car, where the observations took place. This indicator serves as our primary measure of passenger density. Additionally, they coded whether the train was above or below ground at the time of the observation, and the exact time at which the observation took place. Finally, observers noted the location of the subway train in relation to the station stops on a given line, a fairly granular geographic indicator that allowed us to spatially locate the subway train when the observation was conducted. We thus were able to incorporate contextual and spatial variables, including the demographics of the neighborhood that the subway train was passing through when the observation was conducted. Descriptive statistics for all variables in the analysis are presented in Table 1.

In order to analyze patterns of passenger behavior, we used binary logistic regression, estimating separate models for each behavior of interest.<sup>4</sup> We restricted this analysis to all passengers who were visibly riding alone ( $N = 4143$ ), omitting those who were accompanied by another passenger. In all models, we controlled for race and ethnicity, age, and gender, as well as whether the passenger was seated or standing, whether the train was above or

**Table 1.** Descriptive statistics for all variables in analysis

Variable	Mean	Std. Dev.	Range
Behavioral categories:			
Looking at other passengers	.264	.441	[0–1]
Looking at electronic device	.339	.474	[0–1]
Looking at print media	.080	.272	[0–1]
Eyes closed	.109	.312	[0–1]
Passenger characteristics:			
Male	.498	.500	[0–1]
Age			
13–19	.066	.247	[0–1]
20–29	.369	.482	[0–1]
30–39	.271	.444	[0–1]
40–49	.160	.366	[0–1]
50–59	.090	.287	[0–1]
60+	.044	.193	[0–1]
Asian	.145	.353	[0–1]
Black	.227	.419	[0–1]
Hispanic	.249	.432	[0–1]
White	.322	.467	[0–1]
Minority	.298	.458	[0–1]
Standing	.329	.470	[0–1]
Train characteristics:			
Passenger density	24.891	14.506	[1–50]
Above ground	.170	.376	[0–1]
Time of observation:			
Early morning (6–9 am)	.170	.376	[0–1]
Late morning (9–11:45 am)	.244	.429	[0–1]
Afternoon (12–4:45 pm)	.265	.441	[0–1]
Evening (5–11 pm)	.276	.447	[0–1]
Weekend	.221	.415	[0–1]



below ground, and the time of day and day of week when the observation took place. Additionally, although all observers received identical training and instruction in how to identify the dependent variables, we chose to further account for any potential observer effects by including a fixed effect for each observer in all models.<sup>5</sup> In this way, we controlled for any subjective, individual differences in how a given observer might code the dependent variable.

### 3. Qualitative methods: interpreting behavior

To aid interpretation of the quantitative findings, we analyzed subway diaries (Ocejo and Tonnelat 2014) kept by 18 volunteers over a one-week period that coincided with the quantitative data collection effort. This component of our analysis was inspired by Blumer's (1969) programmatic recommendations for symbolic interactionist methodology, which is a direct response to the empirical shortcomings of quantitative analysis when studying interaction. Blumer argues that understanding the subjective "world" of a group of social actors requires data that consist of

descriptive accounts from the actors of how they see the [object of research], how they have acted toward [it] in a variety of different situations, and how they refer to [it] in their conversations with members of their own group. (51, 52)

The resulting descriptions should be analyzed through "probing and critical" discussion among a group of participants in that same social world.

Eighteen frequent subway riders (eleven women and seven men) were recruited using convenience sampling, and were selected in order to provide variety on key variables. The sample was multiracial, including multiple Asian, Black, and Hispanic informants, as well as White (non-Hispanic) participants, and ranged in age from 18 to 70. Participants were asked to log a diary entry describing each subway ride they took during this period, writing the entry as soon as possible after completing the ride. The instructions for these entries were open-ended: we asked the research subjects to describe how they chose to pass the time on each subway ride and to reflect on why they performed the activities they did.<sup>6</sup>

The resulting data-set, consisting of 74 pages of text, was analyzed by 8 members of the core research team, all frequent subway riders themselves, using the constant comparative method (Charmaz 2014, 181, 182; Glaser and Strauss 1967) to identify patterns in the data. The analysis did not require that we assume passenger behavior to be purposive, deliberative, or instrumental; we understood behavior to be just as likely to be rooted in habit or implicit cognition, and did not take passengers' accounts of their behavior entirely at face value. We coded and analyzed the data at two levels, seeking patterns in the explanations for the behaviors reported, while simultaneously examining variations in the tone and subject matter of the accounts, probing for clues indicating the subjective mental states associated with riding the subway. Through this analytical approach, we used the transit diaries to shed additional light on the quantitative analysis, revealing the interpretative and expressive processes that mediate the relationship between crowding and behavioral practices.

### 4. Quantitative results: crowding and visual activity

More than 80% of the passengers we observed were engaged in one of the four behaviors of interest: 37.6% were looking at electronic devices, 9.1% were reading printed media such

as books or newspapers, 22.4% were looking at other passengers, and 12.5% had their eyes closed. In Table 2, we present the results of four separate binary logistic regressions modeling these behaviors. Many of the control variables are important and interesting in their own right. Passenger behavior varies systematically according to the passenger's age, race, and ethnicity, her racial status in relation to the surrounding neighborhood, and the time-of-day. For economy's sake, however, we restrict our discussion to the effect of passenger density on visual activity, while noting these effects and including all control variables in the table for reference.

The coefficient for passenger density in the first column of Table 2 indicates that crowding increases rather than decreases the odds that a passenger chooses to look around her

**Table 2.** Odds ratios from fixed effects logistic regression: subway passenger visual activity.

	Scanning other pas- sengers		Print media(e.g. book, newspaper)		Digital media (e.g. phone, laptop)		Eyes closed	
Variable	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Passenger density	1.010**	(1.003–1.020)	.992*	(.981–1.001)	.991***	(.985-.997)	1.014***	(1.007–1.020)
Passenger level control variables:								
Male	.953	(.851–1.197)	.883	(.710–1.100)	.980	(.862–1.114)	1.408***	(1.164–1.704)
Age								
13–19	–	–	–	–	–	–	–	–
20–29	.834	(.555–1.201)	1.839†	(.938–3.604)	.786*	(.604–1.022)	1.242	(.775–1.990)
30–39	1.138	(.760–1.703)	2.232*	(1.129–4.42)	.587***	(.447-.771)	1.182	(.729–1.918)
40–49	1.252	(.817–1.916)	3.122***	(1.562–6.239)	.405***	(.301-.545)	1.720*	(1.054–2.809)
50–59	1.496*	(.950–2.357)	4.682***	(2.318–9.460)	.299***	(.214-.419)	1.423†	(.835–2.427)
60+	1.960**	(1.310–3.88)	6.942***	(3.297–14.618)	.100***	(.059-.167)	2.057**	(1.130–3.746)
Asian	.821	(.531–1.270)	.477*	(.271-.840)	1.507**	(1.076–2.110)	1.422	(.872–2.319)
Black	1.008	(.679–1.496)	.733	(.450–1.194)	.931	(.680–1.275)	1.694*	(1.080–2.660)
Hispanic	.908	(.599–1.376)	.459**	(.270-.783)	1.264†	(.915–1.748)	1.409	(.881–2.254)
White	.626*	(.408-.962)	.869	(.515–1.466)	1.509**	(1.081–2.107)	.734	(.448–1.204)
Minority	.790*	(.641-.996)	.969	(.719–1.306)	1.213*	(1.027–1.432)	1.130	(.903–1.414)
Standing	1.832***	(1.515–2.216)	.722**	(.551-.945)	.776***	(.669-.900)	.173***	(.127-.234)
Contextual control variables:								
Above Ground	1.200	(.919–1.634)	.730†	(.512–1.042)	1.434***	(1.168–1.760)	.656**	(.501-.860)
Early Morning	1.377	(.886–2.140)	1.471*	(1.056–2.050)	.738**	(.605-.899)	1.664***	(1.263–2.192)
Late Morning	.967	(.653–1.433)	1.533**	(.844–2.052)	.945	(.794–1.124)	1.149	(.891–1.482)
Afternoon	1.206	(.868–1.676)	1.147	(.637–1.559)	.913	(.772–1.087)	.929	(.718–1.202)
Weekend	1.235	(.594–2.568)	.907	(.480–2.547)	.913	(.772–1.081)	1.119	(.882–1.419)

Note: \*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$ ; † $p < .1$ . One tailed tests of significance for hypothesized effects. Two-tailed tests for unhypothesized effects.

environment, briefly visually engaging other passengers. This supports a view of stranger interaction as attractive rather than aversive. The second and third columns of Table 2 are consistent with this reading; they reveal that crowding influences passengers’ visual activity, but not in the direction anticipated by Hypotheses 1, which suggested that subway riders might use print media or electronic devices as involvement shields on crowded subway cars. As the rear quarter of a subway car becomes more crowded, the odds of using either type of media decreases rather than increases. On average, for every additional passenger, the odds decline by approximately 1%. This suggests that passengers may put away their books, newspapers, and mobile devices as the subway car fills up, choosing to look around at one another instead.

Although the effect of density on behavior is assumed to be incremental, the coefficients suggest substantial differences between relatively empty and crowded subway cars. An increase of between 30 and 40 passengers in the rear third of the car, for example, can be assumed to lead to a ten to twenty point decline in the percentage of passengers looking at print or digital media, holding all other variables constant. This finding offers strong support for Hypotheses 4 and 6, and implies that crowding does not lead passengers to filter or block one another, so much as it provokes curiosity and interest, encouraging the fleeting visual engagement described by Lofland (1998) and others.

The fourth column of Table 2, however, provides somewhat contradictory evidence, indicating that passengers are more likely to close their eyes on subway cars with extremely high passenger density, a behavior that we associated with the desire to avoid visual contact of any sort with other passengers. This inconsistent finding prompted more detailed analysis of crowding, in order to disentangle its effects on our indicators of engagement or avoidance. We calculated predicted probabilities from the regression models in Table 2 and charted them against a 10-category ordinal measure of passenger density. See Figure 1.

Visualizing the relationship between crowding and behavior provides useful information. On relatively empty subway cars, toward the left end of the graph, passengers have between a .45 and .50 probability of looking at their mobile phones or other electronic devices. As the subway car begins to fill with people, this probability declines fairly steadily. Meanwhile,

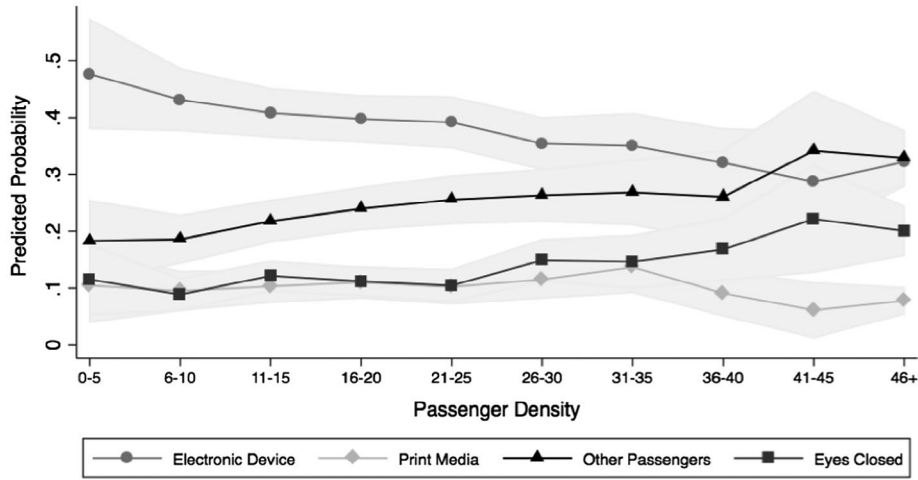


Figure 1. Visual activity by passenger density.

the probability of visually engaging other passengers goes up just as steadily, while the probability of looking at print media or closing one's eyes are more-or-less stable.

At passenger densities above 35, however, the behavioral ecology of the car undergoes a shift. At these levels of density, we can surmise that there may be upwards of 150–160 passengers in the subway car as a whole, which suggests that crowding may have begun to infringe on passengers' range of movement, impeding the use of both printed and digital media. In these extremely crowded conditions, closing one's eyes appears to become more attractive option. In this respect, the analysis points to a possible tension between the desire to take in the visual stimuli of a crowded car and the desire to escape it. In extremely crowded subway cars, curiosity appears to be mixed with aversion.

## 5. Qualitative results: the social worlds of the subway

Our quantitative analysis contradicts a popular assumption about the subway: instead of blocking or filtering the sensory experience of being surrounded by strangers, passengers respond by putting down their involvement shields and scanning the people around them, albeit discretely. These findings support a view of urban social psychology that emphasizes the prosocial, engaging quality of crowded urban space. But our results are puzzlingly mixed in one respect: at the very highest levels of crowding, passengers seek refuge behind closed eyelids.

Although revealing with regard to the objective behavior of subway riders, these results beg important questions concerning the subjective meanings attached to these behaviors. Blumer (1969), perhaps the most well-known methodologist of symbolic interactionism, offers an implicit critique of environmental causation while arguing for inductive methods: if behavior is predicated upon a situated process of interpretation, then any analysis linking environmental conditions with behavior will skip over the very mechanisms that it seeks to explain (69). An actor's "environment", in other words, is simply her "social world" stripped of its subjective meaning (11): it thus provides an incomplete understanding of the context of social action. These comments parallel those of Cresswell (2010, 18) Jensen (2009) and other scholars associated with the "mobilities turn" (Sheller and Urry 2006) who have pointed to the way subjective practice invests movement (in this case within and through an urban transit system) with meaning. In order to shed additional light on our findings, we brought the behavioral patterns into dialog with the qualitative accounts of subway behavior in the transit diaries we collected, attempting to reconcile the *environment* of the subway with the *social world* of its riders.

Although we did not prompt participants to consider passenger density, or to remark in any way on the presence of other passengers, spaciousness and crowding figure centrally in our informants' accounts. Descriptions of empty and crowded subway cars varied in form and content: they employed different emotional tones and emphasized different aspects of their experience on the subway. Empty subway cars, for example, appear in the transit diaries as bland settings that afford enjoyably introspective activity. They offer unencumbered movement and a time for quiet reflection, productivity, or rest. The following two entries, by different authors, are illustrative:

Again, subway pretty empty since it was Friday. Actually got a seat! Listened to latest episode of "The Room Where It's Happening" (podcast about Hamilton) ... Contemplated how mundane my commute is!<sup>7</sup>

[I]t usually takes about 20 min for me to get to Lexington Ave, and another additional 20 min to get to 96th Street on the 6 train. Both trains were empty and fortunately for me, I was able to find a seat. I spent most of my time reading a novel on my Kindle. Time flies when you're not paying attention.

The matter-of-fact tone of these accounts is consistent with other entries describing rides in empty subway cars. Our informants sought to pass this time quickly, and print and digital media were vital to their efforts. Perhaps because their focus was on these media, their descriptions are thin on detail, and tend to note only that they spent the time reading, for example, or listening to a podcast. We take this as a tacit acknowledgment that the surrounding scene offers little in the way of social stimuli. On occasion, this explanation is explicitly supported by the diaries: "Noted that it was not very crowded considering it was prime rush hour ... Paid attention to what I was reading the whole time, so didn't notice many people around me".

In diary entries describing rides on moderately crowded subway cars, other passengers begin to appear in the data. Occasionally, our informants reflect on the enjoyment they take in people-watching. A 20-year-old woman, for example, notes, "I realized that while I do nothing on the train, I tend to observe people. I notice what they're wearing and guess where they are going". More common than reflexive asides are detailed vignettes that could only have been achieved by paying close attention. The following two excerpts from separate informants are illustrative:

Looked around – saw 30-something man doing card tricks in his hand with his iPhone. Second phone in his pocket for music – sleight of hand in time to this music I'm thinking. Across the car, an elegant and unusual hairstyle, African American woman, middle aged – a combo of cornrows near scalp and long braids/dreads.

The subway was mildly packed. Nearly all seats were occupied but not many people were standing. I noticed a homeless lady hunched over seated at the extremity of the row of chairs close to the door. She had flip-flops on and many plastic bags near her. I sat and listened to music with my headphones on as did the majority of the people in the [car]. One man next to me was watching what looked like an action movie on his phone.

The details in these excerpts indicate that the writers are closely aware of their surroundings while passing time on a moderately crowded train. They interpret their situation as calling for the observation of strangers, such that the traits of these fellow travelers become relevant to retrospective accounts. Perhaps unsurprisingly, our informants appear to fixate on visually salient or unusual categories of physical appearance or behavior. Homeless passengers, for example, appear repeatedly in the subway diaries, as do passengers with interesting hairstyles, attractive physical appearances, odd mannerisms, or noticeable ethnic or religious markers.<sup>8</sup> We interpret this as pointing to two insights, one about the social setting and one about the social practice it affords: the subway can serve as an arena of social contact between people who do not often share space, and thus may lead to a heightened awareness of social difference; the specific form that this awareness takes is a scanning of one's surroundings, which skips past mundane details, while paying particular attention to the unexpected or unusual. Occasionally in these descriptions, the diary entries admit to annoyance, disgust, or (even more rarely) fear. But more often, the idiosyncrasies of other passengers are noted, as in the examples above, either in a neutral or a mildly appreciative manner. Social differences are prominent, but also flattened or muted: part of the scenery rather than a cause for excitement or concern.

The exceptions to this rule are fellow travelers who violate the etiquette of the subway – a set of norms justified on one hand by the need to preserve privacy (e.g. civil inattention) and on the other hand by the requirement that passengers coordinate their behavior in order to share a tight space and move smoothly in and out of the car. Breaches such as “pole-hogging” (monopolizing the vertical handholds in the car), extending ones’ feet into the aisle, and blocking the doors, elicit choice words from our informants. Drawing upon Cresswell’s overlapping work on “moral geographies” (Cresswell 2005) and the politics of mobility (Cresswell 2010), this reaction is readily understandable. The subway gathers a bewilderingly diverse ridership within an egalitarian public space, muting the social divisions and power relations that prevail outside of the system. In this respect the moral geography of the subway is inclusive and democratic, and runs against the spatial segregation of the city at large. Meanwhile, the subway overlays a utilitarian morality that is unique to the system itself – a behavioral politics centered on a set of norms that permit passenger to move efficiently, equitably, and politely through crowded urban space.

Nevertheless, rules are made to be broken, and the etiquette of the subway is no exception. Passengers can inoculate themselves against the occasional unwanted interactions through the strategic use of headphones and other involvement shields. A 24-year-old woman describes this strategy using colorful language:

A woman sits next to me holding a huge, heavy-looking cardboard box and it feels like the closeness is just making the air hotter. I’m still reading but with my headphones in. I almost always have my headphones in, just to avoid getting into any conversations with people ... It usually works out pretty well, but sometimes people don’t get the hint and I have to be courteous until they leave me the fuck alone. Luckily, today is not that kind of day.

In the diary entries describing extremely crowded subway cars, these breaches of etiquette and violations of privacy become more common. The tone of the writing shifts, as the bodily strategies involved in occupying tight quarters emerge into the foreground. While our informants continue to note the visually salient traits of fellow passengers, their curiosity is clearly mixed with aversion. An entry by a 51-year-old woman captures this tension:

One woman stands next to a guy and holds herself by putting her arm on the ceiling of the train. I move to get to a pole that gives me room, and to get situated to exit at W. 4th St. An African American teen in red basketball pants and a red shirt holds on to two poles; a small woman in a head scarf moves around, getting her guy to kind of cover her, so now her back is to the opening of the subway car. The tall woman doesn’t move near the inner pole so I move in. She is telling her friends about dates – you’ve met some strange people, he says. One guy didn’t believe rape happened, she said ... I’m half interested, but half annoyed that I have to hear this slightly exhibitionist story. Then I’m off the train.

The author retains her visual fascination with the social landscape of the subway car, describing a rich social scene that she was able to observe closely even in obviously cramped conditions.<sup>9</sup> But an ambivalently held desire for avoidance also emerges. In the most crowded of conditions, passengers have no choice but to absorb details that otherwise might elect to avoid or ignore, and their lack of control over sensory input becomes problematic. Under these conditions, shutting one’s eyes offers a strategy of last resort. A 19-year-old woman reported:

I’m crowded in this awkward position between the door, the guy resting his body on the door, and the guy behind me who’s just a little bit too close for comfort. My arms are strained and my legs are stiff. In addition to all of that I have already had three tests this week that are pretty essential to determining whether I will be a doctor or not and I have another coming up on Friday.

So it's safe to say that I don't really care about this woman who thinks she's so important that she needs to rest her entire body on this pole or the guy who's really way too close for comfort. I'd rather just shut them all out, close my eyes and pray for this ride to be over.

The diary entries help to solve the puzzle of the quantitative findings represented in Figure 1. They suggest that the perceptual difference between crowded and uncrowded conditions is less a difference of degree than of kind. As empty trains begin to fill up with passengers, the busy social scene is met with a detached form of curiosity. In crowded subway cars, however, the environment becomes more emotionally charged, stimulating and provoking annoyance, until the point at which virtually all physical movement is curtailed and an awkward degree of visual and auditory intimacy becomes inescapable. In light of this interpretation, the quantitative findings represented in Figure 1 do not reveal inconsistencies in responses to crowding, so much as they point to a nuanced collective response to qualitatively different types of urban public space.

## 6. The subway as “fourth place”

Sociologically speaking, what kind of place is the subway? Conceptualizations of stranger interaction as essentially aversive or attractive do not fully answer this question. Nor do theorizations of urban space that emphasize the limnality or placelessness of mass transit settings. These theories are both partly accurate. Our data suggest that empty subway cars are somewhat *asocial* spaces. Extremely crowded cars, on the other hand, are more accurately described as *antisocial*. The social experience offered by a subway car, in other words, varies dramatically, and depends specifically upon how many strangers one shares it with. But between the aforementioned experiential extremes, the subway offers a social realm conducive to a passive form of *flânerie* – a mild and reflective form of curiosity about fellow passengers. The subway is not a “cosmopolitan canopy” as Anderson (2011, 2, 218) acknowledges; instead, the subway that emerges from our data is a sort of *gallery of strangers*, in which passengers scan their surroundings in a detached, but not incurious manner. To paraphrase a quotation drawn from our diary entries, the subway offers a chance to do nothing, to watch people, to observe what they're wearing, and to guess where they're going.

We concede that this may be particularly true of the New York City subway, an increasingly crowded transit system that serves an extraordinarily diverse city, as well as millions of tourists each year. Like other transit systems, the New York subway has its own culture, and may exhibit behavioral norms that vary from other metro systems around the world (Butcher 2011; Tonnelat and Kornblum 2017). However, in general terms, we do not believe our central findings to be unique to the New York City subway, or, for that matter, to mass transit settings. In fact, we would like to conclude by suggesting that the distinct social affordances of a subway car can be generalized to a certain type of place – in fact, to any social setting defined by three definitive traits: prolonged copresence with a multitude of strangers; lengthy periods of unscripted and unstructured time; and a shared purpose that requires a degree of behavior coordination. In these respects, subways are analytically comparable to public busses, transit stations, waiting rooms, government offices (e.g. the post office) and other places, mobile or immobile, that share these three traits in common.

Drawing inspiration from Oldenburg's (1999) formulation of the “third place”, we refer to these kinds of places as “fourth places”. According to Oldenburg, third places are “public places that host the regular, voluntary, informal, and happily anticipated gatherings of



individuals beyond the realms of home and work” (16). Cafes, bars, beauty salons, and the like, Oldenburg argues, foster encounters between acquaintances based around sociability or shared interests, and thus serve an important sociological role: they level social differences, promote social inclusion, and encourage the free exchange of ideas. While subways and other utilitarian social settings differ in several clear respects from third places, our findings indicate that they may play their own analogous sociological role. In fourth places, social information is exchanged not through overt communication, but through inexpressive copresence among strangers who are otherwise engaged in the activity of waiting. This form of social contact is passive and superficial, but typically neither unpleasant nor meaningless.

Our subway diaries suggest that a minimalistic social order is central to fourth places. The interior of a subway train clearly lacks the sociability of a cafe, or the joyful intensity of a nightclub, but it does offer a shared experience. The subway conveys a singular collective role upon its users and imposes a consensual set of utilitarian social norms that are vital to its function as transportation infrastructure. Within this environment, social differences are simultaneously highlighted and flattened, as subway riders take note of salient markers of difference, while reserving outright moral indignation for breaches of etiquette that are, to a degree, unique to the behavioral ecosystem of the subway. Tolerance and detached curiosity are the norm; unless one happens to be blocking the doors.

It should be noted that these two dimensions of the subway are complementary. The highly public nature of fourth places and their utilitarian function conspire to mute the social differences that prevail outside, inscribing within the boundaries of the subway a moral geography that, to a degree, resists the spatial patterns of social inclusion and exclusion that dominate the urban landscape above. In the New York subway, hardly anyone is “out of place” or an “outsider” (Cresswell 1996, 2005); even its many homeless passengers are met with blasé acceptance. While downplaying social difference, the subway imposes its own native politics: a morality of “pole-hogging” and “door-blocking”, in which stigma is detached from broader sociological referents and reassigned to actions that violate the intrinsic norms of the system. In other words, following Tonnelat and Kornblum (2017) “competancy” substitutes for “belonging” in the fourth places of the city.

A crucial, perhaps defining quality of fourth places is that, due to their utilitarian nature and the centrality of stranger copresence, their identity as a social setting is constantly in flux. Our research reveals the subway to be a fluid and janus-faced environment, whose social attributes are constructed and reconstituted on an ongoing basis by its users. Put differently, a near-empty Q train passing over the Manhattan bridge, early on a quiet Saturday morning is a powerfully different social setting than a noisy, boisterous L train carrying millennials to the bars and clubs of Williamsburg on a Friday night, which is, in turn, quite different from the somber, library-like setting of the F train during the Monday morning rush. Per Gans (1991), the “potential environment” of the subway – its design and its ostensible function – tells us very little about its social meaning at any given moment. Its “effective environment” on the other hand – that version of the environment that is “perceived, conceived, and created – by users” – is crucial.<sup>10</sup> The blank, utilitarian nature of subways, bus stops, airports and the like does not not make them “non-places” (Augé 1995) – on the contrary, it makes them *fourth places* – settings that are defined by the presence of strangers, by their prevalence in the space, and by the behavioral repertoires that they bring to bear on stranger interaction. In Figure 2, we offer a typology of third and fourth places.

	“Third Places” <sup>a</sup>	“Fourth Places”
Examples	Cafés, Bars, Country Stores, Hair Salons, Pool Halls	Subways, Buses, Bus Stops, Post Offices, Airports, DMVs, Waiting Rooms
Nature of Activity	Sociable, Civic / Political Talk	Waiting, Passive Observation
Mood	Playful	Neutral
Social Structure	Neutral Ground; Leveling Role	Highlights / Mutes Social Difference
Social Order	Rules of Conversation	Passenger Etiquette, Civil Inattention
Social Roles	Regulars	Passengers, Users, Clients
Accessibility	Semi-Public	Public
Esthetic Quality	Plain, Homely	Utilitarian <sup>b</sup>
a: All characteristics of “third places” from Oldenburg (1999: Chapter 2) b: Some municipal buildings and transportation hubs boast grand (e.g. beaux-arts or modernist) architecture. Even in these spaces, however, the immediate environments in which strangers interact – the ticketing windows, waiting areas, rows of benches, lavatories, etc., tend to be humble, unadorned, brightly lit, and functional, lending little atmosphere.		

Figure 2. Third places and fourth places

To conclude, we reflect briefly on the methodological and theoretical implications of this research. Our mixed-method research strategy underscores the well-known interpretive constraints of large-scale behavioral analysis, but in doing so, it suggests a way in which quantitative and qualitative methods may complement one other in interactional research. It is often observed that quantitative analysis is well-suited to hypothesis testing, while qualitative analysis identifies social processes and mechanisms. Typically, the latter is placed in the service of the former, as qualitative methods are used to generate hypotheses on which quantitative analysis will have the final word. In this case, we reversed this ordering to good effect. An inductive analysis of diary entries helped open the black box of the more deductive quantitative analysis, solving an inconsistency in the behavioral data. Together, the two methods helped us toward a coherent account of our findings, and resulted in a more holistic understanding of the subway as a social space.

On a final, theoretical note, while we make no claims regarding the possible broader societal utility or disutility of fourth places, we note that some empirical research has examined the effect of superficial social “exposure” on beliefs and attitudes (Lee, Farrell, and Link 2004). Much remains to be done, however, to theorize and measure the wider impact of fourth spaces on indicators of social inclusion, tolerance, trust, belonging, and the like (Talen 2002). This seems an important project for future research. There is more than meets the eye

in the stoical urbanism of the subway. Fourth places are central to the social landscape of the modern city, and are deserving of a closer look.

## Notes

1. To maximize accuracy, observers were not allowed to observe more than four passengers between any two consecutive subway stops.
2. Passenger demographics collected by the Metropolitan Transit Authority (MTA), the transit agency that manages the New York City subway system, suggest that our sample roughly approximates the characteristics of ridership as a whole, apart from a slight undersampling of teenagers and older passengers in their 60 and 70s.
3. A much wider range of behaviors were observed and coded, but we omit discussion of these behaviors for the sake of economy and clarity.
4. Modeling the behaviors of interest as separate binary logistic regression equations has the effect of making *all other possible behaviors* the default category for each of the dependent variables our analysis. In other words, in the analysis of looking at print media, the outcome is treated as dichotomous: looking at print media vs. all other observed categories of behavior. An alternative model specification, analyzing all categories of behavior simultaneously using multinomial logistic regression, was considered. The results of a multinomial logistic regression approach were entirely consistent with the analysis presented here in terms of the size and direction of effects, although the standard errors were typically smaller.
5. We used the `xtset` and `xtlogit` commands in STATA to conduct the analysis, specifying fixed effects after identifying the observer id as the panel identifier.
6. The instructions left it up to participants how they would choose to describe each ride. The only required elements of each entry were as follows:
  - (a) The train line and time of day when the ride took place; (b) How you passed the time during your trip (i.e. specifically what you did while on the subway); (c) To the best of your ability, an explanation for why you passed the time as you did.
7. We have modified the format of this diary entry slightly to be consistent in style: in the original diary entry, each sentence in this excerpt was preceded by a bullet point.
8. The obvious salience of stigmatized social groups and visible indicators of social difference in the subway resonates with Ocejo and Tonnelat's (2014) work, and may help to explain our finding that passengers chose to disengage when in the racial minority, as evidenced in Table 2.
9. In another entry, the same author admitted to entertaining herself by looking at the color of other passengers' fingernails when the car was so crowded that their hands were all she could see.
10. This formulation by Gans clearly echoes Blumer's (1969) delineation between "environments" and "worlds", but is not quite the same thing. Where Blumer's focus is on the role of active interpretation in defining how an environment is managed by a given actor, Gans means to argue that spaces are collectively, socially constructed by users in ways that complicate or contradict their ostensible purpose.

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