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The Delhi Metro and Disability

A Delhi Modern

The Mass Rapid Transit System known as the Delhi Metro transports roughly 27 Lakh commuters on a daily basis and has found itself etched into the complex everyday rhythms of the city for a decade now. With its air-conditioning, hissing doors, frequent and punctual trains, the Delhi Metro stands in stark contrast with other forms of public transport that move bodies inside the city, thereby it has spawned a hitherto unknown interface of the mobile body and its medium. This study finds itself emerging from a piqued curiosity towards the movement of a particular kind of body whose transmission within the city is made possible by the metro in an unprecedented manner. We seek to understand the modes and strategies used by individuals who are visually impaired and orthopedically challenged to mediate the notion of barrier free mobility, as a specific kind of mobility produced by the Delhi Metro network through its infrastructure and discourse. This study aims to carve out barrier-free mobility as a conceptual object that emerges through a set of practices with their own unique syntax and grammar. We arrive at this understanding of barrier-free mobility through the recollected experiences of our interviewees (interviewed in the months of May and June), which are read in the context of the possibilities afforded to them by the material infrastructure of the Delhi Metro. Our analysis seeks to frame barrier-free mobility in a complex of practices, which invokes relationships with safety, performance and cost to constitute different discourses on the nature of the disabilityfriendliness of the Delhi Metro.

The impulse to categorize the ever-increasing organization of disparate industries under a general schema of the agglomeration economy, as implied by the concept of the World City, fails to situate cities in the postcolonial South, such as Karachi, Dhaka or Delhi, within the rubric of the world-city (Sassen, 2001). Instead, the concept of the mega-city can be used to comprehend the chaos of an urban space like Delhi. The difference in these two formulations is emphasized by their parallel, yet distinct, location of modernity. In the world-city model, modernity is located at the center, in the first-world, and radiates outward from there-in. Mega-cities, on the other hand, by highlighting both the structural importance of third-world cities to the global economy, and the specifically modern character of the urban organization of life, displace modernity to a hegemonic meta-narrative within which claims are voiced. In specifically this sense, modernity can be understood to be 'at large' (Appadurai 1996), as "irregularly self-conscious and unevenly experienced" (ibid., p.3).

The Delhi Metro is a self-consciously modern project: both in its conception and execution. In the elaboration of this project the Metro's claims to modern status

inextricably intertwine the vectors of the physical-scientific power of modern technology – its speed – and an educating, civilizing discourse.

"Mr. Sreedharan stressed that the Metro project would not just be a medium of transportation. "It will be much more than a cheap and safer means of transport. It will reduce congestion on roads making movement of traffic easier. It will also reduce atmospheric pollution to great level making the environment healthy."

There would other benefits too that cannot be quantified. ``The Metro Rail will totally transform our social culture giving us a sense of discipline, cleanliness and enhance multifold development of this cosmopolitan city" (Joshi, 2001).

The modern character of the metro is expressed on three analytically separable levels. At the most intuitive, the metro is represented by a variety of social actors as either explicitly a modern place, or as falling within that paradigm through the use of adjectives such as efficient, safe, clean, civilized etc. (press releases, interview data). Words such as safety and civility acquire different meanings for a variety of different social actors - Safe for whom, and civilized by what standard? By making the claim of modernity in relation to being an accessible, barrier-free space, the metro enters into a negotiation with the subjects that it transports and shapes: the claims of the Delhi metro then become sites at which the modernity of the metro can be ratified or denied.

On the part of the State - i.e. the face of it that the DMRC stands for - the Metro is a grand effort at self-representation, and as Mr. Joshi so eloquently put it above, its purpose is to educate, civilize and teach. The cleanness of the Delhi Metro (along with its blessedly paan-free walls) come to signify the purity of a (particular) vision of a modern Delhi, the Metro simultaneously signaling the existence of this world (in itself) and hailing/interpellating the subjects of the Metro (and of Delhi) as modern (and clean). The Metro establishes a substantial break from its surroundings by simultaneously ordering its internal contents and by establishing a strict boundary with regards to the outside world. As Sadana notes, "Most noticeable is what is missing: heat, sweat, food, smell, trash." Through a variety of devices and practices, such as air conditioners, the cleaning performed by housekeeping staff and disciplining signs asking you to not litter or spit, the metro constitutes its space as clean and comfortable (2010). An interesting question for future semiotic study is the curious absence of dustbins and trashcans on metro premises, except when attached to a shop. In a relational sense, the metro derives its modernity in contrast to other systems of transportations in the city – most notably (there is literally one disabled friendly car in Delhi, as Nipun tells us – it is his) the bus, which is hot, unreliable and unpredictable.

Yet, while technologies are powerfully shaped by their intentions, they are never completely contained by them, and remain open to recoding and re-purposing by virtue of their very excessive capabilities. To take the simplest of examples - the car hails its subject as a denizen of the road, and asks her to drive safely (but yet swiftly!)

to work - nonetheless, the lethal speeds of the car leave open a line of flight towards re-purposing of it as a tool of murder.

To put the above exposition in plainer terms - the modernity of the Delhi Metro is a mediated experience - brought to the level of a sublime, lived experience of modernity through a variety of dazzling techno-social assemblages. Being, as it were, a mediated experience - the specific media that together form the Metro form points at which the sublime nature of the Metro is recreated anew: in the converse situation of a *breakdown*, technology suddenly loses its sublime power of suggesting an excess and reveals itself as commonplace. These moments open spaces of reversal, where the technology is in an instant transformed to dead steel - at instances such as the breakdown of a train and a delay, one is wistfully reminded of the ability to deboard a bus at will. The daily avoidance of breakdown at each of these nodes is what the fight for the modern character of the Metro amounts to.

The Metro's claim towards being a barrier-free space mark, in this sense, a specific node of the sublime modernity of the space: providing lifts and tactile paving to disabled commuters in a country where these objects remain painfully rare where they are required. It is in this particular, contingent sense that disability enters the analytical frame, as a site where the Delhi metro can demonstrate its claims towards being modern. Here, the motives of the DMRC – to be modern and global – and those of the disabled commuters – to have safe, comfortable, quick, and affordable travel – are translated into a common language (Latour, 1999) – of barrier-free mobility and ease of access (Architect Rahul). This dynamic is visible both in audits initially praising and then later rebuking the DMRC and its performance, highlighting its family resemblance to the conceptualization of the national flag as a daily plebiscite on the nation (Jha, 2008). Both the daily, contested nature of the specific contents of the metro's modernity, and the pastiche, the practical mixture of concurrent policies at work that this implies, are important topics for discussion we will pick up again later in the argument.

The question is more complicated than our initial analysis may lead us to believe: the question is not one simply of signs demanding discipline and air-conditioning happily co-existing - and hypothetically, operational when disjunct. The monumental forces the daily operation of the Metro puts on display - the sleek, silver frames of the trains as they enter a station and come to a halt - the hydraulic hiss with which the doors come to unbuckle - concatenate with the sheer speed of the network, taking one from Gurgaon to North Delhi in slightly more than a hour, and the rationalized, mathematically precise predictability of train timings. The resultant of this volatile mixture is a feeling of excess - a "sensing of modernity" - a lived experience of a

world undergoing dramatic and powerful change (Larkin, 2008). The sleek frames of the trains and the brutal fact of the engineering behind them – that they are simply, very, very fast – mingle together to produce a peculiarly modern aesthetic. Steel and technology are organized into a neat, easily graspable temporal rhythm by virtue of the timetable, i.e. they are *domesticated* (Latour, 1999). Technological advancement, per se, does not singularly define the Metro – it is easy to see, as with blueline buses in Delhi – how shorn of organizing apparatuses, technology and steel can become inhuman, terrifying and alienating. The simple presence of dependable and reliable information allows for the rational calculation of routine – transforming the time of travel into a carefully considered and evaluated resource. Commuters, as a result, are able to intertwine daily projects (such as reading or watching a movie, or listening to music) with the speed of the Delhi Metro, and simultaneously manage boredom as well as the need for transportation. In this crucial, and literal sense – they have not wasted time; it is in their control. Occasions where these very times of travel becomes unpredictable, and as a result, unmanageable, are moments in which technology becomes opaque, alienating and hostile – the time of travel stretches on and on, and they are made to experience discomfort. The sublime experience of modernity evaporates.

While a complete material-semiotic analysis of the Delhi Metro is well beyond the scope of this study, we can make some preliminary observations. The metro establishes a substantial break from its surroundings by simultaneously ordering its internal contents and by establishing a strict boundary with regards to the outside world. As Sadana notes, "Most noticeable is what is missing: heat, sweat, food, smell, trash." Through a variety of devices and practices, such as air conditioners, the cleaning performed by housekeeping staff and disciplining signage asking you to not litter or spit, the metro constitutes its space as clean and comfortable (2010). An interesting question for future semiotic study is the curious absence of dustbins and trashcans on metro premises, except when attached to a shop. In a relational sense, the metro derives its modernity in contrast to other systems of transportations in the city – most notably (there is literally one disabled friendly car in Delhi, as Nipun, an Orthopedically Challenged respondent, tells us – it is his) the bus, which is hot, unreliable and unpredictable.

Mediating Barrier-Free Space

We contend that concerns of comfort and safety on the Metro operate differently for the disabled, this is not to say that air conditioning is not received with gladness; the 'modern' comfort and security the metro affords to all commuters remains of equal interest to them. The difference lies in the inseparable relation that safety and comfort have to the claim of barrier-free mobility. Our study seeks to arrive at the form and content through which the Delhi Metro presents a barrier-free environment.

The assistance the metro provides consists of overlapping layers – a series of institutional mechanisms (such as the escort service, tactile paths, lifts), information regarding access to the same (posted on the website, along with a helpline number etc.) and explicit discourses on disability friendliness (such posters, hoardings, press releases and signage), which aim to both express the metro's disability friendliness, and to constitute 'civilized' subjects capable of facilitating the function of the very same infrastructure (i.e. take stairs and keep fit – and leave the lift for the elderly and the physically challenged).

The staff of the metro must do their part to contribute to the modern character of the space. Nipun mentions "the metro expects a person with a disability more than a bus and it is more welcoming in the sense that they are using it as a marketing tool as well, that they are more accessible, so they need to be nice and courteous." This recognition of the behavior of the staff as part of a marketing tool by Nipun allows us to locate the importance of the metro's barrier free mobility in the context of its modernity. In contrast, Kavita reported an air of suspicion and hostility in the environment of the bus, where claims towards her disabled status are seen as conniving tricks to obtain a seat. The metro actively gears itself towards managing the movement of the disabled. The bus, on the other hand, assumes an able bodied commuter who can readily jump off a moving vehicle (Kuldeep mentions that buses never really stop – they are still in motion when passengers are expected to alight). Furthermore they do not adequately consider the importance of well-mapped locations and routines for the travel of the disabled ("Bus drivers drop me off wherever they think is appropriate, it is seldom at a bus stop, the metro is efficient and precise in that regard" says Mithilesh).

Our point here is dual: firstly, the specific content of the metro's modernity is furnished by the contents and interrelationships of the categories of comfort and safety in practice. Enabling infrastructure in the Delhi Metro is organized largely around the two axes of blindness/reduced vision and orthopedic impairments i.e. wheelchair bound (Architect), thereby consigning certain disabilities as not needing help (the deaf, those with polio, for example) and some as simply incapable of receiving help and functioning adequately on the metro (the mentally challenged) (Metro circular, May 28th 2016).

Secondly, these claims can only be understood when framed within the discursive constellation of the modern and the global, which are constantly alluded to by the Delhi Metro. All interviewees imagined the DMRC to be a private, for-profit corporation, and the majority amongst them identified Japan, Germany, South Korea and China as the owners of the company. Specific claims about the nature of public space in the metro were linked to these imagined realities – thus, Sumit perceived the

overly permissive atmosphere of Delhi Metro (commenting on his discomfort at couples kissing each other on the metro premises) as stemming from the global character of the space. When asked if the situation would change if ownership were to change hands (i.e. if it were to fall into the hands of government), he responded indicating that this would be the case. Similarly questioned on changes following such a transfer of ownership, nearly all of our respondents felt that the metro would become cheaper and more accessible, but they also thought that the trains would stop coming on time, and paan stains would coat the walls.

While interviewees recognize and even applaud the metro for its accessible and welcoming atmosphere especially in its relative position to the DTC bus, they are also acutely aware of the difficulties and dangers of navigating the barrier-free terrain of the Delhi Metro: ("The lift entrance is on only on one side of the metro and since I'm dropped off at the other end I have to cross a busy Dwarka road to get there, so I prefer climbing three flights of stairs to the concourse as it is safer" observes Nazim). The barrier-free environment remains a terrain that possesses its own challenges. It is this domain - the third category of our analysis, that of the constraints and possibilities of practice - that we wish to now highlight.

The infrastructure of the metro is spatially arranged, and this arrangement lends itself to particular forms of mobility and (dis)ability. The elements of the material infrastructure that this study emphasizes are lifts, ramps, tactile pathways, multipurpose toilets and escalators, as their placement and accessibility - and in particular, the forms of performance required to gain access - provide the material backstage for social performances of disability.

Infrastrucures:

The Tactile Pathway

A tactile pathway (or paving) refers to a series of indented tiles arranged in a linear fashion so as produce a route from point A to point B. The tiles are embossed with lines (signifying "keep walking") or dots (signifying "stop"), and a juncture or a turn is signified by arranging four stop tiles into a square. The grooves themselves are prominent and designed to be easily sensed by a foot that passes over them, making contact. Through permutations and combinations of these signs, a rough navigational route (in contrast to a map) is produced. The DMRC uses rectangular, yellow tiles, of uniform character, across metro stations (Architect).

A tactile path necessarily interacts relationally with its surroundings. As such, a linear route from point A to point B is very little information, especially if we are unaware of what lies at point A, or B, or both. While, hypothetically, it is conceivable to have braille signage to transmit such information and exponentially increase the information yielded by a tactile path, the metro has no such signage (except inside lifts). Besides this, we remain somewhat mystified as to how junctures in a tactile path - where the path splits into two - are to be accurately navigated.

Besides examining the limitations of tactile paving as an informational device, there remains the dimension of placement. The entrances to most metro stations require an

intervention at level of infrastructure, for the blind. With the exception of Shastri Park and Yamuna Bank Stations all stations are either overhead or underground: to access these one must use either the lift, the escalator or the stairs. The metro infrastructure at this juncture imagines a route of movement that the disabled can participate in autonomously, and one can chart this route by following the tactile pathways as they lead across the station. In places where it is possible, the DMRC attempts to connect several modes of transportation - by linking bus stops near metro stations to the station proper by means of a tactile path. (Architect)

Through our audit of the infrastructure on the Yellow (SamaypurBadli to HUDA City Centre), Red (Dilshad Garden to Rithala) and Violet (ITO to Escorts Mujesar) Lines, we observed that the spatial organization of the metro followed three broad organizational patterns. The first, M1, refers to a modular circuit of tactile pathways that emanates from the 3⁻⁻/4⁺ coach of any given train and leads towards the designated elevator for the platform, in addition to making a single set of stairs accessible by the tactile path. The elevator takes the commuter up/down to the concourse where another set of tactile paths connect both platforms to a single set of stairs each.

M2, refers to a modular arrangement where the tactile pathways lead to only one side of the station. Certain metro stations (Noida City Centre-Noida Sector-18, Rithala-Pitampura, SamaypurBadli-Kashmere Gate, Shahadra-Dilshad Garden) have clearly demarcated entrance and exit sides within the station. For these metro stations, the tactile pathway does not lead to an entire section of the station (usually exit). effectively cutting off access to visually impaired commuters either during entry to or exit from a particular station. Moreover, M2 also results in the tactile path leading to the single extra-wide AFC gate, which is designed specifically for the wheelchair bound. This presents ramifications for mobility in even those stations, which have exits on both sides as the AFC gates are operational from only one side. In stations where the gate is operating as an exit, it excludes the visually impaired attempting to enter the premises by using the tactile path. For stations, which have the tactile pathway leading to the extra wide AFC gate operating as an entrance, commuters that seek to exit the station by utilizing the tactile path are unable to do so. This situation is compounded by the fact that the tactile pathway always leads to a single gate, which cannot be simultaneously used as an entrance and an exit.

M3 refers to non-modular interventions made by station staff at an operational level that disrupts the circuits outlined by M1 and M2. While M1 and M2 are organized at the level of a station plan, M3 includes obstacles that materialize due to operational practices of the station staff at particular metro stations. This refers to a recurring placement of security apparatuses like the DFMD gate, the X-BIS scanning station on the tiles of the tactile path, thereby rendering them inaccessible to commuters (Notable exceptions to this exist only on the newly inaugurated section from Jahangirpuri to SamaypurBadli) and in the exceptional case of a headstone, proclaiming the inauguration of the station by Mayawati at the Noida City Centre station, planted squarely in the middle of a tactile pathway strip that connects the stairs from platform 1 to the rest of the station. Other obstacles include parts of the tactile path being encroached by shopping stalls (Food Track at Tis Hazari station) and glass barricades (Pratap Nagar). Another notable obstacle to the access of tactile paths and the subsequent extra wide AFC on the one side of the station is a rope barricade that seals the extra wide AFC gate from public use (This was true for every single station on the Red line with the exception of Inderlok, Rohini East, Rohini

West and Pitampura Stations, which in turn had the tactile pathway obstructed by the placement of a security apparatus). Finally, at stations like Shahadra and Shastri Park, shuttered entrances sequester the tactile pathway.

Beyond the limitations of the actual placement of tactile paving, the configuration of space in the metro impinges in multiple ways on its use. On stations with cramped platforms (numbers 1 and 2 at Kashmere Gate, 1, 2, 3 and 4 at Rajiv Chowk, for example), waiting in queue of more than four members for a train necessarily means standing on the tactile path and occupying that space. Furthermore, in spite of repeated announcements, the tactile path almost always has people standing on it or otherwise loitering, obstructing its use. As a result, any blind commuters using the path collide multiple times with said commuters. On collision, apologies are rarely offered – indeed, commuters are often first hostile (Pragya and Prachi were ironically asked if they couldn't see; in a separate instance, they were reprimanded for being 'irresponsible' and travelling without help) and as observed with Ashwini, if there is a recognition that the person bumped into was blind, the reaction is often one of quick and speedy retreat rather than an apology. These behaviors are justified as one-off, rare occurrences – i.e. a blind person using the tactile path is seen as rather uncommon, forming a self-justifying cycle whereby social patterns of mobility deactivate the tactile path, and render it unusable.

Lifts

A luminescent blue sign with text and a pictorial representation of a figure in a wheelchair in white designates the stainless steel lift to platform number two at the NOIDA city center metro station for the "sick, physically challenged and senior citizens". The lift, an imposing structure that is akin to the AFC gates with its silver gleam, is easily distinguishable from the rest of the station. The lift is of the modular variety found at very metro station on the network. This marvel of modern technology is designed to carry up to 630 kilograms or eight persons (where one person on average weighs 78.75 kilograms). Below -the official sign, on the left side, one finds a piece of white paper in the dimensions of a demand draft that requests commuters in black text to not use the lift if they are fit because the lift is "**preferably** for the sick, physically challenged and senior citizens" (our emphasis). Below this scrap of white paper is a stainless steel chrome plate with danger inscribed in red text that informs the onlooker that mishandling the lift can result in serious injury.

The lift is a critical component for ensuring barrier free mobility on the Delhi Metro, at least in the imagination of the DMRC. All tactile pathways either lead to or emanate from lifts. The last gate from the third compartment or the first gate of the fourth compartment is selected as the point of origin for the tactile pathway on platforms due to its proximity to the lift, which is always located at the center of the platform (As reported to us by the Metro Architect). Lifts on the Delhi Metro are extremely elegant, their control panel is equipped with buttons in Braille placed at a height of 800-1100mm from the ground which places them within the grasp reach of even those who are on wheelchairs (Metro Architect). At a height of 800mm from the ground, there is also a handrail in the lift, which assists commuters as they are transported from one level to the next, a supplement that is quite handy in stations like Chawri Bazaar where the platform is three levels below the station entrance. The metro lifts are efficient and even when they malfunction they are repaired promptly

(Shakeeb mentions that he found malfunctioning lifts at the Janakpuri metro station repaired by the time he was returning home on the same route).

Lifts in any given metro station are located strategically to ensure a smooth flow of bodies to points in the station that are essential to the process of travelling. Their placement presents an alternative method to link two vertically separated domains, in conjunction with stairs and escalators. Lifts are designed and located to reduce the amount of ambulatory effort required to navigate the station premises, thereby eliding over what a lot of commuters perceive as unnecessary space traversed or time consumed. It is perhaps this extra space and/or time that most "normal" commuters, who board the lift, do not wish to consume. This predisposes certain disabled commuters from not using the lift on a daily basis. Santosh (he used the metro to ply to his place of work on a daily basis from 2014-16) recounts "I have to wait for a long time before I can use the lift, people just rush into it like it shall never come back [aiseghusteinhaiusmeinjaisekabhiwaaspisaayegi hi nahi]". He observes that people are in a hurry to board the lift and they struggle visibly by sprinting, pushing and jostling to secure a place inside before the doors close. He says that he does not protest their behavior as he thinks that they might be in a greater hurry than him, therefore they need the lift more than he does, so he does what he can, he waits ("Unko_shaayad_mujhse_zyaada_zaroorat_hogi, jaldi main lagte_hain"). This waiting is something that is unacceptable for Ravinder (who uses the metro for specific purposes like long journeys or plying to an examination hall). He prefers to use the stairs where he is assisted either by fellow commuters or by his friends ("samay zaaya_hota_hai, log seedhiyon_pe_madad_kar_detein_hai"). The lift is particularly hard to access at stations like Kashmere Gate, which is an interchange station for the Red and Yellow lines of the Delhi Metro. At Kashmere Gate, we watched commuter after commuter pass Ashwini by without a second glance as they boarded the lift. The lift had seven people inside carrying items of varying sizes, a faint look of recognition crossed those closest to the door as they spotted his stick, they averted their eyes quickly till the lift doors sealed shut. Ashwini used the lifts on that day for our benefit; he usually uses the escalator as he travels on a specific route on the metro everyday (Chhatarpur to Vishwavidyalaya) for the past four years. He mentions that he has memorized the route he needs to take to navigate the space and he is able to use the escalators to that effect and he need not wait for the lift for his daily journeys.

Most metro stations have lifts on only one side of the road. This presents commuters with difficulties when they are dropped off on the other side of the road. They then think it is safer to use the escalator (Sumit) or the stairs (Nazim) than to cross a busy main road. Sumit and Nazim mediate the metro's infrastructure through practice and repeated use since they can't use the bus to ply to their place of work and music classes respectively. The lifts are often obstructed by poor construction, for instance at the Apollo Jasolla Metro station, there is a stair that leads to the lift from the approachable ramp and Nipun has to be carried with his wheelchair over the stair to access the lift. Unlike Nazim and Sumit (who use crutches and calipers respectively), Nipun is wheelchair bound and he cannot use the stairs or the escalator. One can find similar instances at the Shastri Park station where the approachable ramp from the parking lot is met with a staircase with four steps or at Kanhaiya Nagar where a single raised step appears right in front of the lift in a manner identical to Apollo Jasolla. The usage of the lift for the disabled is contingent on the absence of such construction abnormalities and the cooperation of fellow commuters. "I do not use the lift as it is

always crowded, it makes me feel claustrophobic [ghuttan_hoti_hai]" says Arvind a regular commuter who is visually impaired. He prefers to use the escalators whose use he has mastered with some practice like Ashwini. He points to his thinly soled shoes and tells us that they let him sense the vibrations of the escalator, his shoes also allow him to sense the thin metallic strips on the escalator step, which he then uses to anticipate the end and beginning of the escalator surface.

Escort Service

The escort service refers to a semi-formalized institutional system of point-to-point assistance provided by the DMRC staff to the disabled on request, where the metro staff guide disabled commuters from the AFC gate to the platform that they wish to travel to. Commuters are then seated in the first coach, such that on arriving at their destination of choice, they can be easily and conveniently found by the metro staff awaiting them at the destination station. The presence of the Train Operator is further seen to be a guarantee of safety – if the escort is late or otherwise occupied, the TO is seen as being in a position to get the commuter some aid.

We refer to this system as semi-formalized for two reasons. Firstly, because the metro does not employ people specifically for assisting the disabled, and nor are the helpers who do eventually help given any specific training for their task (corroborated by the DGMO and 4 station controllers). Instead, they deploy what is known as multispecialty staff. The multi-specialty staff includes everyone from Rolling Stock, Electrical, Customer Care, Security and Housekeeping departments. Mostly, the duties fall upon the housekeeping and security staff present at a Metro Station. The specific duty of performance here seems to vary across stations – some stations cite the 'training' of the security staff as a reason to consider them more reliable, whereas others rationalize the use of housekeeping staff by stating that 'it is their job'. To a large extent, the duty is not assigned to one class of individuals – and a significant amount of effort on part of the staff is sunk into offloading this work onto others. In our observation, the line between semi-formal and informal/social help is itself somewhat indistinct: if pressed by other duties, hunger or desire for a break, escort staff sometimes appealed to other nearby commuters to offer help. The actual performance of escort staff varies dramatically across stations and lines. Stations like Vishwavidyalaya and AIIMS are widely regarded as having polite, capable and punctual help: on the other hand, travellers on the red line have many a horror story, detailing their hour-long waits for the escort to show up.

The semi-formal nature often leads to commuters waiting exasperatedly for their escort to arrive at both their drop off destinations and the point of origin. Anil and Kuldeep think that this is because the staff designated for this purpose are inadequately trained and sensitized to address the needs of the disabled. Ravinder finds that this service is extremely poor as he has been kept waiting for long durations of time on the Red line he frequents regularly. He prefers to enlist the help of fellow commuters who are more than willing to help when they see his stick and glasses. Arvind believes that this system could benefit from a stringent "legal" mechanism that formalizes it and it is because of its informal character that he requests this service only when he is at an unfamiliar metro station and cannot navigate his path on his own. Mithilesh finds the idea of an escort extremely patronizing and counterproductive to the idea of enabling infrastructure, however he too is forced to

enlist these services when he is alone at an unfamiliar station. Furthermore, outside this semi-formal institutional mechanism of assistance lies an informal culture of help that pervades the commuters on the Delhi metro. Most interviewees mentioned that inside a moving train, people are affable and more than willing to offer their seats. Our visually impaired commuters also mention that people guide them by grabbing their arm inside the station premises. Ravinder, Anil, Kuldeep, Ashwini and Arvind recognize this as commonplace and they attribute this "courtesy" to the moral and educated space of the Delhi Metro.

Secondly, the choice of placing the disabled in the first/ladies coach is as interesting as it is conscious. The "first coach in the moving direction [that] is reserved for ladies" is located at a significant distance from the lift which is at the center of the platform, this choice also requires one to deviate from the tactile pathway that leads to the last gate of the third coach or the first gate of the fourth coach. The reason proffered by Station Controllers, Customer Care Executives, housekeeping staff in addition to an architect, the DGMO and the ED Technical division is that this coach is equipped with a space for a wheelchair and a guardrail at 700mm for support. In addition to this, they mention that this coach is closest to the Train Operator, who is informed of their presence in the train. By placing a disabled commuter in this coach, these officials aver that the commuter is easily locatable for the multi-specialty staff member who shall be waiting for them at their destination. The staff member waiting to receive them is informed telephonically over the open channel, this process is set in motion when a disabled passenger requests or is offered assistance at a customer care booth. The customer care official then sells them their token and he lets them through a glass barricade, which is unlocked for their benefit (Nipun mentions that on occasion the staff takes time to locate the keys to the barricade), while the customer care official registers their token/card on the AFC gate as a sign of legitimate passage. The customer care official then informs the Station Control Room and Train Operator of the destination and route used by the commuter. The Train Operator on the open channel for an entire line then broadcasts this information along with the train number. The operator's information is received and acknowledged by the SCR at the destination station. The SCR at the destination station then dispatches a multispecialty staff member to receive the disabled commuter who guides them till the exit, thereby completing the circuit of assisted mobility. As an explanation for placing the disabled in the first coach, the proximity to the Train Operator seems like a credible one. However, it has crucial implications to the spatial organization of bodies on the Delhi Metro.

Firstly, "the first coach in the moving direction [was not always] reserved for ladies", it was inaugurated as such on 2nd October 2010 for the purpose of making travel for women in the Metro safer. The practice of having women-only passenger cars in public transit systems can also be found on Mass Rapid Transit systems in Mumbai, Cairo, Tokyo, Tehran, Rio de Janeiro, Kuala Lumpur and Taiwan. On the Delhi Metro, the choice of placing the women-only coach nearest to the Train Operator gestures towards the understanding of the rest of the train as an aggressive masculinized threat from which the coach closest to the only metro official on the train is insulated. It is in this space that the disabled commuter is placed, the argument of a wheelchair accessible spot and easy location is equally true for the last coach of a metro train, however the disabled are not placed in that coach. In the case of the violet line, which has the last coach designated for women, when the train turns back from the last station, the disabled are not escorted to the first coach but the last one ("I was put in

the Ladies Coach" says Nipun who was journeying from Apollo Jasolla to Central Secretariat). When one analyzes the additional comments made by the Station controllers on this matter one realizes that the selection of the ladies coach is a conscious one that operates in partial awareness of the coach's designation as a women-only passenger coach (They will find it easier to alight from the women's compartment, it is safer there"). Disabled commuters themselves are acutely aware of being placed in the women-only coach Kamal, Pawan, Kishan and Nishant feel "weird" travelling in the ladies coach. Mithilesh for instance, mentions that he feels "conscious" travelling "as a boy in the girls compartment" and he avoids requesting assistance when he is coming to the Vishwavidvalava station as he feels that someone he knows might identify him. He uses the word "ashamed" to describe how he feels if someone sees him travelling in the women's compartment. His comments can be contextualized by how he regales funny anecdotes of stumbling into the women's security checkpoint by accident, what he finds funny is actually quite revealing. The security checkpoint is an exclusively female space where he is not permitted; the first coach on the other hand is a space where he is escorted to by the metro staff. The permissibility of his presence in a space is what imparts his recollections with the flavor of humor. In the first instance his presence is unintentionally transgressing the permissions afforded to him, whereas in the second instance he is designated and located within a space among a socially identified group that he does not identify with as a "boy". Nipun describes his first visit to the first coach in the context offence he recalls "I was put in the Ladies coach and I told them [chuckling] I am offended unless you put girls from LSR there and I shall enjoy my trip, I'm offended otherwise". Apart from that first instance Nipun mentions, "Whenever I go, I have to travel in that compartment it was not the women's compartment earlier on", when he was asked to describe the reasons for his discomfort he said "Because I don't know, is it trying to say that people with disabilities are asexual? Or are they trying to say that disabilities are reserved for women? Don't you think a woman would also feel uncomfortable if there is a guy in a WC sitting there? I don't know, if there are pretty young girls sitting there, I wouldn't mind". Nipun, like Mithilesh is perturbed by being placed in a coach for women, his allusion to asexuality denotes an underlying assumption of the insulation of the space from the masculinized presence, therefore he doesn't mind only when there are girls who are pretty, young or are from LSR as these qualities allow him to enjoy his trip. For Nipun, the space is only comfortable when he is allowed to justify his comfort in masculine terms of enjoying the company of young and pretty girls. Ravinder and Kuldeep find the Women-only coach safe as they find that it is mostly empty after 8pm, however they are unaware of its status as the women-only compartment, Kuldeep in particular, was befuddled when we asked him if he knew the location of the reserved seats inside a coach. He told us that he did not know of any reserved seats in the metro but he knew about the "disabled coach", which also had women in it. Ravinder too seemed to believe that the entire coach was for women and the disabled.

The system of mobility

The material sites we have examined - tactile paths, lifts and the escort service - involve the combined movement of people, objects and information, as well as their relation to associated immobilities or moorings, including their ethical dimension (Sheller).

Each of the systems we have highlighted are in a crucial sense 'incomplete': i.e. none of them is capable of rendering real barrier-free mobility. To imagine an actual utility, these infrastructures must be understood as deployed in concert - in relationship with one another.

M1, M2 and M3 - our three identified patterns of tactile path placement - recruit, as it were, infrastructure designed for the orthopedically challenged into their own circuits, by way of collapsing extra-wide AFC gates and tactile paths into a conjunctural, mediated notion of disability. This superimposes two technologies of facilitating mobility. The first is a tactile pathway designed to facilitate mobility for the visually impaired and the second is a swing barrier gate with a width 1200mm to allow for a wheelchair to pass through unhindered. This results in the segregation of a specific channel of space through which the disabled are to circulate in the metro network; this channel is completed by the designated lifts. To which both the tactile paths lead, and to which the wheelchair bound are expected to travel.

This composite notion of disability is analytically interesting as it puts on display, the effort of translation by which a variety of social interests converge in the disability infrastructure of the metro. Interesting evidence of this is scattered across the metro-for instance, reserved seating within a single Delhi Metro coach employs two different sets of terminologies for reserved seats attached to the larger bench and those on the shorter sets of two seats (Old and Physically Challenged, Senior Citizens and Differently Abled respectively). The different interventions into the Delhi Metro, from the women's coach, to barrier-free toilets (now cheerfully renamed and repurposed as multi-purpose toilets) to the tactile path, all operate at different temporalities and rhythms, yet constantly recruit each other, creatively assembling modalities of successful transportation through a practical, bureaucratic bricolage.

However, as our audit shows, the tactile pathway leads to only one side of the station. Therefore, in cases where an entire section of the station is designated as an entry/exit side, a visually impaired commuter cannot travel from point A to B with just the support of material infrastructure. Even in stations where one can exit and enter from both sides, the AFC gate, which are operational from only as an exit or an entrance effectively render the travel from point A to B solely on the basis of the tactile path impossible. When one takes cognizance of the presence of the operational obstacles as mentioned in M3, one can conclude that on the entire Delhi Metro it is virtually impossible to navigate one's way through the network solely on the basis of the tactile pathway. There seems to be an implicit recognition of this finding in the institutional apparatus of the Delhi Metro as it provides Multi-specialty staff at every station to assist the disabled. One can request assistance from these staff members from a customer care booth or from a security checkpoint, which ironically obstructs tactile pathways on a majority of stations. Furthermore, the Delhi metro as a technological armature (Butcher, 2011) encodes the subjectivities of its commuters in a manner that is aware of the disabling nature of tactile pathways, therefore one is not surprised when one learns that every single visually impaired respondent interviewed relies on a strategy of mobility on the Delhi Metro network that does not involve the tactile pathway.

Perhaps most self-consciously in the escort-service offered by the metro, this inability is realized and to an extent addressed. However all these infrastructural interventions exist in conversation with a figure abstractly defined as the 'public'; the giver of what we have up till this point scantily described as social help.

Social Help

Social help refers to the assistance given to disabled commuters, asked or unasked for, by other commuters on the Delhi Metro. On the one hand, SCR officials acknowledge that no amount of infrastructure would invalidate the crucial importance of social help - both at the level of enabling technologies to function (not crowding lifts, clearing the tactile path), as well as acting as intermediaries linking technological units together, where the interlinkages fail (i.e. guiding a blind person to a lift when no escort staff are in sight). Social help in this sense is the fourth category of formally acknowledged help, that of the citizenry. Disabled commuters report a number of little concessions granted to them, informally - being able to cut in line for a token with impunity(Santosh, Nazim, Sumit, Arvind, Ravinder). Others also found themselves often offered seating quickly, while reserved seating is available, several commuters mentioned being offered seats that were not reserved for them(Anil, Shakeeb, Kavita, Pragya, Prachi, Om Prakash).

In the moment the metro recruits 'society', or even the society of the travellers of the metro into its infrastructural ambitions, as the missing link to complete its circuits for the disabled, the metro introduces social help as a category into the planning process. Lifts, tactile paths, and the escort staff are all, in their deployment in the metro, in a tacit relationship with forms of social behaviour that are prerequisites for the adequate function of technology.

Our observations so far highlight the often-crowded nature of lifts, or the congested state of tactile paths. However, how does one square this with disabled individuals who successfully access such facilities?

Ravinder and Mithilesh are two interviewees from whose accounts we can analyze the above question of accessing social help. We select these two for their diametrically opposed views on social help, which allow us to understand how comfortable travel is constituted through elements of safety, boredom, performance, cost and transportation. Social help involves a performative dimension that consists of signaling disability to onlookers. Such a performance attempts to both address apathy - by directing attention to places where people are half-heartedly looking away, or avoiding acknowledging the disabled person in front of them; as well as to direct attention in an informational sense - to render the disabled easily visible and identifiable in an environment that would otherwise fail to notice their difficulty - such as that of a crowd moving in a hurry into the lift.

Mithilesh is conscious that when his stick is visible or his glasses are on, people attempt to lead him around the station by grabbing his arm in addition to offering him seats, the same is true for Ravinder. Mithilesh chooses to not brandish his stick about or wear his glasses and he recognizes informal help from his fellow commuters as patronizing behavior that views him from the lens of pity. To this effect he chooses to recount how once after assisting him, a boy called his mother on the phone and told her that he did a good thing by helping a blind person while Mithilesh was seated within earshot. Similarly, offers of seating quickly morph into more heated entreaties when refused; the seat-giver asserts the disability to affix the disabled commuter on the seat. Ravinder, conversely, is exceedingly polite and respectful to all those he

encounters on the metro, he chooses to recount how he greets everybody he passes by, he uses a stick, and is glad to receive and is reliant on help from his fellow commuters.

This is not to say that help or advice per se is anathema - Mithilesh notes that an old man (presumed to be a grandfather) advised him to wear shoes rather than slippers, explaining that he was less likely to have a bloody toe this way. Such advice - that presumed Mithilesh to be an independent, autonomous subject, and afforded him with knowledge to better safeguard him - was not taken in a negative light. In contrast, social help in the sense we mean it, constitutes a specific performance, by which a disabled identity is taken to be, in exactly the opposite sense, less able, and therefore deserving of seating/general assistance.

Such performative acts generate what Pierre Bourdieu would call misrecognition (1990); they reiterate and naturalize pre-existing notions of disability. Simply put, by transposing the solution to a systemic problem with an individual, performative solution. These acts relocate disability from the material infrastructure to the body of the disabled commuter,

Discomfort and Strategy

Having framed the discursive and material objects involved in our study, and having analytically delimited them as the system of mobility and its four components, we can address the question of how disabled commuters manage discomfort in the metro.

At the first level, the metro is tool of transportation, offering the conjoined benefits of speed and calculability. The organization of the metro (a public transport system, largely free of hassles such as traffic jams) blends with its speed to produce a modality of movement in the city - uncongested and flying over the city like an airplane (Santosh). Some utilize these conjoint powers to create relatively predictable travel routines to work (Santosh, for eg.) or to travel to a far off corner of the city (Bhola).

Secondly, the metro is a uniquely modern and managed environment in the city of Delhi - an arguably safe space. Here, a variety of meanings with only a family resemblance stand next to each other - safety from the masculine gaze in the form of the ladies' coach; safety in the sense of a civilized, 'helpful' space, the multiple forms of assistance already delineated; safe in the context of a space which has CISF guards and security checks; the occasional sniffer dogs prowling the metro premises; safety in the context of a barrier free space less prone to accidents and mishaps. Agents located at different social positions describe safety differentially. Social help is seen as perfectly normal and safe by some, whereas others are horrified by the notion of being led by complete strangers. These stances on safety act as indexes to social positions regarding the nature of the body politic.

Thirdly, the metro is a public space, and as a result, conscripts all those travelling in it into a performative process, where they are scrutinized and read as walking texts. Both the performance of disability - to obtain social help - and its self-conscious denial in the strategies of agents such as Mithilesh, who essentially performs to himself a subject position of autonomy by refusing to perform, entail personal performances of identity.

Fourthly, the metro is a private space, in the sense that you need to buy a ticket to access it. The metro is simply too costly for some, and for others it is consigned to the domain of the odd trip and the special occasion. For disabled commuters in particular, the bus pass - a fifteen rupees pass that lasts for a year - offers a compelling reason to take the bus instead, in spite of its irregularities and risky status. The dimension of time offers its own costs - metro travel can become uniquely time consuming for disabled commuters, in between escort staff that is late or missing, and waiting for someone else (hurrying along in a hurry to do things with their life) to help, disabled commuters can expend large amounts of time just anticipating the materialization of the barrier free environment, a price that many are unwilling to pay. Therefore, several commuters develop strategies to navigate escalators and stairs through practice to avoid wasting time.

Negotiations around the element of cost are most visible around the issue of a concessions pass. We heard of the bus pass in one of our initial interviews and thought it odd that the DMRC, as a corporation formally accountable to the public, did not have benefits of the sort that the DTC bus system offered, which are in some senses, arguably more comprehensive (from the particular vector of cost). The nature of responses delineates interesting strategic positions.

A good chunk of interviewees were decidedly in favor of a concessions pass (however, they viewed the eventuality as unlikely, given their belief in the Japanese private corporation metro). Mithilesh, Pragya, Prachi, and others who stood opposed to such an idea protested that it did not accord them the same status as others. Nonetheless, for Sumit, Santosh and the others forwarding the cause of the concessions pass found that the factor of cost outweighed the evaluations Mithilesh et al. seem to have been making with regards to performance and safety. Sumit et al. are here then arguing for a governmentality from below (Appadurai, 2001), i.e. unable to make political claims as citizens, they choose to represent themselves as populations to be governed.

Fifthly, the experience of the space-time of the Metro is something that must be apprehended in greater detail, the limited duration of our study precludes us from making even an exploratory foray into this domain but as we have mentioned, with its exceptional regularity in a Megacity like Delhi, the Metro through its speed and routinized schedule, does offer itself up for an analysis of time rhythms and detailed individual spatial practices.

The Metro, as it confronts a disabled commuter, allows for a variety of strategies to navigate its contents, some more efficacious than others. Further, even the particular set of strategies employed need not to temporally continuous – different days of the week may find

themselves seeing the deployment of different strategies. What is of real substance is the difference between the forms of navigation the Metro allows, or the strategies it creates room for. In this sense, relevant to the specific claim the Metro makes of modernity, we can identify a difference in lived experience of transport that accompanies a particular set of strategies, marking them out as distinct.

Tactile paving and lifts (in the context of the orthopedically challenged) share a somewhat common ethos: technology steps in to empower the individual herself to be able to navigate freely through a space, acting essentially as a prosthetic. In that progressive impulse they embody a vision of a barrier-free space. Yet, as our copious detailing of the inadequacies of tactile paving in the Metro would suggest, this sublime moment finds itself confronted by the situation of breakdown – where the crowds standing on the tactile path dissolve a sensing of modernity.

The escort service represents this ethos as well – in so much as it recognizes that disabled commuters ought to have equal rights to the space of the Metro – but deals with the problem through a human rather than a mechanical technology – an escort. It thus represents a modern character as well, but a distinct one – lacking the experience of a socially unmediated experience of barrier-free transport that the ideal of tactile paving is imagined as. Its dependence on human staff (and the uncertain relationship they have to the post) opens up room for moments (or hours) of breakdown, where staff may simply fail to show up or provide adequate help.

Escorts are, at the end of the day, people providing help – and this can be read in a dual fashion. Some commuters exercise their claim over the service as a right, and are quickly angered (and express this) if made to wait. They, to put in the words of a Station Control Room officer, "make a scene", presuming a sense of entitlement that other commuters, perceived as more polite or genteel, do not. While this is not to say that politeness as such implies that the latter commuters do not see barrier-free movement as a right, the contradictory impulses in the reaction of the SCR officer evidence two ways of envisioning the service – as an automated social technology to ensure the provision of a basic service (i.e. movement), or as instances of the provision of help to pitiable commuters.

The second thread, latent in the escort service, becomes manifest in the category of social help as we have defined it. While "Metro culture" is seen as constitutive of a space generally more friendly and likely to offer help than the much-maligned action of "bus culture", social help presupposes the existence of a hierarchal arrangement of the space mobility, the existence of which is justified through a posited factum brutum of sheer majority. The population of the disabled is seen to be infinitesimally small as compared to that of the able-bodied (a claim of questionable veracity), thus rationalizing and naturalising spaces that are unfriendly to the disabled, and very much not barrier-free. Social help is in this sense the "adjustment" on part of a well-meaning populace to help the disabled when and where they see them.

It is crucial to note that this notion of the minor nature of the disabled population and this rhetoric of sighting are deeply intertwined: the targets upon whom social help is dispensed are, by sheer necessity, visibly disabled – which in practice comes to mean that they are performing disability. i.e. to avail of social help, a disabled commuter must make "public" her status as disabled – either through overt devices such as walking sticks or goggles or wheelchairs, or through a gesture or even by simply asking for help. In this sense, she must occupy, socially, the identity of the disabled body. Attempts to ratify the other identities of the disabled subject (contra her nature as disabled) have the effect of disqualifying (through invisibility) the commuter as someone eligible of receiving social help, while simultaneously assuming that the commuter is an able-bodied subject who does not require help as such.

Conclusion

Across dimensions of safety, performance, and cost, we can trace two divergent positions that we can roughly demarcate. The first, which we have tentatively dubbed the model of citizen-autonomy, argues for a materially barrier-free environment, which would dissolve the not-being-able-to of disability. At its extreme, such a model envisions social help as superfluous, and its departure from the frame is coterminous with the same for the social existence of disability as biomedical category (Freund, 2001). To this end we can also preliminarily conclude that the material infrastructure of the Delhi Metro, by superimposing various layers of technologies like the tactile pathway, the lift and the Ladies Coach (more specifically, the placement of the Disabled there) gives rise to a composite disabled body. A body that is compartmentalized for the use of these specific technologies interchangeably, as and when is required. Such an understanding of the Metro deepens one's engagement with the Delhi Metro's commitment to its Modernity, with specific reference to its concerns of safety and their close relation to barrier-free mobility. The alternate group of positions we refer to roughly as the practice of governmentality from below. From this position, the disabled recognize other factors (such as cost) as more significant than the rubric of performance and identity: a difference denied in the citizenautonomy model is here, in turn, embraced.

These two sets of practices elucidate a unique syntax and grammar to the relationships of safety, performance and cost, they constitute two different discourses on the nature of the disability-friendliness of the Delhi Metro - its specific content and character.

Sources

1.In the DMRC

Mr. X Senior Metro Official, Operations (DGMO)
Mr. Y Senior Metro Official, Technical Division

Mr. Rahul Architect, DMRC

SCR1 AIIMS
SCR2 Shastri Park
SCR3 Apollo Jasolla
SCR4 Tis Hazari

CC Exec. NOIDA City Centre

CC Exec. Pulbangash
CC Exec. Kohat Enclave
CC Exec. Rajendra Place
CC Exec. Shastri Park
CC Exec. SamaypurBadli
CC Exec. Vishwavidyalaya
CC Exec. HaiderpuriBadli

2. Equal Opportunities Cell, University of Delhi

Dr. Anil Aneja

3.Basti Vikas Kendra and Community Centre, Dwarka Sec. 3

Ms. MinuSaxena

Table 1 Represents Respondents- Names, Disability Type- VI- Visually Impaired, OC- Orthopedically Challenged- Accessibility Tool employed on the metro. Typical Metro Journey.

Sana	OC-Crutch	Mayur Vihar-1-Vishwavidyalaya	
Bhola	OC-Crutches	Nawada- Rajiv Chowk/AnandVihar ISBT	
Santosh	OC-Callipers	DwarkaMor-Kirti Nagar/AnandVihar ISBT	
Nazim	OC- Crutches+Callipers	Dwarka Sec. 12-Shastri Nagar	
Mithilesh	VI-Stick+Glasses	Vishwavidyalaya-HauzKhas/Mandi House	
Vicky	VI-Stick+Glasses	Inderlok-Kashmere Gate/Vishwavidyalaya	
Kuldeep	VI-Stick+Glasses	INA-Vishwavidyalaya/GTB Nagar	
Ravinder	VI-Stick+Glasses	Pitampura/Shastri Nagar-Vishwavidyalaya	
Nitin	VI-Stick+Glasses	Jangpura-Vishwavidyalaya	
Kamal, Kishan, Pawal, Nishan	VI-Stick+Glasses	Vishwavidyalaya-Somewhere on the Vaishali Line	
MA Student (Name withheld)	VI-Stick+Glasses	GTB Nagar-AIIMS	
Mohan Kumar	VI-Stick+Glasses	DwarkaMor-New Delhi/ Vishwavidyalaya	
Phool, Amita	VI-Stick+Glasses	Rohini West-Vishwavidyalaya	
Ashwini	VI-Stick+Glasses	Chhatarpur-Vishwavidyalaya	
Kanika	OC-Callipers	Karkardooma-Vishwavidyalaya	
Sumit	OC-Callipers	DwarkaMor- Barakhamba Road	
Arvind	VI-Stick+Glasses	Vishwavidyalaya-HauzKhas/ Tis Hazari	
Anil	OC-Crutches	Nawada-Rajiv Chowk	
Shivangi	OC-Crutches	HauzKhas-HauzKhas	
Nipun	OC-Wheelchair	Jasolla/HUDA- ChandiniChowk/Vishwavidyalaya	
Kavita	OC-Leg Brace	Govindpuri-Vishwavidyalaya	
Pragya, Prachi	VI-Stick+Glasses	Rajendra Place-Vishwavidyalaya	
Om Prakash	OC-Crutches	Nawada-Janakpuri	
W (name withheld)	OC-Crutches	Nawada-Janakpuri	
Shakeeb	OC-Callipers	Nawada-Janakpuri	

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