

Gendered Mobilities: A Critical Approach Towards Understanding Social Exclusion Through the Lens of Mobility

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Abstract. The limited resources of the urban peripheral areas possess the potential to transform into situations that offer various kinds of opportunities. This study engages with multi-disciplinary research focusing on gender and urban peripheries (informality) through the lens of (informal) mobility to reveal the relationship between socio-spatial mobility of urban marginalized women. In the context of developing countries (New Delhi, India), social exclusion is predominantly visible in case of women who reside in urban peripheral areas. Because of prevailing socio-cultural and economic conditions, these urban marginalized women (UMW) experience restrictions on their movement on day-to-day basis. Ethnographic interviews along with mobile methods using new technologies like GPS path tracking are adopted as methods of inquiry into the subject. This paper concludes with a discussion on a broader set of factors that impact the mobility of UMW and at this point does not emphasize the specificities of these factors.

Keywords: Gender · Socio-spatial mobility · Informality · Urban peripheries · Social design

1 Background

Mobilities research does not limit itself to time and space but demands an investigation into factors like connectivity, centrality, empowerment along with that of disconnection and social exclusion (Graham 2001) (Fig. 1). The study focuses on gender and mobility, where both are symbolic of different yet complex themes which intersect to reveal the impact of the latter on practices related to gender in the form of inequalities and social exclusion. In the context of developing countries, the conditions of (im)mobility and social exclusion are clearly visible in case of women. Specifically, within the Indian context, it is of utmost importance to address this area of research with respect to 'gender' issues because of increasing violence towards women in many Indian cities.

Because of prevailing socio-cultural conditions, women from economically weaker section of the society who live in urban peripheral areas, experience restrictions on their movement on day-to-day basis. In such contexts, in the absence of public transportation system, informal modes of transport act as bottom-up solutions to cater to their

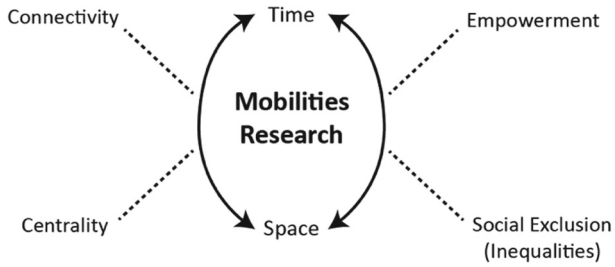


Fig. 1. Factors influencing 'mobilities research'. Source: Author. Derived from (Graham 2001).

daily mobility needs. This study engages with the multi-disciplinary research focusing on gender and urban peripheries through the lens of (informal) mobility to reveal the inter-relationship between them. More specifically, to recognize mobility (of UMW) as capability, the study intends to inquire into daily mobility of UMW (Fig. 2).



Fig. 2. Informal transport modes form an important component of daily travel routines of UMW. Source: Author (Gera and Hasdell 2020)

2 Theoretical Perspective

This study builds upon existing work on mobilities (Sheller and Urry 2006; Cresswell 2011; Cresswell 2012; Kaufmann et al. 2004; Cresswell and Uteng 2016) by focusing on the effect of mobility on quality of life (social mobility) of UMW through empirical investigation. It takes departure from Kaufmann's theory of motility that represents a new form of social inequality that is linked to the relationship between spatial and social mobility (Kaufmann et al. 2004). This concept highlights the inter-relationship between social stratification and areas of spatial focus (Fig. 3). Further, the research advances in terms of presenting a theoretical framework through the understanding of urban informal economies. Simon's theory on informalization emphasizes on the survival techniques of individuals and societies, which generally emerge out of socio-economic or geographical conditions and give the cities an alternative mechanism to co-exist and thus maintain a balance in the urban city life (Simone 2010). Moreover, it is Law's work (1999)

that investigates into criticalities and hidden meanings of research into daily mobility of women. The links between mobility and various issues related to gender such as division of labor, daily activities, accessibility to resources, identities, gender as a symbolic code and gendered built environment, are highlighted by Law's research (Law 1999).

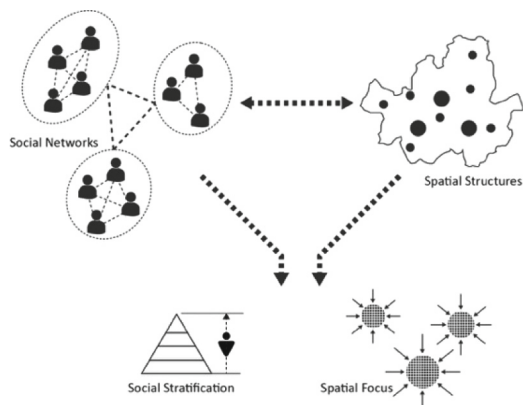


Fig. 3. The diagram shows the complex relationship between the socio-spatial structures of the society. Source: Author Derived from (Kaufmann et al. 2004).

3 Research Question and Objective

Taking an explorative approach this study intends to investigate the daily mobilities of the UMW with respect to transport modes used by them during daily travel routines. The research has three main objectives.

1. First, to identify and understand the relationship between spatial and social mobility (with transportation as an asset).
2. To answer the “how” question, i.e., to state that the daily mobilities of UMW can expand to establishing a relationship between social and spatial mobility.
3. To propose a design framework to inform the formal systems of mobility (transportation) and space through the capacities built up by the daily mobilities of UMW.

Based on these objectives, three main research questions are formulated:

1. What are the consequences of the relationship between social and spatial mobility of UMW?
2. How does the movement of UMW expand to generate capacity?
3. How can the formation of informal systems (as capacities) be recognized for urban systems?

4 Research Design and Methods Employed

This research uses a combination of new technologies along with mobile methods like ethnography to reveal the inter-relationship between social and spatial mobility of UMW. Combining mobile methods with new technologies gives an opportunity to researchers for applying cutting edge theory in geography and social sciences (Christensen et al. 2011). The study is divided into two main phases. The first part of Study I requires understanding the socio-demographic conditions of the participants through the means of unstructured interviews. The second part of Study I shifts the focus of the interviews towards developing a cohesive understanding of their daily routines. Further, in Study II, mobile methodology is used for collecting the information pertaining to daily movement of the participants through GPS technology. Due to several restrictions imposed by the Pandemic Covid-19, the data gathering process was redesigned and alternate approaches to remote data collection were included in the research plan. The socio-economic status of the participants did not allow to make use of certain online methods such as emails or online surveys. Thus, based on the availability and knowledge of the participants, WhatsApp and Google Maps Timeline were used as tools for conducting ethnographic research¹.

To identify underlying themes and categories abductive approach (codes emerge gradually) to constant comparative analysis or coding is applied for analysis of unstructured interviews. However, to avoid overshadowing of the computer software that may

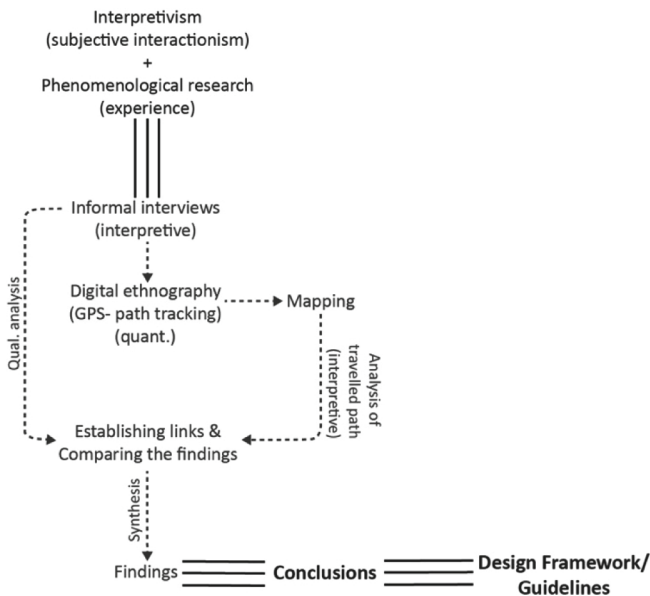


Fig. 4. Research methodology followed for the study. Source: Author

¹ While conducting preliminary research it was found that not all UMW owned a smartphone.

Thus, the selection of participants was based on the availability and access to smartphones (with Internet and WhatsApp).

lead towards missing finer details of the data (Silverman 2015) and specificities of the phenomena, manual mapping is integrated into the analysis method. Mapping is used as an interpretive analysis method for GPS travel path data. The interpretive evaluation of the mapping process can help to demonstrate spatial patterns and provoke contextual queries (Hsu 2014) (Fig. 4).

5 Expected Outcomes

Research so far does not offer specific issues related to mobility of UMW that hinder their participation in the society. This study highlights the impact of informal mobility along with other socio-cultural and spatio-temporal factors, that form an integral part of their informal environment and daily routines, on the quality of life of these women. The existing research does not show enough evidence that mobility can be recognized as capacity to bring about a change in the society.

This study aims to provide a design framework/a set of guidelines to inform the formal urban infrastructure of the city that would help to enhance mobility of UMW. This framework would offer essential touch points for designers, planners, social and the government organizations to consider mobility of women as an asset that could eventually have an impact on the overall economy of the society/country besides providing an enhanced quality of life. However, this paper concludes with a discussion on broader set of factors that form a part of the framework and at this point does focus on the inter-linked factors.

6 Pilot Study

The pilot study was conducted before the onset of the Pandemic Covid-19 and thus follows conventional methods of face-to-face interviews. Snowballing as technique was used for selecting participants for this study. A total of five working women were studied belonging to the age group from 20–55 yrs. There were two married (older) women who were accountable for taking care of their respective families and worked as domestic help in neighboring areas on part-time basis. The other three participants were unmarried (younger) who were employed as full-time beauticians in other upscale areas of Delhi.

6.1 Unstructured Interviews

During the unstructured interviews information regarding the travel pattern of the participant women was revealed through the description of their daily activities which is then used for further investigation (Table 1).

Table 1. Preliminary information about participants based on unstructured interviews (names have been changed to maintain anonymity).

Factors	Ramkali	Reena	Gulabsha	Sonam	Rinki
Age	55	28	20	22	21
Marital Status	M	M	Un	Un	Un
Dist. Travelled /Day (Km.)	8.4	9	16.1	27.6	28.2
Using Transport Mode (Km.)	6	5	15.1	26	26
Walking (Km.)	2.4	3	1	1.6	2.2
No. of Interchanges	1	1	2	2	2-3
Travel Time/Day (Hours)	1.5	1	3.9	4	3.6
Travel Cost/Day (INR)	20	20	50	110	140
Monthly Earning (INR)	8500	8000	7500	8000	3000

Basic demographic information helped to carry out the investigation in a specific way to reveal the inter-relationships between different aspects. The comparative time chart below (Fig. 5) shows the cumulative time spent on daily travel by the participants (individually).

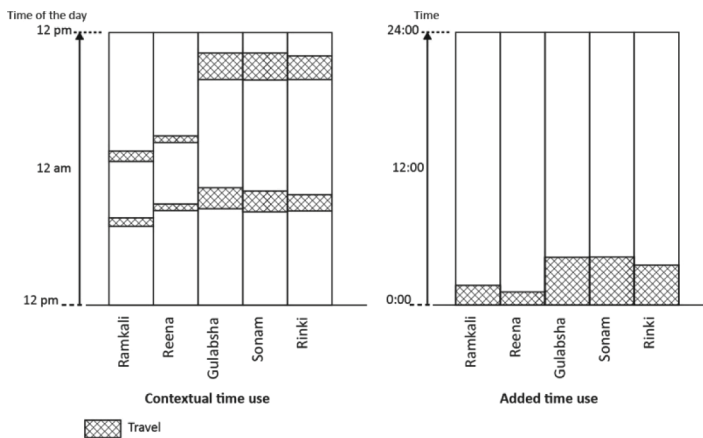


Fig. 5. Added time use (right) and contextual time use (left) derived from participants' travel time within 24 h of a day. Source: Author

Information about daily distance travelled, different modes of travel used, total number of transit points in a single journey (interchanges), their monthly income, travel time and cost per day are important factors to recognize their motivations for mobility. This data facilitates to understand several critical aspects that impact travel mode choice adopted by the participants (Fig. 6).

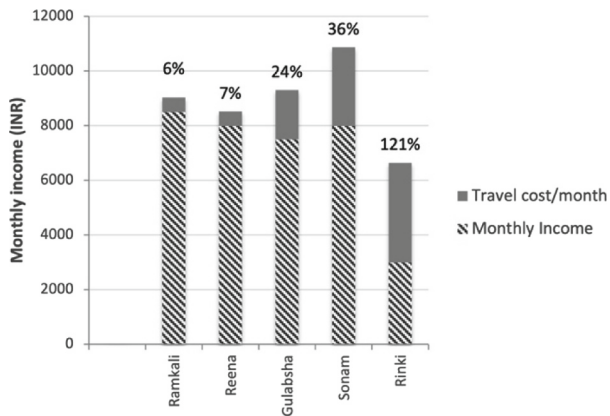


Fig. 6. Monthly expenditure by participants on their daily travel. For four participants it ranges from 6% to 36%, whereas for Rinki, travel cost/month exceeds her monthly income. Source: Author

6.2 Mapping the Travel Pattern

The travel pattern of each participant for a single day is extracted through their respective Google Maps Timeline and plotted over the map of Delhi. Based on these plotted maps, time-geography diagrams are developed for each participant (Fig. 7). Time-geography is often used as a tool to inquire into instruments to facilitate societal change (Ellegård 2018).

These diagrams reflect an outline of the diverse movements carried out by the participants. The preliminary analysis shows that greater distance is travelled by unmarried women with increased travel time as opposed to married women. Factors such as safety and convenience (2–3 interchanges, using multiple modes) are compromised during travel by unmarried women. Besides using certain transport modes, walking and waiting at transit stations also forms important components of their travel journeys. In terms of employment, married women are found to be engaged in work that did not require full day commitments. Contrary to this, unmarried women spend long working hours and are mostly employed in the semi-informal sector.

6.3 Discussion

This pilot study explores the impact of informal modes of transport on daily movement of UMW based on their age group (younger/unmarried and older/married women). Considering the existing literature, accessibility, competence and appropriation are understood to be critical components that have an impact on mobility (Kaufmann et al. 2004) and form the basis for analytical framework for this study.

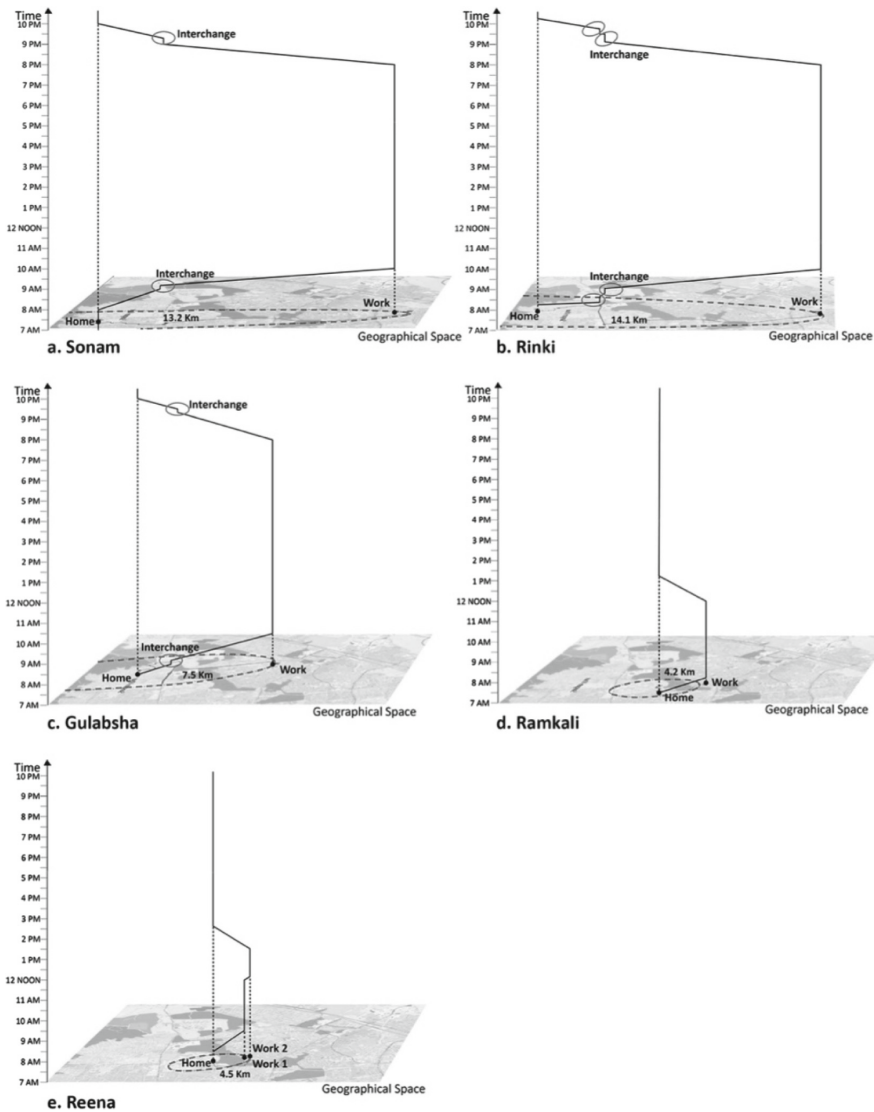


Fig. 7. Time geography diagrams are generated through travel patterns of the five participants illustrated with elementary events of travel; inter-change; arrive; stay; leave. Source: Author. Derived from (Hagerstrand 1968).

Through this analysis it is revealed that connectivity (access) to specific geographical locations for employment opportunities plays an important role with respect to mobility of UMW. Women prefer to be employed in specific locations within the city because of transport connectivity to their residence, through a combination of public and informal modes of transport along with walking. Moreover, it is observed that within existing patriarchal and kinship-based structure of their society these women face social exclusion

and thus experience lack of respect, which acts as a motivation to participate in various socio-economic activities. In case of older/married women the participation in socio-economic activities is mainly guided by economic reasons and their mobility is woven into their daily reproductive activities² and thus remains constrained within their local neighbourhood. However, young/unmarried women prefer to travel outside their home settlements to create new identities within a new closed community (place of work). Thus, through appropriation of access (fewer restrictions on mobility) and competence (acquired through vocational courses), these women seek to elevate their perceived social status. Within closed Indian societies, social status acts as a significant factor that impacts an individual's image and therefore the degree of freedom for mobility. This highlights the existence of a two-way relationship between the social status and mobility of an individual. Moreover, based on the understanding of the socio-cultural background of this group, it can be said that 'enhanced status' or 'Image' is used as a medium for marriage purpose because of the associated enhanced social and economic value. The study helps to elucidate the effect of spatial mobility on enhanced social status of these women within their society but does not imply towards actual social mobility (Fig. 8).

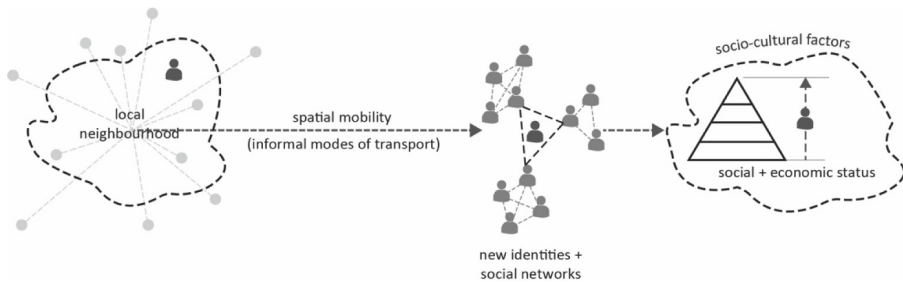


Fig. 8. Through spatial mobility new identities are created by distancing or disconnecting from local ones for enhanced social status. Source: (Gera and Hasdell 2020)

Another significant aspect that influences travel mode choice and overall mobility of UMW is the issue of sexual harassment faced during their daily travel routines. For this reason, informal modes of transport are preferred over public transportation options such as buses. The study highlights that the informal modes impart a sense of safety for marginalized women because of two reasons. First, having a place to sit and presence of other co-passengers, i.e., having a personal space within a shared space is observed as a critical aspect. Second, since these modes operate within the same socio-cultural environment (in and around informal settlements) they score high on 'trust' as compared to other public transportation modes.

The study also highlights that due to daily routines of UMW that are in many ways characterized by the essence of informality; 'walking' forms an important part of their travel routines and is considered as a possessed skill (competence) that enables them_____

² Reproductive activities are referred to household chores and other obligatory duties that women perform on daily basis spending a lot of time and energy and yet this work remains unrecognized and not paid for.

to take care of the cost issue. Although the ability and motivation to walk is possessed by both groups of women, but the fear of sexual harassment acts as a barrier mainly for younger women. It reveals that these experiences of sexual harassment lead towards self-exclusion from activities involving mobility.

6.4 Conclusion

The study demonstrates that accessibility, competence and appropriation impact mobility of UMW based on their age group in different ways. Factors like cost, time, safety and social image have different degree of priority among the two groups studied. In case of unmarried women, safety while travelling is of utmost importance whereas cost and time are important factors that impact mobility of married women.

The related preliminary findings that have emerged from the ethnographic process steer the study towards considering mobility as an important and integral component of UMW's lives. It has the potential to facilitate a better quality of life for them by the means of participation in the society, to make them feel independent and confident. However, factors like cost, time, safety and social image that are guided by prevailing norms of the socio-cultural structure of their community may act as barriers to their freedom to be mobile and restrict their ability to raise their position within or outside their closed social structure. Thus, based on the context and situation, these factors may either enhance or restrict actual mobility of UMW.

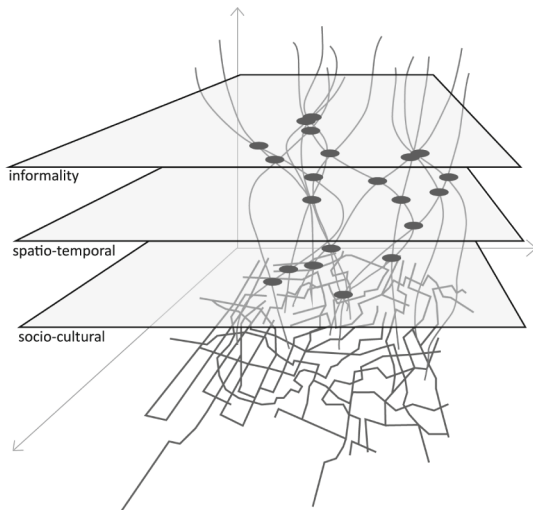


Fig. 9. Intersection of various layers that form an integral part of urban peripheries with spatial mobility. Source: Author

Overall, it is revealed that (im)mobility of UMW is a result of various factors (Fig. 9) that are peculiar to urban-peripheries and that spatial mobility is intersected and intertwined with elements from different layers of informality, socio-cultural and spatio-temporal factors.

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