

## DICTIONARY

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# History of the concept of mobility

By **Vincent Kaufmann** ( Social Scientist )

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Defining mobility is especially important because the term is highly polysemous. When geographers use the term mobility, they do so to evoke the act of moving across a space. As such, they aren't speaking about the same thing as traffic engineers or sociologists, who both use this notion to refer, respectively, to transport flows and self-transformation. This diversity of meanings, far from adding richness to the concept, is an obstacle to understanding. Clearly, when mobility is mentioned, we don't know exactly what's being referred to: it all depends on one's disciplinary background. This is the result of how the concept of mobility originated and evolved, which is what we are going to discuss here. Over the past two decades, several authors have proposed inclusive definitions of mobility to help overcome the constraints of disciplinary segmentations.

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## The first definitions of mobility

The term mobility appeared in German, English and French dictionaries in the 18th century to evoke mental agility and thus the ability to change. The Dictionnaire de l'Académie Française (official dictionary of the French Academy) defines it as follows: "Facility to change, to modify oneself. Mobility of features, of physiognomy. Mobility of light, reflections. Mobility of character, spirit, imagination, ability to move quickly from one disposition to another, from one object to another. Mobility of feelings, of mood. The mobility of opinions."

## The introduction of mobility into the social sciences

The term "mobility" appeared in the terminology of the social sciences in the 1920s, with the works of Sorokin and of the Chicago school. Mobility was then defined in terms of spatial change and crossing through space.

In 1927, Pitirim Sorokin, a Russian researcher who emigrated to the United States, published a book entitled Social Mobility in which he laid the foundations for what would become one of the most classical fields of inquiry in sociology. It defines mobility as a

change in professional occupation, and identifies two types of movements: (1) vertical mobility, which implies a change of positioning in the socio-professional hierarchy, with a movement that can be upward or downward (e.g. a worker who becomes her own boss); (2) horizontal mobility, which refers to a change in status or category that doesn't involve any change of relative position in the social hierarchy (e.g. changing jobs at the same level of qualification and pay).

In Sorokin's conception, mobility may involve space, but movement in geographical space has meaning only insofar as it reveals or implies a change of status in the social space.

The work of the Chicago school in the 1920s and 1930s placed the analysis of mobilities within a dynamic analytical framework. While the interactions between a city, its morphology and social relations were at the heart of the Chicago school's work, research focused mainly on the social system, its functioning, its organization and its transformations. Geographic mobility, whether residential or daily, was considered an integral part of the urban way of life. The Chicago school thus studied the subjective experimentation of the city through social or professional "types" or "figures" such as the foreigner, the Jew or the hobo, all of which refer to the individuals who are "skilled in locomotion." However, ". The city consequently tends to resemble a mosaic of social worlds in which the transition from one to the other is abrupt." <sup>1</sup> and the distinctive feature of the most mobile individuals is that they cross these social boundaries. The mobility of some individuals seems more socially disturbing than others.

The originality of this approach lies in the fact that mobilities are thought of as factors of disorganization or imbalance, thus vectors of change. According to Robert Park: "Mobility measures social change and social disorganization, because social change almost always involves some incidental change of position in space, and all social change, even that which we describe as progress, involves some social disorganization." <sup>2</sup>

## **The science of traffic**

At the same time, another discipline developed in the United-States: traffic science. It launched a new way of analyzing urban mobility, entirely dedicated to movement through geographical space, and which quickly became independent from the sociological conceptions of mobility developed by researchers in the Chicago school or by Sorokin. Pierre Lannoy (2003) shows that this partition of the field of mobility analysis follows a division of research perimeters between the Chicago school and traffic science. This partition occurred in particular around the subject of the automobile, which became a central object of research for traffic science, while it was not of similar interest to the sociologists of the Chicago school. <sup>3</sup>

The emergence of traffic science came about in conjunction with the rise of individual motorization, which began in the 1910s and 1920s in the United States, and after the Second World War in Europe. It became essential with the growth of road traffic flows and the need to regulate them; it first developed the tools and models for simulating flows currently experienced by the transport economy.

## **Social mobility, transport science and geographical mobility: three disciplines that ignore each other**

At the start of the Second World War, the field of mobility was already partitioned between sociological research that defined mobility first and foremost as social change, and traffic science that considered it as a flow of movements in space.

From the 1950s, analyses of social mobility focused on career paths and the intergenerational transmission of occupational categories. The latter theme crystallized key issues relating to the construction of social inequalities, such as social reproduction and the possibilities of climbing or falling down the professional ladder. It was such a dynamic area of research for sociology that it progressively became completely independent from the work on cities and urban spaces. In this shift, sociology held onto the definition of mobility as a change in status (hierarchically), role (in terms of the nature of activities) or position (socio-professional) and has since been the only one to keep it that way to this day.

The field of "traffic science" developed in a rather similar way to sociological approaches to social mobility: total independence and a gradual focus on modelling from theories of fluid dynamics, with a comprehensive definition of mobility which referred here to the crossing of space, or more particularly to the flow of particles, individuals, cars, motorbikes, etc. through streets, the space where traffic occurs.

Traffic science underwent significant developments in the 1950s and became the transport economy. As Jean-Pierre Orfeuil points out, econometric modelling of transport demand and traffic forecasts in particular gradually dominated the analysis of transport demand and its engineering applications:

"Traffic engineers developed the concept of flow in order to think about movement so as to facilitate it. So here, 'movement' is really synonymous with 'transportation,' with a special focus on mechanized modes. Moreover, the major surveys on traffic flows that were put in place essentially focused on these modes. They didn't talk about walking, for example. The idea was to optimize travel through engineering. Travel is seen here as a need, even if now with hindsight, works like those of Guillaume Courty on traffic laws or those of Pierre Lannoy show that this technical optimization is also a political construct. It's the invention of rational movement. Their core concern is the idea of traffic fluidity."<sup>4</sup>

In the post-war period, geographical approaches to mobility developed in between these two disciplines. They were structured around the four main forms of spatial mobility present in the societies of the time: daily mobility, travel, residential mobility and migrations. These were the main forms that could be differentiated according to their temporality (long temporality, short temporality) and the space in which they take place (internal or external space to the living area) (see table). Each of these four forms became the subject of abundant literature and developed their own concepts, arenas and journals, thus structuring themselves, in short, as their own research area. Once again, the study of mobility was further fragmented. Françoise Dureau, Pierre Lannoy, Thierry Ramadier and Jean-Pierre Orfeuil noted this in a roundtable organized by the MSFS group (*Mobilités spatiales et fluidité sociale*, or *Spatial Mobility and Social Fluidity*).<sup>5</sup> Throughout its history, research on mobility has been compartmentalized by discipline (geography, sociology, urbanism, demography...), each applying its own analytical reference framework and none dealing with all the forms of mobility.

**The four main forms of spatial mobility:**

	Short temporality	Long temporality
Internal to a living area	Daily mobility	Residential mobility
Away from a living area	Travel	Migration

However, the conceptualization of mobility remained common to the four areas: a movement between an origin and a destination. Implicitly, this approach combines one definition of mobility as a crossing of space and another definition as a change. In fact, it postulates a combination of these two kinds of phenomena.

The partition of spatial mobility analysis into four domains has produced significant scientific advances, although it hasn't been able to fully address how they intersect and combine, precisely because of the autonomy each research domain has gained from this partitioning.<sup>6</sup> One example of a transdisciplinary tool derived from mobility research is the "Zahavi Conjecture," which highlights a mechanism for regulating daily mobility that has inspired much research. The "Zahavi conjecture" posits that, in everyday life, mobility is a function of the speed of transport within an average time-budget of about one hour (Zahavi and Talvitie 1980), and that this average duration is stable in time and space. While the "Zahavi conjecture" is never really verified when taken literally, it nevertheless highlights a relationship between duration, movement across space and travel speed that is quite stimulating. This insight has stimulated debate and research in different disciplines, including urban planning and land-use planning.<sup>7</sup>

# The birth of an integrative approach

Dealing with the issue of travel and mobility brings us to examine the question of why we travel. We travel to perform various activities (relaxing, shopping, working, visiting relatives...) and the transition from one activity to another makes us change our role, our mindset, even our status. We travel to move in with a partner, we also travel after a divorce. Ultimately, we also travel to just get around, like when we walk. But beyond these motives, when do we travel to be socially mobile? And conversely, when are we socially mobile while travelling?

The whole preceding discussion illustrates this: dealing with mobility implies having a complete approach to the phenomenon, which integrates its social and spatial manifestations and allows the pieces of the puzzle to hold together. In this general process, Michel Bassand's pioneering works are essential. In the book "Spatial Mobility" ("Mobilité Spatiale"), Michel Bassand and Marie-Claude Brulhardt (1980) lay the foundations for such an approach. They consider mobility as a total social phenomenon - in the sense of Marcel Mauss's conception - and define it as the set of movements involving a change in the state of the actor or system considered. With this definition, mobility has a dual spatial and social quality, which restores its richness compared to only spatial approaches to the phenomenon. For instance, it allows us to understand the emergence of the periurban as a phenomenon linked to the development of road infrastructures and the democratization of the automobile that together enable people to live far from the city without generating excessive travel times, in accordance with the Zahavi conjecture.<sup>8</sup>

Since the early 2000s, many reflections on mobility have been developed in line with the "mobility turn." They aim to deploy an integrative definition of the phenomenon, so as to produce a real concept. These reflections concern the theoretical approach of the phenomenon (Cresswell 2006; Urry 2007), how mobilities are experienced (Merriman 2012), the role that mobilities play in the constitution of the contemporary individual (Kellerman 2006), how they have evolved over time, etc. These works emphasize that crossing geophysical space is generally a means of achieving a goal, and not a goal in itself, and that therefore it is essential to look at the nature of this goal in order to understand the driving forces and motivations of mobility. This is how the paradigm of mobility was born: it's a way of analyzing societies by paying attention to the role that movements play in the organization of social relations. Such an approach legitimizes questions about the practical, discursive, technological, political and organizational mechanisms used by societies to manage distance, as well as the methods required to study these devices.<sup>9</sup>

The integrative approach to the concept of mobility stemming from the work of Michel Bassand, and then from the mobility paradigm, allows us to consider mobility in a

resolutely interdisciplinary, even post-disciplinary approach.<sup>10</sup> In particular, it has the advantage of allowing mobility to be approached at once as (1) a socio-spatial phenomenon, (2) an analytical indicator and (3) a social norm. These three modalities of the concept of mobility are specific and complementary:

Mobility as a socio-spatial phenomenon. The first modality is the observation that being mobile refers to a dual ability: that of moving, of changing places, but also that of transforming, adapting to a new situation, changing status, position, skills, etc. These two dimensions are highly intertwined (Mincke and Kaufmann 2017).

Mobility as an analytical indicator. The second modality is that mobility can be seen as an analytical indicator of social reality. In this sense, measuring mobility can, for example, help us to understand a dynamic of family relationships by measuring the rhythm of family gatherings and the movements they involve for its different members (who moves the least, the most, etc.). In another example, it may also be used to measure the rhythmic pressures on working women taking care of young children, in terms of reconciling their family, social and professional lives (Kaufmann 2011).

Mobility as a social norm. In the above developments, mobility was understood as a primary good (Gallez 2015), in the sense of Article 13 of the Universal Declaration of Human Rights on the freedom of movement. In contemporary Western societies, mobility has also become a dominant social norm, built in particular on the basis of an imaginary that relates rapid and distant travel - and more generally reversible mobility - with the process of the democratization of mobility. With rapid and distant trips, people are free to establish their desired contacts without spatial or temporal hindrances.

In the wake of the integrative approach to mobility, a new field of analysis has recently appeared, focused on the ecological transition. Taking the "Zahavi conjecture" as a starting point, it considers it necessary to end the systematic approach in which transport allows people to always go faster and further by intensifying activity schedules (for a given time and cost), because it leads to increasing greenhouse gas emissions. To remedy this, concepts of chrono-planning are developed, such as Carlos Moreno's "15-minute city" (by foot) (Moreno 2020).

## **Three integrative definitions of mobility**

The author of this article<sup>11</sup> considers mobility to be a socio-spatial phenomenon with two intertwined faces: self-transformation and movement across space. Daily life provides a good example of this concept of mobility. The succession of activities in time and space combines movements in the geographical space with changes in roles each time involving a transformation of oneself. The attitudes, ways of speaking, power relations,

the nature of exchanges (whether more or less intimate, or on the contrary more public or even institutional) successively reveal very different facets of a person.

This concept of mobility combines intent and action, and its manifestations are intertwined according to specific temporalities: the minute, the hour, the day and the week for the succession of activities and roles; the week, the month and the year for travel; the year and the life course for relocations and professional mobility; and identity for migrations. Different forms of mobility have reciprocal impacts on each other.<sup>12</sup>

Some authors in line with the “mobility turn” approach broaden the notion of mobility even further. This is particularly the case for John Urry,<sup>13</sup> who also considers mobility as a social and spatial phenomenon, but who also includes objects, communication and ideas. According to him, the various forms of mobility encapsulate all social relations and are the organizing principle of the social world, so much so that he calls for abandoning the notion of society as the object of sociology and replacing it with that of mobility. One of the great merits of this proposal is to really introduce space into sociology. Indeed, Urry's criticism of society is ultimately a reflection of the claim that in sociology, society is an ill-defined and poorly conceptualized territory.

Tim Cresswell<sup>14</sup> also adheres to the “mobility turn” approach. He considers mobility in a general context of power and domination, but as essentially spatial. Mobility concerns all movements in space, ranging from raising your hand to migrating, dancing or taking a bus. All movements made by human beings in space are considered as mobility. They are all understood as social constructs and it is only in this capacity that they are considered social. Tim Cresswell captures mobility through three dimensions: observable facts (mobility as observable movement), representations (mobility as idea and ideology) and experiences (mobility as a way of being in the world). This view has the advantage of defining mobility very clearly as the entire set of movements of the human body, what they represent and the way they are experienced. However, it is very broad and it restricts its scope to physical movement through or across space, without paying attention to mobility as a personal transformation.

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## Notes

① Louis Wirth (1938), "Le phénomène urbain comme mode de vie" [Urbanism as a way of life.] In: Grafmeyer Y. and Joseph I. (1984), L'école de Chicago. Naissance de l'écologie urbaine [The Chicago School. Birth of urban ecology], Paris, Aubier.

② Robert E. Park (1926), "La communauté urbaine : un modèle spatial et un ordre moral" [The Urban Community as a Spatial Pattern and a Moral Order] (1926). In: Grafmeyer Y. and Joseph I. (1984), L'école de Chicago. Naissance de l'écologie urbaine [The Chicago School. Birth of urban ecology], Paris, Aubier.

③ In this regard, see Caroline Gallez's video on "The Automobile City"  
<https://en.forumviesmobiles.org/video/2019/09/17/automobile-city-13037>

④ Jean-Pierre Orfeuil at the roundtable called "Spatial Mobilities - Collection, Analysis and Processing Methodologies" (Mobilités spatiales, méthodologies de collecte, d'analyse et de traitement): <https://en.forumviesmobiles.org/project/2020/05/28/dialogue-mobility-between-f-dureau-p-lannoy-j-p-orfeuil-and-t-ramadier-1-origins-field-13321>

⑤ The roundtable organized by MSFS is transcribed on the Mobile Lives Forum website in two parts: <https://en.forumviesmobiles.org/project/2020/05/28/dialogue-mobility-between-f-dureau-p-lannoy-j-p-orfeuil-and-t-ramadier-1-origins-field-13321> and <https://en.forumviesmobiles.org/project/2020/05/28/dialogue-mobility-between-f-dureau-p-lannoy-j-p-orfeuil-and-t-ramadier-2-multidisciplinary-13324>

⑥ For further details on this, see the Dialogue on Mobility (Part One), which appears on the Mobile Lives Forum website.

<https://en.forumviesmobiles.org/project/2020/05/28/dialogue-mobility-between-f-dureau-p-lannoy-j-p-orfeuil-and-t-ramadier-1-origins-field-13321>

⑦ See: <https://en.forumviesmobiles.org/project/2020/05/28/dialogue-mobility-between-f-dureau-p-lannoy-j-p-orfeuil-and-t-ramadier-2-multidisciplinary-13324>

⑧ See Marc Wiel's work, as well as Yann Dubois's revision of his book *La transition urbaine ou le passage de la ville pédestre à la ville motorisée* [The Urban Transition or the Transition from the Pedestrian City to the Motorized City]:

<https://en.forumviesmobiles.org/publication/2012/12/11/book-review-509>

⑨ To delve deeper into the issues related to the mobility paradigm, see Javier Caletrió's article, available on the Mobile Lives Forum website.

<https://en.forumviesmobiles.org/marks/mobilities-paradigm-3293>

⑩ For more on the interdisciplinary nature of mobility research, see the Dialogue on Mobility (Part Two) on the Mobile Lives Forum website:

<https://en.forumviesmobiles.org/project/2020/05/28/dialogue-mobility-between-f-dureau-p-lannoy-j-p-orfeuil-and-t-ramadier-2-multidisciplinary-13324>, as well as

Dominique Joye's article: <https://en.forumviesmobiles.org/2020/06/23/being-anchored-be-agile-call-interdisciplinarity-mobility-research-13351>

⑪ Watch Vincent Kaufmann's video, "Mobility, Motility: What Conditions Our Ability to Move": <https://en.forumviesmobiles.org/video/2016/06/07/mobility-motility-what-determines-our-ability-move-3260>

⑫ In this sense, the forms of mobility with the longer temporalities (such as the life course) have a systematic impact on forms of mobility with shorter temporalities. After relocating, having a child or changing jobs, one necessarily has a different daily mobility, as one's daily activities and social roles change. Meanwhile, international migration not only has the effect of changing daily mobility but can also generate new trips (to see friends, family who have remained in the place of origin) and even specific residential mobilities (first moving into a furnished apartment, then buying an apartment).

⑬ Watch John Urry's video, "What is the mobility turn?":

<https://en.forumviesmobiles.org/video/2012/12/10/what-mobility-turn-467>

⑭ Watch Tim Cresswell's video, "Mobility between movement, meaning and practice":  
<https://en.forumviesmobiles.org/video/2013/09/13/mobility-between-movement-meaning-and-practice-1164>

### Mobility

For the Mobile Lives Forum, mobility is understood as the process of how individuals travel across distances in order to deploy through time and space the activities that make up their lifestyles. These travel practices are embedded in socio-technical systems, produced by transport and communication industries and techniques, and by normative discourses on these practices, with considerable social, environmental and spatial impacts.

More

### Movement

Movement is the crossing of space by people, objects, capital, ideas and other information. It is either oriented, and therefore occurs between an origin and one or more destinations, or it is more akin to the idea of simply wandering, with no real origin or destination.

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### Residential mobility

Broadly speaking, residential mobility refers to a household's change of residence within a life basin.

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### Travel Speed

Speed of travel is the relationship between the traveled distance and the time it takes for an individual to travel it.

More

### Motility

Every person, every group can be characterised by greater or lesser propensities for moving around a geographic, economic and social space. "Motility" has been the name given to these aptitudes, a reference to the use of this term in biology.

More



## Vincent Kaufmann

Social Scientist

Vincent Kaufmann, a Swiss sociologist, is one of the pioneers of mobility and inventor of the concept of motility. He is director of LaSUR at the EPFL, General Secretary of CEAT and professor of sociology and mobility analyses.

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<sup>1</sup> <https://en.forumviesmobiles.org/marks/mobility-450>

<sup>2</sup> <https://en.forumviesmobiles.org/marks/movement-460>

<sup>3</sup> <https://en.forumviesmobiles.org/marks/residential-mobility-3204>

<sup>4</sup> <https://en.forumviesmobiles.org/marks/travel-speed-12977>

- <sup>5</sup> <https://en.forumviesmobiles.org/marks/motility-461>
- <sup>6</sup> <https://en.forumviesmobiles.org/mots-cles/history-mobilities>
- <sup>7</sup> <https://en.forumviesmobiles.org/mots-cles/spatial-mobility>
- <sup>8</sup> <https://en.forumviesmobiles.org/mots-cles/daily-mobility>
- <sup>9</sup> <https://en.forumviesmobiles.org/directory/people/2012/12/09/vincent-kaufmann-sociologue-431>
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