# The experience of walking in Latin American cities

La experiencia de caminar en ciudades latinoamericanas

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#### Abstract

The results of a descriptive study that explores how the inhabitants of eight cities in six Latin American countries (Mexico, Colombia, Peru, Argentina, Uruguay and Chile) evaluate the conditions that make those cities walkable are presented. A total of 1133 people rated, by means of a questionnaire made up of 50 items, different situations that arise when walking, an instrument that was complemented with 144 semi-structured interviews. Based on a descriptive correlational analysis, using the multidimensional scaling program, Smallest Space Analysis (SSA), the three dimensions proposed to capture the experience of walking are confirmed: I) the purposes that people pursue when walking, 2) the place where they walk, and 3) the spatial and social conditions that inhibit or promote this experience. The elements that make up each dimension are also identified. These findings are integrated with the results of the semi-structured interviews to be discussed in terms of their implications for urban planning and management.

**Key words:** Pendular migration; quality of life; urban space; urbanization; urban development; urban planning

#### Resumen

Se exponen los resultados de un estudio descriptivo que explora la forma como los habitantes de 8 ciudades de 6 países latinoamericanos (México, Colombia, Perú, Argentina, Uruguay y Chile) valoran las condiciones que las hacen caminables. Un total de 1133 personas calificaron, mediante un cuestionario conformado por 50 ítems, distintas situaciones que se presentan al caminar, instrumento que fue complementado por 144 entrevistas semiestructuradas. A partir de un análisis descriptivo correlacional, mediante el programa de escalamiento multidimensional. Smallest Space Analysis (SSA), se confirman las tres dimensiones propuestas para recoger la experiencia del caminar: 1) los propósitos que persiguen las personas al caminar, 2) el lugar por donde se camina y 3) las condiciones espaciales y sociales que inhiben o promueven esta experiencia; se identifican, además, los elementos que integran cada dimensión. Estos hallazgos se integran con los resultados de las entrevistas semiestructurada para ser discutidos en términos de sus implicaciones para la planeación y la gestión urbanas.

**Palabras clave:** Migración pendular; calidad de vida; espacio urbano; urbanización; ordenamiento urbano

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#### Introduction

This article, a research result, is framed within the public space research line developed by the Urban and Environmental Pedagogy research group of the *Universidad Pedagógica Nacional*, Bogotá, Colombia. This work gives continuity to the research project "Walking as a Learning Experience of the City", funded by the Research Center of the aforementioned university, whose objective was to identify the conceptual structure through which participants in several Latin American cities value the physical and social conditions that make the experience of walking possible.

The importance that poets and novelists have given to walking through the city is widely known.

In his essay "The Man of the Crowd" (1840), the writer Edgar Allan Poe characterizes the urbanite of modernity as an anonymous being who camouflages himself in the multitude that wanders through the city. For his part, in "The Decline of the Public Man" (1977) Richard Sennett criticizes urban life based on the death of public space in Paris, the distrust about the stranger and the isolation of the individual, as a consequence of a new spatial configuration and new lifestyles in urbanized society. And seeing Manhattan from the heights of the World Trade Center or walking through its streets, Michel de Certeau (1984) compares walking with the words that make up a language, and defines it as a political act of appropriation. But it is only in recent years that importance has been given to walking in urban planning and in health and recreation programs.

This article emphasizes, from an urbanistic perspective, walking in Latin American cities, based on different facets or variables that can be visualized from this experience: as a physical activity that contributes to health; as a mobility mechanism to go from one place to another; as a facilitator of social encounter; as recreation and appreciation of the natural and built landscape; as a phenomenological experience through which individuals perceive the world and experience a series of sensations, or as simple as a way to provide well-being to pets. Additional benefits of walking are seen in improved air quality, reduced traffic (Haines et al., 2009) and greater social inclusion. But also, and in a more general scope, its implications in notions such as social justice, citizenship, democracy, equity and sustainable mobility are being analyzed, which is framed within the notion of "the right to the city", raised early on by Lefebvre (1969) as an active part of the struggles for a livable city, as well as the vindication of the diversity of ways of inhabiting public space, linked, in turn, to the concept of the appropriation of space.

Despite its importance for health, for citizen education and for the emotional and social experience of feeling part of an urban conglomerate, those who planned and administered the city in the 20th century did not pay enough attention to this need of people when moving through public space. This is reflected in the discontinuity of the sidewalks, their narrowness and the few kilometers they have in good condition, as well as in the lack of lighting in different sectors and the insecurity perceived by the inhabitants. This phenomenon can be explained from the modernist model of large American cities in the fifties and sixties of the twentieth century, in which the mobility of automobiles was privileged when people began to inhabit the suburbs, and which was followed by



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several Latin American cities (Oldemburg, 2013), leaving the act of walking as something marginal. In addition to copying this model, Latin American countries had to prioritize the housing deficit, which limited the planning of spaces for walking.

Nevertheless, the new social configuration of the 21st century, resulting from globalization, migration and high population density in cities, the development of technology and the impact of atmospheric pollution have led to a worldwide interest in improving the quality of urban life. As a result, new urban designs have been proposed, with alternative means to motorized mobility, including the promotion of cycling and walking, which are now part of urban redesign plans and the intention to recover and expand public spaces, although there are few studies that take into account the act of walking. The need now arises to explore the reasons why people walk, or prefer to walk, as well as the situations that facilitate or restrict their walking, based on the characteristics of the place where they walk, in order to justify to those who plan and manage the city the importance of designing public space with the pedestrian in mind.

Most studies are associated with the benefits of walking as disease prevention or disease rehabilitation (Bassett et al., 2008; Haines et al., 2009; Forjuoh et al., 2017; Keller and Cantue, 2008). In relation to its importance for recreation and physical exercise, research accounts for the richness of promoting a broader understanding of these activities for both recreation and mobility (Lee and Ingold, 2006; Le Breton, 2007; Keller and Cantue, 2008). Likewise, walking has been approached from its relationship with memory and urban affectivity (Aguilar, 2016; 2018).

Regarding safety, the works sponsored by Fundación MAPFRE (2016) and Conejera et al. (2003) show that pedestrian morbidity and mortality occupy the first places in Latin American countries. There are reports of intentional traffic violations by adults of both sexes while walking in the streets (Moyano Díaz, 2002) as well as differences according to age (Moyano Díaz, 1999). In agreement with World Health Organization (WHO) data, an average of 1.3 million traffic deaths are recorded each year worldwide, with Latin America being the most affected region. Almost half of these deaths occur in cities, and most of the victims are pedestrians. A recent report by the WHO and the Pan American Health Organization (PAHO) (2016) warns of this. As a result, some cities have been working to provide safe, walkable public spaces. Barcelona and New York, for example, have created superblocks, within which vehicular mobility is prohibited, making walking on such blocks safer. In Medellín, for its part, safe routes have been created for preschool children living in neighborhoods with high rates of violence. Children walk to school accompanied by adults, playing and listening to music.

From a gender perspective, studies have shown that walking is risky for women, not only because of spatial barriers -for example, when carrying a baby carriage-, but also because of the symbolic barriers that condition their access to public spaces (Burbano, 2016a; 2014; Lindón, 2006; Falú, 2009). For Ortiz (2007), women avoid being assaulted and being victims of assaults and sexual harassment when walking in public spaces. The dangers they face when walking lead them to naturalize mobility routines and thus avoid danger, by choosing to take known routes, modify routes and schedules for travelling or simply seclude themselves at home (Burbano, 2014, 2016b).

Based on environmental and social psychology, which investigates the psycho-spatial dimension and its relationship with behavior, a warning call has been made about the privatization of public spaces and its impact on socialization and walkability in cities (Jacobs, 1961; Low, 2005; Páramo, 2011). When plotting their route to get from one place to another, people often check whether there are sidewalks, demarcated crossings for pedestrians, and travel time (Hollenstein and Bleischa, 2016). D'Alessandro et al. (2016) draw attention to more subjective aspects, such as perceived safety and people's assessment of the civility of individuals they usually encounter on the streets.

Among the comparative studies, the one by Kerr et al. (2016) is relevant, since it shows how 17 cities in the world, from 12 countries in different continents, are compared concerning the conditions that individuals point out as indispensable to move around the neighborhood or the city, whether they do it by bicycle or on foot. Safety, the existence of recreational places, the aesthetics of what can be seen, the accessibility of shopping centers, the perception of the distance to get to a place and the existence of bus stops stand out.

According to Speck (2012), for a city to be walkable, it is necessary for walking to be better, or at least equal, to other means of mobility, for which it is important to meet the following characteristics: 1) that there is a purpose for walking (the useful walk), 2) that walking is safe (the safe walk), and 3) that it is enjoyable (the pleasant/comfortable walk) and interesting.

When analyzing policies that promote walking in cities, it is necessary to mention the impulse that different international organizations, such as WHO and PAHO (WHO-PAHO, 2016), Fundación MAPFRE [Mapfre Foundation] (2016), Fundación Gonzalo Rodríguez [Gonzalo Rodríguez Foundation] (2018) and Fundación para la Seguridad del Tráfico [Foundation for Traffic Safety] (AAA, 2018), among others, have been giving to promote regulations in the countries of the region. The documents generated by these agencies emphasize the importance of walking for health and environmental protection, as part of a comprehensive approach that encompasses legislative, as well as technical and educational provisions, mediated by the creation of laws.

The Comisión Económica para América Latina y el Caribe [Economic Commission for Latin America and the Caribbean - (ECLAC, 2011)] carries out actions to promote a comprehensive and multidisciplinary perspective on public mobility policies and the design of road infrastructure, and to promote coordination in areas such as education, health, regulations, infrastructure, equipment and control, in order to achieve effective and sustained results in the reduction of road accidents.

The influences and contributions of WHO-PAHO (2016) and ECLAC (2011) have been reflected in several countries through technical documents that incorporate economic investments for urban transformations and, likewise, educational strategies that involve pedestrians. It is also important to mention non-governmental organizations (NGOs) that encourage walking for health, recreational, social and safety reasons; among these, there is the Fundación Walk21 [Walk21 Foundation], the Fundación Despacio [Slow Foundation], the Bernard Van Leer Foundation, the Fundación Colombiana de Caminantes [Colombian Walking Foundation] and the Asociación Correcaminos [Roadrunner Association], as well as many others (Torres, 2019).

It is worth mentioning that together with this category of international policies, social movements emerge promoting the creation and application of such policies in the cities that show themselves socially in academic spaces such as congresses, conferences and different forms of meetings, where the socialization of new ways of seeing cities converges. One of the strongest on a global scale is the one developed by Walk21, an international charity dedicated to support and promote walking, to transform the perception of walking in the city, through effective policies, programs and planning around the world (Walk21, 2018).

In urban management studies, there is interest in designing objective indicators and indices to evaluate and monitor the public policies implemented by cities through which it is possible to assess aspects such as accessibility to urban transport; attractive services; distance to facilities; the number of linear meters of bicycle paths; the width and length of sidewalks or pedestrian platforms; the existence of ramps for pedestrians and the disabled; the number of street lights, benches and garbage bins, and the distance between these; tree planting; sanitary batteries; air quality, and pedestrian bridges, among others (Talavera-García and Soria-Lara, 2015; Tribby et al., 2016; D'Alessandro et al., 2016; Gutiérrez-López et al., 2019).

Although evaluations based on objective indicators of the physical environment are important, those made by individuals about their subjective experience of walking, provide important information. Situations such as those explored in this study play an important role in identifying citizens' needs and improving their quality of urban life.

### Method

### Design

This is a mixed-method, correlational-descriptive study that compares eight quantitative data matrices derived from the application of a questionnaire based on a correlational analysis. It is also complemented with in-depth interviews. For its methodological development, the procedure employed was the same that some of the authors of this paper used in other comparative studies (Páramo & Burbano, 2019; Páramo et al., 2018).

### **Participants**

The sample was purposeful, non-probability, comprised of 1277 people from 11 Latin American cities who participated voluntarily: Arequipa (Peru), Bogotá and Tunja (Colombia), Buenos Aires (Argentina), Mexico City and Guadalajara (Mexico), Montevideo (Uruguay) and Talca (Chile). Of the total number of participants, 1133 filled out a questionnaire. The sample was categorized into four age ranges: 57.3% women (n = 650), 42.5% men (n = 481) and 0.2% (n = 2) reported belonging to another gender, as shown in Table 1. Of the total number of participants, 144 responded to the interviews, as shown in Table 2.

### **Instruments**

A questionnaire composed of 49 items was designed, which allude to how walkable the city is for the participants, considering three dimensions: 1) the purpose that the person seeks when walking; 2) the place where he/she walks; and 3) the socio-spatial conditions that facilitate or hinder walking, based on a 7-point scale: from very little walkable (1) to very walkable (7). Item 49 asked whether women feel harassed when walking, so it was to be answered only by people who identify with this gender condition. An additional item (item 50) was included, which asked about the general walkability of the city. The rating scale included the response option "Don't know", for cases where the evaluated situation does not apply, as deemed appropriate by the participant.

The items were derived from the review of other instruments identified in the literature on the conditions that make cities walkable, following the facet theoretical model (Borg and Shye, 2005; Hackett, 2014). The final part of the questionnaire requested information on the sociodemographic characteristics of the respondent, such as age, gender, and the locality, neighborhood or commune in which he/she lives. The instrument was validated by three independent judges and through a pilot study carried out with 60 participants. The terminology was adjusted in each country.

The analysis of the internal consistency of the instrument using Cronbach's Alpha test ranged from 0.89 to 0.96 between the cities, which reflects good reliability of the questionnaire. In



	Age					Gender			Total
City	18-30 years	31-45 years	46-60 years	61 years and older	No age information	Female	Male	Other	
Arequipa	76	51	47	4	0	89	89	0	178
Bogotá	173	93	24	15	0	164	141	0	305
Buenos Aires	46	31	7	1	0	64	21	0	85
Ciudad de México	69	31	22	11	0	72	60	1	133
Guadalajara	132	14	11	2	0	105	53	1	159
Montevideo	42	62	18	7	0	73	56	0	129
Talca	45	6	6	1	0	26	27	0	53
Tunja	58	24	7	2	0	57	34	0	91
Total	641	312	137	43	0	650	481	2	1133
Percentage	56,6	27,5	12,1	3,8	0	57,3	42,5	0,2	100

① Table 1. Distribution of the sample of participants who completed the questionnaire in different cities, according to age and gender.

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	Age					Gender			Total
City	18-30 years	31-45 years	46-60 years	61 years and older	No age information	Female	Male	Other	
Arequipa	17	3	5	2	0	10	17	0	27
Bogotá	15	7	3	4	0	16	13	0	29
Buenos Aires	1	0	0	0	3	2	2	0	4
Ciudad de México	9	5	6	2	0	11	11	0	22
Guadalajara	18	2	4	0	0	15	9	0	24
Montevideo	2	8	3	4	0	5	12	0	17
Santiago	10	5	1	2	0	6	12	0	18
Temuco	0	0	0	0	2	2	0	0	2
Cases reporting incomplete information	-	-	-	-	5	-	-	-	-
Total	72	30	22	14	5	67	76	0	143
Percentage	50,3	21	15,4	9,8	3,5	46,8	53,2	0	100

♠ Table 2. Distribution of in-depth interview participants according to city, gender and age group. Source: author's own elaboration (2019). CC

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addition, a semi-structured interview was used that inquired about the same dimensions, based on the following questions: 1) At what time of the day or week do you walk, and for what purposes? 2) In the trips you have told me about, what do you do while you walk? What do you think about? 3) Where do you usually walk? Do you usually walk alone or accompanied? 4) What do you feel, smell, hear or touch? 5) What do you usually see around you? 6) What do you usually carry with you? 7) Is there any direction or route you usually take? 7) Is there a particular direction or route that you like to take when you walk? 8) When you walk to the same destination, do you usually change routes, or do you always follow the same route? 9) What do you enjoy most about walking, and what do you enjoy least? 10) What has been your experience of walking when you go out of the city? 11) What difficulties do you encounter when walking in public spaces? 12) What do you remember from your childhood and adolescence when you walk in the city?

### **Procedure**

Both the questionnaire and the interview were administered under the supervision of the research teams in each country, and informed consent was obtained from the participants in each city, assuring them that the information collected would be confidential.

#### **Results**

To compare the participants' evaluations of how walkable their cities are in terms of the different conditions presented to them, the mean values for each item were compared as shown in Table 3. In general, it is observed that the conditions evaluated on the walkability scale (1 to 7) were rated within the medium to high range. Items 4,10 and 17, which are indirectly related to safety, were rated with high values (mean above 5), while item 16, which refers directly to the safety perceived by women when walking, obtained the lowest mean of 3.03.

No.	Mean	SD	Ítems	
1	4,26	0,45	To avoid traffic congestion on the streets caused by the noise produced by automobiles.	
2	4,28	0,54	Exercising safely in the neighborhood.	
3	4,86	0,48	Walking my pet in the neighborhood, thanks to the fact that I follow the rules of coexistence.	
4	5,00	0,30	Shopping at the mall with my family, regardless of the weather.	
5	4,30	0,65	Commuting to work in the city streets among street vendors.	
6	4,24	0,37	To get to know a historical site of the city, guided by the existing signage.	
7	3,74	0,53	Leaving my university in the evening hours with the existing street lighting.	
8	4,28	0,41	Improve my health condition by walking on the neighborhood sidewalks.	
9	3,83	0,59	Save the cost of the ticket to go to my work/study place under the weather conditions of the city.	
10	5,06	0,49	Exercising safely in a gym inside a shopping mall/shopping center.	
11	4,49	0,38	Conversing with friends from the neighborhood while enjoying the architecture of the urban environme	nt.
12	4,23	0,39	Having fun with my family thanks to the layout of the street furniture.	
13	3,98	0,39	"Clear my head" on the street with many people around me.	
14	3,90	0,29	Relaxing from work in the park, but free of dog droppings.	
15	4,08	0,45	Try to get to know places of interest in the city by walking through places where there is graffiti.	
16	3,03	0,71	Returning home through lonely streets.	
17	5,01	0,50	Distract myself safely with friends at the mall/shopping center.	
18	3,59	0,75	Preventing disease through air quality in this city.	
19	4,25	0,52	Doing physical activity under the climatic conditions provided by natural environments.	
20	4,38	0,48	Appreciate the architecture of the buildings in the neighborhood.	
21	3,89	′ 0,47	Make contact with strangers thanks to the sidewalks in my neighborhood.	
22	3,94	′ 0,42	I commute to my place of work/study via the pedestrian bridges in the city.	
23	4,16	0,45	Distract myself if I encounter prohibitive signs and security cameras around the mall/shopping center.	
24	3,83	0,34	Doing physical activity in the neighborhood, taking into account the existing continuity of the sidewalks.	
25	3,64	0,54	Save fare money by dodging vehicles crossing the avenues.	
26	3,62	0,56	Commute home on the bike path after work/study to save on fares.	
27	3,94	0,50	Save money on airfare by walking to my place of study/work in good weather.	
28	3,27	1,04	Passing through a dark area because I'm late for work/study.	
29	3,89	0,23	Passing through a park to avoid traffic congestion.	
30	3,57	0,64	Passing through a street full of garbage because public transportation congestion is going to make me late for	work/study
31	4,29	0,36	Moving around inside the mall using a cell phone.	
32	3,24	1,59	Find a water dispenser in streets and parks.	
33	3,17	0,77	Find a police officer to whom you can ask for guidance to get to a place.	
34	4,08	0,42	Commuting to work/study among street dwellers.	
35	4,36	0,51	To know about the architectural transformations of parks, squares and buildings.	
36	3,18	0,98	Satisfying a physiological need in a public restroom in town.	
37	3,82	0,98	Entertain myself in the evening with cafes, restaurants or free art shows in squares or parks.	
38	3,89	0,48	Interact with natural elements such as rivers, lakes, gardens, and avenues in the city.	
39	4,39	0,47	Satisfy my curiosity about new malls/shopping centers.	
40	4,27	0,54	Educate people through signage in public place.	
41	4,02	0,34	Doing different types of personal errands thanks to the connectivity of the sidewalks between different pages.	parts of the neighborhood
42	4,02	0,30	Move safely along the pedestrian axis parallel to the exclusive bicycle lane.	sare of the heighbothood.
43	3,85	0,32	Make use of ramps to enable a person with a disability to move around the city.	
43	3,16		That a blind person can cross avenues with the help of audible traffic lights.	
• • • • • • • • • • • • • • • • • • • •	· • · · · · · · · · · · · · · · · · · ·	0,46		Table 3. Means and
45	3,86	0,47	Having fun in public places in the absence of bad smells.	standard deviations of the items about walking in the
46	3,67	0,89	Interacting with technology in the public space with interactive screens and internet.	city.
47	3,78	0,21	Get in touch with places of ecological tourism and contemplate nature.	Source: author's own elaboration (2019). CC
48	3,98	0,23	To be able to attend cultural events in the shopping center, away from traffic congestion.	BY-NC.



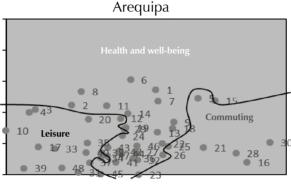
### **Analysis of minimum distances (WSSA1)**

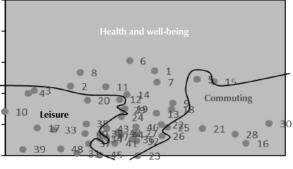
In order to find the conceptual structure underlying the assessment of the different conditions associated with the dimensions proposed to explore the walkability of cities, the values assigned to the different items were processed using a Smallest Space Analysis (Borg and Groenen, 2005), through the Hudap® program (Amar, 2001). The WSSA1 -Smallest Space Analysis correlates the items by calculating Pearson's index1. The spatial distances between the items, which reflect the degree of correlation between them, served as a basis for creating regions or groupings in the respective planes for each of the

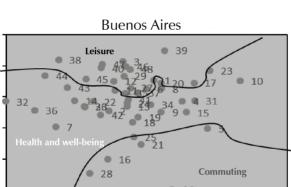
three dimensions proposed. This type of analysis is the one used in the facet theory to study various social phenomena (Hackett, 2016) and has also served as the basis for the work of Páramo and Burbano published by this same journal (2019).

1 The results of Pearson's correlation are shown within a plan that allows us to observe the items as geometric points, so that the more similar in terms of correlation between them, the closer they are spatially. To carry out this analysis, independent matrices were created for the importance and satisfaction scales of the questionnaire.

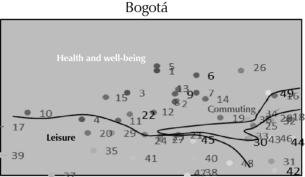
Figure 1. Participants' purposes when walking. Note. Adapted from La caminabilidad en Bogotá: Propósitos y condiciones socio-espaciales que facilitan y limitan esa experiencia. Source: Páramo and Burbano (2019, p. 18), Revista de Arquitectura (Bogotá), 21(2). CC BY-NC.

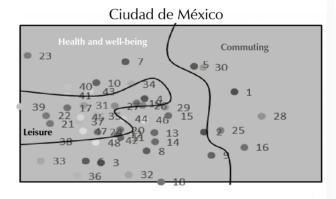


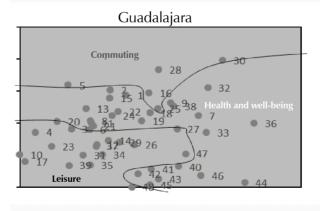


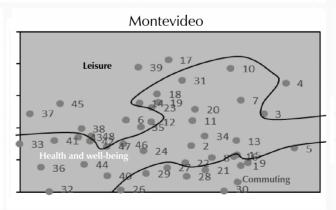


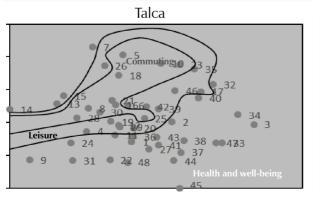


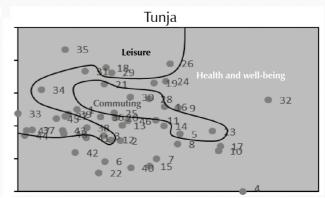












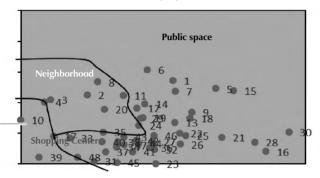
Thus, for the "Purposes" dimension, the items were grouped into three regions, based on their spatial proximity, which, in turn, represents the degree of correlation between them. The regions created on the basis of spatial proximity and item content resulted in three areas: 1) health and well-being, 2) leisure, and 3) Commuting, as shown in Figure 1.

For the dimension "Place where one walks", the items were grouped into three areas, following the same criterion of spatial proximity and the content of these: 1) shopping center, 2) natural and built public spaces and 3) neighborhood, as shown in Figure 2, although this was not the case for cities such as Montevideo (Uruguay) and

Tunja (Colombia), as it is noted that the items referring to public spaces are merged with those of the neighborhood, which allows assuming that the characterization of the neighborhood is not clearly represented in the inhabitants of these cities (note the sections of the figure corresponding to these two cities).

Finally, the dimension "Spatial and social conditions" also gave rise to three areas, which were evident in all cities and refer to: 1) physical conditions, 2) walking facilitators, and 3) social conditions and those that were considered intangible. Within the latter are grouped the items that value the cleanliness of the place, climate, lighting, neighborhood aesthetics, the possibility of social

Arequipa



Bogotá

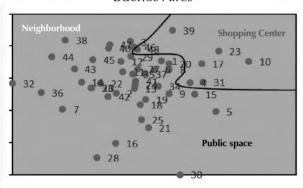
Shopping Center

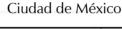
Neighborhood

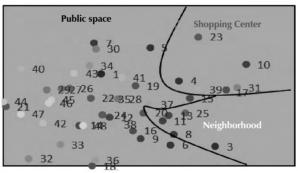
Neigh

➡ Figure 2. Place where participants walk Note. Adapted from La caminabilidad en Bogotá: Propósitos y condiciones socio-espaciales que facilitan y limitan esa experiencia. Source: Páramo and Burbano (2019, p.18), Revista de Arquitectura (Bogotá), 21(2). CC BY-NC.

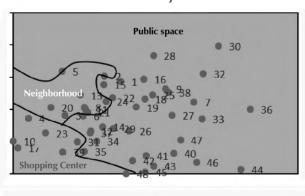
**Buenos Aires** 



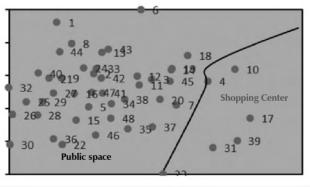




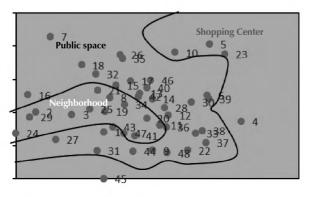
#### Guadalajara



### Montevideo



#### Talca



### Tunja





encounters, and the continuity of sidewalks and inhibitors such as vehicular congestion, air quality, rain, street noise and undue occupation of public space, as shown in Figure 3.

### On the safety of women walking

The analysis of question 49 revealed marked differences between various cities concerning the evaluation made by the women participants in the study about the walkability of the city regarding their condition as women. The most notable

differences were observed between Guadalajara (Mexico) and Tunja (Colombia), where the former appeared to be very difficult for walking alone without being harassed, and the latter as more walkable. But, in general, the participants in all the cities analyzed consider that the cities are ranked between very little walkable and moderately walkable, without feeling harassed when walking through their streets, taking into account that the scale ranged from 1 to 7 degrees, as shown in Figure 4.

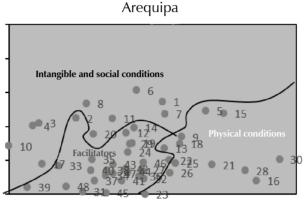
© Figure 3. Assessment of the social and spatial conditions where people walk.

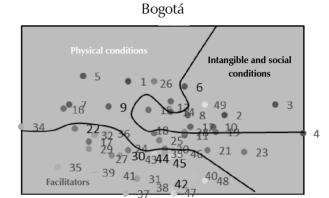
Note. Adapted from La caminabilidad en Bogotá:

Propósitos y condiciones socio-espaciales que facilitan y limitan esa experiencia

Source: Páramo and Burbano (2019, p.18), Revista de Arquitectura (Bogotá), 21(2).

CC BY-NC.





Buenos Aires

Facilitators

38

44

45

43

11

12

13

14

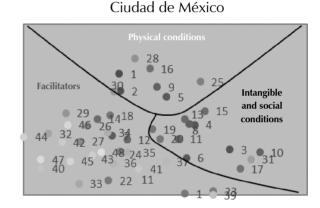
15

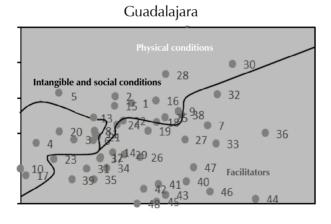
15

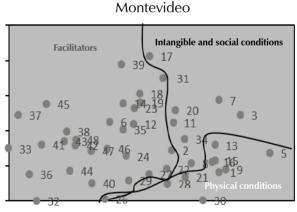
16

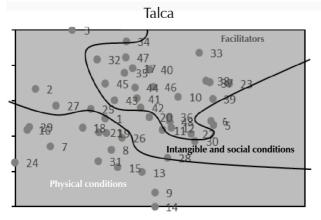
Physical conditions

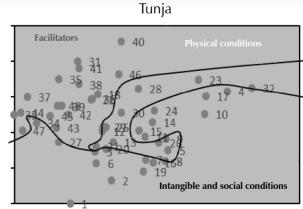
28











### **Overall walkability analysis**

When comparing the evaluation of general walkability (item 50), Figure 5 was elaborated based on the averages obtained from the rating of the general livability of the cities in ascending order. It is observed that Arequipa is the city evaluated with the lowest average, and Talca, with the highest one, although with small differences between them, which indicates that the cities, in general, are evaluated as moderately walkable, taking into account that the scale ranged from 1 to 7.

#### **Interview results**

The next section is a synthesis of the interviews, which were aimed at an in-depth exploration of the following aspects: purposes for walking, places and socio-spatial conditions, experience and corporality, and finally, walking as a phenomenological experience.

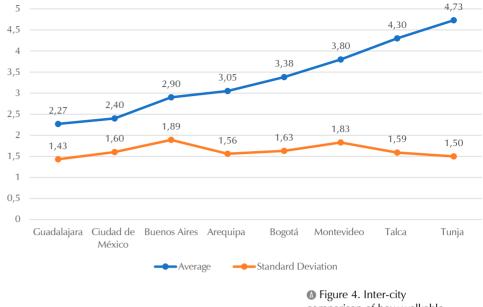
In terms of *Purposes for walking*, these can be differentiated between those that have to do with instrumental motives -such as going to work, school or shopping- and those that can be defined as playful or recreational -such as distraction, strolling or socializing, and for health reasons-. These goals, although established as predominant, can also be interrelated, as is the case of walking to work with headphones to listen to music or, in the daily dynamics, making small detours to shopping malls or to see friends.

Walking can also be classified according to its temporality: on weekdays, for commuting to work, shopping or school, and on weekends, for walking. The same principle operates when dividing the day into segments: the morning, with its obligatory transfers, and the afternoon or evening, in which individual decisions and preferences are the ones that move people. Also mentioned as a purpose for walking is the fact of going out to walk the pets, or to walk around the city with the express intention of taking photographs, which, in turn, reveals that there is a type of interstitial activity that generates trips, mainly local (as in the case of the pets), and others on a metropolitan scale, such as the visual drift of the landscape elements of heritage character that are part of the built environment and attract the gaze of the passerby.

It is clear that walking is structured by the everyday; that is, by the routines carried out in the city as part of daily life. Going to school or work, going shopping and visiting friends or relatives require a trip that is not random: it has times and places that are part of the rhythms and locations of these activities; hence the purposes of walking are in no way alien to the social form of the urban.

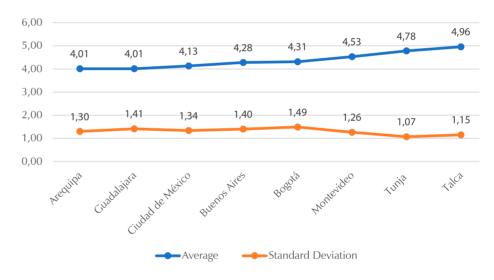
Regarding *Places and socio-spatial conditions*, the idea of route prevails over places.

How walkable is your city to walk around alone without being harassed?



• Figure 4. Inter-city comparison of how walkable the city is for women without feeling harassed. Source: author's own elaboration (2020). CC BY-N

### How walkable is your city?



This implies that, when it comes to walking, the course to follow is generally more important than the reference to the place or places to be reached. Transit, at the same time, is not absolutely free, but adheres to a regularly traveled path, where previous experience and knowledge are important in the walker's choice, since they provide security and recognition of the various places along the route.

Despite the above, for some people, walking the same route every day is not synonymous with safety, but rather with monotony, so much so that they prefer to change the path they walk. There is, therefore, no single way of moving around the city: the heterogeneity of movement strategies is part of urban walking.

It is worth noting that, for many respondents, having company when going for a walk is part of the route itself; some journeys are carried out

33

• Figure 5. General assessment of the walkability of cities.
Source: author's own elaboration (2020). CC BY-N



with certain people, not with others. This recalls what Lee and Ingold (2006) raised about sociability and the path of walking. While it is true that journeys are counted as transit through different routes, it is also true that it is the central urban areas that concentrate the preferences when indicating the places travelled.

In Arequipa, the central *Plaza de Armas* was mentioned. In Guadalajara, different areas were mentioned, central or peripheral, but easily recognizable, such as *Zapopan, Tlaquepaque* and the very center of the city. In Montevideo, *Las Ramblas*, an extensive avenue bordering the *Río de la Plata*, was mentioned. In Bogotá, the central *Carrera Séptima* is a reference point, as is the intense and youthful *Plaza del Chorro de Quevedo*.

When interviewees talk about the places where they walk -whether parks, squares or streets-, in many cases they allude to urban land-marks located in central areas, or which have a high historical and heritage value. This is interesting because it shows that walking takes on a special character of activity when it happens in areas that are part of the dominant image of the city. In some cases, the areas where walking occurs are related to historical, natural or cultural heritage values. An element at play in the choice of the area where walking takes place is, then, the type of experience to which one seeks access, without forgetting, of course, that surprise is always there.

Another element, which in many cases is crucial and defines the route to follow, is safety. For most women, the choice of route is oriented to avoid situations of street harassment, robbery and violence. This acute perception becomes an obstacle to pedestrian mobility, in terms of seeking safer means of transportation, as well as the experience of being on the street itself, given that, in a situation of perceived vulnerability, people focus on taking care of themselves and are not attentive to other environmental stimuli.

When talking about daily commuting, something that is regularly pointed out is the inconvenience caused by material obstacles on the streets and sidewalks, which could be parked cars, telephone poles, garbage or merchandise on the public road. Also conspiring against the fluid movement of pedestrians is the lack of road safety education on the part of car drivers, which means that crossing the street is done under risky conditions, and this forces pedestrians to move not by the preferred route, but by the one that is free between objects, or else, in conditions of haste and vigilance to the movement of cars.

These difficulties are even greater when people have to move around in wheelchairs or using crutches. Mobility-related saturation is men-

tioned in connection with crowded public transport; hence the preference, when possible, to walk rather than travel by other means. All the indicators that refer to an atmosphere of saturation reveal, in their own way, dissatisfaction with the conditions under which urban mobility is carried out. Pedestrians find travel difficult, while transport users seek to avoid using it whenever possible.

On Experience and corporality, the sensitive city evoked by the interviewees is composed of a very wide range of references. They report the smell of freshly baked bread, of seeing and smelling flowers and trees, of finding pleasure in the scent of wet grass and feeling and recognizing the texture of the ground they walk on. The smells emanating from pipes and factories are repellent. When walking, one recognizes neighborhoods by their smell and sounds. There are also those who listen to the tranquility of the night while walking, and others enjoy the sound of the footsteps of those who walk at dawn, or touch the texture of the walls of the houses as they move. The rain falls on the skin and produces, fleetingly, another sensibility in the city.

The differences between people in the streets are observed from their clothing and the care they take in their appearance. Walking produces a state of mind: slowness produces relaxation, and haste is fast and tense. Moreover, the feeling of hurry makes one walk, not on space, but on the surface of time, with the awareness that one must move as fast as possible. In dark places, one's five senses are sharpened, one is alert to insecurity. The conversation of other pedestrians is an object of listening, looking at oneself in windows and shop windows is a fleeting pleasure.

When recreating sensory dimensions experienced while walking, the city centre is recurrently named. Walking here acquires a particular richness that is not found in other spaces. There is an appreciation of the past, of architecture, a pedagogy of the urban in the recognition of architectural transformations. The testimonies obtained point to thinking of the past almost as an object that has its own sensitive features and is capable of being found in the centre of the city. Over and above its extensive commercial and patrimonial uses, there would be, then, the search for a past that can be sensorially recovered by walking through its streets and squares. The emphasis on diverse and endless sensory experiences shows the city as a spectacle to be accessed by walking.

Neither the unpleasant nor the unexpected is exempt from such a spectacle, although it is worth noting that when asked about what is most striking when walking and what sensory aspect is particularly remembered, it is the pleasurable elements that appear with intensity. Walking, from this point of view, has to do with the art of

appreciating the small things and uniting them in the distance through the steps. The sensory perception of the one who walks through the streets and neighborhoods of the city has the characteristic of translating the city to a human scale, where what happens around can be appreciated with amplitude.

Undoubtedly, the sensory appropriation of the city occurs when walking. Streets and neighbourhoods are recognized by smells and sounds, by what one looks at. All this points to an urban sensory order, in which different sensory features are located in particular areas of the city; thus, there will be areas that are greener than others, noisier and quieter, with more or less garbage odour. The location of these sensitive features is combined with elements that are part of the city's socioeconomic differentiation, thus generating these maps, initially sensitive, which can become sensitive and affective cartographies, where sensitive valuations refer to affective states and vice versa.

In *Phenomenological Experience*, the interest of the approach to the phenomenological experience lies in addressing what goes through the minds of those who walk through the city in their daily movements; that is, what they reflect on, what kind of thought is produced by the combination of movement, corporality and personal present. It should be noted that the methodological nuances of the phenomenological approach are multiple, and we only point out that we start from the evocations and discourse of the interviewees concerning walking in the city.

In this regard, the contrast between the past and the present (changes in the morphology of the city, in people, in customs, and even in the pedestrian himself) is something that is reflected upon when walking. In this sense, being a pedestrian is an exercise in the practice of the self, an activity that brings forth and shapes biographical reference points. Family is a theme present in the reflections: someone wonders if the family has arrived home safely, and another person recalls that he used to walk recurrently with his father.

Nostalgia is also a resource to relate to the transformations; hence it is said that before everything was calmer, and there were no situations like there are now (regarding insecurity). Thus, the accounts of walking also show that walking through the city can give rise to reflection and encounter with oneself. Moving through the city in solitude makes it possible to address personal situations, to know oneself as an interpreter of situations and features in the city. Some participants imagine stories based on what they observe and what they fantasize about during their walks. Also, some reflect on images with their cameras as a way of appropriating the places in the city.

### **Discussion and Conclusions**

The study concludes that walking has important implications for people's lives and, in general, for the quality of urban life, as it contributes to improving their health conditions, facilitating their mobility and appropriating the city. In addition, walking in urban public spaces contributes to cultural, social, recreational and consumption encounters, thus making a significant contribution to the quality of urban life and the economy of cities. From the phenomenological point of view, it contributes to the memory and affectivity of the individual, to learning from the landscape and to democratically shaping the city.

In response to the research question, three main purposes for which people walk were identified: 1) to move to or from their place of study or work to their home and to carry out errands such as paying for services, attending their children's school, shopping, bank transactions, etc.; 2) to improve their health conditions and prevent illnesses; 3) for recreation and leisure. The participants also differentiate the act of walking based on three scenarios: 1) the shopping mall, 2) built or natural public spaces, and 3) the neighbourhood, although with certain exceptions for some cities. They identify three social and spatial conditions that facilitate or inhibit walking: 1) the providers of space, 2) situations that are identified as intangible, and 3) social conditions.

It should be noted that the items with the highest averages are those relating to the city being walkable in shopping malls - most likely due to the sense of security it represents -; to meet with friends and to walk the dog, which plays, in this sense, an important role in people's health by engaging them in walking, in addition to acting as a provider of social encounters. The items rated less favorably are those referring to safety, the harassment experienced by women and the possibility of finding a policeman; but, equally, with the insufficiency of urban furniture such as public toilets and the existence of water dispensers. It also stands out in the data that the standard deviation of the items concerning their means is low among the cities, which indicates that there is a fair degree of agreement in the evaluation of walking in all the cities of the region.

The study contributes to architecture and urban planning in general by identifying the different motivations for walking in different scenarios and the spatial and social conditions that hinder or contribute to the walkability of cities, thus providing guidelines for designers and urban managers to achieve this objective by providing cities with more and better infrastructure. For example, by introducing a greater number of walkable kilometres; aesthetic elements, such as works of art and landscaping; providing public



spaces with urban furniture, such as benches, public restrooms, lighting, demarcation and signs for safe crossing of avenues for pedestrians, etc.

A fundamental aspect that could encourage walking, with the planning perspective derived from this study, is the recovery of the neighborhood as an urban spatial unit, delimiting it spatially and connecting its facilities through pedestrian walkways, or creating blocks or blocks closed to vehicles, as is being done in Barcelona and New York.

But physical infrastructure is not enough: it is essential that governmental institutions guarantee the safety of public spaces and that citizens perceive them this way. Educational institutions and those in charge of promoting health and sports must encourage walking through the design of public policies, for which it is essential to create programs that foster walking to school or work. Therefore, it will also be necessary for governmental institutions to define indicators to monitor them.

Given the new conditions of displacement and the location of growing cities, the challenge of exploring the act of walking with different methodologies is posed. The use of a questionnaire and semi-structured interviews made it possible to identify the motivations, the limitations of walking and the places where people walk, based on the assessments of the participants. However, for the information obtained to be more valid and reliable in terms of its generalization, it would be necessary, first, to replicate the study and, if possible, to take more representative and stratified samples based on communes or localities, gender, age groups and rural and urban areas, among other variables to be taken into account. Secondly, it is essential to complement this information with objective indicators, for example, the Geographic Information System and others that should be created. It can be assumed that the greater the geographic, territorial and climate diversity, and the greater the number of features such as green areas in a city, the greater the diversity and forms of walking, issues that should be investigated in greater detail in future research.

### **Contributions and acknowledgments**

The study had the collaboration of Felipe Coronado, Alexandra Prado and Camilo Moreno in the systematization of the field information, who were part of the work team of the institutional project Walking as a Learning Experience in the City, of the *Universidad Pedagógica Nacional*, Bogotá, Colombia. We would also like to thank Yareli Lisbeth Palacios Gómez for her support in systematizing the information from the indepth interviews in the eight cities. Our thanks are also extended to the research group *Espacios Públicos*-UNSA (Arequipa, Peru): Erika Guerra

Santander, Smilzinia Huerta Tapia and Katherine Ancco Encina.

The authors' contribution consisted of collecting and analyzing data from each of the cities participating in the study, as presented below:

- Bogotá: Pablo Páramo and Andrea Burbano, authors who, in turn, coordinated the research and writing of the article.
- Tunja: Guillermo Rosas.
- Arequipa: Edgar García Anco and Edward Silvestre Pari Portillo.
- Guadalajara: Bernardo Jiménez-Domínguez and Rosa Margarita López Aguilar.
- Mexico City: Miguel Ángel Aguilar. His contribution was also oriented to the analysis of the data from the interviews in all the cities.
- Talca: Emilio Moyano Díaz.
- Montevideo: Eduardo Viera.
- Buenos Aires: Ángel Manuel Elgier.

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