

The Status of Walking in Policy and Planning

Views from different professions



The Status of Walking in Policy and Planning

Authors:

Thomas Højemo

Beatriz Fedrizzi

Corresponding author: Thomas Højemo, thomas@snt.se

Reviewed by:

© Mistra Urban Futures, 2017

www.mistraurbanfutures.org

Mistra Urban Futures is an international Centre for sustainable urban development. We believe that the coproduction of knowledge is a winning concept for achieving sustainable urban futures and creating accessible, green and fair cities. The Centre is hosted by Chalmers University of Technology and has five platforms in Cape Town, Kisumu, Gothenburg, Skåne and Sheffield-Manchester as well as a node in Stockholm.

Mistra Urban Futures is financed by the research foundation Mistra and Sida, together with a consortium comprising: Chalmers University of Technology, the University of Gothenburg, the City of Gothenburg, the Gothenburg Region Association of Local Authorities (GR), IVL Swedish Environmental Research Institute, the County Administrative Board of Västra Götaland, and the Region of Västra Götaland, along with funders on the various regional platforms.

Cover photo:

Andreas Andersson (<https://www.flickr.com/photos/andreas365daysphoto/>)

Attribution-NonCommercial-NoDerivs 2.0 Generic (CC BY-NC-ND 2.0)

THE STATUS OF WALKING IN POLICY AND PLANNING: VIEWS FROM DIFFERENT PROFESSIONS

Thomas Højemo¹ Dr. Beatriz Fedrizzi²

Abstract

The topic of this study was the conceptualisation of walking and walkability in relation to urban and transport policy and politics. Four in-depth interviews with professionals from different academic and work fields in Göteborg, Sweden, were made during the summer of 2016. During the synthesis and categorisation of the interview data three main aspects were found regarding walking in relation to policy and planning. The first aspect was the status of walking in relation to other transport modes. The second aspect was the limitations of the conceptual view on walking. The third aspect was regarding that professionals need to wide their knowledge horizon and work in a more trans-disciplinary way. These results were then discussed in juxtaposition with referenced research findings. Finally, a conclusion was made: a more nuanced and complex view is needed on walking within urban and transport policy and planning in order to be able to successfully create walkable urban environments.

Keywords

Walkability, walk, pedestrian, policy, planning

¹ PhD student, Programa de Pós-Graduação em Arquitetura, Federal University of Rio Grande do Sul – Brazil. Corresponding author. E-mail: thomas@snt.se

² Professor and PhD, Programa de Pós-Graduação em Arquitetura, Federal University of Rio Grande do Sul – Brazil. E-mail: beatrizfedrizzi@gmail.com

PREAMBLE

The future roles of station communities are crucial for urban and regional development. A development of station communities may promote enable a transport-efficient urban planning, a sustainable economic development and an attractive region. Densifying station neighbourhoods is a common challenge for many actors and stakeholders.

Since 2012, Mistra Urban Futures has been in the ‘Urban Station Communities’ project. The project has contributed to an increased knowledge about the complexity in planning station near locations and create conditions for development of station communities.

The walkability of urban environments, not least in the vicinity of public transport nodes such as commuter railway stations, is another field where public planning, policies, strategies and decisions may benefit from further development of knowledge and information. This report by Thomas Højemo and Dr. Beatriz Fedrizzi points at the need for a more complex view on both usage and planning for walking and walkable environments. It provides new insights to the overall importance of the ‘Urban Station Communities’ field of research.

Mistra Urban Futures is an international knowledge and research centre for sustainable urban development. It was established in 2010 to promote urban sustainability through trans-disciplinary research and co-production of knowledge with local and global stakeholders. Five ‘Local Interaction Platforms’ – in Gothenburg, Malmö, Sheffield/Greater Manchester, Kisumu and Cape Town – are based in cities with active networks of stakeholders which participate in the co-creation processes. A collaborative and comparative approach characterises the profile of the Centre.

Mistra Urban Futures is funded by Mistra, the Swedish Foundation for Strategic Environmental Research; Sida, the Swedish International Development Cooperation Agency, and a Consortium of local, regional and national partners, including Chalmers University of Technology, University of Gothenburg, City of Gothenburg, Region Västra Götaland, the County Administrative Board of Västra Götaland, The Göteborg Region Association of Local Authorities (GR) and IVL Swedish Environmental Research Institute.

The reports published by Mistra Urban Futures are intended for academics as well as practitioners within local governments and public agencies and authorities.

INTRODUCTION

Benefits of walking

Within the urban transport field planning for the car has been the normative perspective since the last century, but from the 1960's and onwards a movement to place value on travel by foot has emerged. Jacobs is an early advocate of pedestrian-friendly urban planning (Jacobs, 1961). She stresses that dense, mixed-use areas with short blocks can form vibrant neighbourhoods pleasant to walk in. Gehl stresses the social dimension of urban planning and design in order to create walkable cities (Gehl, 2008) (Gehl & Gemzøe, 2004). Appleyard studies walkability from an adjacent perspective: the social use of streetscapes. In "Livable Streets" he compares three different streets with high, medium and low car traffic volumes (Appleyard, 1981), finding that residents of a street with little car traffic has three times more friends on their own street, compared to those on a street with much traffic.

There is clear evidence that walking is beneficial for health. Walking 30-60 minutes a day lowers rates of chronic diseases such as obesity and cardiovascular disease (Lee & Buchner, 2008). Active travel (walking or cycling) has a statistically significant negative relationship with self-reported obesity according to a meta-review encompassing studies from 14 countries. (Pucher, Buehler, Bassett, & Dannenberg, 2010) . The health benefits of walking and cycling are significant contributors to why urban projects for these two transport modes has a very high benefit-cost ratio; 5:1 according to a meta-review on 16 predominately European studies (Cavill, Kahlmeier, Rutter, Racioppi, & Oja, 2008).

Conceptualisation of walkability

After a brief contextualisation we now turn to the meaning and definition of walkability. Different disciplines interpret walkability in their way. Within the transport research field the physical properties are emphasised, such as physical accessibility, traffic security and maintenance. Within urban design comfort, perception, pleasantness, delight and sense of belonging are keywords. From a planning perspective other terms stand out: density, connectivity, mixed use and system coherence. Walkability is not only related to physical aspects (e.g. sidewalk quality and width) but also to the sensory field (e.g. pleasantness), the

inter-organisation of places within the city (e.g. services accessible nearby) and consequences of the degree of walking (health, social connections). (Fitzsimons D'Arcy, 2013)

Although walkability is a complex concept, the core meaning is to which degree it is easy to walk in a neighbourhood. It can be defined as “*the extent to which the built environment is walking friendly*” (Abbey, 2005).

Walking is normally divided in a rather coarse manner into two categories within walkability research. Firstly, *transport-related walking* signifies walking with a certain errand in mind, for example to the grocery store or to a bus stop (Saelens, Sallis, & Frank, 2003). This research strain is predominant and often views walking as a part of a travel chain also including other modes, such as public transport. Within this context, mixed uses and attractive urban design in city centres and near public transport nodes are key issues in urban planning (Ranhagen, Troglio, & Ekelund, 2015). Secondly, *leisure walking* – e.g. walking for exercise or in a park – is the less explored research category (Saelens et al., 2003). Here, the research perspective is somewhat different: walking is viewed more independently, taking into account the varying types/purposes walking bouts can have, besides getting from A to B. Walking bouts can also be categorised in a more nuanced way depending on their type/purpose, such as wandering, browsing shops, walking to the bus stop or exercising. There was a greater diversity of walking types/purposes in neighbourhoods with a more diverse mix of uses in the built environment according to a study from Stockholm, Sweden (Choi & Sardari Sayyar, 2012). The factors of density, land-use mix and connectivity significantly influence quantity, diversity in types/purposes and the qualitative experience of walking (Choi, 2012). Positive factors on an urban design level such as liveliness, surveillance, sense of security and sociability also contribute to the perceived quality of walking (ibid).

Walking in a political and planning perspective

In order to plan for more walkable places a nuanced and holistic understanding of walking is needed. Besides the individual perspective of mode choice, we must also understand the political and planning perspective. Planning and policies for walking are not put together in a vacuum, but in a context where car-based planning has been the norm for a long time. This can frame walking and walkability as a peripheral side note to a main perspective of motor-based transport. Planning paradigms and thought structures are only changing slowly – even if official

policies change to a more walking-friendly stance, old ways of thinking regarding walking in relation to other transport modes do not disappear overnight (Patton, 2007).

Objectives, aims and delimitations

The objective of this article is to through analysing interviews with professionals in different fields better understand walking and its context, connotations and connections in relation to urban and transport policy and planning. The aim is to gain a more rich contextual understanding of walking, walkability and walking environments from different perspectives. The delimitation is walking in relation to urban and transport planning, policy and politics. Walking is in this article seen as a transport mode in its own right. This definition includes both walking bouts as complete journeys and walking as part of a travel chain together with other transport modes.

Outline

The status of walking in relation to other transport modes is a salient motif in the interviews, which is addressed via three aspects in the result sections. Firstly, the status of walking in relation to other transport modes is examined. Secondly, the simplistic conceptual view on walking is discussed. Thirdly, the need for professionals to wide their knowledge horizon and work trans-disciplinary is considered. These results are then discussed in juxtaposition with referenced research. The article ends with conclusions regarding how a more complex and nuanced view on walking environments is needed.

Relevance

The justification for this article is that a more clear understanding of the politics of urban planning for walkability can lead to a more solid foundation for research on how to create walkable urban environments. This could in its turn have a potential to improve the well-being of urban dwellers through facilitating more movement on foot.

METHODS

Interviews with four professionals from different academic and work backgrounds in Göteborg, Sweden made between July and August 2016 form the empirical basis for this article. The four interviewees had academic backgrounds within the fields of behavioural science, political science, education and public health (in random order). Their work positions (in unrelated random order) were researcher, public health officer, regional planner and traffic planner. The interviews were predominantly made in the workplaces of the interviewed professionals (with the exception of one interview conducted in a public café setting).

A semi-structured interview guide was used for the interviews, which were conducted anonymously. They were recorded, and had lengths of between approx. 60 and 90 min. The interview research handbook by (Kvale & Brinkmann, 2014) was used as a valuable guide in the full process of conducting, transcribing and analysing the interviews. The interviews were transcribed in full, in intelligent verbatim style. Relevant sections were then resummed into paragraphs. The criteria for relevance was that the transcript part had at minimum a loose connection to the research theme (i.e. walking, walkability, transport, place, environment, policy and/or politics were addressed or referred to). The summaries were themselves resummed into headlines and an inductive approach was used to identify themes from the headlines. Six themes became apparent during the synthesis:

A. Walking has a lower status than the other transport modes

B. How are decisions made regarding walking environments

C. There are several types of walking, with distinct demands on the walking environment

D. What is needed to prioritise walking and walking-friendly urban environments

E. The benefits of walking

F. Important factors for choice to walk or not to walk

As the material was broad and encompassed several distinct themes a decision was made to distribute the content into several articles, each having a coherent theme. For this, first, article it was decided to include the interviewees' perspectives of urban and transport planning policy and politics. The interview statements made within the two themes of A. and B. were therefore selected as basis for this article.

RESULTS

Three out of four interviews discussed how walking has a limited status in planning

Views on how walking and walkable environments are de-prioritised in urban planning and politics were spontaneously put forward by three out of four interviewees. The first salient aspect was that walking has a lower status than other means of transport. A second aspect was that walking conceptually is viewed in a simplistic manner in planning. In the third and last aspect the respondents' argued for the need for a more broad understanding in urban and transport planning, including trans-disciplinary collaborative work uniting "hard" and "soft" planning disciplines.

Walking is subordinated to other transport modes in planning and politics

The subordinate status of walking is reflected in transport planning according to the third interviewee, who stated that walking does not have any value in socio-economic calculations. S/he also exemplified on how the transport system de-prioritises walking: unevenness in road infrastructure is repaired swiftly, while unevenness in the pedestrian infrastructure (e.g. pavements) take much longer time before being amended. The fourth interviewee expressed a similar viewpoint, stating that:

*"... one obstacle is that we have a car-oriented society in general. "*³

S/he continued saying that traffic on foot is not prioritised; for example the snow is taken away from the car roads long before from foot paths.

The third interviewee questioned how decision-makers – politicians and higher officials – look upon their role and what they are doing concretely. S/he said that it is hard to find those who state that they do not want a walkable society, but questions if their actions really correspond with their words.

³ Quote from one of the interviewees (translated from Swedish to English by main author)

Conceptually, walking is looked upon in a simplistic manner

The lower status of walking in comparison to other transport modes was a salient theme put forward by the first interviewee. S/he stated that walking somehow is not perceived as a transport mode among others, it just exists there as something obvious.

“In a way, walking does not become a transport mode. It just is.”⁴

One stated reason for this was that walking does not have an artefact attached to it, in contrast to the other transport modes (biking has the bicycle as attached artefact and motor transport the car). The same respondent also stated that we do not think about walking as a transport or mobility type in the same way as we do with other modes of mobility. According to him/her, plans for other types of transport are nuanced, and cater for differential demands within the same mode. For example, the same respondent stated that for bicycle transport there is a main cycle network, and also a fine mesh of smaller bike paths. However, s/he said that walking is something that we just simply do. Put in other words, walking is taken for granted without much reflection. According to the same interviewee, there exist many different kinds of walking – everything from a quick straight walk in order to get from A to B to a pleasurable, stroll at a leisurely pace to enjoy the surroundings. However, for planning purposes all types of walking tend to be clumped together.

“Biking is mentioned more than walking. Perhaps it is connected to that you need some sort of additional thing to ride a bike and transport yourself. When you walk, you really don't need anything extra.”⁵

The first interviewee put forward a striking argument regarding how walking is treated in a simplified manner in urban and transport planning. S/he discussed how several types of walking exist – for example getting from A to B and to stroll around along the street, browsing shops and cafés. However, according to the respondent, in a planning context walking is not talked about much at all, and if it is brought up it is in a simplified manner, not considering walking for transport but only walking in a leisure stroll context. The same interviewee also stated that

⁴ Quote from one of the interviewees (translated from Swedish to English by main author)

⁵ Quote from one of the interviewees (translated from Swedish to English by main author)

walking often is clamped together with bicycle planning, and that in this “cycling-walking” combination, walking is subordinate to cycling rather than on an equal stance. The same respondent discusses how old views regarding walking need to be questioned. A stated example within the realm of planning for commercial premises is the view that car-drivers are the only persons shopping to a substantial extent.

Professionals need to have a broad understanding and work trans-disciplinary

Professionals within the transport sector traditionally have had a technical perspective focused on planning for cars, according to the initial statement made of the third interviewee. Traditionally within the transport planning field, people on foot were seen as obstacles to motor traffic. S/he quoted a saying illustrating the point:

“About motorism we know everything, about the walkers we know that they are killed in traffic.”⁶

S/he continued in a later part of the interview stating that planning often is made part by part, in parallel. Back in time, professionals in municipalities working with urban structure did not even meet those working with transport provisioning. S/he stated that it is not always the bridging knowledge that is needed exists in practice. Someone plans a new detached house area, but does not consider the problem for the children to cross a transport route with heavy vehicles to get to the school.

“...because the process is setup that way. You don't always meet, instead there are parallel processes. This part is made by this craft, and that part by that craft.”⁷

The first interviewee discussed regarding how people with different professions, such as infrastructure planners, development engineers or architects, often think in different ways and work in parallel, segregated, rather than together. S/he continued saying that of this reason the original vision of a plan can be lost in the final version. A transport engineer working to solve

⁶ Quote from one of the interviewees (translated from Swedish to English by main author)

⁷ Quote from one of the interviewees (translated from Swedish to English by main author)

the bus transport situation may not consider the people on foot crossing the bus access way – this becomes a question beyond the horizon of the engineer in question.

The fourth interviewee stressed the need not only for “hard” planners such as engineers and urban planners but also for “soft” planners when planning new neighbourhoods. The latter could contribute with trans-disciplinary and public health knowledge. According to the first interviewee, walkable urban environments are presented as visions in early stages of urban development connected with the creation of democratic meeting places. In later stages however, “hard” interests for road-based infrastructure take precedence, moving the “soft” walking infrastructure to the sideline. The same respondent later also said that visions about a walkable city can be picturesque, but they often fade away when reaching the development stage, as different interests and trade-offs enter the scene.

The third interviewee told that young, well-educated urban and transport planners often have much knowledge about walkable environments. Nevertheless, their knowledge is not manifested in the agendas of decision-makers; other questions are more pertinent. S/he continued saying that our different professions, educations and interests make us see the world with different eyes.

DISCUSSION

According to the interviewees, walking has a lower status compared to other transport modes. The example of one interviewee illustrated how walking is conceptually perceived on a lower complexity level compared to other transport modes. (Lindelöw, 2016) put these questions forward as he analyses the conceptual construction of walking as a transport mode within the urban transport planning sector. He argues that walking is not always treated as a transport mode, and even when that is the case walking is seen from another, more limited, perspective compared to that of the other transport modes. Lindelöw also observes that walking within the transport field sometimes is clumped together with biking in the category of “active transport” or alternatively the walker is reduced to a “vulnerable road user” (i.e. the pedestrian is defined as a passive object in relation to the active subject of the motorist or car).

The view of the interviewees and Lindelöw’s view are very similar, and point towards key observations. When walking is reduced to a peripheral position in transport urban planning, it means that the main effort of thought is put elsewhere, to something seen as a more complex and important problem. If this holds true, the result would be urban environments with less consideration to pedestrians. Put in other words, we risk create less walkable environments when the complex walking needs are simplified, reduced and put aside in the thought processes of planners and politicians.

(Tolley, 2001) makes an analysis of UK transport policy developments that substantiate the respondents’ view on how walkable environments are de-prioritised in urban planning and politics. Through discussing extracts from an UK parliament session where the transport minister tones down the importance of walking and the very scant number of staff employed to deal with walking he proves his point. In an analysis from Perth, Australia conclusions are made: that, although walkable islands exist, city planning still is driven by car-centric principles with priority for high-speed transport (Curtis, 2005). Together these sources collaborate that walking is still not on par with other transport modes in urban policy.

Statements in the interviews indicated how the mindset or world-view of the transportation planners traditionally has been geared towards car-based mobility. (Patton, 2007) discusses how different rationales compete with each other in the transport sector, and how the street can be

perceived in different ways depending on rationale. For the historically pre-dominant car-based rationale the street is primarily a *space*, a conduit for traffic flow, but from a pedestrian point of view the street is fundamentally a *place*, connected with human senses. (Hess, 2009) unfolds a similar argument, where rationales compete, viewing streets either in conjunction with *flow* or with *place*. Hess analyses policy development in Toronto, Canada and argues that although changes are under foot on a policy level, they have not yet permeated the existing institutional framework and logic. A symptom of this discrepancy is that conventional policy tools built on a functionalist planning paradigm logic such as road classification systems and zoning are still used without any substantial changes. The two references show how the mindset of planning still is centred around the logic of car transport.

Both the interviews and the referred studies point to a need to focus more on the conceptual or paradigm level. We need to move up on the conceptual ladder and not being complacent with looking upon urban environments through the glasses of the pre-dominant planning paradigm. Instead this paradigm (or discursive practice in Foucault's terminology) itself needs to be critically examined. If we shove in walkability issues into a planning paradigm still very much based on *flow* issues pertaining to car traffic rather than *place* issues of key relevance for walking, walkability issues continue to be of second-priority. Walkable environments would then continue to be found in glossy visions with smiling pedestrians on a sunny day with balloons in the sky, but continue to be of low priority in the nitty-gritty of actual planning and policy decisions still made within the existing discursive practice.

The argument for a more trans-disciplinary approach present in the interviews is also present in the research literature. (Northridge & Selar, 2003) argues for a joint perspective on urban planning and public health, where different disciplines work together. (King, Stokols, Talen, Brassington, & Killingsworth, 2002) outline how the theoretical perspectives of public health and urban planning can be weaved together, in order to promote physical activity through a trans-disciplinary approach. They also note a research gap on cross-disciplinary action between these fields.

To sum up, the references collaborate on the view put forward in the interviews. Walking is conceptually still viewed in a more simplified manner compared to the view on other transport modes. Although small directional changes can be detected on a policy level, the planning

paradigm is still firmly within the institutional logic of functionalist planning centred on car transport. Finally, although a cross-disciplinary approach is clearly beneficial to walkable urban planning, in practice this kind of collaborative work is rarely found.

CONCLUSIONS

The main conclusion made from this research study is that walking conceptually speaking is not seen as a transport mode on par with the other transport modes. This has important consequences for urban design and planning practice. If walking is not thought upon in a nuanced way, it means that the simplified conceptual level of thinking regarding walking can influence to what extent walking-friendly environments are conceived. This would mean that undifferentiated thinking results in simplistic solutions. In fact, walking is however a complex phenomena, related both to the walker, type of walking and the walking environment. Walking deserves more nuanced thinking so that walkable environments can be created to fulfil as many types of walking desires as possible.

ACKNOWLEDGEMENTS

We warmly thank the four anonymous interviewees for taking the time to participate in the study. We also would like to thank professor Ulf Ranhagen, professor emeritus at KTH Royal Institute of Technology in Stockholm and regional planner Jonas Åker at the Göteborg Region Association of Local Authorities (GR) for dedicating time to review this article.

This research was supported by a scholarship from the Brazilian Federal Agency for Support and Evaluation of Graduate Education (Fundação CAPES). This work is connected to the framework of the research of the project Urban Station Communities within Mistra Urban Futures. This connection made the grant for the co-supervision by Dr. Anna-Johanna Klasander possible.

REFERENCES

- Abbey, S. (2005). Walkability Scoping Paper. Retrieved 18 April 2016, from <http://www.levelofservice.com/walkability-research.pdf>
- Appleyard, D. (1981). *Livable Streets*. Berkeley: University of California Press.
- Cavill, N., Kahlmeier, S., Rutter, H., Racioppi, F., & Oja, P. (2008). Economic analyses of transport infrastructure and policies including health effects related to cycling and walking: a systematic review. *Transport Policy*, 15(5), 291–304.
- Choi, E. (2012). *Walkability as an Urban Design Problem: Understanding the activity of walking in the urban environment* (Licentiate thesis). KTH, Stockholm. Retrieved from <http://kth.diva-portal.org/smash/record.jsf?searchId=1&pid=diva2:551283>
- Choi, E., & Sardari Sayyar, S. (2012). Urban diversity and pedestrian behavior: Refining the concept of land-use mix for walkability. In *Eight International Space Syntax Symposium, Santiago de Chile, 3-6 January* (p. 8073: 1-8073: 15). PUC.
- Curtis, C. (2005). The windscreen world of land use transport integration: experiences from Perth, WA, a dispersed city. *Town Planning Review*, 76(4), 423–454.
- Fitzsimons D’Arcy, L. (2013). A multidisciplinary examination of walkability: Its concept, measurement and applicability - DORAS - DCU. Dublin City University. Retrieved from <http://doras.dcu.ie/19387/>
- Gehl, J. (2008). *Life between buildings*. Washington: Island Press.
- Gehl, J., & Gemzøe, L. (2004). *Public Spaces – Public Life*. Copenhagen: The Royal Danish Academy of Fine Arts, School of Architecture, Centre for Public Space Research.
- Hess, P. M. (2009). Avenues or arterials: the struggle to change street building practices in Toronto, Canada. *Journal of Urban Design*, 14(1), 1–28.
- Jacobs, J. (1961). *The Death and Life of Great American Cities*. New York: Random House, Inc.
- King, A. C., Stokols, D., Talen, E., Brassington, G. S., & Killingsworth, R. (2002). Theoretical approaches to the promotion of physical activity: forging a transdisciplinary paradigm. *American Journal of Preventive Medicine*, 23(2), 15–25.
- Kvale, S., & Brinkmann, S. (2014). *Den kvalitative forskningsintervjun*. Studentlitteratur.
- Lee, I.-M., & Buchner, D. M. (2008). The importance of walking to public health. *Medicine and Science in Sports and Exercise*, 40(7 Suppl), S512-8.
- Lindelöw, D. (2016). *Walking as a transport mode: Examining the role of preconditions, planning aspects and personal traits for the urban pedestrian*. Lund University.

- Northridge, M. E., & Sclar, E. (2003). A joint urban planning and public health framework: contributions to health impact assessment. *American Journal of Public Health, 93*(1), 118–121.
- Patton, J. W. (2007). A pedestrian world: competing rationalities and the calculation of transportation change. *Environment and Planning A, 39*(4), 928–944.
- Pucher, J., Buehler, R., Bassett, D. R., & Dannenberg, A. L. (2010). Walking and cycling to health: a comparative analysis of city, state, and international data. *American Journal of Public Health, 100*(10), 1986–1992.
- Ranhagen, U., Troglio, E., & Ekelund, B. (2015). *Klimatsmarta och attraktiva transportnoder*. Retrieved from http://www.mistraurbanfutures.org/sites/default/files/lagupplöst_klimatsmarta_trspnoder_ranhagen_troglio_ekelund_151118_provtryck_inkl_bilaga_ny_version.pdf
- Saelens, B. E., Sallis, J. F., & Frank, L. D. (2003). Environmental correlates of walking and cycling: findings from the transportation, urban design, and planning literatures. *Annals of Behavioral Medicine, 25*(2), 80–91.
- Tolley, R. (2001). Unfulfilled aspirations: a review of the Select Committee Report on Walking in Towns and Cities in Britain Rodney Tolley. *Editorial Board, 7*(4), 44–49.

Mistra Urban Futures strives towards Realising Just Cities which are Accessible, Green and Fair. This is achieved through transdisciplinary co-production and comparative urban research at Local Interaction Platforms in Cape Town, Gothenburg, Kisumu, Sheffield-Manchester and Skåne. It is funded by the Swedish Foundation for Strategic Environmental Research (Mistra), the Swedish International Development Cooperation Agency (Sida), and seven consortium members.

MISTRA URBAN FUTURES

Postal address: Chalmers University of Technology, SE-412 96 Göteborg, Sweden

Visiting address: Läraregatan 3, Göteborg, Sweden

