

Editor's comments:

Thank you for your submission of "Urban form and travel behavior: North European research reviewed against an international background" for consideration for presentation at the World Symposium of Transport and Land Use Research and for possible publication in the Journal of Transport and Land Use. Based on the reviews attached below, we are pleased to accept the paper for presentation at WSTLUR, please visit the <http://wstlur.org> website for registration details.

The paper, however, requires significant revision and resubmission before a decision about publication in JTLU can be reached. In order for the conference program to be assembled in a timely manner, please submit a revised draft to the JTLU website by April 15, 2011, and include a letter detailing your responses to each reviewer comment below.

Pay particular attention to the comments about the comprehensiveness of the review, developing a systematic approach to the problem, and I suggest you reconsider the title of your paper.

We look forward to seeing you at WSTLUR. Thank you for considering JTLU as an outlet for your research.

Sincerely,

David Levinson

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Reviewer A:  
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I regret to say that I found this article extremely disappointing and intrinsically unrewarding.

I expected the article to do what the title promised – but it doesn't. There is no attempt to synthesise 'North European' research and there is very little reference to Dutch or British work throughout. In practice the author focuses on his own work (primarily in relation to the Copenhagen region). In itself this is odd since, if one were trying to build more general theory – or even to cast wider light on findings from a particular setting - the evidence from European neighbours would be a much more obvious starting point – avoiding the huge differences in geographical, socio-economic, cultural and political contexts which bedevil comparisons with evidence from North America (or even the author's own work in China!)

If one were going to engage in such cross-continental comparisons then I would have thought some explicit consideration of these differences, and their implications for the transferability of findings, would have been central to the paper – but it is not. In addition any attempt to review research in this field would benefit from a clear exposition of the different specifications and methodologies adopted in the quoted studies (as attempted by Ewing and Cervero in their formidable 2010 'meta-analysis'). Again this is absent. As one example of this I was confused by the way the author appeared to move at will between research undertaken on 'urban areas' (even neighbourhoods), 'urban regions' and 'settlement patterns.' For work in

**Kommentar [XX1]:** A table has been provided in the beginning of the paper, showing, grouped by topic according to the sections of the paper, the Nordic literature reviewed in the paper: Reference, study areas, geographical scale, urban form variables investigated, main methodological approach. In the end of each of the sections presenting findings about the influences of different urban form characteristics, a similar table has been provided, but now with the main findings: Effect (and if available: standardized regression coefficient), control variables, main arguments.

**Kommentar [XX2]:** New title: Urban form and travel behavior: experience from a Nordic context. The focus is on the Nordic studies, but a comparison with studies in other parts of the world is made at the end of the paper.

**Kommentar [XX3]:** I have included references to Banister, Aditjandra, van Acker et al., Schwanen,

**Kommentar [XX4]:** I have included references to Milakis et al, Kaufmann. Schreiner, and Vance & Hedel and also to our own Oporto study

**Kommentar [XX5]:** This has now been mentioned in Table 1 in section 4 as well as in the text. Notably issues like qualitative vs. quantitative, urban form control variables, non-urban form control variables, car ownership as control variable, self-selection control?

**Kommentar [XX6]:** The hierarchical order of the various concepts has been specified to a higher extent, and the different aspects are now presented in a scale order starting with the neighborhood and ending with the wider regional context.

this field the geographical frame of reference (and what it signifies in different regional settings) is surely critical.

As I read through the article I became more perplexed that it did not appear to be fulfilling its initial objective, but that no other substantial line of argument was being developed either. (Simply to say, in the article's first sentence that it 'surveys the state of knowledge' in what is such an enormous and varied field without establishing in more detail exactly what, why and how is – I would suggest - a quite inadequate introduction and thereafter allows the author to ramble selectively through the literature without any systematising framework).

What appears to have been the real purpose of the article is only revealed in its penultimate sentence(!) - "to provide planners and urban policy-makers with information about the likely impacts of land use changes" ...etc. However this only muddies the situation further. The selection and interpretation of research evidence to inform any decision-making must have regard to the particular context in which it is being applied. That context is not made explicit here (it might have provided a structuring framework for the research review) and in any case it must be open to question whether such a specific 'research-application' exercise would be appropriate for a journal of this kind.

What are offered as conclusions in the article (the four recommended urban development policies shown as bullets on the penultimate page) are thoroughly unoriginal, are not systematically derived from the research review presented previously, and are so generalised as to be of little practical value.

Reviewer B:

This is a well-done paper. It highlights the importance of regional approach to reduce VKT and points out some potentially spurious relationships found in North America studies (such as street pattern and VKT).

A few suggestions:

In the conclusion, use a table to summarize the key messages presented in Sections 5-9. It is much easier for readers to know the take-home message from the paper. The first three paragraphs of the conclusion only summarize part of the arguments in the paper. A table will highlight the key conclusions.

In the conclusion, it is highly recommended to include a paragraph which discusses the implications of European research on North American studies the authors have implicitly and explicitly mentioned here and there. A comprehensive summary will help American scholars (especially young scholars) to enhance their research questions.

Minor comments:

Page2: Several authors have summarized main findings from individual studies of associations between urban form characteristics "and travel behavior"?

P3: The article does not directly address impacts of transport infrastructure such as road provision, public transport service level, and the availability of parking). Half of parenthesis is missing.

**Kommentar [XX7]:** The final part of the paper has been structured mainly according to the geographical scale. A few sentences about monocentric vs polycentric contexts has been added. The extent to which results from the Nordic countries are generalizable to other contexts has been addressed, both as regards transport rationales and by mentioning similar survey results from other corners of the world.

**Kommentar [XX8]:** The policy recommendation have been deleted.

**Kommentar [XX9]:** This has been done, but instead of one table there is a separate table for each urban form characteristic, corresponding to the topics of the different sections of the paper. The tables include the main influential variables (with standardized regression coefficients if available), control variables, main arguments.

**Kommentar [XX10]:** The final part of the paper has been restructured into a 'discussion' section where the conclusions of the preceding sections are discussed in a wider international perspective.

**Kommentar [XX11]:** This has been done in the part of the discussion where the neighborhood scale and street pattern are addressed..

**Kommentar [XX12]:** Yes, this was lacking and has been inserted.

**Kommentar [XX13]:** Parenthesis before 'such'

P5: Crane and Boarnet (2001, Travel by Design) used transportation economics to explain why urban form influences travel. Urban form impacts prices of travel, which in turn determine consumption of travel. You may want to cite.

**Kommentar [XX14]:** This has been inserted in the first paragraph of section 2.

P5: For example, the shorter distances between functions facilitated by dense cities or inner-city residential locations could be utilized by opting for a wider range of workplaces, shops and residences and by increasing the frequency of trips, rather than reducing the amount of travel.

In Randy Crane (1996, JPER), Dr. Crane offered a discussion on this point. You may want to cite.

**Kommentar [XX15]:** This has been done.

P7: A growing number of recent studies have therefore explicitly addressed this so-called 'self selection problem', mostly by including variables measuring residential preferences and/or transport attitudes. I do not think "mostly" is correct; many studies used other approaches: check the methodologies in Mokhtarian and Cao (2008 in TR-B).

**Kommentar [XX16]:** Ok, this has been changed to 'often' ... but also using other methodologies such as....."

P7: In a few studies, the traditional quantitative travel survey approach has therefore been combined with qualitative interviews in order to identify the more detailed mechanisms through which urban structure affects travel behavior. Can you offer a few citations?

**Kommentar [XX17]:** The mentioning of qualitative studies illuminating causal mechanisms (section 5) has been expanded, now including several more studies. The studies including qualitative methods are also identified in Table 1 in section 4.

P10: The rationales identified for route choice imply that the interviewees are not apt to make long detours from the shortest route to daily-life destinations. These rationales thus support, in line with the so-called activity-based approach to transport research (Jones, 1990), the assumption that daily-life travel is mainly an activity derived from the need or wish to carry out other, stationary activities. Because daily-life destinations are direct travel, it is not surprising that route choice is less likely to have detour. Detour is more likely to happen when the travel is indirect, or for its own sake.

**Kommentar [XX18]:** I am not so sure if this is necessary to add.

P12: Among 38 research studies included in a recent American review article (Cao et al, 2009), only 6 addressed the location of the neighborhood relative to the city center or other major concentrations of facilities. In contrast, the primary field of interest of European research has been directed towards the location of the residence relative to the main metropolitan center and sub-centers within the metropolitan-scale spatial structure.

In Cao et al. 2009, they reviewed only studies dealing with self-selection. So their review did not present a whole picture of North American studies. Many studies include regional accessibility and/or distance to center in their models. However, I acknowledge many studies focus on neighborhood level. On the other hand, many researchers in Europe also focused on design elements. For example, Joachim Scheiner and colleagues, Paulus Aditjandra and colleagues, Colin Vance and Ralf Hedel, Veronique Van Acker etc. Dr. Naess and colleagues are one exception among others.

**Kommentar [XX19]:** With the change of the scope of the article to a distinct focus on Nordic studies, this comment is not any longer so relevant.

**Kommentar [XX20]:** The same applies to this comment. I have still added the references mentioned.