

Alfonzo, M. A. (2005) *To Walk or not to Walk? The Hierarchy of Walking Needs*. Environment and Behavior: Vol. 37, No. 6, pp. 808-836.

Research Strategy: Literary/Positivist
Mode of Inquiry: Empirical-Inductive

Research Focus: Subject
Research Ethos: Etic

Alfonzo's primary concern is understanding how environmental factors are associated with declining walking rates in the U.S. Thus he is not interested in how environmental factors may be perceived while walking but rather how they interact to influence the decision to walk in the first place. He proposes a framework for organizing a wide range of environmental variables behind the walking decision making process. The framework has two main components: A 5-layer hierarchy of walking needs (do we all remember Maslow's triangle from high-school?) and a socio-ecological model. The former implies the most effective means of encouraging walking would involve targeting the lower-order walking needs before worrying about satisfying higher-order needs. His hierarchy comprises (starting with the most basic): **Feasibility** (eg. age, health, time), **Accessibility** (eg. infrastructure, barriers), **Safety** (eg. presence of others), **Comfort** (eg. adjacent traffic volume) and **Pleasurability** (eg. complexity of streetscape). Alfonzo recognizes that the hierarchy alone does not completely explain the decision making process since different people in the same setting may perceive the realization of different needs differently. He groups these moderating variables (in the sense that they filter one's perception of the environment) into individual-, group-, and region-level attributes. Compared to the other papers, this one is rather dry but I wanted to include an example of behavioural-based modeling research as there is a significant amount of activity in that field. I thought Alfonzo's categories were a bit confused but it does provide a starting point for thinking about the cornucopia of environmental variables related to the walking mode choice.

Gehl, J. (2001) *Life Between Buildings: Using Public Space*. 4th Ed. Copenhagen: Arkitektens Forlag. 201 p.

Research Strategy: Literary/Positivist
Mode of Inquiry: Empirical-Inductive

Research Focus: Subject
Research Ethos: Emic

Regarded as fairly influential, the book came out of, in Gehl's own words, "a protest against the functionalistic principles for planning cities". So along with Rapoport, Whyte and Appleyard, Gehl was among the pioneers in asserting an emic orientation (or would it be "derived etic"?) to interpreting design. Although not strictly focused on streets, Gehl is asking what kinds of physical environments promote activity in outdoor spaces. As Gehl is Danish, the book's central case study is Copenhagen, which has seen little population growth but a dramatic increase both in the amount and use of public space (both apparently tripled from 1968 to 1986). At the outset he establishes the focus of the book by suggesting that "improving" physical environments will have little impact on the rate of **necessary activities**, a marginal impact on the rate of **social activities** and a dramatic impact on the rate of **optional activities**. It is the latter two categories which he argues will create a vibrant city; the book has a strong normative slant. Ultimately, the number, duration and scope of outdoor pedestrian activities are his metrics for the quality of urban space. In other words, his notion of environment is of a fixed physical form. Overall the book provides a "lite" overview of the relationship between human behaviour and public space. He argues that much human behaviour can be explained by our attraction to people and human activity. Specifically, he argues that we are attracted to spaces which we perceive as having the greatest opportunity for passive contact. Gehl also asserts his views on planning for good environments as ideally an incremental processes accompanied by careful and frequent emic-oriented evaluation. He argues that this is how Copenhagen has achieved its current culture of appreciation for public space.

Seedat, M., Mackenzie, S. & Mohan, D. (2006) *The phenomenology of being a female pedestrian in an African and an Asian city: A qualitative investigation*. Transportation Research Part F: Vol. 9, pp. 139-153.

Research Strategy: Phenomenological
Mode of Inquiry: Empirical-Inductive

Research Focus: Subject
Research Ethos: Emic

Through semi-structured interviews the authors consider the female pedestrian experience in Delhi and Johannesburg (through 20 semi-structured interviews with female university students). As the title suggests, a phenomenological approach is used to analyze and compare these two pedestrian environments. A holistic interpretation of "environment" is implied, which includes social and cultural themes (eg. dressing differently due to a culture of blaming women for attracting sexual attacks). The paper is exploratory so no attempt is made at generalizing the findings to a larger sample. Rather, the authors suggest they have highlighted key areas that could be investigated further through follow-up studies. As such, the concluding remarks include a lot of "mays": X may be promoted by Y, urban planners may need to consider X, etc. The study found that Jo'burg participants focused on crowding, inaccessibility, and mobility restrictions due to crime (a theme that has been surfacing in my own CIP research from São Paulo) whereas the Delhi students focused on subordination to motorized traffic, crowding, congestion, air and noise pollution, and sexual harassment. Some of the behavioural responses mentioned in the research include: adopting

PLA 1654 - Annotated Bibliography

dress codes to “avoid unwanted attention”; j-walking due to “over-crowding, congestion, and inaccessible road environments”; preferring busy areas and walking with friends whenever possible (safety in numbers); and avoiding walking after dark.

I included this paper because E-B research typically has more of a positivist slant and this seemed like an interesting approach to understanding pedestrian perceptions. That said, I found the paper somewhat vague (it may just be that I’m not used to phenomenological research), so I found it hard to extract the important lessons. The authors claim to have highlighted key areas for future research but it wasn’t clear to me, in the end, what those were. I also never quite understood why a comparison between Johannesburg and Delhi should be of particular interest, which they seemed to try and justify when describing the two contexts.

Taylor, N. (2003) *The Aesthetic Experience of Traffic in the Modern City*. Urban Studies: Vol. 40, No. 8, pp. 1609-1625.

Research Strategy: Phenomenological
Mode of Inquiry: Empirical-Inductive

Research Focus: Subject
Research Ethos: Etic

Another Phenomenological account of the pedestrian experience, this article is unique in that it includes the driver/passenger experience and the two perspectives are used to describe our aesthetic experience (both our sensory and cognitive experience) of motor traffic. It is also unique in that theory is induced from an etic orientation. The article has a clear organization and seems like a good introduction to phenomenological approaches to environmental psychology. It teases out issues behind sensory experience such as the interrelation of senses (seeing, hearing, and smelling vehicles), the kinaesthetic experience (exerting energy) and issues of vicarious experience. The cognitive themes explored include the semiotic experience (reading signs for guidance), depersonalization, the need to attend to road traffic and concurrently hyperactive and dulled sensibility. The article concludes by identifying how “automobility” dominates our contemporary aesthetic experience of cities with 4 main insights (some more interesting than others): 1) The aesthetic experience of the city, for those inside motor vehicles, is characterized by signs as much as spaces. 2) The experience of motor vehicles, for those outside motor vehicles, is depersonalized as they are only secondarily interpreted as containing people. 3) Due to the potential danger imposed by motor vehicles, they draw significant aesthetic attention which results in diminished attention to the surrounding urban environment. 4) Speed and density of traffic make the experience simultaneously hyperactive and monotonous. In the end, the author avoids judging whether the described experience is good or bad.

Zacharias, J. (2005) *Non-motorized Transportation in Four Shanghai Districts*. International Planning Studies: Vol. 10, No. 3-4, pp. 323-340.

Research Strategy: Positivist
Mode of Inquiry: Empirical-Inductive

Research Focus: Subject
Research Ethos: Emic



Convinced there remains weak evidence suggesting that urban design can influence travel behaviour, Zacharias explores the use of the bike and walking transportation modes as influenced by 2 groups of factors: design and layout, and socioeconomic. Thus, the paper narrowly considers behaviour only in terms of mode choice. He criticizes the majority of existing research for focusing on a North American context where there is little variation in the physical environment and a long history of motorization. He therefore justifies the importance of the chosen Shanghai districts not only for their considerable variation in layout and form, but also for the city’s well established culture of non-motorized transportation (NMT) use. He argues that this shed a clearer light on the relationships between variables associated with NMT mode choices. That said, despite surveying 1,811 individuals, he seems taken the opposite extreme as only 7% of the households surveyed had access to a car. In the end, he does produce some interesting relationships. The

choice between motorized and non-motorized modes is significantly related to *block depth* and *road density*, but not public transit provision. As well, the allocation of road surface is apparently less significant than the access system layout. Car ownership doesn’t appear to have much effect on NMT mode choice, however, it does show a strong negative correlation with public transit usage. Not surprisingly, he found the socioeconomic factors (age, income, household composition, and employment type) to have little correlation with the choice between cycling and walking as well as the distance traveled for either mode. As with many such behaviour modeling studies, the “environment” is loosely characterized (Zacharias acknowledges this), however, this analysis does at least provide a convincing argument for the significance of morphology.