Only a focus on fair accessibility will ensure sustainable, inclusive and healthy transport systems

Leading Author: Alexandra Millonig
AIT Austrian Institute of Technology
Giefinggasse 4, 1210 Vienna, Austria
Tel: +43-050550-6672 Email: alexandra.millonig@ait.ac.at

Co-Author(s): Florian Lorenz
Consultant
Thurngasse 10/5, 1090, Vienna, Austria
Tel: +43-650-9463993 Email: mail@florianlorenz.com

EXTENDED ABSTRACT

1. Introduction

The abundance of mobility options especially in urban areas and the constant improvement of transport connections during the last decades resulted in an increasingly mobile society, albeit with little to no success in reducing emissions or the consumption of resources and land [1]. Although this effect is undisputed, effective measures to curb the growth of traffic and related problems face significant hurdles and hesitance, especially after experiences of restricted mobility during the pandemic [2]. Measures to improve mobility and give disadvantaged groups better access to transport have so far failed - on the contrary, there is a growing difference between the mobility privileged and the disadvantaged [3].

This development becomes particularly clear from a global and long-term perspective: inequalities in terms of access to and bearing the (negative) consequences ("burdens") of transport exist not only within societies, but also increasingly between the inhabitants of the global North and South as well as current and future generations. The emphasis on improving technologies is not just now reaching its limits; rather, unequal access to these innovations has deepened the existing inequalities. To put an end to this development, the proposed new perspective on mobility is needed.

2. The mobility misconception

Social inequalities in transport are not a new problem. Based on the realisation that more inclusive, barrier-free solutions are needed to avoid disadvantaging vulnerable people, wider debates on transport justice have developed due to a heightened awareness of the negative consequences of increasing traffic volumes. The growing number of relevant publications highlights several dimensions of mobility inequalities [4,5,6]: (1) disadvantages in access to transport and daily needs, (2) disadvantages in terms of direct exposure to the environmental impacts of transport, and (3) disadvantages due to the long-term consequences of transport policies, especially the prospect of failing to meet climate targets.

Due to the historical anchoring of transport research in the engineering sciences and the economic view of mobility as a product and service, the focus in the development of solutions continues to be on technological innovations and the improvement of individual mobility through new transport services [7]. However, mobility should not be an end in itself that is required to be commercialised and is therefore also directly affected by socio-economic inequalities, but rather a means to an end. Hence the emphasis of transport policies should not lie on improving disadvantaged or disadvantageous mobility, but on the actual function of mobility: the accessibility of everyday activities, ideally as low in emissions and resources as possible. The easiest way to achieve this is through spatial proximity, which minimises the need to use resources for transport by establishing "enough" as the guiding principle of sufficiency and declaring "more" as unnecessary or even harmful [8].

3. A fair right to accessibility

The concept of accessibility in the sense of local proximity of daily activities has already been discussed for some time under the key term of "15-minute cities" as an example of sustainable urban structures and the reversal of land- and resource-consuming planning developments [9,10]. The approach is not entirely new [11] and based on thousands of years of human practice in urban structures in which the essential basic functions of life - living, working, learning, caring, supplying, and enjoying - were accessible within walking distance. The return to prioritising the local proximity of functions over (motorised) transport accessibility is an essential and effective aspect in reaching the climate targets for transport and reducing inequalities caused by socio-economic mobility barriers [12].

To ensure that proximity can be established as planning principle, advocates of this new perspective argue that transport policies should be evaluated by setting minimum standards of accessibility to key destinations [13]. This would enable cities to analyse the distributional impact of transport policies and assess the extent to which they respect individual rights and favour disadvantaged groups, reduce inequality of opportunity, and mitigate the externalities of transport. Shifting the emphasis on minimum accessibility standards would also respect an important component in the acceptance of measures. Several studies have shown that attitudes towards climate policies do not just depend on the expected effectiveness, but more importantly on the perceived fairness of measures [14,15,16]. Putting fairness at the centre will accelerate the transformation.

4. Instruments for establishing fair accessibility

During the European project MyFairShare, a minimum standard for mobility/accessibility (or a minimum right to accessibility) has been defined to achieve climate neutral transport and ensure fair access to basic human functions of existence [17]. The concept is based on two findings from human geography and one transport related factor: (1) the constancy of travel time, (2) group-specific activity spaces enclosing related sets of basic functions, and (3) transport mode-specific emission factors per person and kilometre. The approach provides group-specific activity profiles based on their respective needs to reach everyday activities within an acceptable amount of travel time and the means necessary for this measured in both individual costs and carbon emissions.

Using open data, a GIS-tool was developed that calculates local minimum mobility budgets for different population groups (e.g., average citizens, older people, young people, single parents) depending on the local accessibility of typical daily functions for each group [18]. The tool has been tested in 6 Living Labs held in 5 European countries and can indicate risk factors for mobility poverty by disclosing deficiencies in the provision of sufficiently accessible opportunities to fulfil minimum accessibility standards. On this basis, systematic planning

decisions can then be made as to whether deficiencies should be remedied by (re-)locating facilities or by providing temporary supplies such as mobile services or product deliveries.

5. Conclusion

Conventional strategies for transforming the transport system through improved technologies and new services are not suitable for meeting the challenges of climate change and transport justice. A distinct change of perspective is therefore urgently required. People's everyday needs should be placed at the centre and become the guiding principle for proximity-based planning to push back the dependence on motorised mobility. Perceived fairness should be at the core of policies to ensure a just and rapid transformation.

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