9. Discussion

The six street cases in Copenhagen are very different. One thing is that the share of people movement made by passenger cars varies from about 30 per cent at Amagerbrogade to 85 per cent at Jyllingevej-Sallingvej. Another thing is that the level of shopping and meeting activity also varies considerably between street cases and for the various sections of the individual street.

It is difficult to clearly state, which streets are problematic or unsustainable and which are not. Many of the socio-economic and demography factors are clearly influenced by the size of homes in the case study areas. Other factors like the number of accidents and criminal offences are influenced by sort and volume of traffic and other activities.

In total it is not possible to give clear statements about sustainability in the existing situation based solely on indicators for the existing situation due to too few cases and the major differences in people movement, land use and home size. However, based on short- and long-term changes in relation to the existing situation we may extract some sustainable developments.

Looking at the long-term changes in motorised traffic volumes and the existing average speeds, which is measured far away from signalised junctions, give an important insight. If the average speed is lower than 40-45 km/h then motorised traffic volumes have decreased. The low speed probably arises due to the traffic volume is close to the traffic capacity limit, and therefore the result
is not surprising. Whether speed-reducing measures other than capacity limitations can result in stable or reduced traffic volumes can’t be deduced from the six Danish street cases.

Those streets that have experienced the highest growth rates in motorised traffic volumes are also the streets, where the market function has decreased the most. The Danish study therefore indicate that capacity limitations will favour shopping and meeting activity in arterial streets.

Implementing a ghost median with kerbed median islands in arterial streets with two wide traffic lanes seem to reduce motorised traffic volumes by about 15 per cent. The changes on bicycle and bus transport points in different directions. The changes in road safety vary from one street case to another, but it seems to be a significant positive development. People generally seem to be happy about such reconstruction and most seem to be winners.

Bus lanes and bus priority increase bus travel speed and the number of bus passengers. Another result is that passenger car traffic, accidents, killed and injured is reduced by 15-20 per cent. However, bus passengers clearly feel as winners, whereas shopkeepers and motorists feel as loosers.

The street cases and the description of plans and processes in Copenhagen point towards a simple conclusion about arterial street planning. The public debate is very sparse if the politicians or road administration has not suggested a redesign. Whether that is a consequence of high satisfaction or lack of belief in changes is unknown.

The suggested redesigns from politicians and the road administration are predominantly based on a narrow theme-based rationale. The choice of street to reconstruct seems to be theme-systematic. In other words, seen from a holistic planning viewpoint the choice of street to reconstruct is more or less made at random, i.e. there does not exist holistic planning regarding arterial streets in Copenhagen.

The core rationale in traffic policies is “zero growth in passenger car traffic”. This rationale seems to push forward a sustainable development regarding arterial street reconstruction. A high public involvement of the local community seems to promote a more sustainable development compared to low public involvement.
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