

# THE NEED FOR TRANSPORT JUSTICE IN CAPE TOWN AND THE BROADER SOUTH AFRICAN CONTEXT: A REVIEW OF THE LITERATURE

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## ABSTRACT

Historically, towns and cities have developed at easily accessible transport nodes. The macro accessibility focus of cities has not extended to the micro level and accessibility within cities is often problematic. Given the South African context and the legacy of apartheid, cities have been planned and developed, historically, to enforce racial segregation, where communities of colour have been located on the periphery with limited ability to access opportunity elsewhere in the city. Accessibility within cities has been further hindered by the silo-approach of transport and settlement planning. As a result, large unsustainable areas are found in South African cities, which contributes to transport injustice – the inability of marginalised communities to access opportunity, creating social exclusion.

The paper aims to review the current literature on social justice, spatial justice and transport justice and how this is applicable to the Cape Town context and, more broadly, the South African context. Included in the review are concepts of intersectionality, Transit Oriented Development, transit corridors and public transport, as all have the ability to promote better social inclusion. The review is part of a broader research project that will focus on the concept of transit deserts and how this can be expanded to measure transport justice.

## 1. INTRODUCTION

With the historical development of South African cities, one finds large unsustainable areas within them (Vanderschuren & Galaria, 2003; Cameron, 2019). These large unsustainable areas are what Jiao & Dillivan (2013) defined in their work in cities in the USA, as ‘transit deserts’. These deserts lack adequate public transit service with populations that are deemed transit dependent. This conclusion is confirmed by the study undertaken by Vanderschuren et al. (2021). The work looked at taking the transit desert theory, applied only to cities of the Global north, and establishing if it could be applied to cities of the Global south, in particular in Cape Town. The approach had to be somewhat adapted for the local context, but concluded that the theory can be used for cities outside of the USA. Vanderschuren et al. (2021) in their study confirmed that ‘transit deserts’ were found predominantly in low income areas. This was based on a formal transit assessment. When paratransit or informal, unscheduled public transport, was added, it reduces the transit gap, which is defined as the difference between the public transport need and supply. The theory can, therefore, be used to plan better for public transit in undersupplied areas.

In trying to find solutions to development on the urban fringes or urban sprawl, the debate internationally (Todes, 2003; Singh et al, 2014; Cameron, 2019) has focused on high density, compact cities bringing people and opportunity closer together. The compact city debate in South Africa has developed slightly differently. Whilst it is acknowledged that issues of land consumption, efficient service provision, reduced transport costs and reduced energy usage are important, in South Africa, an added dimension is dealing with equity and social justice (Pirie, 2003; Didier & Quentin, 2019).

Behrens and Wilkinson (2003) and the Development Action Group (2020) argue that subsidised housing located on the urban periphery is counterproductive and contradictory to policy aims. They further argue that, owing to peripheral development of dormitory townships, a considerable burden in terms of transport time and travel costs on marginalised communities, already excluded from urban opportunities, is imposed. The authors are also strong proponents of the compact city approach as opposed to urban sprawl commonly found in South African cities. They argue for a more coordinated approach between transport and settlement planning. Transit Oriented Development (TOD) is one of the fastest growing trends to create vibrant, sustainable communities and promotes the compact city approach (Wilkinson, 2006). Transit Oriented Developments are public transport and pedestrian oriented and promote a non-car dependent lifestyle (Wilkinson, 2006).

The South African Department of Transport, in 1999, decided to adopt the corridor city approach (Vanderschuren & Galaria, 2003) which was to promote city development in corridors well served by public transport. This is further reinforced by the Cabinet approval of the Public Transport Action Plan in 2007 for the roll out of catalytic integrated rapid rail and road corridor projects (Pillay & Seedat, 2007). With the focus on corridors came various studies into existing and potential corridors within Cape Town. One of the focus areas was the Klipfontein Corridor, linking Mowbray to Khayelitsha and Mitchells Plain. In their study of the Klipfontein Corridor, Mammon and Ewing (2006) suggest a series of urban nodes and corridors as a tool for restructuring and directing public transport, resulting in increased economic growth and improved access to urban opportunities. Another focus area has been the Voortrekker Road Corridor. This corridor links two urban centers, the Central Business District (CBD) of Cape Town with the core of Bellville. The Urban Land Institute (2014) was commissioned by the National Treasury Cities Support Programme, the World Bank, and the City of Cape Town Spatial Planning and Urban Design unit to conduct a review of the work done on the corridor. In their review findings (Urban Land Institute, 2014) it was suggested that an overarching vision for the corridor be developed, forming partnerships and effective communication with stakeholders. These would ultimately feed into a framework plan that has elements of land use, transport, and funding mechanisms to give effect to the various improvements identified to realise the potential of the corridor.

The United Nations Sustainable Development Goal 11 (United Nations, 2015) highlights the need to “make cities and human settlements inclusive, safe, resilient and sustainable.” Target 11.2 of Goal 11 specifically deals with transport and states that “By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, woman, children, persons with disabilities and older persons” (United Nations, 2015). In bringing together the elements of transit deserts, Transit Oriented Development and transit corridors, the tools exist to start looking at how the ideals of SDG11 are brought about and in so doing bring about spatial justice, restructuring and integrating the city so that marginalised communities have access to

opportunity. By bringing about spatial justice, the economic and social well-being of marginalised communities and society at large are improved, and the injustices of apartheid are redressed.

## 1.1 Problem Statement

The Integrated Urban Development Framework (RSA, 2016) highlights that cities are the drivers of economic development. Urban nodes of high economic growth would, therefore, experience high rates of urbanisation. More than half of the world's population is urbanised and by 2050 more than 70% of the world population will be urbanised (United Nations, 2017).

South Africa is no different, and currently more than 60% of South Africans live in urban areas, with this projected to increase to 71% by 2030 and 80% by 2050 (IUDF, 2016). The continuous increase in the urbanised population of South Africa poses huge challenges for a country still plagued by racial segregation, poverty, and exclusion.

Within the Cape Town metropolitan region, areas with poor public transport accessibility have been identified and commonly referred to in the literature as Transit Deserts (Vanderschuren et al., 2021). As mentioned, these areas are, generally, in the low-income areas of Cape Town, thus further highlighting the marginalisation of poorer people within the city. This reinforces the need for spatial integration and further research given that Cape Town is one of the most unequal and racially divided cities in the world (Turok et al, 2021).

Not dealing with spatial integration perpetuates the exclusion of the most marginalised in our society, limiting their access to social and economic opportunity. Spatial integration reduces the economic divide by reducing the cost of travel, the cost of infrastructure, opening new nodes of economic activity and improving the economic and social well-being of society. Furthermore, it makes for a more sustainable city form, reduces the need for travel, reduces the pressure on infrastructure and ultimately reduces the carbon footprint of cities (IUDF, 2016).

Spatial integration and improved access to social and economic opportunity could be achieved by promoting TOD, developing transit corridors and social housing, improving public transport, decentralising economic nodes, and driving policy change.

Numerous authors have been advocating for a focus shift from mobility to accessibility. A shift from improving the transport system efficiency to understanding what services people require. This requires equity and justice to be brought into the domain of transport planning and therefore making the concept of accessibility front and center to transport planning. Whilst much has been written on the subject since the 1990s, there has been no clear measurement tool established to measure the impact of accessibility or the lack thereof on communities.

## 1.2 Aim of Paper

To draw on existing literature related to intersectionality, transit deserts, transport justice, spatial justice, social justice, transit corridors and transit-oriented development. Intersectional (see Section 2.1) key words and phrases are used in conjunction with the age of publication to identify the latest knowledge and theories. The literature is used to

propose a methodology to develop a tool to measure transport justice. Cape Town will be used as the case study with aimed applicability to the broader South African context.

## **2. REVIEW OF THE LITERATURE**

### 2.1 Intersectionality

Intersectional research is done with the aim of looking at the social structures we exist within. It emerged from feminist and critical race theory in the US in the late 1980s and activism as a way of better understanding intersections of race, gender and class (Beetham, 2019).

The UN defines intersectionality as follows: “the structural and dynamic consequences of the interaction between two or more forms of discrimination or systems of subordination. Intersectionality specifically addresses the manner in which racism, patriarchy, economic disadvantage and other discriminatory systems contribute to create layers of inequality that structure the relative positions of women and men, races and other groups” (Beetham, 2019).

Using intersectionality can bring out issues both at the micro (individual) and macro (socio-structural) levels and can be used across various categories, such as race, gender, sexuality, class, nationality, ability, language, religion, culture, ethnicity and age to show how socially constructed dimensions of difference intersect to shape peoples experiences and actions (Misra et al, 2020). Key methodological tenets of intersectional research are highlighted below:

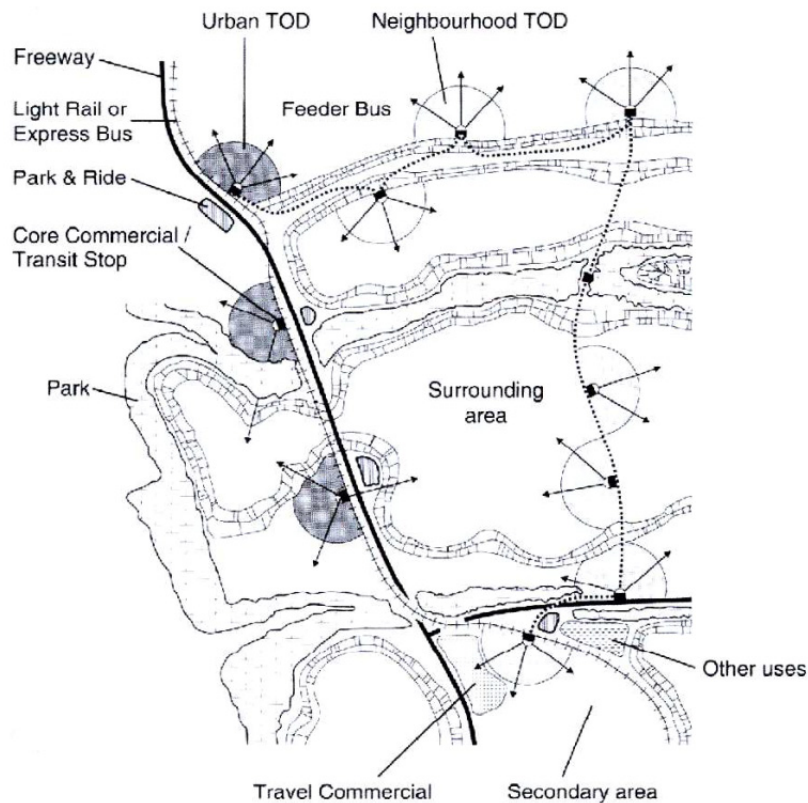
- Oppression – this is comprised of inequality, power and social justice; it recognises the relationship between power and inequality.
- Relationality – this is connected to oppression and shows linkages between privilege and disadvantage.
- Complexity and context – these show how experiences reflect the complexities of ones socially constructed positionalities and how these experiences are grounded in a particular historical and spatial context.
- Comparison – intersectional research is carried out through comparison while also identifying the inherently instability of categories.
- Deconstruction – deals with the notion of categorisation and how they themselves are by products of oppression (Misra et al., 2020).

Simien and Hancock (2011) indicate that intersectional research can be applicable to other areas, it can be applicable outside of the US and how it is applicable and can influence public policy. Given the focus of this research and the South African context, intersectionality will play a key role in better understanding issues around mobility and accessibility in Cape Town.

### 2.2 Transit-Oriented Development (TOD)

During the late 1990s and early 2000s when the City of Cape Town was focusing on the development of high-density, mixed-use transit corridors, another development concept, TOD, was taking root in cities across North America (Wilkinson, 2006). The concept of TOD (Figure 1) is centered on a rail or bus transit station with a walking distance radius of 400-800m, the surrounding area is developed at moderate to high density with a mix of residential and commercial activity and the road network is based on an open grid system.

TOD is fundamental to restructuring the urban spatial structure and transport in South African cities. The South African policy environment has moved considerably since the early work, and it now fully embraces TOD as a tool for spatial restructuring in cities. The NDP (NPC, 2012), IUDF (RSA, 2016), BEPP (RSA, 2017) and MSDF (TDA, 2018) all highlight TOD as a key element in city development. The City of Cape Town has developed a TOD Strategy and devotes a chapter in the CITP (TDA, 2018) to it, again reinforcing the importance it attaches to the concept. TOD exhibits similar characteristics to corridors and one of the questions of this research is to understand whether TOD and corridors are one and the same.



**Figure 1: TOD in the Metropolitan or City-wide Context (Wilkinson, 2006)**

### 2.3 Transit Corridors

Corridors are a means to address a range of spatial, social, and economic problems as they connect metropolitan nodes via a transport route (Warnich & Verster, 2005). Activity corridors promote high-density mixed-use development and are underpinned by a major transport route. Growth corridors are more extensive in scale, have the potential for further development and have a regional impact.

Cape Town historically developed as a linear city resulting in inefficiency. It adopted a corridor city approach in 1996 as a strategy for growth and development (Vanderschuren & Galaria, 2003). Compact and corridor cities promote higher densities (see Figure 2), which makes public transport more viable and ultimately promotes sustainability.

Furthermore, Compact and corridor cities provide for efficient movement systems and public transport and corridor development are mutually reinforcing. Higher residential densities provide the threshold for formal and informal activities. Corridors also promote optimal land use with a higher intensity of land uses and better integration between them.

Better social interaction is also achieved due to the wide variety of social opportunities provided. The City of Cape Town has over the past 20 years identified various corridors for development (TDA, 2018). Table 1 is a summation of these corridors and their status.

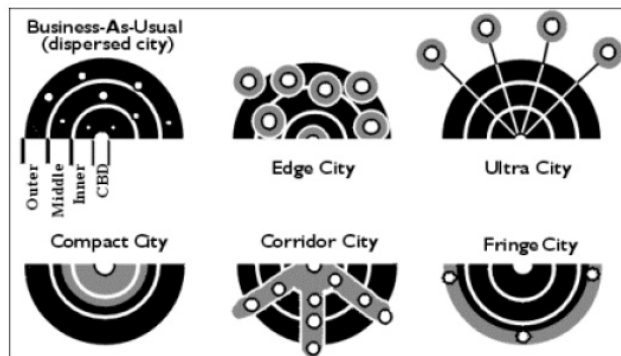


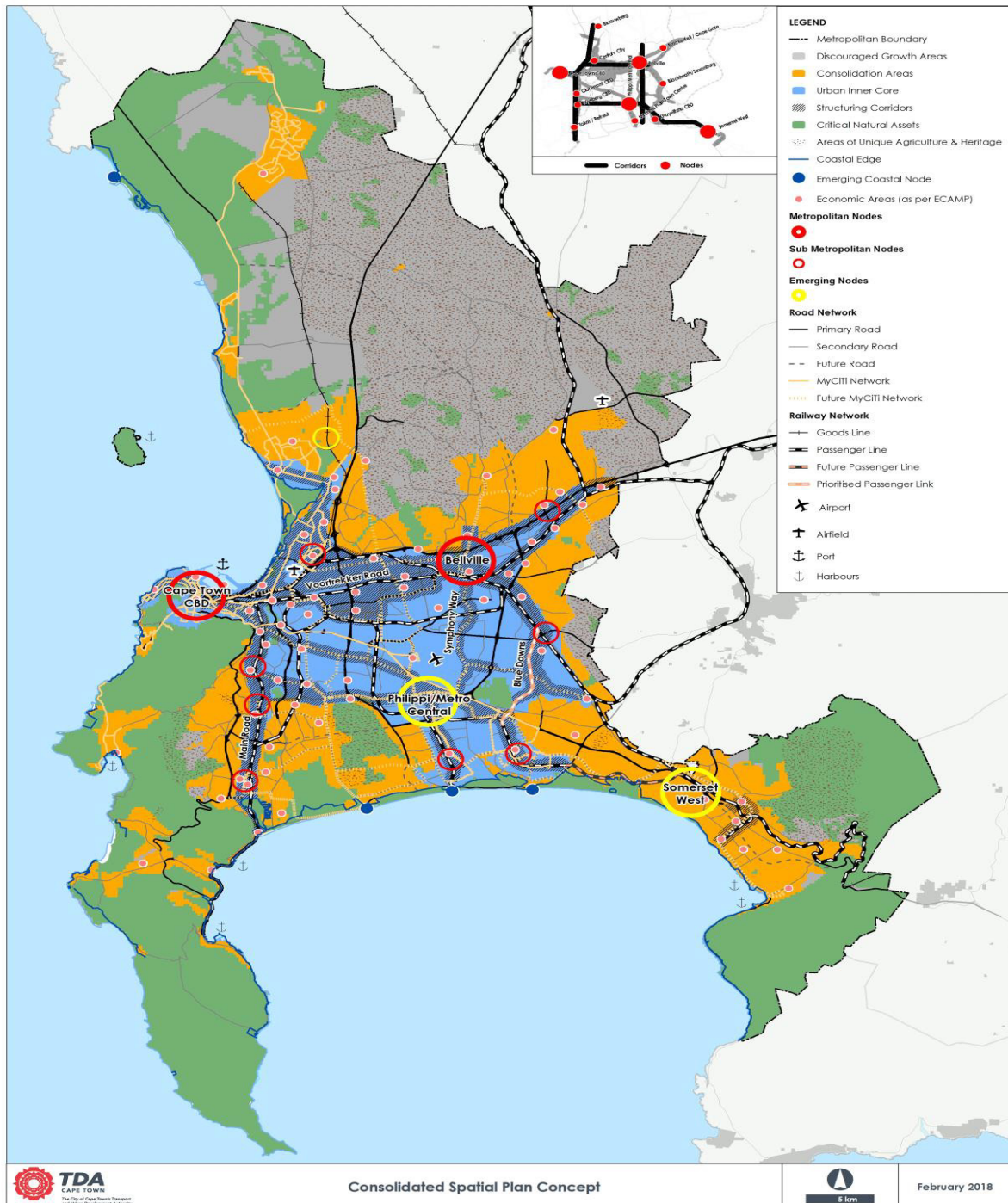
Figure 2: City Growth Patterns (Vanderschuren & Galaria, 2003)

Table 1: Cape Town Corridor Planning Status-quo (Authors)

Name	Description	Lessons	Status
Wetton-Lansdowne-Philippi	Corridor promoted in the mid-1990s to link Wynberg and Claremont to Philippi via Wetton and Lansdowne Roads	Required private sector incentivisation; political champion	Interest in the corridor waned in the late 1990s due to the amalgamation of the city into a unified metropolitan government with new competing political and social agendas. This corridor is currently part of the Metro South East Integration Zone promoted in the current MSDF
Klipfontein	Corridor promoted in the early 2000s linking Mowbray to the Metro South East (Khayelitsha and Mitchells Plain) via Klipfontein Road	Required careful planning and investment intervention	Focus on the corridor fell by the wayside with the change in political administration in the later 2000s. This corridor is currently part of the Metro South East Integration Zone promoted in the current MSDF
Voortrekker	Corridor linking the two urban nodes of Bellville and the CBD via Voortrekker Road	Historical corridor developed over time with continuous investment. Strong public transport provision - rail, bus, and minibus taxi	The corridor has been identified as an important metropolitan corridor and forms the main element of the Voortrekker Road Integration Zone identified in the current MSDF

Corridor development is considered medium to long term planning and may take over 20 years to develop. It may also happen over phases and smaller developments along the corridor may attest to its success. If one takes the Wetton-Lansdowne-Philippi, Klipfontein Road and Voortrekker Road corridors (see Figure 3) , these then make up some of the elements of the current integration zones proposed by the City of Cape Town in the MSDF (TDA, 2018).

The corridors in Cape Town provide a clear development function, supporting the 'urban inner core' more than the 'consolidation areas'. This may be a first indication of spatial and transport justice differences.



**Figure 3: Consolidated Spatial Concept (TDA, 2018) showing corridors and spatial integration zones and how these are linked to metropolitan nodes**

Over the past 20 years corridor studies have been promoted and later fallen by the wayside for various reasons. This highlights a need for a scientific basis of corridor identification. This research aims to contribute to that identification process and to understand what the thresholds are to sustain viable public transport, and social and economic activity.

## 2.4 Transit Deserts

Transit deserts are defined as areas lacking adequate public transit service where there is a transit dependent population (Jiao & Dillivan, 2013). The intention of the study by Jiao and Dillivan (2013) was to promote and develop an equitable transport system. The study would further ensure meaningful public involvement in the public transport planning process, resulting in a fair distribution of benefits and burdens, and ensuring equitable access to basic mobility, economic, and social opportunity. The study found that spatially, transit deserts were found close to downtown, that transit supply was highly concentrated near the CBD and that service supply decreased as the distance from the city center increased. The focus should then be on neighbourhoods where transit needs are not being met. The work by Jiao & Dillivan (2013, 2016) focused only on cities in USA. Given the importance of the concept it was important to understand whether this method could be transferred to cities in the global south to generate case study results. As mentioned, a study was conducted by Vanderschuren et al. (2021) to look at the transferability of the study by Jiao and Dillivan (2013) to the Global south using Cape Town as a case study. The theory and methodology had to be adapted to Cape Town circumstances to include the significant contribution of paratransit. The study found the following:

- Excess transit supply existed near the Cape Town CBD.
- Transit gaps or deserts are partly filled by minibus taxis.
- Areas with large transit dependent population were identified.
- Areas with low levels of transit dependency were identified.
- Transit deserts are found predominantly in low-income areas.
- Using the geographic Transport Analysis Zones (TAZ) has limitations, due to the geographic area under consideration.
- Findings confirm vast inequity in transit availability in Cape Town.

The study confirmed that the theory can be applied outside of the USA, albeit that the theory and methodology will need to be adapted for local conditions. The importance, role, and contribution of paratransit should also not be underestimated. The study recommended further investigation into the following:

- Analysis of socio-economic factors to help better identify the transit dependent population.
- The effect of income on transit dependency needs to be better understood.
- The effect of temporal fluctuations (time of day, season) on how the need for transit services may vary.
- Collection of data for smaller areas should be explored rather than the larger Transport Analysis Zones (TAZ) that was used. The focus on smaller areas will result in more detailed action plans.

Karner et al (2023) provide a contrasting view on the relevance of the transit desert theory. They argue that the transit desert theory's utility is limited due to previously unacknowledged limitations and that its underpinnings are inconsistent with sufficientarian concerns.

Karner et al (2023) highlight three reasons for this incompatibility:

- Ignorance of local capacity – ignores local residents ability to meet their daily needs despite existing barriers



- Absence of normative thresholds – needs gap studies rarely explicitly adopt a reference threshold and the assumption that a sufficient level of accessibility can be deduced from the data or other technical criteria without resorting to normative principles
- Use of fundamentally incommensurate supply and demand measures – measures of supply and demand are mismatched and do not capture similar enough concepts to ensure calculated differences are meaningful.

Despite the contrasting views on the theory, it is still considered a useful input for the research in developing a method to achieve a more spatially just city. The authors of this paper also argue that the Z-score methodology applied in the transit desert calculations identifies an average score for a study area, addressing concern b).

## 2.5 Justice

Justice should be seen as a way of life and not merely as a set of conditions for a minimally acceptable conditions. It is the moral standard par excellence and is the first virtue of social institutions. It is the standard by which all human things are measured (Pirie, 1983). This view is further reinforced by Mohamed (2020) that its concept as a virtue needs to be revitalised rather than the focus on the juridical and political aspects it holds. For this to succeed, people need to have justice as a virtue of their character. Those who act justly toward themselves will act justly in society, which will lead to the social dimension of justice.

In his conception of justice, Sen (2011) highlights four special features:

- Focus on lives and freedoms.
- Linking responsibility to effective power.
- Comparative, not transcendental, assessment.
- Globally unrestricted coverage.

In political philosophy there are two principal approaches to justice:

- Distributive justice – concerned with the fair distribution of resources.
- Procedural justice – focus on fair decision-making processes (Didier & Quentin, 2019).

An essential feature of justice is equality (Mohamed, 2020). One can, therefore, say that everyone should be provided with the basic liberties of social and economic opportunity. This is an important theme to bear in mind as we try to understand through the research what the minimum standards in providing accessibility and mobility are then. Justice should, therefore, be the priority goal of transport policy.

### *2.5.1 Social Justice*

The social laws of justice flow out of the quest for equality in natural justice. Furthermore, the social dimension of justice flows out of the individual dimension of justice (Mohamed, 2020). These are seen as essential for dispensing social justice. This is seen as equality for all with the dignity and basic needs of every individual being catered for. Mohamed (2020) argues that there should be equality of opportunity and equality of environment so that everyone can participate fully in all aspects of life. Social justice can be seen as a way of evaluating the distribution of income, wealth, education and health care in society (Pirie, 1983). Social justice is seen as one of the greatest challenges of our time (Soja, 2010).

Social exclusion can be defined as exclusion from economic life, social services, civic life and social networks (Bruno & van Oort, 2023). Elements of the transport system contributes to this social exclusion. Bruno and van Oort (2023) identify ten types of transport related social exclusion which are listed below:

- Exclusion from facilities.
- Geographical exclusion.
- Space exclusion.
- Physical exclusion.
- Time based exclusion.
- Fear based exclusion.
- Information exclusion.
- Digital divide exclusion.
- Discrimination based exclusion.

Martens and Lucas (2018) draws a link between transport justice and social justice and highlight that there is a lack of attention given to transport within social justice theory and similarly there is a lack of attention given to social justice by transport researchers. Transport can be considered as a key requirement for social inclusion as it enables people to access a broad range of opportunities e.g., health, education and employment opportunities.

### *2.5.2 Spatial Justice*

The concept of spatial justice is seen as a relatively new avenue of inquiry in the social sciences and started when there was a need to understand inequalities differently and more thoroughly (Didier & Quentin, 2019). This deeper understanding would then lead to better ways of reducing these inequalities. Most authors on the subject consider space as a receptacle for justice or injustice, e.g., public policies aimed at improving service delivery across areas with unequal distribution. Equity is, therefore, a fundamental principle of (spatial) justice. It is seen as the levering out of the unevenness of the social fabric for those more vulnerable in our society (Didier & Quentin, 2019). Spatial justice, however, should not be seen as a substitute or alternative to social, economic or other forms of justice. It is rather a way of looking at justice from a critical spatial perspective.

The concept of spatial justice is an important consideration in the development of cities. In the South African context this is even more important given that South African cities have been huge producers of injustice and, post the advent of democracy in 1994, continue along this trajectory. The government has, however, realised the need for spatial integration in cities (RSA, 2016) and from the legislation and policies, a change can be witnessed in the approach and the achievement of spatial justice through negotiation, planning, designing, and managing of cities has improved.

### *2.5.3 Transport Justice*

Justice traditionally only played a marginal role in transport planning and traditional evaluation methods tend to focus on infrastructure, efficiency and distance travelled (Jennings, 2015). Transport equity or justice is generally referred to in the literature as the fairness with which the impacts of transport, including both benefits and costs, are distributed. Jennings (2020) highlights two types of equity:

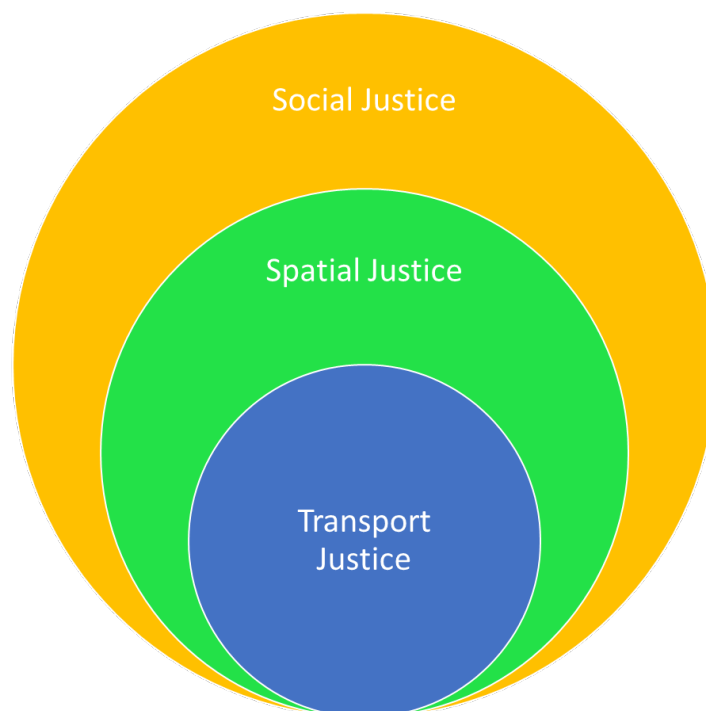
- Horizontal equity – concerned with the distribution of impacts between individuals considered equal in ability and need.

- Vertical equity - concerned with the distribution of impacts between individuals that differ in ability and need e.g., income, social class or transport ability.

Equitable policies should, therefore, compensate for overall inequality to ensure no one is left behind.

Transport and mobility are inherent aspects of people's social lives, and a lack thereof can have significant economic and social consequences for those impacted (Martens & Lucas, 2018). Transport can be seen as a problem of social justice (see Figure 4) as detailed below:

- National and local governments disregard the issue of fairness and inclusion in allocating increasingly scarce transport resources.
- Social justice philosophy largely overlooked the issue of transport and mobility, due to a-spatial nature of philosophies of social justice.
- Transport research is dominated by economists and engineers with little interest in justice in transport.
- The perceived success of the automobile influenced general public interest in ethical considerations (Martens & Lucas, 2018).



**Figure 4: Transport Justice Contribution to Broader Societal Justice. (Authors)**

Martens and Lucas (2018) argue that we should move away from the utilitarian approach to transport planning and for justice to succeed a human rights-based approach should be adopted as we do with housing, healthcare and education.

Lucas (2012) highlights various aspects of the transport system that contributes to social exclusion – physical exclusion, geographical exclusion, exclusion from facilities, economic exclusion, time-based exclusion, fear-based exclusion and space-based exclusion. All these factors contribute to people's ability to access various opportunities required for daily life. Accessibility, therefore, matters as it promotes an inclusive society.

Martens (2021) argues for transport planning to be seen as a means to promote socio-economic equity and highlights three dimensions of equity:

- Distribution – the goods and bads people receive.
- Recognition – the way people are being addressed.
- Representation – involvement of people in decision making.

In for transport planning to play this role of promoting socio-economic equity, it would require social justice to take center stage where transport policies can be transformed from the outside or bottom up completely detached from the existing policies promoted by the state. Transport planning is seen to have contributed to the existing socio-economic disparities and should therefore correct these wrongs in line with the notion of restorative justice and become an equalisation force rather than one of domination and oppression.

Ryan and Martens (2023) acknowledge that there has been a move from the traditional approach to mobility to looking at accessibility more holistically. The challenge with this has been around setting and implementing accessibility standards, due to its complexity and context specificity. They put forward some general principles in looking to adopt a standard:

- Defining and measuring the good.
- Setting the standard and assessing progress.
- Deciding on the limits and parameters of the standard.
- Institutional requirements (Ryan & Martens, 2023).

The setting and implementing of an accessibility standard should be seen as a long-term project that will require sustained political and administrative support.

### **3. DISCUSSION**

Given South Africa's history and the spatial injustices inflicted by the apartheid regime, it is an ideal opportunity to explore the concepts of accessibility and transport justice and how these could be resolved. More so, in the context of Cape Town as it is described as one of the most unequal and racially divided cities in the world.

Intersectionality provides us with a base within which to ground the research. By its nature it deals with issues related to race, class and gender and how these intersect with socially constructed dimensions of difference. Even though the concept has its roots in black feminism, issues related to race, class and gender have been identified as key constructs in social exclusion and the role transport plays in this. Intersectionality will therefore be useful in attempting to set a standard for measuring accessibility, which from the literature to date has proven to be elusive.

The transit desert theory, whilst proven to be applicable to the Cape Town context, did not include the socio-economic circumstances of the study areas. It also did not include para transit in the analysis. Minibus taxis play an important role in providing public transport in Cape Town especially with the unavailability of the rail service in parts of the City since 2019. Given the Cape Town context, it would therefore be important to include socio-economic factors and para transit in the analysis. The inclusion of these factors and looking at smaller analysis areas should provide interesting insights into where transit deserts occur in Cape Town and how this compares with the results of the previous study.

Transit oriented development and transit corridors are important components in the social fabric of cities. From the literature it can be seen that they are key to promoting public transport, social interaction and economic development. The City of Cape Town has promoted various corridors and development nodes as part of the expansion of the MyCiti bus rapid transit service. These will be reviewed along the identified corridors in terms of their success to date in achieving spatial integration objectives. Both TOD and corridors will, therefore, form key components of the research going forward.

Ultimately the question is about justice and how to bring this into transport in Cape Town, and more broadly to South Africa. Cape Town is considered one of the most unequal cities in the world. Its spatial development post-apartheid has also not significantly changed and therefore makes it a good case study for this research. How we improve accessibility to transport, social amenities and services and job opportunities are issues that plague most major South African cities and cities of the Global South. Improving these challenges in the Cape Town context could therefore be applied to other South African cities and possibly elsewhere in the Global South.

Clear linkages have been demonstrated between transport justice, spatial justice and social justice and how the one is an important component of the other. There is a clear need to develop and measure accessibility standards. Whilst this area of research has gained momentum recently, there is no clear method as to how to approach the setting and measuring of accessibility standards. The research aims to contribute to this body of knowledge.

#### **4. CONCLUSIONS**

South African cities and towns are still characterised by deep race-based segregation. From the review of the current literature, it is evident that the concepts highlighted can contribute to how this segregation can be alleviated or transformed. The need for spatial integration to bridge the economic and class divide is, therefore, obvious. The South African government has made a clear commitment through various policy and legislative interventions to achieve spatial integration across cities and towns. This is, however, not enough and there is more that could be done.

Various authors have highlighted the linkages between social, spatial and transport justice (Bruno & van Oort, 2023, Martens & Lucas, 2018). The work by Bruno and van Oort (2023) on transport related social exclusion is of particular relevance. They highlight how people are socially disadvantaged by the elements of the transport system. In the types of social exclusion that they identify, four of the types have spatial qualities which reinforces the linkages between social, spatial and transport justice and how an improvement in one will have a knock on effect on the other.

The issue around accessibility and defining and being able to measure it is key to understanding transport justice better. This is also valid for the South African context where the focus is still very much on mobility, easing congestion and improving the efficiency of the transport system whereas it should be on what services people require.

Change will not come easily as there are vested interests who would prefer the status quo is maintained but with struggle and effort the direction of travel in transport planning can be changed.

## 5. FUTURE SCOPE AND DIRECTION OF RESEARCH

The research will investigate and expand the concept of transit deserts to include socio-economic conditions and paratransit. These were key concepts not included in the original research. Furthermore, the research will investigate the concept of accessibility in the South African context and what this means in terms of understanding and measuring it. The ultimate aim is, therefore, to improve the understanding of accessibility of marginalised communities to better, thus bringing about spatial justice and ultimately transport justice in Cape Town. From the literature, it is clear that the concept of accessibility requires focus and further investigation.

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