From Specificity to Abstraction: Analysing the Relation between Urban Policies and Socio-economic Division

Aya Badawy *

This paper addresses the debate of whether generalisation or localisation is better in analysing the relation between policies and urban division. On one hand, some point to the overall policies and legal strategies that caused division in the city in general. Yet this approach neglects the uniqueness of local areas in the city. On the other hand, other researchers have focused on micro scale areas in the city and studied the relation between policies and division. However, this localisation focus presents results that are too specific to be used in comparative analysis with other cities. This paper takes a third approach and argues that abstract reasoning serves as the midway solution between both. That is, to derive the general strategies causing division in the city from the investigation of micro scaled divided areas. The research is conducted in Cairo, the capital of Egypt, and it follows three phases of analysis: concreteness, categorisation and abstraction. The abstract relation between policies and division in Cairo is presented within the TPSN framework under the four socio-spatial dimensions of territory (T), place (P), scale (S), network (N). The researcher concludes that influential policies which differ from one divided area to another are just versions of one deeper relation, and that this relation has to be induced from the study of specific cases rather than generalised.

* Aya Badawy is an Assistant Lecturer in the Department of Architecture, Faculty of Engineering, at Alexandria University. She obtained her MSc degree in 2015 from the same university, and is currently working on her PhD. Her interests lie in urban planning with a special concern about urban decision-making and urban poverty. She has participated in a national project called ‘Egypt without Slums in Three Years’, which aims to address the problem of rapid urbanisation that had led more slums being created.
Introduction

Urban agglomerations have always accommodated people who differ in status, religion, culture, and ethnicity. They have been consequently distributed in areas with different, and sometimes contrasting, characteristics; a phenomenon termed as urban division or socio-spatial differentiation. This distribution is spatially and temporally dynamic and can come in various forms.\(^1\) Socio-economic division is one form observed in many cities. It is the differentiation of people according to income, class, status, or opportunities.\(^2\) In present day cities, this differentiation has mostly become invidious, creating a wide gap between the rich and the poor.\(^3\) As a result, the analysis of the urban division process has grasped the interest of many researchers and the strategies for facing it have topped the priorities of several institutions.

When exploring the causes of socio-economic division, researchers have adopted various approaches; one of them is the institutional approach, in which the state and other regulatory institutions are examined as forces of division.\(^4\) Reviewing previous literature, this approach appears to be used through two viewpoints:

1. One investigates the governance structure; whether formal or informal, its role in causing division, and the relations between

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different regulatory institutions. An example of research from this viewpoint is that presented by E. Michelutti ha Mumbai.\(^5\)

2. The second viewpoint focuses on the product of regulatory institutions. It studies the role of urban policies themselves in shaping division. This viewpoint has addressed the national and city scales by exploring how regenerative projects, property-led development, privatisation and governance policies have affected the division pattern.\(^6\) It has also targeted the micro/neighbourhood scale by addressing specific divided areas. With this scale, the uniqueness of each case is taken in consideration.\(^7\)

When considering the national and micro scales addressed by the latter viewpoint in investigating the impact of policies, two main problems are observed. The first is the problem of generalisation. Here, divisions in a city are said to relate in their entirety to some policies, regardless of the specificity of location, and without considering how the influential policies in one divided area in that city can differ from those in another. Each spatial context has its particular characteristics, location in the city, process of formation, and in turn its unique reaction with some policies that led to its division. Therefore, although generalisation has the benefit of summarising the relation between policies and division, the results presented through this methodology are not accurate enough. Studies addressing the micro scale appear to overcome the deficiency in accuracy and uniqueness, however, they unfortunately fall in another problem. The consideration on the

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\(^6\) Michael Pacione, *Urban Restructuring and the Reproduction of Inequality in Britain’s Cities: An Overview*; *Britain’s Cities: Geographies of Division in Urban Britain* (Routledge 1997).

particularity of each area has resulted in highly detailed conclusions that may be compared with other cases in the same city, and in best situations, with cases in the same country. However, they cannot be used in a comparative analysis with cases in other countries. Also, when researchers study micro scaled divided areas, each adopts a different methodology. That is to say, the main problem in micro scale studies is neglecting the whole picture and lacking a common methodology and framework with universal validity.

Knowing the importance of specificity together with understanding that the real problem behind generalisation lies in its inaccurate basis, the researcher assumes that there is a mid-way solution to the dilemma of generalisation and specificity. It is deriving the general relation between policies and division from investigating specific cases. This is the true meaning of rational abstraction; a more accurate term than generalisation in this case. The research presented in this paper is an attempt to conduct such comprehensive study. It aims at investigating the relation between urban policies and division through abstract reasoning. Conclusions do not to relate the process of division to certain laws, policies, or decisions that are only particular to the studied context, but continue to derive the root problem behind all those specific policies. The research tests this hypothesis by conducting the analysis in Cairo, the capital of Egypt and one of the world’s megacities. Cairo is characterised by a paradoxical state of development where different socio-economic groups are found in close proximity. The rationale of choosing Cairo goes back to an observation taken while reviewing previous literature. Most research studying the relation between policies and division have addressed cases in Europe, Asia, or the Americas. Few researchers have focused on Arab cities despite their long histories of continuously changing government policies and ideologies. There are few studies that address socio-economic division in Cairo, some of which generalise the causes, and others focus on the social cohesion in different areas.

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The structure of this paper comprises two parts; the theoretical part and the application. The first part explains theoretically the procedures and the rationale of the methodology, and the second applies it on Cairo as an example. The methodology is grounded upon an inductive approach that passes through three successive steps of analysis; specificity, categorisation and abstraction. The analytical frameworks employed in each are described in detail.

Methods and tools: Building the analytical frameworks

As previously mentioned, inducing the abstract relation between policies and division from the concrete-complex includes three phases of analysis. The first is examining the relation in a number of specific cases. The second is finding if some of these policies share common characteristics and thus group them together.

This step is called categorisation and identification of the underlying pattern. The third is observing the policies that are grouped together to extract the root problem or the general strategy behind them. In other words, the third step is the derivation of the abstract theory from the detailed data.11

Accordingly, the research utilises two analytical frameworks. One is used for phase 1; the investigation of specific areas in the first phase and the complex explanation of each. The second is the general framework through which the categorisation and abstraction take place. The description for the theoretical structure of each is introduced as follows.

The framework of concrete analysis

Studying the relation between urban policies and a specific divided area entails knowing the policies that have been issued in the city as a whole and then highlighting the ones that were influential on the studied area. The collection of large amounts of raw data has to be guided by a certain structure. Therefore, the researcher determined a certain time frame, and outlined the purposes that generally trigger the issuing of policies. Under this structure, urban policies issued in

Cairo have been gathered and categorised in a matrix. The data on the urban and demographic transformation of the divided areas have categorised in another matrix according to the same time frame. By comparing both matrices, the policies responsible for the socio-spatial transformation in each time period will be highlighted. Thereafter, links between policies and transformation in each time period are established through a relations diagram. These steps are repeated for all time periods in all areas of study.

The analysis of each area ends with a number of relation diagrams that represent the interrelationships between policies and division; however, their high complexity may later impede the process of abstraction. Therefore, these diagrams are summarised by highlighting just the major transformations and the most influential policies and forming simple groups called milestones. For example, when an influential policy has an impact on both the high and low socio-economic areas, one milestone is formed. When both areas are observed to experience a major transformation in a certain time period, another milestone is formed, and so on. With a number of milestones, the relation between policies and division in each area will finally be simplified. A conceptual diagram for all these steps (first analytical framework) is presented in Figure 1.

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The framework of abstract analysis

To determine the underlying pattern between the reached milestones, this framework was designed. The underlying pattern allows one to deciding if some milestones may have common characteristics and can thus be grouped under broad categories. This cannot be decided from simple observation because it may run the risk of depending on each researchers’ interpretation and so would the categorisation; something preventable if all researchers used the same categories. Their decision will then be limited to placing milestones under relevant categories; instead of each researcher using different categories. Accordingly, previous literature was reviewed to find if some categories or a general framework was agreed on by several researchers in studying socio-spatial relation; this reviled the TPSN framework. It is a matrix that has been proposed by Jessop et al for socio-spatial analysis, and it is

Figure 1: Diagram explaining the framework of concrete analysis
based on four key elements: territory (T), place (P), scale (S) and network (N). In their research, the authors suggested using these four categories to achieve a multidimensional analysis in order to reveal both the triggers behind strategies causing an influence (structuring principles), and the affected landscapes through which these strategies interact (structured fields).

That is why the authors have cross-tabulated them in such a way that each category or structuring principle relates to all the four considered as its fields of operation forming the final framework.

This framework has been applied in Michelutti 2010 to study the role of different types of institutions in causing urban division. He utilised the four elements first as structuring principles controlling the operation of institutions, and secondly as fields structured or shaped by institutions. He uses the framework to pass from abstract-simple relations to concrete-complex. Therefore, but with a reversed methodology (from concrete-complex to abstract-simple), this research will employ the TPSN framework for abstraction. The structuring principles will be the categories under which milestones are grouped. The structured fields will be limited to the dimension of Place (P). These are the divided areas affected by those policies. A descriptive diagram for the framework is presented in Figure 2.

\[\text{Figure 2: Description of the TPSN framework and determination of the scope utilised by the research}\]

\textbf{Source: After Jessop et al.}

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13 Jessop, Brenner and Jones (n 8).

The relation between both frameworks

To decide where to categorise each milestone, the definition of each dimension in the TPSN framework has been reviewed especially in terms of their interaction with place. Accordingly, the researcher defines each category in Figure 3 to guide the categorisation of milestones. After this categorisation, analysing and comparing the contents (milestones) grouped under the same category reveals the abstract theory they reflect, and thus reach the deeper relation between policies and division.

In the following section, the research will use all the aforementioned frameworks and theories to apply them in Cairo, Egypt.

<table>
<thead>
<tr>
<th>Dimensions/categories of urban policies</th>
<th>Divided area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Territory</td>
<td><img src="image" alt="Diagram" /> Policies which draw certain boundaries and then react accordingly. This means that a place is affected differently whether it is inside or outside these boundaries</td>
</tr>
<tr>
<td>Place</td>
<td><img src="image" alt="Diagram" /> Policies focusing on sites, milieu, locales</td>
</tr>
<tr>
<td>Scale</td>
<td><img src="image" alt="Diagram" /> Policies which initially target a large scale (e.g. national policies) but are then reflected on small areas – micro scaled places</td>
</tr>
</tbody>
</table>
Dimensions/categories of urban policies | Divided area
---|---
Place | Policies related to links either physical (places), or non-physical (people, governing institutions, decisions)
Network

**Figure 3: The conceptual orientation of each cell in the framework to guide the categorisation of milestones**

**Application: Describing the study areas**

Cairo is a rapidly growing city. In an attempt to visualise its urban expansion across time, the city has been classified into three concentric rings of historic evolution; each comprises residential areas that have developed within the same time period. Throughout Cairo’s evolution, the pattern of urban division has been continuously changing until reaching the current situation where low socio-economic groups are found in close proximity to higher ones. Badawy et al determine, within the three rings of evolution, seven divided areas. Those which are found in the same ring of evolution are assumed to have encountered similar conditions resulting in some alike characteristics. Therefore, selecting an area from each ring represent a sample for examination. The research takes the benefit of having one study area previously investigated in detail; that is El-Maadi and Dar El-Salam, and reintegrates it into this study. It is a divided area in the second ring of evolution. The other two selected areas are East El-Manial and Fumm El-Khalig in the inner (earliest) ring, and on 15th of May (shiyakhas: first and second) and Helwan (El-Qbleya and El-Bahareya) in the outer one (Figure 4).

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15 Ibid 12
16 Ibid 7
According to the Human Development Report (HDR) in Cairo, in the inner ring, East El-Manial represents the socio-economic area with the highest deprivation index 8.1 compared to Fumm El-Khalig, whose deprivation has reached 14.4. A branch of the Nile geographically separates both cities. The difference in the degree of poverty between them is nearly similar to that between El-Maadi and Dar El-Salam in the second ring of evolution. El-Maadi has a deprivation index 8.5, whereas Dar El-Salam, an informal low socio-economic area, ranks 13.1. The third divided area from 15th of May and Helwan in the outer ring are mainly planned projects except for small parts in shiyakhas of Helwan. The deprivation of shiyakhas 1
and 2 is 8.7 and 7.8 respectively, contrary to nearly double in Helwan.\(^{17}\)

The impact of urban policies on the division of the selected study areas are analysed following the three phases to conclude the abstract relation between policies and division.

**Phase 1: Concrete analysis**

Applying the relevant analytical framework entails determining the time frame and the function under which data on urban policies shall be collected. Concerning the time frame, it has been divided into four main periods that consider the periods of major regime change and the suggestions proposed by some previous research.\(^{18}\) These four periods are:

- **1860–1951 (colonial):** the period of monarchy ending before the 1952 revolution
- **1952–1973 (national state provision):** it starts with the revolution that transformed the country from monarchy to republic and ends with the war period when no considerable change in urban policies occurred
- **1974–1981 (Open door and capitalist):** it starts with the declaration of the economic door policy and ends with the death of President El-Sadat
- **1982–2011 (neo-liberal):** the period ruled by President Mubarak and ending with the revolution in 2011.

Coming to the function of the issued policies, the researcher classifies policies according to: (i) policies issued for the aim of supplying needs; (ii) those for managing urban setting and continuous

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changes; and (iii) others for controlling the tenure of lands or buildings. Under the determined time periods and functions, the matrix has been constructed and urban policies affecting Cairo as well as each of the selected study areas have been tabulated. Influential urban policies in each area have been linked to the urban and demographic transformations. Thereafter, the researcher determined the milestones of transformation in each area. In the three studied areas, the milestones represented the following: policies which led to the early formation of the divided area, policies which increase the gap between the high and the low-income areas whether they were issued in the same time period or not, and other policies which intensify the current condition of division. The paper will directly present these concluded milestones. Each milestone (M) is labeled referring to the study area it represents.

Case a: East El-Manial and Fumm El-Khalig

The spatial context before transformation was agricultural lands and gardens in El-Manial located in El-Rhoda Island facing old settlements within a historic core in Fumm El-Khalig. Lands south of the Island were first sold for residence. Then, urban growth started to take place later in East El-Manial with mid and high-rise apartments. However, at the same time while El-Manial was attracting more people, housing in Fumm El-Khalig were subjected to deterioration and negligence due to the lack of maintenance after freezing the rent values. The situation became worse after the collapse of some buildings following the earthquake in 1992. Transformation of both areas has continued until reaching the current socio-spatial division. Figure 5 shows the boundaries of both areas. The process of transformation in this study area have been summarised in four major milestones (Figure 6).

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Figure 5: The urban fabric of both East El-Manial and Fumm El-Khalig

*Source: Satellite image from Google Earth*
Case b: El-Maadi and Dar El-Salam

The spatial context before transformation was agricultural land and gardens close to rural settlements and away from the main city agglomeration. Large areas of agricultural land were bought by a private construction company to establish a residential suburb named El-Maadi for the elites. The first node of the suburb was planned away from the rural settlements. However, that distance between both areas started to decrease after providing flood victims from the rural areas with prototype housing close to El-Maadi. The major turn in urban transformation took place after the revolution in 1952 where arable lands were subdivided and sold for informal settlements. The informality continued marking the evolution of Dar El-Salam which, by time, became merged with El-Maadi. Both divided areas are no longer in the hinterlands of Cairo, but they are now a part of the main city agglomeration.
Division is observed spatially in the difference between the urban fabric of both; open spaces and planned streets in El-Maadi against high density and condensed fabric in Dar El-Salam\(^2\) (Figure 7). Four milestones have been concluded, summarising the transformation of this area towards division (Figure 8).

**Figure 7: The difference in urban fabric between El-Maadi and Dar El-Salam increases the spatial division between both**

*Source: Satellite image from Google Earth*

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Case c: 15th of May (shiyakhas 1 and 2) and Helwan (El-Qebleya and El-Bahareya)

Before the implementation of both projects and the transformation of the area to a divided one, the spatial context was mainly vast areas of desert lands near Helwan winter resort. With the rise of industrialisation and the large demand for housing especially near the newly established factories in Helwan, the government decided to implement some housing projects. Helwan New Community (HNC) was a project planned to follow John Turner’s site and service approach and funded by the US-AID. At the same time, the “New Towns Policy” was being implemented nearby in a new satellite city named 15th of May. While the HNC project was experiencing several problems, delays and modifications to the initial plan, 15th of May was established with open spaces and facades designed to attract people to the new city. A low-cost housing project was constructed close to HNC with apartments resembling Khrushchev blocks, but by the time the social conditions deteriorated and subsequently affected the surrounded area of Helwan. The difference in the implementation...
strategies and processes between two close projects have led to their currently observed division21 (Figure 9). Three milestones summarise the process of division in this area (Figure 10).

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Phase 2: Categorisation of milestones

The researcher then referred to the conceptual orientations previously presented in Figure 3 to decide where to categorise each milestone. For example, the milestone M (a1) can be categorised under two dimensions: territory and scale. The policy that declared moving the tanneries to another location, which was near Fumm El-Khalig, away from the area bounded for development reflects the concept of “inside-outside” reflected by territory (T). Moreover, the economic crisis, a catalytic event that affected Cairo as a whole (macro), had an impact on a small location (micro) by dividing the agriculture lands and selling it for construction. This reflects the dimension of scale (S). Other milestones have been reviewed accordingly. The final categorisation is presented in Table 1.
Table 1: Matrix categorising the milestones of each study area under the relevant categories of urban policies/structuring principles

<table>
<thead>
<tr>
<th>Structuring principles/ Categories of urban policies</th>
<th>Milestones (M)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a1</td>
</tr>
<tr>
<td>Territory (T)</td>
<td></td>
</tr>
<tr>
<td>Place (P)</td>
<td></td>
</tr>
<tr>
<td>Scale (S)</td>
<td>•</td>
</tr>
<tr>
<td>Network (N)</td>
<td>•</td>
</tr>
</tbody>
</table>

After this phase, milestones grouped under each dimension have been compared to induce the abstract theory/relation between policies and division.

Phase 3: Abstract analysis

The abstract analysis is the derivation of the common concept from several specific cases. The structuring principles of the TPSN framework have certainly facilitated this derivation process. Using the framework of abstract analysis, the relation between policies and division has been finally summarised.

Table 2: The concluded abstract relation between urban policies and division

<table>
<thead>
<tr>
<th>Structuring principles/ categories of urban policies causing division</th>
<th>Place (P) as the structured field</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Divided areas</td>
</tr>
<tr>
<td>Territory (T)</td>
<td>Setting policies according to localities or determined boundaries without considering the surrounding morphology or the operational landscapes</td>
</tr>
</tbody>
</table>
### Structuring principles/categories of urban policies causing division

<table>
<thead>
<tr>
<th>Place (P)</th>
<th>Place (P) as the structured field</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Issuing of <em>area-based policies</em> that widen the gap between high and low-income areas</td>
<td></td>
</tr>
<tr>
<td>• Inappropriate allocation of land uses—creating a land-use conflict and the absence of policies for <em>ethical land use</em></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Scale (S)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Shortcomings in studying the relation or dealing with the impact of international trends/triggers or national policies on small-scaled places</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Network (N)</th>
<th>In terms of the institutions governing the place:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Lack of public-private partnership. According to the controlling ideology, the power is given to either one rather than synchronising between both</td>
<td></td>
</tr>
<tr>
<td>• Problems with networking institutions both vertically (top-down and bottom-up approaches) and horizontally (different forms of institutions; formal and informal, in parallel)</td>
<td></td>
</tr>
<tr>
<td>• Applying a new/modified form of law in certain areas while keeping on the old/obsolete form in others</td>
<td></td>
</tr>
</tbody>
</table>

**In terms of the place per se:**  
Transport planning policies causing the disconnection of an area

### Discussion

Investigating each study area independently highlights processes, characteristics, and observations that, at first glance, seem specific to such area and different from others. However, a thorough observation reveals that they implicitly share the same general outline. For
example, when observing all the spatial contexts that stimulated the emergence of divided areas, some common general characteristics have been observed. The context before division was generally a small settlement or a catalytic development land-use surrounded by an operational landscape. This explains why the first milestone of transformation in all the studied areas is categorised under the territory (T) dimension. It is because division first starts when decision-makers neglect how their policies might affect other contexts, even if they are not within the area of governance. In other words, they neither consider the ripple effects of policies nor the complexity and the dynamism of urban processes.

It is also observed that area-based policies intensifying division have been concluded from several milestones which are categorised under the place (P) dimension and not scale (S). This means that the problem or cause of division is not in the localisation or the declaration of policies in the micro scale. The real problem is in the bias of such policies towards high socio-economic areas and against lower ones. This in fact explains why milestones reflecting place (P) are concentrated in the final stages of transformation. It is because they have been affected by the socio-economic condition of the area reached through earlier stages.

**Conclusion**

This paper has touched on the possibility to abstract the relation between urban policies and socio-economic division. The difference in the influential policies from one location to another is simply the result of mutating and applying one abstract framework with different contexts. Generalisation used to link the problem on the macro scale to specific policies in the micro scale; which is in fact an incompatible relation. Abstraction instead investigates those specific policies in the micro scale and derives the general concept behind them that can be then related to the problem on the macro scale. Comparative studies can be similarly carried out in different cities or countries.

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22 Terminus used by Neil Brenner, *Implosions/Explosions* (Jovis 2014) to describe non-urban contexts existing mainly in city fringes but contributing at its support by supplying raw materials, energy, logistics, labour or waste processing functions.
The movement from specificity to abstraction or vice versa, as done by Michellutti, comprises three moments or phases. Besides being applied to study relations or causes of the problem, they can be employed when proposing relevant solutions. Concepts and general policies concluded under the four dimensions in the framework of abstract analysis can be first counteracted by general reform strategies, and secondly divided areas sharing common characteristics should be categorised. Then, the determined reform strategies are translated into specific policies to be issued for each category. This is expected to propose solutions that can target the root of the problem rather than its versions in different places. Moreover, including other structured fields in addition to place (P) which have been used in this research shall present more insight into the study of the process.

Even more, the abstract concepts presented dimensions of the TPSN framework open several fields of future research. For example, the problem presented under the territory (T) dimension falls under the broad study conducted by some researchers like N Brenner, C Schmid, and others. They believe that the urban is not limited to a certain bounded unit or form, and that operational landscapes or what were previously referred to as the outside are just different forms of the urban. Accordingly, governing the process can be more important than governing the location. These results and conclusions have clarified the importance of abstraction in urban studies. In short, while addressing specific cases is always crucial for understanding differences and identity, summarising and getting the whole picture is equally important.