

RESEARCH ARTICLE

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# Strategic planning as the intentional production of a “Trading Zone”

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## Abstract

**Background:** For a long period of time there has been a kind of mirroring between the development of decision making models in Political science and the concepts and paradigms used in Planning theory. The dialogue has been interrupted when the “Garbage Can” model was proposed by Choen, March and Olsen in 1972: a model that emphasized the irreducible complexity of the policy processes.

**Methods:** The article reconstructs this relationship and its evolution showing the influence of decision-making models on planning theory, and showing the difficulties of managing complexity for planners.

**Results:** The paper holds that interpreting planning processes through the lens of the “Trading zone” concept proposed by Peter Galison in the field of history of science could be an interesting way of dealing with the extreme complexity of contemporary planning problems.

**Conclusions:** The conclusion is that the use of the Trading Zone concept is very promising to solve some dilemmas of planning theory and that it is particularly useful if we employ it in the growing area of strategic spatial planning.

“The third task (of planning theory) is to translate concepts and knowledge generated in other fields into our own domain and to render them accessible and useful for planning and its practice. I call this the task of *translation*”

John Friedmann, *The uses of planning theory*, 2008

“I have been working a long time- still with inadequate success-to try to think clearly about the market system and about democracy. One difficulty may be that we- meaning people all over the world- have actually tried the market in many of its possible forms, learning greatly from both its flaws and its merits; but we have not yet tried democracy, only distant approaches to it”.

Charles Lindblom, *Market and Democracy Obliquely*, 1995

Human experience is gleaned and its sharing organised, meanings are conceived, absorbed and negotiated, around places. And it is in places and of

places that human urges and desires are born, live in hope to be satisfied...

Zygmunt Bauman, *City of Fears, City of Hopes*, 2003

This paper is an attempt to use the concept of Trading Zone, as elaborated by Peter Galison in the field of the history of science (Galison 1999), to indicate new opportunities to foster innovation in planning, beyond the illusion of conquering a general consensus about values and objectives among different actors involved in strategic planning. Galison has defined “trading zones” those infrastructures and those concepts which function as “exchangers” for dialogues between different sub-cultures. Reconstructing how innovations in science occurred historically – ranging from physics to nanotechnologies – he shows the emergence of concrete or conceptual spaces where scientists belonging to different disciplinary fields, with very different approaches and values were obliged to find simplified and intermediate languages to be able to work together. It is from this essential communication, which requires partial agreements, that innovations and new inventions are born. The translation of this concept in the field of planning is quite relevant because it helps to overcome some of the shortcomings of the consensus

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building approach, which has been seen as a response to the intrinsic conflicting character of planning decisions.

I will try in particular to use the concept of Trading Zone to better understand the role of strategic spatial planning, a form of planning that more and more is adopted to deal with the increasing complexity of cities and societies.

To do this I will first illustrate how there has been for a long period of time a kind of mirroring between the debate about rationality, rooted in political science, and the development of the theory of planning (Webber, 1968, Faludi 1973). A process of mirroring that was somehow suspended when the most complex decision making model was proposed by Cohen et al. 1972, the so called “garbage can model”: a provocative theory that emphasized the extreme intricacy of collective decision making processes.

My point is that we have to re-start today from that kind of complexity to elaborate a vision of strategic planning which is adequate to the emerging problems of the contemporary city. The Trading Zone concept is a promising tool to move in that direction.

### **Planning and the technical rationality**

Planning is a young discipline. Only five years ago, in 2009, we celebrated the centenary of the institution of the first chair in urban planning in Europe, at the University of Liverpool. In other countries this happened even later, like in Italy where the first chair in urban planning was established in 1930 at the School of Architecture in Rome (Balducci, 2001).

It has been after the Second World War that the development has been rapid and pervasive across Europe and North America. Planners that have occupied the scene in this exciting period were mainly trained as Architects, Geographers or Social Scientists. Pushed by their passion, they have struggled to obtain the recognition of planning as an independent discipline.

What did happen really: the Association of Collegiate Schools of Planning (ACSP) was created in 1969 in the US, and the European sister association, the Association of the European Schools of Planning (AESOP), was founded in 1982. It is interesting to notice that the period between these two dates has been a period of extraordinary growth and institutionalisation of the discipline.

There was indeed the belief that it would have been possible to change the society through a planning activity, giving the opportunity of an equitable and rational use of space, being able to attack spatial injustice, to solve emerging urban problems through a rational and democratic process of design. Nothing to do with the world of architecture confined to the single artefact, nor with geography or social science limited to the description of phenomena.

What kind of epistemological foundation had been at the basis of this endeavour?

On the one hand the extension of the architectural design or engineering approach to the urban environment seemed quite natural: on the end urban planning dealt with spatial structures which seemed to be only of a different scale, but of the same type; on the other hand planning appeared as the ideal field for the application of the reformist ideology according to which it would have been possible to correct the malfunctions produced by the market forces through a process of accurate design and programming.

In that same period an entire process of development had been completed in the field of political science. In the attempt to provide explanation to failures in public policies the rational reformist approach had been under attack since the years 1940s.

It was through this critical discussion that it had been possible to characterize the “rational approach” to decision making as the implicit predominant foundation of the reformist movement and of the early planning thought in the US and elsewhere (Hofstadter 1955).

The rational model proposes in fact an approach guided by well defined problems, clearly understandable preferences, describable and enumerable alternatives, ability to calculate the best choices, capable of maximizing the benefits and minimize costs. The critical reflection developed by Herbert Simon (1955) and Charles Lindblom (1959) emphasized the impossibility of following this model if not under conditions of complete information and when we can identify unitary single-minded collective actors.

However the rational model has long been at the basis of the planning project, already during the period between the two World Wars, but also immediately after the Second World War: it has been at the basis of many planning laws, of the idea of the Soviet but also of the French planning ideology, in the US as well as in Italy.

It has been the basis of the paradigm of the so called “Technical Rationality”, as described by Schön (1983), of an idea of supremacy of the professional-scientific knowledge to solve social and urban problems (Lindblom 1990).

It is possible to recall here the roots of the traditional paradigm of planning, and particularly of land-use planning, with a sharp division between those who plan and those who are planned. A quite simplistic and straightforward translation from individual to collective decision making processes with the aspiration of streamlining the city and the society.

In Italy and elsewhere this form of rationality has been a very strong foundation of the heroic era of planning, until the early 1970s, and was perfectly compatible with the architectural roots of urban planning. Luigi Piccinato, one of the founding fathers of Italian urban planning, claimed that it was possible to define a typology of cities – radial, grid, port-cities, etc.- to which corresponded a

repertory of possible plans; Giovanni Astengo promoted a scientific approach to land use planning in a direct dialogue with the Athen's Charter of the Modern Movement.

An approach that already immediately after the II World War was opposed by figures like Giancarlo De Carlo who already in 1948 was lecturing at the London's Architectural Association holding the narrowness of the scientific technical approach and the need to open towards the participation of citizens in the design of the city (Hall 1988).

### **Towards bounded political rationality**

The work of Herbert Simon and Charles Lindblom attacked the two conditions of impracticability of the rational approach.

Simon dealt with the first: the systematic incompleteness of the information, with the idea of a rationality which is limited by uncertainty, to which actors respond producing frames and routines and limiting their explorations to alternatives and solutions considered "good enough" according to what their problem definition allows. Lindblom released the second condition: the decision maker is not unitary nor a composite organization, it is rather made by a set of different actors who are formally in very different positions.

All those who have an interest or an expectation about the stake are actors of the decision making process, even if they do not have any formal role in the institutional process.

Not only there is incomplete information but also conflict about goals among decision makers.

And it is impossible to distinguish between means and ends. All the actors are in a situation of mutual partisan interdependence. All the actors in pursuing their goals are forced to interact with the others and to adjust to others' goals. All have partisan interests even if they claim to act in the public interest. All adopt an incremental approach: considering only few alternatives, not very different amongst them, and not very different from the current situation/policy, therefore producing in general only an incremental change (Lindblom 1959).

But the "disjointed incrementalism", as he defines this incomplete collective behaviour, is not only the best way to describe processes, it is also the approach which allows most "rational" results. In fact Lindblom asks: when we define that a decision is good or rational? When it minimizes adverse consequences. How to get it in the best way? The plurality of actors is the most effective source of rationality, because all of them defend and promote their own interests and the decision is the outcome of this mutual adaptation. This is, according to Lindblom, the expression of "the intelligence of democracy" (Lindblom, 1965).

These reflections have been very important in offering a different perspective to the evolution of the planning project.

A number of very important contributions of "translation" (Friedmann 2008) have been those offered by Melvin Webber in the second half of 1960s, an author who has been extremely influential, also in Italy, even if he never wrote a book, but only a number of thoughtful essays.

Of special interest are the two papers published in *Town Planning Review* n. 3, 1968 and n. 4 1969 (Webber 1969) titled "Planning in an Environment of Change" part I "Beyond the Industrial Age" and part II "Permissive Planning". And the paper published in 1973 in *Policy Science*, written with Horst Rittel, titled "Dilemmas in a general theory of planning" (Rittel and Webber 1973).

In an open dialogue with the work of Lindblom and Simon, Melvin Webber introduced the idea of planning as a process which is intrinsically interactive and conflictual, emphasizing the partisan role of experts, the value of the ordinary knowledge, the "wicked" character of planning problems compared with the "tamed" problems of natural science and engineering.

In a very direct way the article written with Horst Rittel states that the wicked planning problems are characterized by a number of features that force to abandon the technical rationality: they tend to be unique and it is impossible to categorize them; their formulation is uncertain; they are never solved but only attacked; the tempted solutions are not true-or-false, but good-or-bad according to the positions of different actors; there is no opportunity to learn by trial-and-error, every attempt counts significantly, etc.

After these contributions there has been a growing recognition of the political nature of the planning process. The work of Webber, and others, opened the first acknowledgment of the impossibility to divide in a clear way planners and planned actors, decision makers and decision takers.

The consequences have been on the one hand the very idea of "advocacy planning" (Davidoff 1965) but also, on the other hand, the rise of participatory approaches which became very popular in a period in which planning started to appear less effective, after the fall of the initial rationalistic illusion. If the rationality of a planning process comes from interaction and mutual adjustment, why not to organize this, enlarging the opportunity to expose planning decisions to the formal participation of a plurality of actors?

Participation, communicative planning based upon the Habermasian principle of non distorted communication, have been important developments (Habermas 1984).

After the heroic phase there has been a long period in which planning has been under attack on the one hand

for ideological reasons, but on the other hand for the scarcity of results that the movement could then show to justify its role.

This period started at the beginning of the 1980s under Ronald Regan and Margaret Thatcher, in the US and the UK, with the neoliberalism turn that directly attacked the legitimacy of planning, a turn that continued to be influential throughout the last decade of the XXth and the first one of the XXIst century.

A period of deep social, economic and spatial change, characterized by growing globalization, an increased fragmentation of society, the emergence of new media, the acceleration of the urbanization process which transformed the very notion of city, blurred the administrative boundaries, challenged the traditional idea of planning based upon a linear relation between territory and authority (Sassen 2006).

At the end of this period we find ourselves in a situation of cognitive dissonance: the generation who made the strongest effort for the affirmation of planning is now retiring, the tools which have been elaborated to plan urban and metropolitan development are losing their capacity, spatial relations are re-defined by the immaterial flows of information, the process of fragmentation produces a multiplication of actors, languages, spaces, which are different from the traditional ones.

All this challenged the very idea of planning based upon rational analysis, participation and persuasion.

Among the many attempts to re-gain a role in guiding urban transformations in the second half of the 1980s there has been a growing attention towards new forms of strategic planning which tried to react to some of the weaknesses of traditional land-use planning; initially this took the form of a translation from the American corporate strategic planning into the urban policy area; it appeared that this could have been a response to the neoliberalism attack, trying to transfer notions and concepts from the market side to the planning domain (Bryson and Roering 1987; Albrechts 2004). But despite the great success, from Barcelona to Pittsburgh, this was not an effective response to the growing urban complexity: at the end of the day a city is not a corporation.

After a while, starting from different experiences, from Germany to Australia, from Belgium to Italy and UK, new approaches began to emerge. An idea of strategic spatial planning as a transformative and integrative, public sector led socio-spatial process, through which visions, frames of reference, justification for coherent actions and means for implementation are produced that shape and frame, what a place, a city, a territory is and might become (Albrechts 2006). An idea of planning much more open, exploratory and experimental, that cannot completely rely upon the available theoretical foundations.

### **No translations for the “garbage can” model**

Going back to the debate in political science it must be noted that there had been a fourth decision making model which had always been treated as an extreme model, something like a radical view of the irreducible complexity of the reality of decision-making processes: the so called “garbage can” model, proposed by March Cohen et al. (1972) according to whom the decision is a collection of choices looking for problems, issues and feelings looking for decision situations in which they might be aired, solutions looking for issues to which they might be the answer, and decision makers looking for work.

They highlighted four ambiguities of decisions:

1. actors goals are unstable, they change over time, they are discovered in the process, therefore it is difficult to attribute to them steady positions;
2. actors participation to decision making processes is fluid and inconstant; therefore decisions cannot be taken as the product of a stable set of actors because they tend to distribute their attention in an unpredictable way;
3. the context of a decision is formed by limited opportunities to decide and many problems compete to enter into the agenda, some of them never reach the opportunity to be treated;
4. there is not a solution searched for a given problem, but the decision making arena is rather made of problems and solutions mixed as in the metaphor of the “garbage can”. Providers of solutions may search for problems rather than the opposite; the structure of the decision making process is governed by casual combination.

The garbage can model was describing a situation in which conflicts were not resolvable due to the many ambiguities of the context of interaction and to the wicked nature of social problems.

But even with this apparently de-structured approach the “garbage can” model was not only a descriptive tool, a number of prescriptive implications could be derived from it: work on problem re-definition; try to bring in new actors; try to establish new connections between problem-holders and solutions providers; renounce to any comprehensive treatment.

This model had not a significant impact on planning theory, there has not been a “translation” until quite recently when a number of reflections resonate with the theoretical contribution of March Olsen and Cohen: the work of Jean Hillier (2007), Gert de Roo et al. (2012) and all those who have been working upon the relationship between planning and complexity.

### Strategic planning “boundary objects” and “trading zone”

Somehow in the same attempt to produce an approach to (strategic) planning appropriate to the level of complexity of contemporary urban regions I have been searching for theories in other fields that could help in defining a new theoretical framework to go beyond the limits of participatory, communicative approaches that I have practiced extensively.

Together with Raine Mäntysalo and Jonna Kangasoja, from the Aalto University, we started from a re-interpretation of Lindblom, not only as the proponent of a rationality based upon partisan mutual adjustment and partial agreements, but rather of a rationality based upon conflict and agonism (Mäntysalo et al. 2011). For Lindblom, in fact, it is not relevant whether or not you share, in general terms, the values of your counterpart, as long as you are able to bargain on a concrete (planning) decision. What matters is whether your counterpart agrees with a concrete proposal, not *why* s/he agrees. If you move in this direction you can make sense of many failures in mutual understanding and of unexpected case specific opportunities even among actors in a situation of even radical conflict.

From this perspective the issue is how to deal with the situations of ambiguity proposed by the garbage-can model: the instability of the actors, their fluid participation, the complex game to enter into the agenda of public decisions, the casual combination between problem-holder and solutions-providers.

In the translation of Lindblom into the planning debate, which opened to the participatory approach, these dimensions were generally ignored. The implicit assumption of a steady “set of actors” -all those who have a stake in the decision-making process- to be brought to the table in order to include them in an open dialogue, is the reason of many failures due to the difficulty of holding together a “process” with a beginning, a development and an end.

It has been following this line of reflection that Raine Mäntysalo suggested to me to explore the use of the concept of “boundary objects” formulated by Star and Griesemer to explain the positive results of interaction between groups either in conflict or with opposing objectives (Star and Griesemer 1989) in unstable environments. The hypotheses put forward is that in order to succeed in carrying out projects of any nature in complex contexts, it is necessary for these to belong to, or intercept different strategies contingently, without requiring them to converge.

“Boundary objects are objects which are both plastic enough to adapt to local needs and the constraints of the several parties employing them, yet robust enough to maintain a common identity across sites. [...] They

have different meanings in different social worlds but their structure is common enough to more than one world to make them recognisable, a means of translation”. (Star & Griesemer 1989, p. 393).

Star and Griesemer claim that the creation and management of *boundary objects* is a crucial process in the development and maintenance of coherence between different worlds which intersect around a specific decision event.

It is not the capacity to make the right choices, from the viewpoint of the contents and the working method, which leads to the successful initiatives. In this context it is the ability to co-design an action that is a boundary object between the different strategies of the actors involved.

In the field of planning this is a recurrent type of problem: even when you do succeed in organising a fair process around a specific decision or plan, the different intensity of preferences, the degree of involvement, the meaning of the “object” varies greatly among planners, municipalities, different department officials, associations, citizen groups, other institutional or non institutional actors.

It has been through this access point that we arrived at the wider concept of “Trading Zone” proposed by Peter Galison (Balducci, A. e Mantysalo, R. eds 2013).

A trading zone is a platform where highly elaborate and complex questions can be transformed into “thin descriptions” (as opposed to “thick descriptions”), with the objective of exchanging information in a specific local context.

This explains the ability to build co-ordinated forms of mutual interaction, despite a limited capacity on the part of each group to understand the conceptions, the methodologies and the objectives of the others.

“Over a very broad range of battles—from power generating stations to fisheries, we have scientists and practitioners struggling to find a common—but restricted—language. It would be powerful if we could understand more systematically *why* some disputes can be productively advanced through the formation of delimited trading zones, while other such attempts fail. If we could do that, our understanding might lead us to strategies to encourage positive outcomes. Here, it seems to me, is a theoretical problem that bears on the most *practical* side of trading zone work today.” (Galison 2010).

There is a connection to Lindblom’s partisan mutual adjustment. There is a relation with the idea of searching for boundary objects in a situation of conflict and turbulence. There is a possible relation with the principles of the “garbage can” model. The contingent agreement in a trading zone does not require a steady set of actors, nor a steadiness of their objectives, nor a rational search for a solution to a given problem. The added

value is the idea of a “zone” rather than of a “process”. A zone can be a physical space or a contingent conceptual space of interaction.

From this view point the strategic action is the action which enters a zone of out-talk and trade. A zone which is not necessarily an arena, but is rather a recognised practice which aims at the production of the exchange.

The concept of trading zone suggests that instead of seeking to organize a process aiming at the creation of a general agreement we must try to seek those solutions which can belong to different life-worlds and to the different strategic viewpoints of the actors involved, while at the same time assuming that these actors are and remain in conflict.

We may wonder at this point if strategic spatial planning that, in the most interesting definitions, we describe as an open process, capable to deal with the multiple values and perspective of actors, capable to deal with uncertainty, dynamic, exploratory and capable to change the sense of direction (Albrechts 2004; Albrechts and Balducci 2013; Balducci 2011, Balducci et al. 2011), cannot be conceived as “the intentional creation of a trading zone”, which requires the effort to translate expert knowledge and expert’s values, that have not to be hidden, entering in a dialogue to produce partial agreements and solutions.

It is usually acknowledged that strategic planning is working on visions and on the involvement of stakeholder in a reflection about the future with the aim to produce a change in the immediate action and in partial choices (Albrechts and Van Den Broeck 2004). It is also recognised that strategy making is the process that helps specific episodes of innovation to be transformed into institutionalised practices which, if are successful and “travel”, could on the end transform the governance culture (Healey 2007). There is a parallelism here with the recall that Peter Galison does of anthropological linguists who show that “pidgin English” is a simplified form of language which is essential for allowing communication and exchange between local populations in colonies and colonizers. Over time this simplified form can evolve into a creole and eventually into a full language. But without the original pidgin no language could exist.

The idea of strategic planning as the intentional attempt to create a trading zone opens towards a perspective of an explicit recognition of the kind of social work that must happen in the process of strategy making: not the progressive persuasion of the actors about common goals to produce the right choices, but the creation of an area of understanding, exchange and translation between actors to produce partial agreements and innovations.

Intentionality is rooted into the planning tradition, but this time it is emptied of any technocratic dimension, it

is the frame with which a specific actor enters into a world of complex, unstable and conflicting relations trying to produce partial assemblages (Beauregard 2012).

## To conclude

We have discovered in the last 30 years that planning cannot change the society, and this created disillusion particularly in the generation that has been protagonist of the planning movement in the early stages.

We have discovered that both planning based upon technical rationality and on political rationality have important limits.

In a period of instability and complexity, globalization and dispersed urbanization we know that we still have to probe and explore how to plan working with democracy.

We still have to work on visions, strategies and the long run, with a politics which is forced more and more to live in the short run, but we also know that this has to be done in a different way, being well equipped to start a process of “navigation” as Jean Hillier puts it, rather than to follow precise “road maps” (Hillier 2011).

We know that we have to move from the conviction of being right, having the right solutions, to an experimental approach which is in search of “boundary strategies” where we can meet the different interests, the objectives and the values of the various actors, without seeking to convince them all.

Having the privilege of working with the physical space which is the only shared object in a rapidly changing and liquid society, we need to develop the ability to translate our jargon, to create an inter-language accessible to all, a “trading zone” as Peter Galison puts it: an area in which we can mobilize our expertise and values in a creative way, being able to mix-up with other expert and lay knowledge and values.

We know that working in this way is not the solution of fundamental issues like social injustice, climate change, environmental unsustainability, demographic decay, but is the only way we have to attack these problems and try to make some progress.

## Competing interests

The author declares that he has no competing interests.

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