Chapter 15
CTC, Social Theory Oriented Urban Theory, and Planning

In previous chapters we've seen that there are several interesting resemblances between complexity theory and social theory and as a consequence between CTC and social theory oriented urban theory. We have further seen, however, that beyond the latter similarities, there is a fundamental difference between CTC and social theory oriented urban studies: The starting point of SMH and PPD urban theories is society at large when the city is perceived as a representation of the larger and more fundamental system – society. CTC as interpreted in this book, start from the nature of the city itself as a complex self-organizing system.

The question that this chapter aims to address is this: What are the implications of the above similarities and difference to urban planning? The answer is twofold: on the one hand, the discussion in this chapter shows that the above similarities apply also to social theory oriented planning theory. More specifically, that communicative planning can and should be reformulated as a process of self-organization. This is elaborated in Sect. 15.1. On the other hand, however, the above-noted difference exposes a lacuna in planning theory, namely, that it has never theorized about the structure of the planning system. Sect. 15.2 elaborates on this issue and concludes with a suggestion to reformulate planning theory accordingly.

15.1 Linking CTC Oriented and Social Theory Oriented Planning

15.1.1 The Self-Organization of Communicative Planning

The fact that CTC originated in the sciences and at the same time also have genuine similarities with the second culture of cities, provided the basis for my claim that complexity theory can provide a link between space and place, that is, between the two cultures of cities (above Chap. 1, and Portugali 2006). Can the same be said about the two cultures of city planning? Put in other words: Communicative and strategic planning approaches that currently dominate planning discourse are seen as the planning counterpart of the second culture of cities and as a response to the

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postmodern urban condition of globalization, the decline of the welfare state and the rise of strong civil society. Can there be links between CTC and social theory oriented planning similar to the links discussed above?

The answer to my mind is positive: In his book *A Sociological Theory of Communication: The Self-Organization of the Knowledge-Based Society*, Loet Leydesdorff (2001) makes an explicit link between Giddens' theory of structuration (Giddens 1984), Luhman's perception of society as a self-organizing system and Habermas' communicative action (Habermas 1984, 1987, 1990). In line with this view I suggest similar relations between self-organization and communicative planning, namely that complexity and self-organization theories provide a theory to the way communicative planning discourse is evolving.

Some indications that this is indeed the case emerge from the discussion in Chap. 13 above (and from Portugali and Alfasi 2008) on planning discourse analysis in which it is shown that planning discourse evolves by means of self-organization as a synergetic inter-representation network (SIRN). This theoretical-empirical study, as we've seen, followed closely, by means of participatory observation, the discourse of a small planning team that was assigned to plan the city of Beer Sheva, Israel. What is striking about this case study is that the planning team conducted its activities in line with the rational planning approach and yet, despite their intentions the real process of planning evolved as a self-organized SIRN process. What this study indicates is that discourse is central to planning, including to the rational comprehensive approach, that planning discourse evolves by means of self-organization and that there exist an interesting potential (that has yet to be fully elaborated and realized) of linking complexity/self-organization theories with the communicative planning approach.

15.1.2 The Ethical Dimension of CTC

But the potential link between complexity theories oriented planning and social theory oriented planning goes beyond self-organized communicative planning. Communicative planning commences with an ethical message suggesting that this form of planning implies a more democratic and socially just planning process and practice. This is so since it gives a central role to the various NGOs that compose the third sector of civil society. The idea is that these organizations are genuine representatives of society so that their active participation in the planning discourse and process gives a stronger say to sections of society hitherto not represented. Communicative planning is not specific about the planning framework within which the communicative discourse should take place. From recent studies it seems that strategic planning is regarded as the favorable approach for this purpose. As we've seen above (Chap. 12), central to the strategic planning approach is the determination of the future *vision of a city* as the locomotive of the planning process. According to communicative planning the active participation of the

various civil society organizations in the discourse that determines the urban vision will lead to a more democratic and socially just planning.

Complexity theory originated in the sciences with no explicit ethical message and, as a consequence, CTC commonly come with a self-image of a scientific and thus objective and ethically neutral approach. My claim is that the extension of the theory to the human domain and to cities does enfold an implicit ethical message that I'll try to explicate. The latter follows from our observation that each urban agent is a planner at a certain scale and that due to nonlinearities the planning actions and ideas of single individuals can be as influential as plans and actions of the city's planning team. In other words, from the point of view of CTC there is no qualitative difference between large-scale formal planning institutions such as governmental or municipal planning bodies, medium-size planning organizations such as NGOs and small-scale, unofficial, planners such as firms, households and individuals. A nice illustration of this property is the story about the butterfly effect of the balconies of Tel Aviv.

15.1.3 *The Butterfly Effect of Tel Aviv Balconies and its Implications*

From its early days in the early 1920s the city of Tel Aviv has been a city of many balconies. People used to spend long hours sitting on their balconies, especially on summer evenings and nights. One day, probably in the late 1950s, an unknown resident of Tel Aviv decided to enlarge his/her apartment by closing the balcony and making it a "half-room". He/she made a small plan, hired a builder and implemented the plan. One of the neighbors liked the idea and did the same. A process of innovation diffusion started – very much in line with Hägerstrand's theory (Hägerstrand 1967, above Chap. 2) – and before long the vast majority of balconies in the country as a whole was closed (Fig. 15.1, *right*). At this stage, the municipalities decided to intervene and started to tax all balconies, open and closed, as if they are a regular room. In response, developers started to build buildings with closed balconies (Fig. 15.1, *center*). For several years no balconies were built in Tel Aviv and other Israeli cities. But then, with the arrival of postmodern architecture, balconies became fashionable and architects started to apply for permits to build balconies – not to seat on them as in the past, they said, but as a decorative element. Equipped with their past planning experience and the wish not to lag behind the advancing (post)modern style, the city planners gave architects and developers permits to build open balconies but in a way that would not allow them to be closed as in the past. The result is the "jumping balconies" so typical nowadays in Israel's urban landscape (Fig. 15.1, *left*).

A comparative empirical study on "urban pattern recognition," which took place in the early 1990s at Tel Aviv University and involved cities from Europe, America, and East Asia, found that the most prototypical architectural patterns in the cityscape

Fig. 15.1 Tel Aviv Balconies. *Right:* Typical Tel Avivian balconies of the 1950s and 1960s. Note that the balconies on the first floor of the building are "open", while the others are "closed". *Center:* Following the municipalities' new rules, developers started to build buildings with closed balconies. *Left*: A building with "jumping balconies" *Left* and *Center* from Alfasi And Portugali 2009, Fig. 5

of Israel are one: the closed balcony, and two: the jumping balcony (Reuven-Zafrir, not published).

The story of Tel Aviv balconies illustrates three aspects of the relations between CTC and planning. The first aspect concerns the property of nonlinearity by which the planned action of a single person might have a much stronger and significant impact on the urban landscape than the plans of architects and official planners. The second aspect concerns the planning implications of the specific nature of cities as dual complex self-organized systems. Applied to planning, cities as dual complex systems imply that each urban agent is a planner at certain scale and that planning is a basic cognitive capability of humans (above, Chap. 13). From these two properties follows a new view on the dynamics of cities: The common view is to see the city as a complex systems that comes into being out of the interaction between its many agents, and planning as an *external* force acting on the system – say, by means of new planning policies. From what has been said above follows a new view according to which each urban agent is a planner – be it a single individual, a firm or the city's planning team – and the city comes into being out of the interaction between the many agents *and their plans*. Similarly to small-scale urban agents/planners, the official planners are participants in the overall urban game.

15.1.4 Forms of Planning

One outcome from the above is a twofold distinction between forms of planning: on the one hand, a distinction between top-down, *global planning* vs. bottom-up, *local*

planning. The first refers to a planning process implemented by professionals – city planners, architects, engineers, etc. – while the second to planning as a basic human capability (Portugali, 2005a). On the other hand, a distinction between *mechanistic* or *engineered* or *entropic planning* vs. *self-organized planning*. The first refers to a relatively simple "closed system" planning process, closed in the sense that it is, or rather should be, fully controlled. The second refers to a relatively complex "open system" planning process, which like other open and complex systems exhibits phenomena of nonlinearity, chaos, bifurcation and self-organization. The planning of a bridge or a building is an example of the first form of planning, while a city plan is an example of the second.

The above forms of planning are related to each other in the following way: on the one hand, there are certain planning activities that unless they are fully (or almost fully) controlled they would not be attempted at all. In other words, unless one can create a closed system for them one would not attempt to implement them. For example, one would not build a bridge or a building unless one can "close the system", at least temporarily, and thus have full control on the outcome, namely, that the bridge will not collapse. On the other hand, in a self-organized planning such a requirement doesn't exist, for instance, when making a city plan. In the latter case, once the city plan is completed and implemented, the story just begins – it triggers a complex and unpredictable dynamics that no one fully controls. This is true with respect to master plans, development plans and other forms of large-scale city planning, but it is also true for the global effect and role of small-scale plans implemented in the city: the effect of a new building or a bridge on the urban system as a whole is neither predictable nor controllable. Similarly to large-scale plans, they become participants in the urban self-organized planning game.

15.1.5 Public Participation in Planning

The co-existence of global and local forms of planning sheds new light on the notion of 'public participation in planning'– an issue that like a shadow accompanies the discourse in planning theory from its very beginning. The basic idea, as formulated by Davidoff's (1965) seminal paper "Advocacy and pluralism in planning", is that in order to be *genuinely* democratic planning has to find a method to involve the public in the actual process of planning. The method is the so-called *advocacy planning* – an idea that was received with great sympathy by the community of planners, was given endless amount of pay lip in academic publications, conferences and planning projects, but was never really implemented in reality (Arnstein 1969; Healey 1997; Forester 1999; Douglass and Friedman 1998, and further bibliography there).

The discourse about public participation in planning as it currently takes place is based on an implicit assumption that there exists only one form of planning – global planning, and, as a consequence, on a sharp dichotomy between the planners and

the planned (see below). As just noted, public participation is the outcome of a common view among planners that in order for planning to be really democratic and just, planners have to give more say to people, above and beyond the say given to them via the prevailing political process in democratic societies.

The fact that global and local planning co-exist and interact in the dynamics of cities, and that in many cases local planning can be more dominant and effective in the overall urban process than global planning, implies that it must be perceived not as a reactive force, but as an important source for planning ideas and initiatives. From CTC thus follows that the role of public participation and planning democracy are not just to be more generous to the people affected by the planning, but also to allow the huge amount of planning energy to go bottom-up.

15.2 Toward a CTC-Derived Planning Theory

15.2.1 The Current Problematic of Planning Theory

Let us reiterate the question: What have complexity theory and CTC to say about urbanism and planning in the 21st century? First, as we've seen they suggest a new set of tools: urban simulation models, decision support systems and planning support systems. Second, they suggest that mathematical formalism is not automatically alien to critical science and social theory. Third, they suggest a new insight on the problematic of planning in the 21st century – on what Schonwandt (ibid) has recently termed "planning crisis". The new insight is this: according to the prevailing view the current problematic of planning theory is the result of the dramatic changes that mark the last three decades, namely, globalization, glocaliztion, the decline of the welfare nation state, the rise of a stronger civil society, in short, of the new postmodern condition. The latter have made the city and its planning complex to the extent that the good old planning approaches do not function properly and new ones (communicative and/or strategic planning, etc.) should replace them.

From CTC follows that cities and their planning were always complex – from the very emergence of civilization and urban society some 5500 years ago. What the new era of globalization did was to expose and bring to the fore this complexity; it created a situation that the complexity of cities can no longer be ignored. The story of Tel Aviv balconies took place in the 1950s and 1960s and planning paradoxes were always present in the cities. In fact, the shortcomings of the prevailing planning theory and its approaches were apparent already in the late 1960s and early 1970s – for example, in the writings of Jane Jacobs and Christopher Alexander – and as noted in Chap. 3, these shortcomings provided one of the impetuses to the emergence of critical urban theory and planning.

What then is the source of the current problematic of planning? From complexity theory and CTC follow that for several decades planning theory, discourse and

practice have treated cities and planning as simple systems and yet they are not – they have always been and still are complex systems. In order to overcome the crisis planning theory has to treat cities as such. When this is done three theoretical tasks and domains of research come to the fore: to understand the dynamics of cities as complex self-organizing systems, to formulate a *planning process* appropriate for cities as such and, to design and build a *planning system* that is tuned with the city as a complex self-organizing system. As we'll immediately see, planning theory has dealt with the first and the second tasks but overlooked the third.

15.2.2 The Structure of the Planning System – The Missing Components of Planning Theory

Planning theory has traditionally dealt with the first task in a research domain termed *theory in planning* (Faludi 1973a, b). As we've seen above, in the 1950s and 1960s such a theory was "borrowed" mainly from the first culture and science of cities, while since the 1970s the dominancy of the first culture of cities declined and the second culture of cities with its SMH approaches became the dominant theory in planning. As we've just seen, in the recent decade or so the SMH and PPD approaches gave rise to collaborative planning that is closely linked to strategic planning and in parallel we start to see also the influence of CTC. As for the second task, this has traditionally been dealt with in a research domain termed *theory of planning* (Faludi, ibid) that focuses on the desirable planning process. As we've seen above, the rational comprehensive approach dominated the field (in both theory and practice) in the 1950s and 1960s, while recently notions of collaborative and strategic planning are becoming dominant.

The distinction between *theory in planning* vs. *theory of planning* is due to Faludi, as noted – specifically in his two books that appeared in 1973, one written by Faludi and entitled *Planning Theory*, and the second edited by him and entitled *A Reader in Planning Theory* (Faludi 1973a, b). The significance of his project was not so much in inventing this distinction as with appropriately observing the field of planning as it has developed in the 20th century. *As for the third task – the structure of the planning system – the fact is that planning theory simply doesn't deal with this issue.*

Faludi has suggested the above distinction more than 35 years ago. And despite the fact that following its appearance it has been criticized on the ground that the process of planning cannot be separated from the content of planning (Harvey 1985b; Portugali 1980), this distinction still prevails in the sense that the notion planning theory has become a common name to the theorization on the process of planning, while other issues such as the structure of the planning system or the question of the right planning rules and codes are treated as technical questions or as local pragmatic questions or as ethical issues or as aesthetic issues but not as general theoretical or scientific issues.

Thus, for example, in *Readings in Planning Theory* that was edited by Campbell and Fainstein (1996/2003) there is not even a single reference to the issue of the structure of the planning system; not in the first edition from 1996 and not in the revised and extended edition from 2003. Their book whose title echoes Faludi's book from 1973, comes to update and re-define planning theory in light of the changes that took place since Faludi's (1973) *A Reader in Planning Theory*. Campbell and Fainstein open their book with a long and detailed introductory chapter that deals with the difficulties of defining what planning theory is. The issue is elusive they write, interdisciplinary, many claim that it has no right of existence, specifically today at the age and condition of postmodernity where there is no more room for grand theories. As a consequence they suggest six (five in the 1996 edition) domains of planning discourse and theorization that to their view make the field of planning theory: *historical roots*, *justification*, *ethics*, *effectiveness*, *style* and *the public interest*. The structure of the planning system is not in the list as can be seen. According to Campbell and Fainstein (ibid) the aim of their planning theory is to inform and support the practice of planning and indeed it does so in a variety of issues; the issue of the appropriate planning structure is not one of them, however.

The question of the planning structure is not included in the agenda of planning theory but it does take place in three connections of the discourse of planning: one, as a technical or pragmatic-local issue that is related to specific countries, while the second is in the form of a comparison between planning systems of different cultures and/or countries (Cullingworth 1993, 1994; Booth 1995; Newman and Thornley 1996; Healey 2007; Booth et al. 2008). The third domain that is associated with the issue of the planning structure concerns *urban governance* as discussed above (Chap. 12). The basic thesis here is that the structure of governance has been transformed from a play between two actors – the first (public) sector vs. the second (private) sector – to a play between three sectors: the first, the second and the *third sector* – composed as it is of the various NGOs that form *civil society*. The current response of mainstream planning discourse to this new reality is once again dominated by the "Faludian attractor", though implicitly; namely, the tendency is to look for a planning process that will be more appropriate to this new urban governance reality. And indeed, this is found in the notions of communicative planning and strategic planning as discussed above. Once again the question of the structure of the planning system is not on the agenda here.

This situation in the domain of urban planning of overlooking the structure of the system – the urban planning system – diametrically differs from the theoretical discourse in other disciplines such as economics, sociology or politics. In the latter, the issue of the structure of the (economic, social or political) system provides the starting point for the theoretical discussion in most domains of the social sciences; the domain of cities and urban/spatial planning is an exception in this respect. There are a few exceptions such as Alexander (2002–2004) or Lefebvre (1970, 1974) but these are exceptions that prove the rule. The question is why? Why planning theory refrains from discussing the structure of the planning system? In what follows I

suggest three working hypotheses on this issue, namely, that this is a result of the perception of the city in urban theory as a derivation, and/or as a market failure, and of treating planning as a governmental arm.

15.2.3 The Perception of the City as a Derivation/Representation and its Planning Implications

> After the Walrasian equations had confirmed ... that even an economy given over to competition will hover in equilibrium, *nothing fundamentally new seemed to have been added when this proof was complicated by the introduction of space and time*. (Lösch 1954, p 92, italics added).

This sentence is interesting for several reasons (Portugali 1984a): firstly, since it was declared by a person whose life project was the impact of space on the economy; secondly, since this sentence represents the prevailing view among proponents of the first culture of cities; third, since proponents of the second culture of cities who criticize strongly the first culture, share with them this view of the city, as secondary to the economy. The city, claims Castells (1977), is a representation of society, while according to Harvey, the city of today – the global postmodern city – is a product of the capitalist mode of production that dominated society in the 20th century and continues to dominate it in the 21st century – including the structure of its planning authorities and agencies.

This view of the city as a derivation or representation and as such as an entity that has no independent existence of its own typifies also the discourse in urban planning. For liberal-capitalist planners, planning is a major means and instrument at the hands of the governments to deal with market failures and externalities – specifically with the spatial properties of these general phenomena (see below); while according to Structuralists and Marxists planning is a component of the superstructure of society that is central in reproducing the liberal-capitalist society including the injustice inherent in it – the general as well as the urban. On the other hand, from planning theory discourse follows the sense that the process and act of planning is independent of the space of planning. As a consequence, it is possible to deal with the process of planning independently of the structure of the urban society and the urban space. Planning, according to this perception, is external to the city; it is an act *on* the city. Such a view goes hand in hand with Faludi's distinction between theory of planning and theory in planning and it is the view that still dominates current planning thought. The controversy today is between proponents of the rational comprehensive vs. communicative or strategic planning – for both the question is what is the best way to act on the city.

From the perspective of such views on the city and its planning there is no need and room to deal with the structure of the planning system. The latter is at best a representation or derivation from larger and more profound systems – economic, political and/or social.

15.2.4 The City as a Market Failure and Externality

According to the liberal ideology that dominates the western society, specifically in this age of globalization, the economy should be guided by the invisible hand of the market, that is, by a bottom-up process in which except for exceptional situations the public sector should not be involved at all. Two such exceptional cases are public goods and externalities.

Modern town planning can be seen as a direct corollary of market failure that entailed the industrial revolution. The story in short can be told as follows: the industrial revolution entailed a process of urbanization never experienced before in human history. This process of urbanization, in its turn, entailed problems – externalities of the free operation of the market – that society never encountered before and that the free market failed to solve. And since the market – the second sector – failed, the task of dealing with the new problems was transferred to the first sector, that is to say, to the public sector. How? By means of city planning. The result: planning is essentially an instrumental arm of the various governmental bodies. In such a reality the question of the appropriate structure of the planning system is not related at all to the city or to urban theory; rather it is a component in the prevailing governance of the country. Furthermore, there is no need and logic in such a reality for planning rules and laws that are derived from the nature of cities; this is so for the simple reason that the planning rules in such a situation must be derived from the nature of the dominating governance.

15.2.5 Planning as an Instrumental Arm of the National Government

Planning is commonly perceived – by the community of planners and by the law – as part of the executing bodies of national and local governments. Obviously, in other domains too governments have executing bodies as arms – in the economic domain for instance. However, there is a fundamental difference between economic theory and urban theory and between economic planning and urban planning. The economy is commonly perceived as an independent entity – independent from the state, the city and their governments. Governments *intervene* in the economy; try to influence it in a variety of direct and indirect ways. But the basis for all that is, the basic view of the economic laws and of the economic theory and of those engaged in economic planning, is that the economy is a relatively independent entity. Therefore in every liberal country and society we find a whole system of universal economic laws the aim of which is to define and create the framework for the appropriate operation of the economic system. The economic structure of every state is derived, on the one hand, from the economic theory, while on the other from the specific economic-political-social culture of ever country. This is not the case with urbanism, the city and their planning. There is no recognition here that

similarly to the economy the city too has some degree of autonomy. As a consequence, we do not find in theories about cities and their planning, discourse about the structure of the planning system, or discourse about planning rules that are derived from the very nature of cities.

15.2.6 The Planners and the Planned

A reality where planning is an instrument and arm of the national and/or urban government and planners are essentially governmental officers, inevitably leads to a gap between the planner and the planned: the planner is a professional that is working for the government, whereas the planned is the public. The community of planners was the first to identify this gap and to react to it. Studies such as Davidoff's (1965) *advocacy planning* as discussed above and Pahl's (1970) *Whose City?*, came from dissatisfaction from this situation – from the gap between the planners and the planned, from the authoritative structure of urban and regional planning and from the role of planners as part of the establishment.

This feeling of discontent shows in the ongoing discourse about *public participation in planning*, the basic motive of which, as we've seen above, is that the prevailing planning process in the western societies discriminates the poor and underprivileged sectors of society and the process of planning must include a body that corrects this discrimination. *Advocacy planning* is probably the most well-known early suggestion for correction, while communicative-strategic planning is the most recent attempt. The idea is, as noted above, that by making the third sector, with its many NGOs, a full partners in the planning discourse as it takes place in the various formal planning institutions (such as urban, regional and other planning committees), the voice of the public, the poor and the underprivileged will be heard. Communicative-strategic planning in this respect is a new version of the old advocacy planning. And indeed, in many countries representatives of the various NGOs are already becoming formal and active partners in planning committees. A case in point is Israel in which the NGOs Israel Union for Environmental Defence and the Society for the Protection of Nature in Israel are formal members in the regional and national planning committees.

Does this new situation give more say to the unprivileged and eliminate the gap between the planners and the planned? Judging from the Israeli experience the answer is negative: Firstly, being voluntary nondemocratically elected bodies that get their financial support from global and/or political bodies outside Israel, there is no guarantee that NGOs such as the two mentioned above are genuine representatives of the unprivileged sectors of Israeli society (Alfasi 2003). Secondly, making NGOs formal partners in the various planning committees simply implies adding two more bodies to the camp of the planners while leaving the gap between the planners and the unprivileged planned as before.

The problem to my mind is that the gap between the planners and the planned is built into the structure of the planning system that prevails in Israel as well as in

most western societies; in fact, the existence of this gap is one of the factors that create some of the underprivileged sectors in the first place. As a consequence, as long as the structure of the planning system will not be changed, the good intentions of communicative-strategic planning will lead to the very same outcome as before, namely, to a gap between the planners and the planned and to a situation in which the voice of the underprivileged is not heard in the planning process.

15.2.7 Toward an Urban Derived Urban Planning

The title of this section comes to indicate what has been said above, namely, that so far mainstream urban planning theory has not been derived from the nature and properties of cities but rather from other larger entities such as society at large. However, as hinted above, while this was the rule, there were a few exceptions. One example is the Chicago school and its studies about the city (Chap. 2 above). For example, Wirth's (1938) "Urbanism as a way of life" suggests that cities and urbanism shape social relations and society; in the domains of planning and architecture, the projects of Jacobs and Alexander as discussed above stand as exceptions. Finally and more recently Lefebvre's (1970) *The Urban Revolution* suggested a provocative view according to which urbanism is becoming the mode of production – the driving force – of society.

What is common to the above approaches is that they theorize about the city on the basis of its own specific properties and not as a derivation. This is also the case with CTC, as we've seen above. Unlike mainstream urban theory, CTC suggest seeing the city as a complex self-organizing system. What CTC further suggests, however, is that enfolded in the complexity of the city and in the self-organization processes that typify it, are several important qualities that modern town planning has almost destroyed – qualities that need to be preserved. The planning system in its current structure is not built to do so – not in its rational comprehensive form, nor in its communicative-strategic form.

The world-view that dominated and still dominates the domain of planning is that without central control and planning the city will deteriorate into a chaotic situation of disorder and externalities. Complexity and self-organization theories suggest the exact opposite: that in the absence of central planning the city still has the capacity to self-organize and that in certain cases it self-organizes itself despite of planning and irrespective of planning (e.g., the case of the Tel Aviv balconies as described above). Complexity theories further show that every urban agent is a planner at a certain scale and that the urban process is not a mysterious outcome of the invisible hand of the market, but rather a result of a process of self-organization that starts with the interaction between the urban agents and their plans, at a variety sizes and scales. Finally, from complexity theories follows that similarly to the economic, the social or the political domains, the urban domain too is relatively independent. Similarly to the structure of the other systems – the economic, social or political – the structure of planning system is related to the other structure but

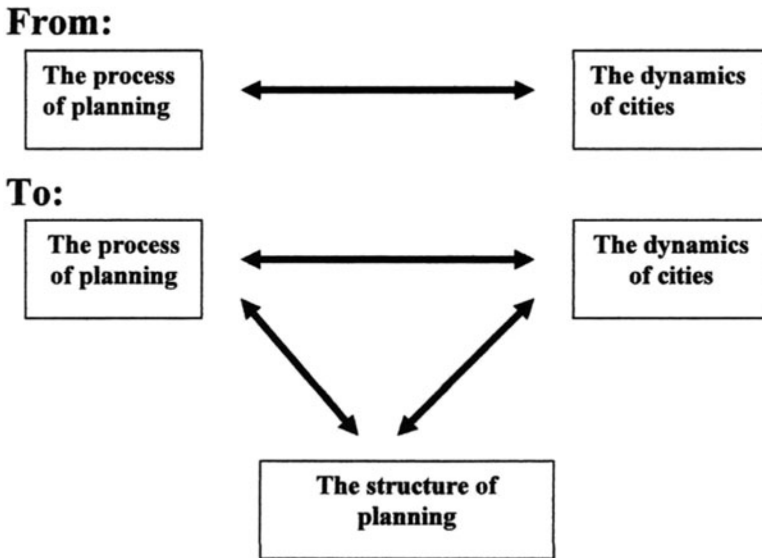

Fig. 15.2 A suggestion to re-structure planning theory

similarly to them, it has a degree of autonomy that justifies an urban derived urban theory with a planning theory that complements and supports it.

From CTC thus follows a need and potential for an urban planning theory that is derived from the very nature of cities, from the fundamental properties of cities as complex self-organizing systems. This potential can be realized if we reformulate and/or extend the theoretical domain of planning as presented in Fig. 15.2; that is to say, from a dual Faludian structure of *theory in planning vs. theory of planning* (Faludi 1973a, b), to a triple structure that includes a third component that deals with the desirable structure of the planning system. Chapter 16 that follows closes Part III with a suggestion of what the third component of planning theory, namely, a CTC-derived planning system, might look like.