Exploring The Theoretical Foundations of a Wicked Game

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1. INTRODUCTION

Ever since Rittel and Webber (1973) published their seminal article *Dilemmas in a General Theory of Planning*, wicked problems have gained growing interest among planning and policy related research. Although the original article was published over forty years ago, countless articles on wicked problems can be found especially in the twenty-first century. It seems that the theme is more interesting than ever. The topics discussed as wicked problems span climate change, environmental problems, creating strategy, and health issues, to mention just a few (Levin, Cashore, Bernstein & Auld 2012; Balint, Stewart, Desai & Walters 2011; Camillus 2008; Mason & Mitroff 1981). However, as Xiang (2013) has noted, most of the research on wicked problems is repetitive in nature and lacks well-grounded theoretical explorations. The usual case is to prove that the problem observed is a wicked one, and to add descriptions of the stakeholders and their views. At the same time, Raisio and Vartiainen (2015) share the concern of repetition, but they call for more empirical research.

This article grasps Xiang's (2013: 2) point and explores the theoretical foundations of a wicked game. This concept has been touched upon before from the citizens' perspective and their ability to take part in the wicked game (cf. Lundström 2015; Lundström et al 2016). Therefore, the main objective of this article is to explore and present the theoretical foundations of a wicked game in some depth. The process could help future inquiries in operationalizing different kinds of gaming strategies between and within different groups, for example. In addition, it opens up a new angle through which wicked problems can be interpreted.

After the theoretical observations, the benefits of a wicked game perspective are contemplated. The viewpoint here is regional development policy oriented, and is especially on a national scale. This stems from the notion that regional development policy is very sensitive to wicked problems according to Rittel and Webber's research (1973: 155). Regional development policies involve many different stakeholders, or players, from different spatial scales so it is inevitably complex (Lundström 2015).

The terms researchers use reveal something of our view on wicked problems, and reveal how researchers are sensitive to the language used to describe them. Just to give a brief overview of the different ways to grasp the wickedness, Raisio (2010) *embraces*, Norton (2012) *lives with*, Houghton (2015) and many others *tame*, the Australian Public Service Commission (2007) *tackles*, Conklin (2006) and Jentoft and Cuenpagdee (2009) *address*, Camillus (2008) *resolves*, Roberts (2001) *copes* and many others *try* to *deal with* (Termeer, Dewulf, Breeman & Stiller 2013; Van Bueren, Klijn & Koppenjan 2003) wicked problems. All of these perceptions share a standpoint that they all want to do something about the wickedness. The gaming perspective differs from these in that it is more focused on the dynamic part of resolving and formulating these kinds of problems. They are not just out there. Van Bueren et al. (2003: 194) have aptly stated in the context of wicked problems that the differences in the perceptions of the problem cannot be solved by more research. This is a call for wicked gaming perspective.

The notion of game has been used in planning and policy related research quite often (cf. Head & Alford 2013; Leino 2012; Sotarauta et al. 2007). Van Bueren, Klijn and Koppenjan (e.g. 2003) have come closest to the concept of a wicked game. They used also the gaming aspect in describing 'policy games' but from a network perspective. According to them, "wicked problems are dealt with in policy games" (p. 194). This interpretation is shared here but developed to fit the context of wicked problems in a more suitable way. Therefore, the idea to use the concept of a game is not new to planning or policy oriented research. The novelty here is the use of the wicked gaming perspective on wicked problems and policy issues. The notion implies that all of us are part of the game and can open some new and interesting ways to understand the wickedness. After all, wicked problems are usually seen as 'something out there'. Now is the time to focus on the wickedness from more active point of a view.

This article continues by introducing tame problems and combining them with the tame game. After this, the properties of wicked problems are presented and combined with wicked games. The fourth section answers the research questions and ponders on the usefulness of the wicked games perspective.

2. TAME AND WICKED PROBLEMS

It has to be noted that although Rittel and Webber's 'Dilemmas' was a critique of the ongoing yearning for the general theory of planning, it has been widely used to describe wicked policy issues (Head & Alford 2015; Head 2008; Australian Public Service Comission 2007; Freeman 2007; Durant & Legge Jr. 2006; Rittel & Webber 1973). Rittel and Webber (1973: 155) also recognize this aspect: "*Policy problems cannot be definitely described."* Undeniably, the notion of wickedness is becoming more and more useful as we enter 'the era of complexity' (Lundström 2015; Raisio & Lundström 2014, 2015). This means that the present-day societies are becoming more complex, a situation that results from publicity and openness and from the options the current

forms of communication offer, and from the fact that information is more open than it used to be; but the social side of problem solving has its effect which cannot be ignored. People are more aware of what is happening around them and no longer consider themselves subjects. Instead, they want to be an active part of the society and to influence the decisions being made (Lundström et al. 2013). In addition, the citizens want better justified decisions. In Finland for example it is now an almost event for politicians to get in some kind of murky situation, or to find they do not even know what they are deciding upon. It also calls for a new kind of leadership which embraces the complexity and the wickedness instead of suffocating it (Raisio & Lundström 2014, 2015). Regional developers (cf. Sotarauta 2010) are not in a different situation. The concept of the region involves so many sides that the only term to describe it is *complex* (Lundström 2015).

To begin with tame problems, Mason and Mitroff (1981) described them through three dimensions. 1) They can be separated and 2) reduced and 3) the right solution can be defined. Conklin (2006: 18–19) added that the solution is objective. He also noted that tame problems belong to a class of similar problems and all of them can be solved in the same similar way. It is also noteworthy that tame problems have a stopping point. This means that the problems stop when the solution is found. 'Tame' does not necessarily mean that the problem is easy to solve, but the question is about the repeatability and lucidness of the process (Lundström & Raisio 2013). Tame problems and the idea of the tame game is discussed in more depth in the next part of this paper.

Wicked problems can be seen as a contrast to tame ones. Briefly, they are problems that cannot be solved. They are impossible to define in a clear and acceptable manner. Finding a durable solution is difficult because of the contending stakeholders and their views (Rittel & Webber 1973; Vartiainen 2005, 2008; Lundström et al. 2016). Basically, it all comes down to the interactions present as everyone owns a part of the truth (Roberts 2000). A number of different lists have been introduced on the properties of wicked problems (cf. Rittel & Webber 1973, Conklin 2006, Norton 2005, 2011). Norton (2005, 2011) summed up the original aspects presented by Rittel and Webber into four subgroups: 1) *Problems of problem formulation* due to value-ladenness; 2) *noncomputability of solutions* means that the decisions become operational only after the decisions have been made; 3) *nonrepeatability* emphasizes that the desire for one-size-fits-all solutions should be buried; 4) *temporal open-endedness* means that the new resolutions lead us to only a temporary state of equilibrium. This means that the lucidness and repeatability of tame problems is absent in wicked problems.

3. TAME PROBLEMS CALL FOR TAME GAMES

In addition to math problems Rittel and Webber (1973) compared tame problems to a chess game. As we all know, a normal game of chess (like sports games generally) has a set of rules which all players know and accept. Usually the rules concern the number of the players, the playing field, who wins and how, is there an opportunity to tie, what kind of 'moves' are allowed or how the

players move in the playing field, playing time and so on. Sports games and such like are tame games; they might be difficult to play, but everyone knows the objective of the game and the rules are familiar to the players.

Chess, for example, is a board game for two players. The playing field or in that case game board, consists of 64 squares arranged in an eight-by-eight grid. Both players have 16 pieces (king, queen, rooks, pawns etc.) which have different capabilities to move on the board. The objective of the game is to beat the other player through forcing a checkmate. Sometimes, quite rarely though, the game ends in a draw.

In addition, what is relevant here is that no other chess game has an impact on another. This concerns the players as well; no outsider affects the game; it is just between the two players. The previous game does not directly influence future games and the players can always start a new game. Usually, the more one plays the game, the better one gets. To help the players, there are several text books and guides for playing the game. Usually they include recommendations of different kinds on what to do in specific situations.

Despite the limited dimensions of the game board and the limited number of pieces, chess can be seen as quite a complex game. The number of different permutations that can arise is vast. This is what makes chess such a popular game; limited space and time, but boundless opportunities in the progression of the game.

Of course people have tried to make invincible chess playing computers. In May 1997, the Deep Blue computer beat Garry Kasparov, the world champion at the time (Over a series, Deep Blue won twice, Kasparov once, and there were three draws). This happened also in a game called Go in 2015. These achievements were the result of many decades of programming.

The five aspects illustrated here are summarized in Table 1 below. It would be tempting to illustrate tame and wicked games through the ten-point list provided by Rittel and Webber. However, as has been noted, the original list is somewhat overlapping (Norton 2005, 2012; Conklin 2006). This is the reason why the gaming perspective only partly follows it. Instead, the games are illustrated through five points originally presented in Lundström et al. (2016). The gaming characteristics are *rules, players, the playing field, practice* and the *ending point* and they are formulated according to the original list of Rittel and Webber.

Table 1. Characteristics of tame game.

	Tame game
Rules	Strictly defined set of rules, known by every player
Players	Limited number of participants recognized by everyone
Playing field	Can be defined precisely
Practice	Repetition can help one to develop skills The more you play the better you get There is often the possibility of a return tie
Ending point	The game has a clear end point Answers are right or wrong

It is clear that these kinds of problems call for 'engineered' solutions (Lundström et al. 2016) and it also seems that such are possible: In the chess context, it took a few decades, but was possible after all. It has to be emphasized that this was with 32 pieces (16+16) and 64 squares of game board and with strictly defined rules. It would be interesting to see a computer beating humans for example at billiards where the movement of the balls is sensitive to initial conditions and far more chaotic than the movement of the pieces in chess (Raisio & Lundström 2014).

The concept of engineering solutions is a vestige from the Newtonian worldview, which holds the future can be predicted because of the clear causality of events. It also enables the assumption of 'an all-knowing planner' (Morçöl 2005). This worldview is considered quite common in public administration (Raisio & Lundström 2015: 6) despite the paradigm shifts in planning theories since the 1960s and the 1970s. To the so-called rational problem solver it is of course always easy to describe the wicked game as a tame one in retrospect. In other words, people tend to simplify the wickedness especially when time has passed and the situation is not as wicked as before: everything is clear in hindsight.

However, the engineering aspect works well, let us say in industrial engineering where the timing of different processes is vital and the number of variables can be quantified; the more efficient the processes of manufacturing , the better it is for the company. Thus it is not wrong to use the notion of the tame game when the situation is tame. However, can tackling societal policy issues be interpreted as a tame game? What would regional development policy be like if it were a tame game?

Regional development policy as a tame game

Regional development policy can be seen as an aim to improve conditions in a certain region. It can be seen as a process and usually refers to economic growth intentions but here it is considered as a wider ensemble. In addition to the economic aspects, it also refers to the aims for welfare broadly, directly and indirectly. In this, the economic side is only one part but includes the operations of universities, firms, various officials (e.g., local, national, EU), various public or semi-public development agencies, the third sector and citizens, to name a few. The paradigm of regional policies has shifted from central government to different levels of stakeholders (Sotarauta 2010: 388; OECD 2010). All in all, according to Bentley and Pugalis (2014), "it is a constellation of social, cultural, political, economic and institutional attributes" (p. 292).

According to the OECD (2010: 111) the main objectives of regional development policy in Finland are improving regional competitiveness, strengthening regional viability, reducing regional disparities, and solving specific regional challenges. The Ministry of Employment and the Economy has stated its goal is balanced regional development throughout the whole country. This will take place alongside national regional policy and European Union regional policy as they "form a whole, which promotes the equitable and independent development of different parts of the country while also supporting less developed areas" (OECD 2010: 112). Sotarauta and Beer (2015: 5) considered the Finnish regional development system to be "a complex constellation of local, sub-regional, regional and central government agencies, which is partly embedded in the regional policy of European Union". This means that the municipalities use their own resources for local development but at the national level it is the responsibility of the Ministry of Employment and the Economy. There is also a sub-regional level where the municipalities co-operate through various institutions and partnerships. The regional level is managed by Regional Councils who work on a larger scale than municipalities but a narrower one than the state. Importantly, although the Regional Councils have a statutory role, they are merely mediators or facilitators as they do not have adequate resources to implement policies. They are financed and formed by municipalities (Sotarauta & Beer 2015: 5.)

If the regional development policy was a tame game, it would proceed in an orderly manner. The general aims of improving regional competitiveness, and regional viability, reducing regional disparities, and resolving regional disparities would be commonly accepted. In addition, the means to achieve these goals would be accepted by every player. However, the reason to develop the above mentioned properties would depend on exogenous properties. One-size-fits-all methods would be widely used as they work nicely throughout the whole system: what works elsewhere, works here as well. The strategies and plans work well although there might be some fine tuning after the original plans. If any surprises emerged from outside the system, they would be handled as planned earlier: linearly and step-by-step.

The rules (or the objectives) would be made by central government and would be accepted by all the players. Of course, all the players are well known to each other and everyone would have a specifically defined role in the game. The players would not compete with each other; they play only for the region. The playing field would be for example the whole country or a more restricted

area, a region, or a municipality. More important than the size or shape of the playing field is that they are separate entities. What happens in another playing field does not influence other playing fields. They are closed systems.

The citizens would accept all the measures taken as they would all benefit from them. Jalonen (2006) coined the term *planning belief* which describes the position of planners and policy makers in the context of the tame game. According to this planning belief, the decisions made are objective and can be justified as rational.

In practice the game would be quite linear in nature, because the future would repeat the past; something that worked before, works in the future and there are conventional criteria for the solutions (Rittel & Webber 1973: 162). The aim here is not to say that it would always be easy to play the game. Instead, manuals or guidebooks could be found on how to respond in certain cases, and if something new emerged, the reaction to it could be planned safely, objectively, and in due time, as the situation would not change during the reasoning process.

The tame game has a clear ending point (Rittel & Webber 1973). In the context of regional development, the game would end when the right solutions have been found. The solved problem will not emerge again as it has stopped. The following step would be address some new problems.

Of course, when it comes to regional development policies the kind of tame game described here does not match the reality of the situation.

4. WICKED PROBLEMS CALL FOR WICKED GAMES

Rittel and Webber (1973: 161) stated that "it becomes morally objectionable for the planner to treat a wicked problem as though it were a tame one, or to tame a wicked problem prematurely, or to refuse to recognize the inherent wickedness of social problems." It is good to note that Rittel's understanding of a designer was quite broad: "Everybody designs sometimes; nobody designs always" (Rittel 1987: 1). This is also acknowledged by Protzen and Harris (2010), who point out that Rittel defined design as, "the making of plans to bring about desired situations in the world" (p. 14). So planning or design is not restricted only to planners or designers and therefore the morally objectionable concerns everyone who is part of the wicked problem—the players. Thus if a tame game is morally objectionable in the context of wicked problems, Rittel and Webber call for something else—a wicked game perhaps?

Some steps have been taken in the right direction—away from the tame game toward a wicked game. According to Sotarauta (2010: 388, 1996) policy-making and implementation are now understood as multi-agent, multi-objective, multi-vision and pluralistic processes. This means that the policies are under constant change and shaping and thus the notion of a tame game must be irrelevant to actual policy-making. The notion of the wicked game helps to understand the above

"multi-processes" in a more systematic way as it explains how they are founded. And of course it is always good to know what kind of game is being played.

The tame version of the game was described earlier through five characteristics. The wicked game can be defined through the same features. These are presented in Table 2 and compared with the tame game.

Table 2. Tame and wicked games (Modified from Lundström et al. 2016).

	Tame game	**Wicked game**
Rules	Strictly defined set of rules for all situations that can occur, rules are known by every player Rules are mechanical	No coherent set of rules, everybody can play the game by their own rules Rules are organic
Players	Limited number of participants recognized by everyone	Players change all the time, everyone who is involved in the game is a potential player
Playing field	Can be defined precisely	Networked and complex, the spatial scale is relative and can vary
Practice	Repetition can help one to develop skills The more you play the better you get There is often the possibility of a return tie	No one can master a wicked game because the game, the rules, and the players change constantly There is no possibility of a return tie
Ending point	The game has a clear end point Answers are right or wrong	The game does not end Answers are better, worse, satisfying or good enough

First, the rules of the wicked game differ from those of a tame one. One cannot say that there are any rules in a wicked game apart from the law or good manners. This is based on two facts: First, because of their own perceptions of the problems and the potential solutions the players have different ambitions for what should be done and how based on their own subjective strategies (Bueren et al. 2003: 193). The second reason stems from the fact that the players change constantly. Although some of the players can be considered to have a permanent role in the game, but some evidently do not. Citizens, for example, have a somewhat fluid role as they can enter or exit the game almost whenever they consider it suitable. This also concerns different kind of partnerships and agencies.

According to Rittel and Webber (1973: 163), the players have an equal role because no one has the power to set formal decision rules to determine correctness. From the perspective of the wicked game, the players are not totally equal. Some of them have a greater power to dictate to others. The state for example has the role of a legislator and is in charge of budgetary decisions. These roles make it possible to influence the aims of the game. In spite of this role, the forced solutions are no more true or more false than other possible explanations examined from the point of view of the wicked problem. Therefore, one player might have more power and can even produce somewhat forced solutions, but it does not mean that those solutions are more or less correct than other options. It must be recognized that they do change the game. At the same time, the power is in the hands of the citizens as they elect the representatives in the parliament. The power is then at the bottom and at the top levels at the same time.

To continue with the players and their involvement, the wicked game should be interpreted from the point of view of complexity. All of the players are part of the game even though they might have stronger or weaker connections to the game. These connections vary as the game changes. The complexity arises not only from the number of the players, but also from the strength and quality of their connections to other players. The various forms of self-interest or "not-in-my-back-yard" or NIMBY movements are interesting as they can develop quickly and usually have only one agenda and certainly are strong-minded in their actions. They step into the game for only one reason: to strongly resist something. They have strong links to the game, at least temporarily. When the goal is reached, the group steps away from the game. In addition, van Bueren et al. (2003) have acknowledged the strategic side of the game in addition to the volume of the players. They described the cognitive and strategic uncertainties which result from the players' strategic and institutional factors but from the volume of the players as well. All the above means that the rules are organic; they change as the players and their ambitions come and go so there cannot be any mechanical rules defined as was possible with the tame game.

The players are part of the game whether they want to be or not. The involvement should be viewed through the strength of the links to other players and to the game. Of course the strength of the links can vary. Sometimes they can be strong and at other times they can almost vanish as reported earlier, but the links still remain, even if sometimes weak in nature. They can intensify if the game evolves in a direction which demands actions from a certain player with weak links to the game. This means that the involvement in a wicked game is not optional. Each player possesses the capability to influence the game (Camillus 2008) and according to Rittel (1972: 394) the information needed is distributed over many people.

Players are of course dependent on each other. This stems from counter actions taken by some players as they react to the moves of other players and some form alliances. The moves do not always have an immediate impact, the impacts might become apparent only after a longer period, but they cannot be traced to specific moves as they are nonlinear. Of course the actual impacts are joint effects between the actual moves and the counter moves from other players (Rittel & Webber 1973: 163). It is noteworthy, that these can also emerge as undesirable effects.

New players and their emergence have been visualized as “black swans” (Taleb 2008). According to Taleb, black swans are something complex, chaotic, random and unpredictable changes or events (cf. Morçöl 2012; de Roo & Silva 2010; Gerrits 2010). The emergence of new players— unexpected or not— inevitably changes the game; it is not as it was before. Rittel and Webber (1973: 163) noted this as well. They described it through implementing a solution which leaves traces that cannot be removed. In addition, the emergence of new players also leaves traces in the game. The game changes as the new perceptions of the problem appear. The black swan can also mean the emergence of unexpected events. This has happened for example in 2015 when Europe witnessed a major wave of immigrants from the Middle East which has had consequences throughout the EU member states.

Playing a wicked game can lead to different kinds of gaming behavior when enemies can be thrown together on the same side and friends find themselves in conflict, and this situation changes constantly. The situation can cause people to think they are competing against other parties who do not necessarily consider themselves to be competitors in that particular situation. Therefore, the notion of the enemy becomes vague. The situation can be the total opposite as well. In that case a player expected to be a member of one team defects to play for the opposite side. Of course there is always a third way where the players consider themselves to be on the same side. This can lead to alliances or a team game. An example of this can be found in Lundström et al. (2016) where a third sector player introduces a new player to the wicked game via a method called Citizens’ Juries (cf. Crosby & Nethercut 2005). In this case, the third sector agent and a group of citizens composed a team whose goal was to develop their neighborhoods and inform the city about their opinions. It is a good example of the emergence of a new player as well. No one can identify all of the players because they come and go, and play the game with a different level of involvement.

The playing field of a wicked game is scale relative. The game is played at different spatial levels ranging from the local to the multinational as the decisions are made in different places and by different players. Local decisions for example are made by local citizens but multinational regional development policies are made at the level of the EU. Of course there are many levels of players in between those two. This implies that in addition to players’ interconnectedness, the regional level is scaling as well. The wicked game is being played at many regional levels (or regional arenas as in van Bueren et al. 2003) at the same time. The game is scaling horizontally and vertically, in just the way Rittel and Webber (1973: 161) described the poverty problem. Some players are local and interested only in local issues, some other players in the regional issues and still others in multinational issues, while others operate on many different levels at the same time. The levels interact; the local influences the regional and vice versa directly and indirectly through the wholeness of a regional level and directly through players from different levels. This is represented in Figure 1 below where the horizontal and vertical aspects interact as they emerge. This adds up to form a situation marked by complexity.

In Figure 1, the players operating on the same playing field or regional level interact with each other directly or indirectly. The interaction with players on other playing fields can also be direct

or indirect through the system. It has to be noted that the system also plays a significant role. It can be seen as something more than the sum of its parts, in accordance with the system view. The system also contains feedback-loops that influence the players. So to sum up, the players interact with each other but also through the system level.

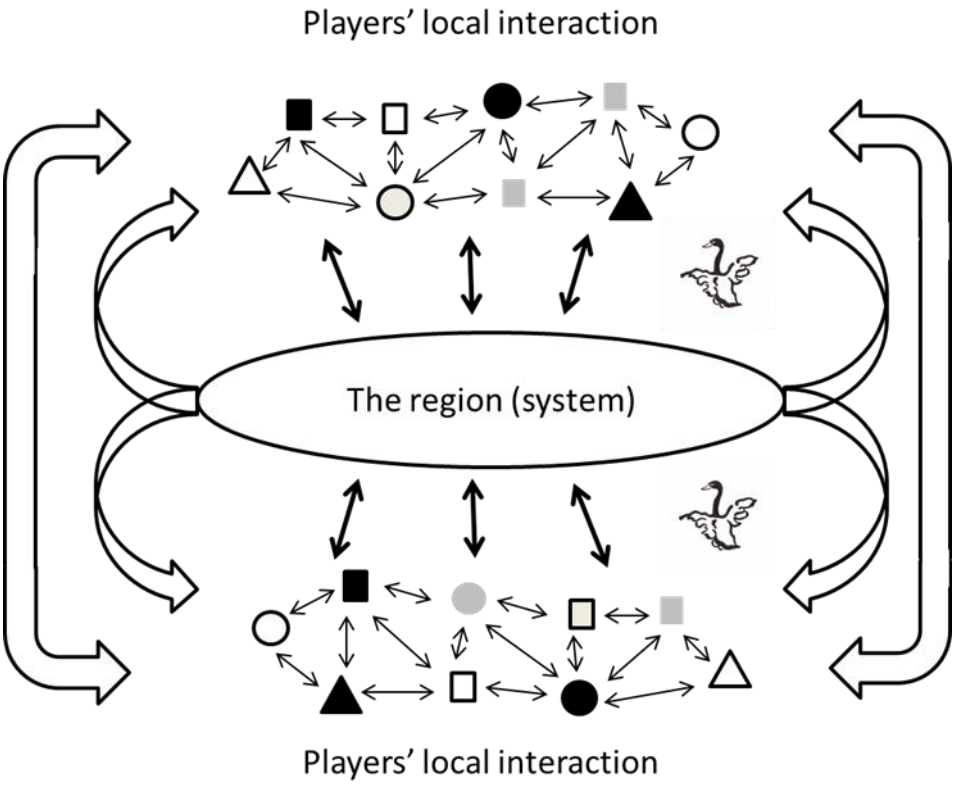

Figure 1. Interaction of players and two playing fields in a wicked game (Inspired by Lewin 1993).

To master a wicked game is a quite impossible task. There is just too much going on at the same time; too many players entering and leaving, too much self-organization, too many feedback-loops and emergence of new players. This explains why there is confusion among the players involved in regional development. The impossibility of a return tie also adds up to the challenge of mastering the game. The players cannot make moves in order to test the impact: Instead, once a move is made, it resonates through the system sometimes with bigger impacts and sometimes with lesser ones (Rittel & Webber 1973). The important point here is that the system is not the same once a move is made.

The search for the ending point of the wicked game is a vain one. The region will not stop, it will not be ready. This stems from the wickedness of development. For some, the results are good, and

for others they are the worst. These are based on the players' subjective mindsets. This kind of juxtaposition is the engine that perpetuates the wickedness. After all, there are no right or wrong answers in wicked problems (Rittel & Webber 1973), so the answers are something in between to all the players.

Regional development policy as a wicked game

What would regional development policy be like if it were interpreted as a wicked game? An exact portrayal of framing regional development policies as a wicked game would be quite an impossible task since there are so many players and interactions of different scales, and the cases are unique. Therefore, the following description can only be quite general in nature.

To begin with, the game is not a burden only for those considered responsible for regional development. Regional development policy is the concern of a mixed bunch of different players including firms, various research institutes, and public or semi-public development organizations from different playing fields, individuals and coalitions—not to forget the ordinary citizens. The weight players can bring to bear is also constantly changing. According to Sotarauta (2010: 388) this kind of multi-agent view is now a generally accepted understanding of regional development policies. Of course, the players have different ambitions in shaping the objectives of the policies and some of them have more say than others.

The objectives of regional development policies are constantly contested. The players may share the objective that development of the region is necessary, but the difficult questions are how, what, where, and by whom. For example, how should different places or objectives be prioritized, how should development be advanced, and with what objectives, what should be done, who does what, etc. Even though these questions cannot have comprehensive answers, every player plays the game from his own ambitions, and these can be polar. The policies being made are not static; a better portrayal would be hyperactive.

The difference in ambition between players means that there are no distinctive rules in a wicked game as there were in the tame game. Every player devises their own ways to play the game and their own goals. For example, one player emphasizes the citizens must have opportunities to participate in civic society, while another sees regional competitiveness as the core goal of the game. A third player might be a spokesperson for the development of transportation, and a devotee of authoritarian leadership who cannot understand the importance of participation.

As depicted earlier, some players are more influential than others. Of course some official players have more to say than non-official ones. The state or municipality for example can eventually decide the actions to be taken. However, this kind of tactic of a controller is problematic today (cf. Raisio & Lundström 2014) as communicative, collaborative and deliberative approaches can be

considered dominant paradigms. In addition, collaboration is considered the only remedy, especially in wicked problems (Xiang 2013; Lundström 2015).

The playing field of a wicked regional development game is complex and scale relative. Some players have potential to play the game at multiple spatial levels at the same time. Different research institutes, such as universities, operate on many levels at the same time spanning local to multinational playing fields while trying to influence the decisions being made. In addition, there are players, such as many citizen-based organizations, that operate only on the local level as they concentrate only on local issues. They also play the game only locally, trying to influence, for example, the officials of the municipality. However, through the wicked game they also take part in the wider context; when they play the game locally, some of their opponents might also operate at national or multinational level. This means that the game is played on many playing fields at the same time, just as presented in Figure 1. The playing fields also influence each other, they are not closed systems, but complex adaptive systems (cf. Lundström 2015). The moves the players make sometimes resonate through the whole playing field, and sometimes not. The final outputs of regional development policies are constructed through this kind of wicked game.

5. CONCLUSION

This paper explored the theoretical foundations of a wicked game. The wicked game was seen as a course of action that creates the structure of regional development policies. It is an essential part of the policy-making process. It also reminded us that all of us are part of the wickedness. There is no ‘outside’ in wicked problems. Compared to the traditional views on wicked problems the notion of a wicked game underlines the agent-based view. But what is the benefit of separating tame games from wicked games and what novel knowledge does it have to offer?

First of all, the notion of a wicked game emphasizes vertical and horizontal interaction from a regional perspective. This has been evident in the background in the literature concerning wicked problems. Regions from different scales interact through a wicked game when shaping and creating regional development policies.

It has to be emphasized that to play the wicked game does not mean that the players or the game are suspicious, murky, unprincipled or anything like that. Indeed, the wicked game is necessary if we are to acquire a better understanding about the wickedness and to re-formulate or find resolutions to a wicked problem.

But there is also a second—and very important—side involved. Wickedness is also created in the wicked game. People and the players are necessary parts of the search for the resolutions to the wicked problems in society, but they are also central to creating them. The players both try to resolve the problems and at the same time they are defining them. Wicked problems would not

exist without the players. Therefore, the wicked game is a necessary part of creating wicked problems and searching for resolutions.

The separation of tame and wicked games is crucial because it helps the players to understand what kind of game they are playing. The results may be even worse if the wicked game is played like a tame game (cf. Raisio 2009). This can happen if the players do not want to play the game or do not have sufficient resources to do so (Lundström et al. 2016). So the notion helps the future investigations of wicked problems but also help the players to better understand what sort of game they are playing. Conklin and Weil (1998) have confirmed that even the ability to recognize tame and wicked problems is beneficial, and the same must be true of tame and wicked games.

The fourth aspect of the wicked game is that all of the players are important to the game. The gaming approach backs up the previous views as this aspect has previously been acknowledged in the literature. Nevertheless, it reminds us that if certain players are to be ignored, they can enter into the game using their own set of rules. This can lead to results that are unwanted by all the players.

An interesting quest for the future would be an empirical study of the players and their interpretation of the wicked game, but also covering the different playing strategies implemented among different kinds of players. More research should also be conducted around the subjective mindsets of the players and their relations to the system as a whole.

The notion of wicked problems has a good explanatory side as well. It is a good tool for illustrating the kinds of problems we are facing today. There are no big plans behind every decision being made; the great wisdom is just a myth. Policies are usually reactions to the current situation as *the outside* tends to have more influence than *the inside* in the minds of the decision makers.

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