

## Seki

### Ruledness and the Logical Structure of Game Space

Game space can be conceived of as being structured by varying levels of ruledness, i.e. it oscillates between openness and closure, between playability and gameness. The movement through game space can then be described as a vector defined by possibility spaces, which are generated organically out of the interplay between ruled and unruled space. But we can only define rules *ex negativo*, therefore the possibility of breaking the rules is always already inscribed in this vector of movement. This can be conceptualized as a boundary operation that takes the difference between 'ordinary life' and 'play' as its argument, and which thus generates the difference between 'play' and 'game'.

As long as there have been games, there have been rules, and as long as there have been rules, there has been the possibility of breaking them – or so common wisdom has it. As J. Barton Bowyer (1982:10) notes,

the first recorded example of cheating occurred on or about 2500 BC in the Nile valley [...]. There on the wall of a forty-five-centuries-old burial chamber is a tomb painting that depicts the oldest known con game. [...] When modern con artists do it to separate a sucker from his money, they call it the shell game.

Over the centuries, much ingenuity has been invested into ever more clever ways of cheating. Famously, in 1770 the Mechanical Turk was presented as a mechanical chess playing-machine, when in fact there was a man hidden inside the cabinet that housed the 'machine' (Schaffer, 1999). In 1888, P.J. "Lucky Dutchman" Kepplinger invented the card cheating device bearing his name, "a contraption of wires,

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cords, pulleys, an adjustable tube, a metal plate, a hook, a false sleeve cuff, and a hold-out slide” (Bowyer 1982:297) that enabled the wearer to exchange cards by crossing or uncrossing his legs.

Today, in the era of computer games, cheating seems to be more widespread than ever. Several magazines such as *Cheats and More* and *PSX Cheats and Codes Hacker* are dedicated entirely to publishing cheat codes for the newest games, and most other gaming magazines have a cheat section. There are also several book series that offer large amounts of cheat codes such as the quarterly *Codes & Cheats* series by Prima Publishing and the semi-annual *Secret Codes* series by Brady Games. In addition, there are enormous databases of cheat codes on the web, which can be accessed through websites such as gamefaqs.com.

The ‘canonical’ theorists of play, such as Johan Huizinga and Roger Caillois, have by and large ignored the phenomenon of cheating in favour of orthodox play. Huizinga touches upon cheating only briefly in the first chapter of *Homo Ludens*, while Caillois dedicates a whole chapter in *Man, Play and Games* to “The Corruption of Games”, but there he is primarily concerned with the ‘contamination’ of play with reality, and mentions the practice of cheating only in passing, pointing out that once the “principle of play has been corrupted”, it is “necessary to take precautions against cheats” (Caillois 2001:45).

Even those theorists who do take the possibility of breaking the rules into account, such as Brian Sutton-Smith (1997), Sutton-Smith and Kelly-Byrne (1984), Bernard Suits (1978), and Katie Salen and Eric Zimmerman (2004), mostly treat cheating as a marginal phenomenon. Only since 2005 has cheating in computer games begun to be the subject of academic research (Consalvo 2007, Kimppa/Bissett 2005, Kücklich 2004, Yan/Randell 2005, Zetterström 2005), however, this research is mostly phenomenological and does not take into account the theoretical implications of breaking the rules.

## Towards Deludology

In order to make this apparent, I will start out from the hypothesis that it is the possibility of breaking the rules that makes a game playable. This challenges the assumption of some recent theorists of digital games that games are rule-based, formal systems (Aarseth 2004, Aarseth et al. 2003, Eskelinen 2004, Frasca 2003, Järvinen 2003, Järvinen et al. 2002, Juul 2003 and 2005, Klabbers 2003, Konzack 2002); this is not to say that rules are irrelevant for games, just that breaking the rules is just as important, if not more important than abiding by them. This also enables us to see that games cannot be regarded in isolation from play, i.e. the interaction of a human player with a technological game system (Newman, 2004).

I call this theory *deludology*, a term which has a double meaning in the present context. First, the Latin verb *deludo* is a negation of *ludo* – ‘to play’, and means ‘to mock’ or ‘to cheat’. Therefore, in its primary sense, deludology can be understood as the study of cheats and cheating. In its second sense, deludology can be understood as a negation of ‘ludology’, a neologism for the study of games used by scholars who advocate the formation of a separate discipline of game studies, and who tend to regard approaches to games from other disciplines as “theoretical imperialism” (Aarseth 1997, Pearce 2004). Most importantly, however, deludology addresses the essentialism of ludology (Bogost 2006) by drawing attention to the fact that digital games are not just a technologically enhanced version of traditional games, but a medium in its own right.

This is not an attempt to revive the debate between ludologists and narratologists, but rather an attempt to begin a new debate that does not pit games-as-games against games-as-stories, but an essentialist and reductive view of games as formal rule systems against a more inclusive and multi-faceted view of games as assemblages of practices, conventions, technology, and processes of subjectivation. As Gonzalo Frasca (2003) has pointed out, “narratology is just

as formalist and reductionist a practice as ludology” (paraphrased in Bogost 2006:68). Deludology, on the other hand, strives to be neither formalist nor reductionist in its approach to games.

The deludological method responds to ludology’s formalist approach by subjecting classical theories of play to an even more stringent formalism, George Spencer Brown’s calculus of indication (1969). This method of fighting formalism with formalism requires some justification. It may seem disingenuous, if not outright hypocritical, to argue that a formal approach to games not only misses the point but also leads to a dangerous disciplinary isolation, while at the same time advocating formalism as a remedy for this state of affairs. However, there is no contradiction between these two avenues of approach because they can easily be seen to reside on two different levels.

While the formalism of ludology can be characterised as phenomenological, the meta-formalism of deludology can be described as epistemological. That is to say, while ludology strives to classify games by formal criteria such as rules, goals, obstacles, resources, rewards and penalties (Järvinen 2003, Juul 2005, Pearce 2004), deludology aims at formalizing the approaches to games, in order to reveal the tacit presuppositions of these approaches, and ultimately, to overcome the formalist bias of game studies. In this respect, deludology can be seen as similar to the practice of deconstruction.

This already indicates that the formalism of deludology is qualitatively different from the formalism of ludology. One of the most important differences between these schools of thought lies in deludology’s use of the calculus of indication, which is based on a multivalent and contextual logic, rather than a binary, absolute system of logic. While Spencer Brown (1969:IX) bases his calculus on a distinction between two states, he asserts that “every duality implies triplicity: What the thing is, what it isn’t, and the boundary between them”. This already draws attention to the particular emphasis which deludology puts on ‘liminal’ states (Turner 1982), or, in Andrew Murphie’s (2005) terminology, ‘interstitiality’.

Spencer Brown's book *Laws of Form* is in many respects similar to a game: The injunctive mode, which is characteristic for the calculus of indication, entails a replacement of certainty with varying levels of probability, and therefore "every use of 'this is' is replaced by 'let's pretend this is'" (Schönwälder et al. 2004:31, trans. by author). The injunctions in *Laws of Form* are like the rules of a game – they can be either accepted or rejected by the reader, and while this is true for any philosophical text, Spencer Brown (1969:69) specifically encourages the reader to break these rules when he says: "It is not necessary for the reader to confine his illustrations to the commands in the text. He may wander at will, inventing his own illustrations, either consistent or inconsistent with the textual commands".

Deludology aims at using the theoretical concepts of ludology to different ends. Rather than attempting to formulate a general theory of games, deludology repurposes ludological elements to deploy a set of highly localised yet highly mobile theoretical concepts. While ludology endeavours to 'rule' the field of game studies with its territorial rhetorics, deludology strives to 'unrule' it by radically deterritorialising the field of digital games research. That is to say, not only is deludology a form of resistance against the establishment of theoretical hegemony, it is also an attempt to transform the striated (or 'ruled') space of digital games research into smooth (or 'unruled') space.

## Play Theory and the Calculus of Indication

George Spencer Brown's *Laws of Form* is a complex and multi-layered text that challenges the reader to think outside the conventional Western system of logic, which is based on the binary opposition of terms and a linear mode of argumentation, whereas the system proposed by Spencer Brown is characterised by contextual logic and circularity. This does not only make the calculus of indication particularly useful for developing a deludic theory of play, but also for a meta-critique of play theory, as well as its historical development.

In order to accomplish this meta-critique, I will try to follow the ‘injunctions’ of the calculus step by step, which will also allow readers unfamiliar with Spencer Brown’s work to gain an understanding of the way the calculus works through its application in the field of play theory. It should be noted at this point that I begin my ‘historical’ study of play theory at a relatively recent point in time, with the publication of Johan Huizinga’s *Homo Ludens* in 1938. The book has played an important part in ludological thought, and ludologists are often credited with ‘rediscovering’ Huizinga’s work, and for using his theories for the analysis of digital games. Sutton-Smith (1997) puts it succinctly when he points out that that “[n]obody has [...] had as much effect on humanistic play scholars in the twentieth century [as Huizinga]” (Sutton-Smith 1997:202).

Therefore, the development of game studies can be regarded as a sort of collaborative exegesis of *Homo Ludens*. Crucially, this seems to be one of the reasons why cheating has been disregarded in favour of ‘orthodox play’ in the field of digital games research, so Huizinga’s influence can be seen to impose a certain moral bias upon his followers. No other scholar of play has enjoyed this widespread reception, and no other scholar of play has come close to achieving the distinguished status that Huizinga enjoys within the game studies community. All of these aspects predispose this eminent figure’s work as a starting point for a thorough meta-critique of play theory.

## Distinction: The Magic Circle

*Laws of Form* begins with the simple instruction to “[d]raw a distinction”, followed by the equally simple instruction to “[c]all it the first distinction” (Spencer Brown 1969:3). The entire complexity of the calculus of indication derives from these simple instructions, similar to the way simple game rules, such as those of GO, often result in a surprising complexity of gameplay. Spencer Brown insists that it is the act of distinguishing itself that creates the two sides of the

distinction, so it does not make sense to ask what is supposed to be distinguished prior to making the distinction. However, once the distinction is made, the two sides of the distinction can be given names in order to make it easier to refer to them.

What Huizinga sets out to accomplish in *Homo Ludens* is precisely that: he draws a distinction, and then assigns names to each of the sides of his distinction. The names he chooses for the two sides of his distinction are 'play' and 'ordinary life'. As he points out, play is "a well-defined quality of action which is different from 'ordinary' life" (Huizinga 1949:4), a distinction which he affirms a couple of pages later by declaring that "play is not 'ordinary' or 'real' life" (ibid.:8). Huizinga does not make the act of drawing this distinction explicit, but it is plain to see that a distinction has been made because he repeatedly draws attention to the fact that play can be seen as a part of ordinary life – e.g., by pointing out that we can "understand play as a cultural factor in life" (ibid.:4) –, while at the same time insisting that 'play' is separate from 'ordinary life'.

A pertinent example of this rhetorical strategy is provided by his discussion of word play. Huizinga highlights the role of word play in the development of language, thereby demonstrating that play is always at least virtually present when we speak or write. Yet at the same time, Huizinga insists that play is "standing quite consciously outside 'ordinary' life" (Huizinga 1949:13). This pretence of erasing the distinction between play and ordinary life and then reinstating it is characteristic for Huizinga's argumentative strategy which repeatedly establishes boundaries between different phenomena, only to blur them again. From the point of view of the calculus of indication this makes sense insofar as once a distinction is made, it has to be maintained, and one way of doing so is to repeat the name of the distinction.

From the point of view of Spencer Brown's calculus of indication, Huizinga's repeated changes of perspective from seeing play as separate from ordinary life to regarding it as part of ordinary life and back

again can be seen as an acknowledgement of the ‘pervasiveness’ of the space in which the distinction is made. In *Homo Ludens*, ‘ordinary life’ can be regarded as the most shallow space  $s_0$ , that is the space in which the distinction is made, and ‘play’ can be seen as a space with a depth of 1, which is separated from  $s_0$  by the act of drawing a distinction. According to Spencer Brown (1969:7),  $s_0$  pervades every space deeper than itself, which means that ‘ordinary life’ pervades ‘play’, and one can choose to highlight either the continuity or the discontinuity between the two spaces.

By repeatedly crossing back and forth between the marked state and the unmarked state, Huizinga manages to highlight the ‘hidden’ third element within this binary system: the boundary between the two sides of the distinction. Huizinga refers to this boundary as the ‘magic circle’, and although he uses this term only a few times in the course of *Homo Ludens*, it has gained wide currency in play theory, and is often regarded as one of its basic principles. Salen and Zimmerman (2004:98), for example, use the magic circle as one of the foundation stones of their theory of play, and they highlight its power as well as its fragility:

The magic circle can define a powerful space, investing its authority in the actions of players and creating new and complex meanings that are only possible in the space of play. But it is also remarkably fragile [...], requiring constant maintenance to keep it intact.

Reading *Homo Ludens* through the lens of the calculus of indication thus allows us to remove from Huizinga’s (1949:8) definition of play those criteria that are purely qualitative – most importantly the criterion of play being subject to “absolutely binding” rules – and retain those which are purely formal, i.e. the criterion that play is “different from ordinary life”. At the same time, Huizinga’s contribution to play theory is revealed to be a simple act of distinction – but one that has far-reaching consequences for the subsequent development of play theory.



## Expansion: Paidia and Ludus

Roger Caillois' most important contribution to play theory is his discovery that "[m]any games do not imply rules". As he points out,

[n]o fixed or rigid rules exist for playing with dolls, for playing soldiers, cops and robbers, horses, locomotives, and airplanes – games, in general, which presuppose free improvisation (Caillois 2001:8).

In the second chapter of his book, *Man, Play, and Games*, he classifies these activities as *paidia*: "spontaneous manifestations of the play instinct" (ibid.:28). This is one end of a continuum on which, according to Caillois, all games can be placed. The other end is *ludus*, which he defines as "a tendency to bind [*paidia*] with arbitrary, imperative, and purposely tedious conventions" (ibid.:13).

How can we express the distinction between *paidia* and *ludus* in Spencer Brown's terminology? In answering this question, I am drawing on the work of Bo Kampmann Walther, who was the first scholar to address the difference between the two categories from the perspective of formal logic in his article "Playing and Gaming – Reflections and Classifications" (2003). Walther points out that

[w]hen it comes to play, the installation of the form of the play-world-non-play-world distinction must, performatively, feed back on itself during play: continually rearticulating that formal distinction within the play-world, so as to sustain the internal ordering of the play-world.

In other words, the distinction between 'play' and 'ordinary life' must be upheld through play by the players. In his brief summary of Caillois' argument, Walther notes the "temporal displacement" in the process of 'getting into the game'. Using the example of the video game *HITMAN: CODENAME 47* (2000), he demonstrates that in order

to play the game, one must first “get into character”, therefore “there is mimicry, and then there is agon”. In Caillois’ typology of games, *mimicry* (make-believe) is closely associated with *paidia*, while *agôn* (competition) is related to *ludus*. This underpins Walther’s conclusion that “play is based on a first-order transgression and abides in a second-order complexity, whereas games are based on a second-order transgression and reside in a third-order complexity”. This can be easily translated into Spencer Brown’s terminology by regarding ‘non-play’ as the most shallow space  $s_0$ , while play and games are spaces with a depth of 1 and 2, respectively.

It should be noted, however, that Walther’s model of play and games is strictly hierarchical with ‘non-play’ as the most shallow space  $s_0$ , which pervades ‘play’ ( $s_1$ ) and ‘game’ ( $s_2$ ), and ‘play’ pervading the space of ‘game’. Therefore, in order to ‘get into a game’, one must always traverse the state of ‘play’. While this is consistent with Turner’s characterization of play as a liminal phenomenon, it does not seem entirely satisfactory for two reasons. First, many games, such as TETRIS (1989) or CHECKERS, do not require identification with a character, but begin in medias res, with no noticeable traversal of the state of ‘play’. Second, Walther’s symmetrical model implies that what is true for getting into the game is also true for getting out of the game. However, many games tend to end abruptly, especially games of the *agôn* variety, which are characterized by unambiguous winning conditions.

In the final analysis, then, the question is whether the form of the distinction between play and game is, in Spencer Brown’s terminology, a ‘division’ or a ‘cleavage’. According to Spencer Brown, division of a space results in separations of a state that are distinguished by nothing but the act of division itself. A simple analogy would be to distinguish between two sets of identical pencils by referring to one set as ‘these pencils’ and to the other as ‘those pencils’. A cleavage, or severance, on the other hand, results in a separation on dif-

ferent levels, so that one can distinguish two individual states. In our simplified example, this could be achieved by referring to one set of pencils as the 'red pencils' and the other as 'the green pencils'.

Walther's model assumes that the distinction between play, game, and ordinary life is in the form of two cleavages: play is cloven from ordinary life, and game is cloven from play, as shown in part a) of Illustration 1. However, it seems to make more sense to assume that the space of 'ordinary life' is actually divided by the distinction between play and game, resulting in a structure where both play and game reside in two separate parts of the same space, which is twice removed from ordinary life, i.e. if ordinary life is  $s_0$ , then play and game are both part of  $s_2$ , as shown in part b) of the following illustration:



Fig. 1: The distinction between game, play, and ordinary life as cleavage (a) and division (b)

The most important difference between a) and b) is that in the latter, both play and game reside in spaces of the same depth (or what Walther refers to as 'third-order complexity'), while in Walther's hierarchical model 'game' resides in a deeper space than play. It should be kept in mind that, according to Spencer Brown, the form of a) is analogous to a 'qualitative' distinction, while the form of b) is analogous to a 'quantitative' distinction. Therefore, b) adequately represents Caillois' distinction between games and play, since he describes a development from *paidia* to *ludus*, in which the degree of 'ruledness' steadily increases until a threshold is crossed at which play evolves into a game. Conversely, a game can 'deteriorate' into play if the degree of ruledness sinks below that threshold. It should be obvious that this kind of movement is not possible within a cloven space, but only in a divided space because it isn't based on a 'qualitative' distinction.

## Seki

The ancient Chinese game WEIQI, now more commonly known under its Japanese name GO, generates an astounding complexity of gameplay from a very small number of rules. The players take turns placing black and white stones on a square grid, and if a stone or group of stones is surrounded on all sides by the opponent's stones – and thus doesn't have any 'liberties' – it is taken off the board. These are the only rules required to play the game. Interestingly, it is quite frequent in GO for situations to arise in which it is impossible to decide whether a number of stones is surrounded by a group of stones, or rather surrounding the group themselves. This paradoxical form is called *seki*.

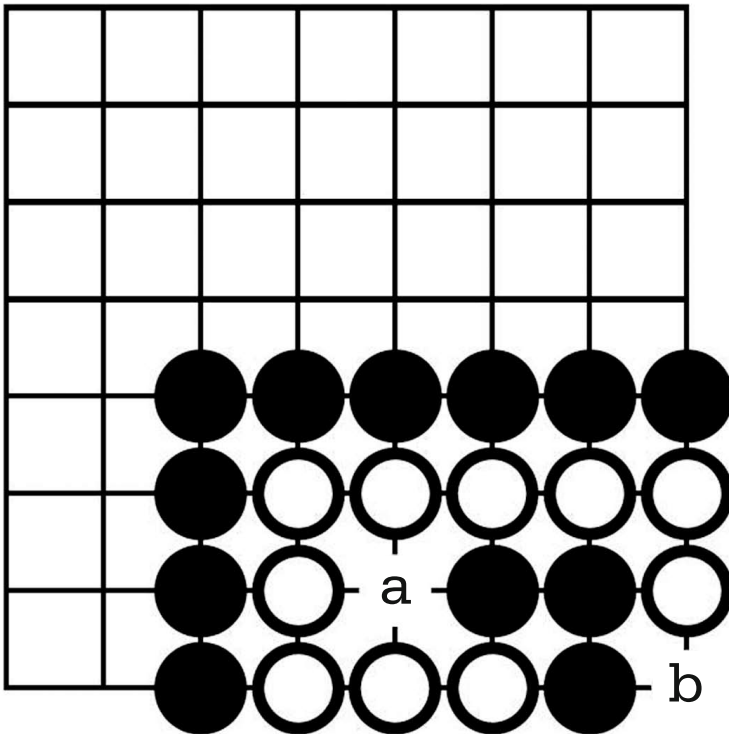


Fig. 2: A *seki* in GO

The *seki* can thus be seen as a perfect illustration of the way in which 'ordinary life', 'play', and 'games' are intertwined. In the previous section we saw that, rather than being contained in each other like a set of Russian dolls, play and games can be regarded as being intertwined in such a way that they are at the same time on the inside and the outside of each other. While this appears paradoxical at first sight, the figure of the *seki* draws attention to the fact that this structure can be reconstructed by simple means within the boundaries of a game. Thus, the game of GO serves not simply as an illustration of the theoretical model developed above, but also enables us to develop this model in a playful way.

At the same time, the figure of the *seki* can be used to understand the logic of gamespace, which is a precondition of formulating a semiotic theory of play that takes the possibilities of rule-breaking into account, and thus allows us to comprehend the way games operate beyond the confines of rules. As we will see in the following section, gamespace can be regarded in terms of 'ruled space' and 'unruled space', while play can be seen as a movement through, as well as a configuration of that space, and thus as a meaning-making process, i.e., a form of semiosis. The result of this configurative movement is a heterotopic space, i.e. a space "capable of juxtaposing in a single real place several spaces, several sites that are in themselves incompatible" (Foucault 1986:25).

## Ruled Space and Unruled Space

If we want to understand play as a semiotic operation, a meaning-making movement through gamespace, we must first define gamespace itself. It is one of the characteristics of play that it can be regarded as a spatialized form of semiosis. While there are a number of games without physical manifestations such as double-blind chess, even those games involve (virtual) space in a similar way as games that take place on boards, tables and screens do. Despite the fact that some games can be abstracted to such a degree that they

can be said to become 'immaterial', the materiality of gameplay is an important factor in the processes of subjectification which become attached to it – and this is particularly evident in games that involve a machinic substrate such as digital games.

At the same time, we can regard all games as machines, in the Guattarian sense, and as such they “cannot be limited to [their] materiality” (Guattari 1995:8). According to Guattari, there are “machinic systems, which are not themselves technological” (ibid.:9). Therefore, he introduces the term ‘machinic agencements’, which can be roughly translated as ‘machinic assemblages’ or arrangements, a category which “encompasses everything that develops as a machine in its different registers and ontological supports” (ibid.).

Methodologically, this view of games as machinic assemblages will also work as a deludological strategy, insofar as it allows us to critique Espen Aarseth’s (1997) influential concept of ‘cybertext’, which posits games, or at least a subset of games, as semiotic machines. However, Aarseth fails to account for the fact that the connectedness of machines is one of the most important aspects of their machinic, and his concept of semiotics is much too rigid to grasp the hybridity and fluidity of the processes he describes, as it disregards the cultural, social and political embeddedness of gameplay.

But before we proceed, let us return for a moment to the example of the *seki* given above. What is interesting about this paradoxical figure, apart from the way in which it blurs the boundaries between inside and outside, is the fact that it creates the need for special rules, and the need for an ongoing commentary upon these rules to make them intelligible to players. In other words, the *seki* creates a place within the gamespace of GO in which more rules apply than in other places of the same space.

This spatial heterogeneity is not peculiar to GO, indeed it can be found in most games, and is often used as a game mechanic. In BACKGAMMON, for example, the bar can be considered as separate from the actual gamespace, while at the same time performing an

important function within the game. In computer games, the importance of 'otherspace' is even greater, since playability and replayability often depend upon the presence of secret rooms, tunnels, and 'warp zones'. Significantly, computer game cheats frequently exploit the spatial heterogeneity of electronic gamespaces by offering shortcuts, and access to hidden areas which cannot be entered through ortholudic play.

I suggest the terms 'ruled space' and 'unruled space' to describe this phenomenon, although, in practice, gamespaces are almost always characterized by varying levels of 'ruledness', and ruled space and unruled space often overlap. Importantly, the ruledness of gamespace is never static, but is subject to change during the course of a game. GO provides a pertinent example of this variability of ruledness.

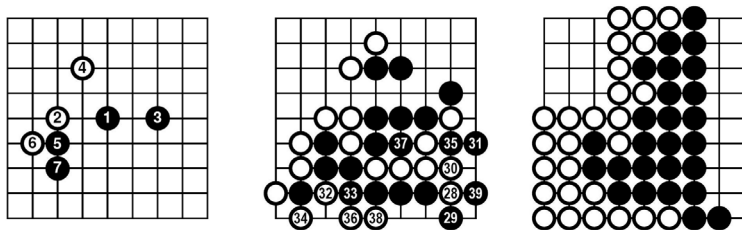


Fig. 3: The beginning, middle, and end of a game of GO

In this example, we can see that the gamespace of GO is almost entirely unruled in the beginning of the game. Players put stones on the board, trying to gain an advantage over their opponent, until patterns begin to emerge. Towards the middle of the game, a highly ruled space begins to emerge in the lower right-hand corner: White's group of six is threatened by Black, and an effective counter-threat is prevented by GO's 'no suicide' rule, which states that a player cannot put a stone in a position where it would have no 'liberties', unless,

as a result, one or more of the stones surrounding it are captured. After the players have agreed that the game is over, 'dead' stones are removed from the board, and the captured stones are placed within the opponent's territory. The result of the game thus represents an instance of a gamespace which is almost entirely ruled.

It should be noted at this point that the concept of ruledness deliberately exploits the semantic richness of the word 'rule'. While this concept is primarily intended as a tool for determining the differences in the rigidity of rules within gamespace, and the changes in rigidity that occur during play, I am also interested in providing a terminology that is connotative rather than denotative. The concept of ruledness is thus deliberately under-determined in order to allow for its deployment in other contexts and in other ways than those suggested here.

The terminological pair 'ruled space'/'unruled space' draws attention to the fact that ruled space affords a different form of movement than unruled space, just like a ruled sheet of paper suggests a different mode of engagement than an unruled one. While there is nothing preventing us from writing on unruled paper, or drawing on ruled paper, there are clear conventions of use that make certain forms of use appear more 'natural' than others. In the same way, ruled and unruled spaces insinuate, rather than enforce, certain forms of movement. In Spencer Brown's terminology, we could say that the mode of engagement peculiar to unruled space corresponds to the unmarked state, while the mode of engagement engendered by ruled space corresponds to the marked space.

Building on the metaphor of ruled and unruled paper, it appears only logical to equate ruled space with linearity, and unruled space with non-linearity, but that would be an over-simplification. Rather, ruled space and unruled space allow for different forms of linearity and non-linearity. In order to understand the different forms of movement facilitated by ruled and unruled spaces, we need to take into



account another facet of the semantic spectrum opened up by this terminology, viz., the meaning of the word 'rule' that is evoked by the phrase 'the king ruled the land', which draws attention to the fact that 'to rule' also means 'to govern' and thus allows us to recognize the close kinship between the question of ruledness and the question of power.

There is an undeniable correspondence between the concept of ruled and unruled space and Deleuze and Guattari's concept of smooth and striated space. Most importantly, for the purpose of developing a theoretical concept of ruledness, Deleuze and Guattari describe striated space as a hierarchical grid, "a system in which transversals are subordinated to diagonals, diagonals to horizontals and verticals, and horizontals and verticals to points", while smooth space is depicted as circumscribed by a "mutant line [...] that is without outside or inside, form or background, beginning or end and that is as alive as a continuous variation" (Deleuze/Guattari 2004:549), which evokes Baecker's (1993) description of an 'ourobouric' gamespace.

In conclusion, then, we can say that gamespace emerges as a space that is defined by the absence, rather than the presence of rules, and that areas of ruledness take the form of local minima, which arise emergently from the players' movements through gamespace. And even where ruledness gains a firm foothold in gamespace, such as in the paradoxical figure of the *seki*, ordinary life re-enters this assemblage and manifests itself in the form of contingency. It is this deludic movement of synchronous closure and openness that the figure of the *seki* describes perfectly.

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## Response

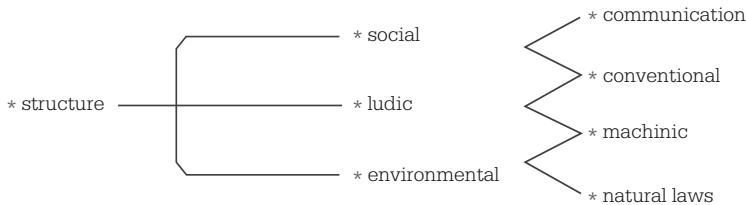
The concept of deludology builds on subverting the notion that rules are a stable constituent in games. It assumes a shared understanding of the concept of 'rules' and its applicability across media. But can we treat the 'rules' of a board or physical game in the same manner as rules in digital games, particularly digital games in virtual environments? Reviewing game studies literature it quickly becomes evident that rules are 'transmedial' (Juul 2005); the argument being that since rules are objective, we can program them into a machine which upholds them uncritically. Deludology problematizes the objective nature of rules, but I feel it needs to go the extra mile and get to grips with what rules actually refer to in digital games. Let me give a bit of context for this question.

Rules are commonly held as being a cornerstone of games (Juul 2005, Salen/Zimmerman 2004, Suits 1978), but when we apply the concept to a digital game like *HALF-LIFE 2* (2004), a number of questions arise: is the speed at which our avatar runs a rule? The density of a wooden fence? Whether a door can be opened or not? What about the path we are allowed to take within the game's environment? Are these properties of the virtual environment a rule in the same way as 'ball crosses goal line scores a point'? Or 'light comes up on machine stops fencing bout' are rules? There are, of course, similar rules in digital games, but it is not evident that treating these as ontologically equivalent to the physical properties of the virtual environment is theoretically sound.

Although certain members of the digital games family are designed to foster engaging ludic activity, they also, importantly, afford a variety of other experiences that extend beyond the ludic. They are as much designed experiences as they are ludic artifacts. Although for ease of reference we call *Grand Theft Auto IV* (2008) a game, for

example, it would be more accurate to consider it as a virtual environment that simulates a city which includes a number of games embedded in it and a linear storyline that players can progress through upon completion of strings of game objectives. When two players meet in GTA IV's Liberty City, they can engage in pre-packaged games that have been coded into the system, or they can decide to create their own games within the virtual playground in the multi-player 'free mode'. Our players may also decide to cruise the city and chat. In the latter case it would be analytically accurate to consider the interaction as a shared activity in a virtual environment rather than a game. This means that not all interactions with the objects we call games result in ludic activities.

Game-play certainly involves interaction with a set of structures, but it seems important to distinguish between different forms of structures implemented in digital games:



*Fig. 1: Different forms of structures implemented in digital games*

The notion of rules in the current paper combines conventional ludic structures (socially upheld and agreed upon), machinic ludic structures (programmed into and upheld by the computing system) and machinic environmental structures (also programmed into and upheld by the computing system but pertaining to the simulated properties of the virtual environment and its constituents). But the tactics employed by players to negotiate and subvert conventional ludic structures are importantly different from those employed to subvert machinic ludic and environmental structures. To give a simple



example, if, during a game of *THE SETTLERS OF CATAN* (1995) I am supposed to pick up 2 wood resources and instead pick up 3 without the rest of the players noticing, I could either have made a genuine mistake because I have unknowingly misinterpreted the rules, or I deviously swiped the additional resource in a blatant attempt to cheat. If I am caught out, the interpretation and subsequent negotiation of that action depends as much, and probably more, on the social setting and context (conventional social structure) as it does on the set of game rules we are playing with (conventional ludic structure). A more ambiguous example could be given where there is a genuine disagreement on interpreting the rules among the players which has not been discussed prior to starting the game. Compare this to me willfully altering the code in a game of *Counter-Strike: Source* (2004) so that all AKs do double damage. Which is still considerably different from modifying the code so that I have the facility to turn on an aimbot at a press of a key which allows me to do head-shots without fail. Yet another example, banal as it may sound, serves to highlight the difference between the board-game and digital game. Let's say I re-code *Counter-Strike: Source* so that a patch of mushrooms sprouts up in the terrorists' spawn area every time I head-shot someone. Once again the code has been modified, yet this time it has no discernable effect on game-play.

These different forms of what can be called digital game rules afford sufficiently different forms of subversion that it makes sense to consider them individually. It would also help the notion of deludology to be more precise in identifying which members of the game family it addresses. Digitized versions of board games have considerably different structures than, for example, extended virtual environments like *GTA IV* or MMOGs like *EVE ONLINE* (2003). Since deludology bases so much of its argument on rules, it seems to make sense to consider the specificities of the different members of the game family so as not to commit the error of over-generalization that the paper claims is endemic in the body of theory it seeks to critique.

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COUNTER-STRIKE: SOURCE (2004), Valve, PC.

EVE ONLINE (2003), CCP Games, PC.

GRAND THEFT AUTO IV (2008), Rockstar Games, Xbox 360.

HALF-LIFE 2 (2004), Valve, PC.

SETTLERS OF CATAN, THE (1995), Kosmos, board game.

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