BOUNDARY GAMES: A LANGUAGE AND INTENTION BASED FRAMEWORK FOR BOUNDARY CRITIQUE

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ABSTRACT

Exploring ways to understand the boundary of a problematic situation is fundamental to intervention.   The boundary draws a difference between what is relevant and what is not relevant for the problem situation.   In other words, it points out what it is and is not the system.   Boundary Critique Theory, has used the notion of boundary to built ways to examine and reflect critically about the intervention process.   It has developed ways to manage situations such as conflict, exclusion and the generation of reasonable discourse among the participants.   These developments use ideas from sources such as critical theory, pragmatic philosophy, sociology, biology and cybernetics.   This paper contributes to the range of theories informing Boundary Critique by adding a framework of Boundary Games.   The framework is based on Wittgenstein's Language Games and Relevance Theory (a theory from Language Pragmatics).   It shows new ways to reflect on the actions and language on a setting.   Particularly, it proposes six possible "moves", intentions or games in relation to the boundary.   The framework implies a shift in how the boundary is usually managed in Boundary Critique, from a boundary that shapes our actions towards a boundary that is shaped by every action.

Keywords: Boundary Critique, Critical Systems Thinking, Intervention, Boundary, Language Games, Intention, Boundary Games, Relevance Theory, Language Pragmatics, Reflective Practice, Intervention Guidelines.

INTRODUCTION

Boundary is an important concept for systems thinking and for intervention.   It does not matter if the system is a physical, or if the system is a social situation requiring intervention, in both cases it is necessary to look for what is going to be taken as relevant to understand such a system; it is necessary to look for what is going to be enclosed by the boundary.

This paper is concerned with a particular stream of work on the boundary, that of Boundary Critique Theory (Yolles, 2001).   In general it assumes that boundaries need to be constructed by those approaching to the understanding and intervention of the problem. The work on Boundary Critique has used a range of ideas to inform intervention. This paper, a development of a previous paper (Vélez Castiblanco, 2006), contributes to the range of ideas underpinning this work.   It uses Language Games in Wittgenstein philosophy and Relevance Theory (Sperber & Wilson, 1995) a branch of Language Pragmatics.

Language Games provide us of a general way to see an intervention encompassing all the actions, body language, language, methods, techniques, methodologies, etc. that can possibly be used in the process.   It also provides the notion that an intervention can be thought of as a set of interconnected language games with flexible rules.

Relevance Theory, proposes that communication is an inferential process based on how we convey and read intentions. This theory, joined with Language Games and with the notion of boundary enable us to propose a series of games, intentions or ways in which the boundary of what is considered relevant in a situation can be affected.

The paper starts showing some ways in which the work on boundaries has been underpinned in Boundary Critique. Next it introduces Language games in Wittgenstein philosophy and Relevance theory. Then the framework of six operations based on the boundary is presented. Next, it shows some implications of the framework, and its contribution for Boundary Critique.

BOUNDARY CRITIQUE

What follows is a brief and incomplete description of the field of boundary critique. It has the purpose to show that the notion of boundary and the ways in which we informed is constantly developing. It is to these conversations that this paper aims to contribute.

The theory of Boundary Critique can trace its roots to Churchman work. Particularly, It is important his understanding of boundary. "From the point of view of ideal-planning, the question of the proper boundaries has no plausible, common sense answer. It's like all the other questions, about clients, purposes, measure of performance, etc. The idea is not to find an answer but to foster the process of unfolding" (Churchman, 1979, p.91).

Consequently, boundaries are not really given by nature. They need to be constructed and "unfolded" by the participants. How they are marked will have a decisive influence in how the issue or system under focus will be tackled (Midgley, 2000). Churchman approaches the process of unfolding the boundary as a dialectic process as in Hegel philosophy (Jackson, 2000). It is a cyclical process where we strive for being more comprehensive and take more and more issues into consideration.

The next development comes with Ulrich's notion of Boundary Critique. This work aim "to make visible the ways in which any specific claim is conditioned by boundary judgements and how the facts and values it asserts change when the boundary judgements are modified" (Ulrich, 2003, pp.333–334). In a nutshell, his work takes Chuchman's ideas of Boundary and couples it with the critical philosophy of Habermas.

Ulrich (1983) assesses the boundary of a system through twelve critical questions. The questions explore sources of motivation, control, expertise and legitimisation. Each of the questions is posed in is and ought mode, enabling contrast and critical evaluation of the current system. Ulrich (2003) sees these questions as fundamental before engaging in intervention with other methodologies.

Midgley's work build up from Churchman and Ulrich. Philosophically, he uses Whitehead's process philosophy to show that any attempt to gain knowledge requires first a judge about the boundary. How or on what we gain knowledge depends on how boundaries are marked. On the intervention side Midgley focuses on the problem of marginalisation, namely how actors are included, excluded and the resultant conflict. He uses Douglas's sociological work to show how different groups of stakeholders mark different boundaries making some elements and values important or not, in Midgley (2000, p.143) terms "sacred or a profane status" is imposed.

The issues of inclusion and conflict have been later expanded by authors such as Yolles (2001) and Córdoba (2007). The first adds ideas of Cybernetics while the second brings

the biological Theory of Autopoiesis. Both aim to expand the explanatory power and the possibilities to guide interventions.

This paper looks to contribute to the conversations on Boundary Critique bringing concepts of Language Games and Relevance Theory, topic of the following sections.

LANGUAGE GAMES

The concept of Language Games introduced by the philosopher Ludwig Wittgenstein is meant as a way to explain the nature of language. He states that language is a tool, an instrument that let us do things. In itself Language Games are "the whole, consisting of language and the actions into which it is woven" (Wittgenstein, 2001, §7).

Notice that this definition can be applied to every human interaction, including interventions. Just look at every action, gesture, discourse, and also every use of techniques, methods and methodologies as uses of language and action. Furthermore, the interaction already present in the setting, the problematic situation can be thought in terms of Language Games. Consequently, when we are intervening what we are trying to do is to use Language Games to affect the Language Games already in place.

Wittgenstein proposes that just other games, Language Games also have rules. However, in a game, rules work in many different ways. They can be created, eliminated, changed. They can be fixed, flexible, not clear, incomplete, and even incoherent. Additionally, "The rule may be an aid in teaching the game. The learner is told it and given practice in applying it. —Or it is an instrument of the game itself. —Or a rule is employed neither in the teaching nor in the game itself; nor is it set down in a list of rules" (Wittgenstein, 2001, §54). Rules are flexible. They guide but not rule.

Now, in Wittgenstein's terms what I set out to find is some operations or language games that in an intervention can affect what is being considered relevant in a situation. For this purpose, I will look for some "games" that will represent different ways to construct and act on the boundary. According to Wittgenstein the uses that we can give to a boundary are not objective, they are not set at all.

"When one draws a boundary it may be for various kinds of reason. If I surround an area with a fence or a line or otherwise, the purpose may be to prevent someone from getting in or out; but it may be also part of a game and the players be supposed, say, to jump over the boundary; or it may shew where the property of a man ends and that of another begins; and so on. So if I draw a boundary line that is not yet to say what I am drawing it for" (Wittgenstein, 2001, §499).

Consequently, it is not really possible to say that Wittgenstein presupposes some uses for the boundary. It can be said that Wittgenstein gives us conceptual space to find some uses on our own. We can devise tools or games with a purpose. It is here where Relevance Theory comes into play. It provides us a base that will be use together with the idea of boundary to propose some games. Let us first introduce Relevance Theory.

RELEVANCE THEORY

The traditional way to communication is known as the code-decode model or the metaphor of the tube. On this approach, the speaker has an idea on her mind. The idea is then coded and transmitted on the communication channel (the tube). On the other side, the hearer receives the message and de-codifies the message. The process of de-codification relies on the speaker and hearer sharing the same code. After the process, the hearer now has on his mind the same idea as the speaker.

Using philosophy of language and language pragmatics, Grice (1991) and Sperber & Wilson (1995), propose as an alternative to code-decode the inferential model of communication. The central claim in this model is "that an essential feature of most human communication, both verbal and non-verbal, is the expression and recognition of intentions" (Wilson & Sperber, 2002, p.249). Relevance theory proposes an explanation of how communicative intentions are recognised by the hearer, and how the speaker takes advantage of how the recognition process works to convey ideas.

Sperber and Wilson propose two reasons for which most communications are intentional: the first, "by producing direct evidence of one's informative intention, one can convey a much wider range of information that can be conveyed by producing direct evidence for the basic information itself". For instance, from a gesture or from a stressed word in a phrase we can infer a lot of information. The second reason, "to modify and extend the mutual cognitive environment they share with one another" (Sperber & Wilson, 1995, p.64).

Relevance theory starts from the assumption that individuals possess a cognitive environment. This is a sort of background knowledge encompassing all the assumptions that individuals use to make inferences about the communicative stimulus.

This set of assumptions, the cognitive environment is affected always that a new stimulus arrives. New stimulus can weaken or strengthen old assumptions according to their relevance. In the communication process, we "alter the cognitive environment of your [our] addressees" and as a consequence the "actual thought processes" are also affected (Sperber & Wilson, 1995, p46). The process of communication produces changes. These are important because "a change in the mutual cognitive environment of two people is a change in their possibilities of interaction (and, in particular, in their possibilities of further communication)" (Sperber & Wilson, 1995, p61-62).

Cognitive environments are affected because "the human cognitive system has developed in such a way that our perceptual mechanisms tend automatically to pick out potentially relevant stimuli, our memory retrieval mechanisms tend automatically to activate potentially relevant assumptions, and our inferential mechanisms tend spontaneously to process them in the most productive way." (Wilson & Sperber, 2002, p254)

Two conditions are use to define the productivity (relevance) of a stimulus in a communicative interaction: "a. Other things being equal, the greater the positive cognitive effects achieved by processing an input, the greater the relevance of the input to the individual at that time. b. Other things being equal, the greater the processing effort expended, the lower the relevance of the input to the individual at that time." (Wilson & Sperber, 2002, p.252)

Basically, something is relevant to somebody if it is possible to obtain many inferences from the stimulus, and it is not difficult to reach such inferences. In the process of defining the productivity of the stimulus, the hearer tries to match multiple contexts to the

stimulus. The context that produces more positive cognitive effects using less effort is chosen.

The way in which Relevance is calculated has two consequences. One is that Relevance is a cost-benefit measure. The cost is the effort involved resolving the implications. The benefit is the amount of contextual effects obtained. The audience is looking through relevance to obtain the maximum productivity for the effort. Second, the process of evaluating those impacts is not quantitative. Relevance is a comparative criterion (Sperber & Wilson, 1995). We can define which assumption is more relevant to us only from a set of them.

Now with the theoretical support of Relevance Theory and Language Games we can move to the next section. What we are looking is to see how the principles stated here can be use to develop, following Midgley (2000), some ways in which the boundary of what is pertinent in a situation can be affected.

BOUNDARY GAMES

In developing the classification of possible ways to affect the boundary, I used ideas from Language Games, Boundary Critique and Relevance. The basic intuition is that intentions accordingly to Relevance Theory, can trigger some dynamics of language and actions in relation to the boundary.

There was a pair of guiding ideas for the process. One was to find by "convenience" a set of games (Wittgenstein, 2001, §569) to describe an intention in relation to the boundary. The second was to find games, intentions useful from the point of view of intervention. This means finding "purposeful action[s] by … human agent[s] to create change (Midgley, 2000, p.113). In this case, the intentions that I am looking for were aiming to create changes on the boundary.

I am taking boundary as "social and personal constructs that define the limits of the knowledge that is taken as pertinent in an analysis" (Midgley, 2000, p.35). This let me connect with Relevance Theory, just using pertinent by relevant.

The classification that I propose, looks to reflect "a rather abstract property of the speaker's informative intention: the direction in which the relevance of the utterance is to be sought" (Sperber & Wilson, 1995: 254). So let's look now those different directions.

Setting the boundary

The first operation with relation to a boundary is to set one. As the word suggests, the idea is to establish some kind of rules or space and over it the other games and operations can be applied. People do not trace boundaries from emptiness. There are always other boundaries from which to draw and in the process of setting one, several of them can be synthesised. Some of the boundaries are shared. They make part of mutual cognitive environments. Others are private cognitive environments. Private here does not necessarily mean that you are the only one with that knowledge. It only means that this knowledge is not shared with the other people in the specific interaction.

What identifies setting a new boundary is not the amount of cognitive effects or easiness, although if we follow these guidelines it will be easier for others to see the relevance of the new game. Although, it seems contradictory with what has been expressed this first game, is the only one that I did not express in terms of relevance. Instead, the proposal

here is to identify a new boundary by the kind of answers that are considered pertinent to the problem at hand. This space of answers carries implicit questions that make possible the identification of the boundary. As Garfinkel states:

"Attending to the questions rather than the answers and looking for the implicit question hiding behind the answer are a useful device for analyzing explanations and understanding historical shifts. In general, epochs in history, the history of science or any other history, are marked as much by the questions they ask as by the answers that they give" (Garfinkel, 1981, p.8)

We can consider then that the history of an intervention process is like a succession of ideas or games responding to central questions. These questions change over time and correspond to the different boundaries settled. What marks the difference among the different questions in the process is "their practical point of view: they are oriented toward different purposes" (Garfinkel, 1981, p.11).

If we follow the process and there is a change in the purpose pursued by the boundary presented, if the answers that are expected change at some point, this will mean that we are in front of a new boundary and a Setting game.

Following

Following was inspired by Wittgenstein's idea of following the rules of a game. Following presupposes that the rules are already present and, consequently, the boundary "around" them. It is like when people are acting accordingly to a plan or examining the consequences of it.

Although this kind of action occurs inside the established boundary it still has some effects on the boundary as a whole. Following does not really have the aim of producing big cognitive effects. There is not new information that enables this. However, "the more a representation is processed, the more accessible it becomes. Hence, the greater the amount of processing involved in the formation of an assumption, and the more often it is accessed thereafter, the greater its accessibility" (Sperber & Wilson, 1995, p.77).

Greater accessibility implies a reduction in the cognitive effort applied. With less effort, there is an increase in the relevance of the rules. More relevant rules make a clearer stronger boundary. For the people involved it becomes easier to play the game. Following it also helps to make new connections and inferences between the already present information.

Enhancing

The intention behind Enhancing is, in principle, very similar to Following. Both games act in agreement with the established boundary. However, while in Following what is said is inferable from the mutual cognitive context, here new information is introduced. The new information is not inferable from what is already inside. Nevertheless, the new information let you infer new things. It helps to produce new and different Followings, without changing the core of the already established boundary. The idea of the game is to expand the boundary.

The difference is also explainable in terms of relevance. While in Following the idea is to ease the effort required, here is about producing greater positive cognitive effects. The final boundary covers more "ground" and because there are more cognitive effects, the boundary is more relevant hence the boundary is stronger.

Boundary Games

Wandering

Wandering is related also to Following in a strange way. Again as in Following, the idea is to act in agreement with the established boundary. As in Enhancing it introduces new information. However, in Enhancing the new information becomes part of what is seen pertinent in the analysis. In Wandering, we take an indirect route and the new information stays outside making it not relevant for the analysis. At the end the outcome is that the boundary becomes clearer in the same way as following.

The reason that the boundary gets clearer is because Wandering is showing and making other people aware that the thing that is just said is in direct contrast with the boundary. On one side what has been said is not pertinent in the analysis. On the other side, it emphasises what is pertinent, hence the idea of indirect route, hence the idea of a negative element that reinforces the boundary. As in Following, Wandering works by reducing the cognitive effort required to produce the inferences.

Challenging

Up to this point, the role of the different boundary games has been to reinforce the boundary. Challenging's role is the contrary. Challenging is to say that what it is inside the boundary is not pertinent for the issue at hand.

In order to Challenge both inside and outside boundary information can be used. The inside information is used to look for contradictions. Outside information looks to show that from a different perspective the selected boundary is problematic. Consequently, if the Challenge is from the outside a second external boundary is implied, if the Challenge is from the inside no other boundary is implied. Although the boundary can be seen lost, or erased, it never does it (Wittgenstein, 2001, §55).

From the point of view of relevance, Challenging reduces the positive cognitive implications or increases the processing effort required to operate inside the boundary. It shows that some previously accepted implications lack grounding, or new information shows that is not so easy to obtain the inferences.

Probing

Probing differs from all the games up to this point in relation to its inputs and effects. In all the others, it is easier to understand if the information comes from inside or outside of the boundary. In all the others is easier to know if the boundary has been weakened or strengthened. Here none of these is clear. Probing involves exploration and, consequently, it is very difficult to know what we are going to find.

Probing can be executed when the boundary between the participants (the mutual cognitive environment) is not clear. "The boundaries of cognitive environments cannot be precisely determined, if only because the threshold between weakly manifest assumptions and inaccessible ones is unmarked" (Sperber & Wilson, 1995, p.45). If the threshold is fuzzy it is normal that someone will call attention to it in order to clarify it.

Because of the fuzziness of the situation, it is difficult to know if the area probed is inside or outside of the boundary. It is also difficult to understand the effect on the boundary. Sometimes the way the situation is probed can produce effects that mimic effects of all the other games.

Consequently, the distinctive characteristic of Probing is the focusing on some area. One of the speakers calls attention to the problematic area. In some way it makes more relevant the area of the probing. The intention is to trigger a response to clarify the boundary. There is not an intention to change the boundary or the rules of the proposed boundary. The boundary is stable. You are just focusing in one "segment" of it.

REPRESENTING THE GAMES
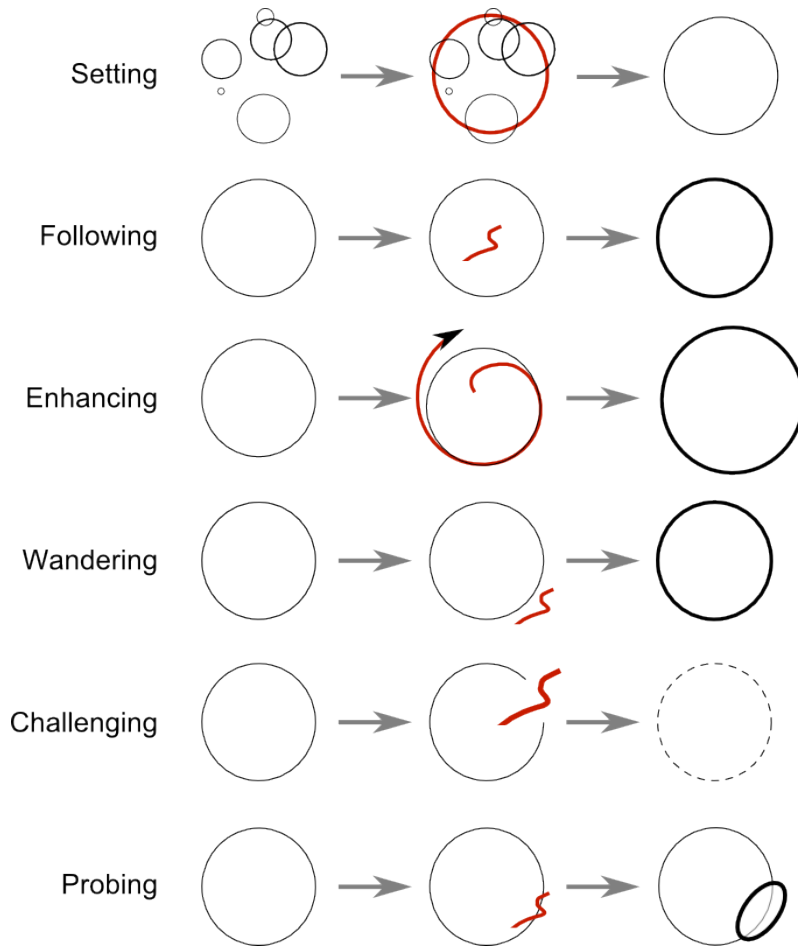
Figure 1. Boundary Games

I used the representations on Figure 1, as a way to clarify the different moves or intentions in relation to the boundary in each one of the games.   The figure shows three stages for each game: The initial state, the applying the operation and the outcome due to such operation.

The initial state is the same for all except for Setting.   In Setting we are joining portions of different boundaries.   All the other operations are performed on an already

established boundary. In the second stage, the operation focuses in some cases on where the movement lies: inside (Following), outside (Wandering) or on the boundary (Probing). In the other cases, it shows a kind of action on the boundary: enclosing (Setting), breaking (Challenging) and expanding (Enhancing).

The third stage, the outcome, shows the effect on the boundary. Setting shows that a boundary was constituted. Following, Enhancing and Wandering show a bold boundary meaning that the boundary was strengthened. The circle in Enhancing by being bigger also shows that the boundary expanded. Challenging weakens the boundary for that reason the line is dotted. Finally Probing creates a kind of "sub boundary" on a segment of the boundary.

POTENTIAL USES

Summarising, the argument is that we can conceptualise a situation and all the actions that we make to intervene on it as Language Games. We can hypothesise that the problematic situation and the intervention process are enclosed by a boundary. This boundary as Midgley suggests, includes all of what is pertinent to the situation. On this base, we can devise what kind of games can be applied to the boundary. Using Relevance Theory six moves, intentions or Boundary Games are proposed.

Understanding intervention in terms of Language Games enables to see the interactions in the problematic situation as a network of language Games. Furthermore, every tool from simple words and gestures up to the use of methods of methodologies can also be seen as games used to intervene. In an intervention, we use Language Games to modify the Language Games in place.

It can be argued that the six games' framework has potential uses in two fronts: understanding/learning from an intervention and helping to guide an intervention. On the first front, the framework helps to understand moves. As pointed out every move without regard the kind of tool, or language game used can be expressed in terms of the proposed games. This could help to give accounts of the intervention process in a new way. They are different lens to describe and learn from the process.

In fact, I used this figures to analyse transcriptions of interactions in intervention planning sessions. For that purpose, I used the symbols in the second stage of Figure 1, to identify the operation. In some cases, I marked more than one game in one conversational turn. This implies that one conversational move can produce many effects at once.

The other potential front, helping to guide the intervention, comes from using the framework to reflect on the effects that all the actors, intent on the boundary. Understanding the desired effect can help us to use in a more effective way the tools, words, gestures or methodologies and also help us to understand in a better way what the other actors are trying to achieve with their tools. This leads to a more nuanced and reflective practice.

CONTRIBUTION TO BOUNDARY CRITIQUE

The work here although based on traditions that differ from those presented regarding Boundary Critique, can be seen as supporting the aims of the research program in

Churchman, Ulrich and Midgley.   In a way all of their work points out to the importance of language.

Accordingly, to Ulrich, Churchman's work presents a shift in how to conceptualise intervention from analytics tools to dialectic tools.   The idea is to "help the planner reflect on his designs, and enter into reasonable discourse with the affected" (Ulrich, 1983:325).   Ulrich's work is stronger in his inclination about language.   In fact he calls his later work "critically systemic discourse" (Ulrich, 2003).   Midgley (2000) states that systemic interventions necessarily imply a communicative process.   The difference with Boundary Games is that I am using a different tradition to inform the framework.

Additionally, both Ulrich (2001) and Midgley (1995) argued for the need of constant reflection on the intervention.   Boundary Games is a tool that goes in the same line.   It can be argued that potentially can have some advantages.   These are regarding to enabling us to see the boundary in a continuous state of flux, and the kind of information that can be used to reflect on boundary's changes.

Although Ulrich and Midgley advocate the reflection on boundaries throughout the whole intervention process, their approaches seem more appropriate for a diagnosis of the situation. It is performed at the onset of a situation and lets you understand where the boundaries of the situation are.   Based on this they show how the boundary is conditioning the actions in the setting.

The Boundary Games approach provides additional perspectives that are not committed to a certain boundary fixed at some point in time.   Boundary games help to show the dynamics of a situation, and they show how with every communication or action the boundary is shaped through the whole intervention process.   In this regard Ulrich's and Midgley's proposals seem more static.

The other advantage is that Ulrich and Midgley seem to "value" some kind of data (e.g., what is asked in the twelve questions (Ulrich), values (Midgley)) as more relevant to define the boundary. Boundary Games assume that any kind of data when put into use will affect the boundary.   In fact, every situation from the point of view of Relevance Theory can build the categories or data that are more relevant to that context.

The two mentioned differences give an advantage to Boundary Games to trace what happens in the process. It could be more cumbersome to get diagnoses of a situation because those must come from analysing the individual actions of each actor.

CONCLUSION

The proposition of this paper is that in the language game of an intervention it is possible, in principle, to affect the boundary of what is considered pertinent in the six ways introduced here. With this assumption, the framework proposed can be used as a way to read/learn a situation and reflect on the intentions and the effects that we want to achieve on the boundary.

It is show that the framework can be understood as a contribution to Boundary Critique. It shows ways to see the boundary in a continuous state of flux, changed and affected by every communication in an intervention context.   This is an advantage over the tools normally used in Boundary Critique.

Boundary Games

There is a caveat though, this framework is not critical.   The ideas of Language Games and Relevance Theory do not have emancipatory aims.   For this reason is important to complement the insights gain through this kind of analysis with more critical work in Ulrich and Midgley.

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