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Managing the Game Within Crisis Exercises

6.1. Introduction

Crisis exercises are known to teach good practices for real situations, revealing the weaknesses of an organization facing the crisis or increasing the awareness of a possible crisis.

By primarily focusing the design and analysis of these exercises on a rational appraisal *ex post facto*, the essence of what happens during such a simulation is often lost: for example, the interactions between the players and their partnership, the varying levels of understanding of the situations, individual and collective strategies, risks and decisions made, the enjoyment of achieving some objectives and the disappointment from missed ones. We call this evanescent state “playful dynamics” or “Ludicity” (from *ludus*, not to be confused with lucidity), which strongly binds players in the same liminal space but disappears as soon as the simulation ceases.

In this chapter, we are interested in the playful dynamics at work when a group of trainees agrees to seriously consider for a few hours that they will live a virtual crisis situation together, and especially in (1) the key components of Lucidity, (2) the manifestations of Ludicity and (3) how to manage the Ludicity. To this end, we draw on the

lessons learned from analyses of playful simulation, as well as the reflections of live action role-playing game players on their practices.

The bias used for this chapter is to consider the crisis exercise played in a simulation room as a game.

Indeed, crisis exercises are a good tool for learning best practices, tested in real situations, to come face to face with the limitations of an organization dealing with a crisis, or to experience a crisis virtually and realize how weighty it is (Boin *et al.* 2004; Smith 2004; Carenzo *et al.* 2016). Transforming the lessons of simulations into a real-life competence requires a rigorously structured exercise: defining the learning objectives, creating the simulation to achieve them and debriefing the simulation with observations guided by proper analytical tools.

6.1.1. The concept of Ludicity: a definition

People's interest in games is not new. It has given rise to theoretical and practical advances which can be put into two main categories: serious games and gamification.

A serious game is a game designed to teach, using serious, professional elements, in a playful environment so as to promote their learning by the player. It could be a virtual simulator reproducing more or less exactly a professional activity in order for the player to be in a situation as close to reality as possible, or it could be a game created to model the intricacies of a given profession/professional activity (Floodranger, Comod), or even classic games revamped with professional elements (happy families card game with a risk prevention slant). The trainee is perfectly aware that they are playing a game and that by playing the game they are acquiring a competence.

Gamification is based on interlacing playful elements into a serious activity or a professional environment in order to increase the involvement of the targeted person in his task. In its simplest aspect, it involves giving points, creating scores and making them known to the person to encourage him to maximize these scores by prioritizing the highest value activities, or even generating competition – with other

people engaged in the same activity. These types of games are more to do with increasing the person involvement in the activity than increasing a competence. The person is not really conscious that they are playing a game but is aware that their activity is modified by the addition of these game elements.

What we are looking at in this chapter is neither the serious game nor gamification, but rather we are looking to identify what in a given activity, here the management of a simulated crisis, relates to a game mechanism or what part of the activity is play. Thus, once these game elements are identified, they can be used to guide the creation and management of this activity, to increase or reduce the play part depending on the desired result but without changing the nature of the task/activity. The person is not really conscious that they are playing a game but they are more or less consciously activating their inner player. This still less well-known approach has been conceptualized under the name *jouabilité* (Henriot 1989) or framification (Lieberoth 2014). It is to a game what storytelling is to communication: a way to organize elements which are not inherently playful into a playful system without allowing the person to be engaged in the known activity.

For a long time, play has been thought of as purely a child's domain (and it was thus studied by Wittgenstein or Piaget, for example), as opposed to the supposedly serious nature of adult activities. However, game theorists (Huizinga 1938; Caillois 1953; Henriot 1989; Suits 2014) have gradually reduced this opposition and shown the power of the concept of gameplay which can be understood as the theory of imaginary action or of the imagination in action. Finally, gameplay is less to be opposed to seriousness but more to the virtual: it enables us to materialize one of the infinite numbers of possibilities springing from our imagination through the medium of play.

In effect, a crisis management exercise entails putting 6–10 players in a crisis management room to act as the key figures in a crisis committee and to make them deal with a crisis scenario developed by the training team. This is done by making them play their roles and interact between themselves and with external actors in the crisis

played by the training team. This description could put in mind a role-playing game; however, the absence of any game master facing the players and the fact that the players are living their actions rather than simply describing them more gives the feeling of a live action role-playing game (Hitchens and Drachen 2009).

There is no doubt that these exercises are potential games. As soon as the aim is to immerse yourself in a virtual situation, by acting as if there was a real crisis to manage, one is by nature (and not intent) in a play-situation. A lot will depend on the level of freedom the person in charge of the exercise leaves to the participant to immerse themselves in the playfulness of the situation.

6.2. Key components of Ludicity

6.2.1. *The span of the game space*

The game is first characterized by the creation of an imaginary space where the game takes place, in which the players get together and agree to suspend reality.

This imaginary space is sometimes called liminal space (with reference to the work of Van Gennep on rituals), sometimes diegetic space (with reference to the work of Harviainen and Lieberoth (2012) on role-playing games). This liminal space exists as soon as at least two players agree to consider certain real objects, actions or persons as being part of the game space if the players give them a defined meaning in their imaginary space. For example, such and such a room within the “Ecole des Mines d’Ales” will be considered as a crisis management room, and this or that printer will be considered to be a fax machine in direct contact with the “Prefecture”.

The creation of a game space consists of pooling the imagination of all the players, focused on a common interpretation of a fictional situation (Waskul and Lust 2004).

The first problem that arises when the players’ imagination is strongly activated, with little or no visual aids, is how close each player’s interpretation of the fictional situation is to the reality.

Each player builds his own understanding of the situation; nothing guarantees that this understanding is close enough to the fictional situation of the exercise or even close to the understanding of another player. This difficulty grows exponentially with each player being added to the same simulation. Only the sharing of each player's understanding of the situation can highlight such a dissonance, if it is there, and remedy it.

Beyond the understanding of the situation, the involvement of each player in this game space is also part of the game space. The second problem is thus to keep all the players together in the same game space. It is possible that as the game progresses, the initial group becomes two or more sub-groups of players, each with their own logic solidly anchored to the initial game space but multiplying sub-spaces in the game, all existing at the same time. There again, only the sharing of each group's diverging interpretation of the same element of the game can enable the players to recognize this divergence through a dissonance (called "the emperor's new clothes dissonance" by McGonigal as inspired by Andersen's tale).

These dissonances are thus inherently part of the development of the game space, both a moment of vulnerability and of reinforcement of the game. A vulnerability is when the players confront the interpretations they have of the situation where not all of them will be right. Some will have to accept the new representation of the situation, resulting from the dissonance they just navigated through. However, if they are invested, motivated or got used to their representation of the situation, it is very likely that they will lose their motivation or engagement with the new representation created by the dissonance. At worst, a dissonance can lead some players to purely and simply leave the diegetic space. However, once the dissonance is out of the way, a reinforcement may occur, which makes the whole group of players come back with the same interpretation of the situation. Realizing the extent of this new collective representation gives each player an opportunity to think his actions through and be more efficient in this newly extended strategic depth.

All the players do not have the same role when facing the dissonance. In fact, the dissonance is not usually resolved through the

majority rule. At least one player is invested by the other players, sometimes in spite of themselves, and often without anybody realizing it, with some kind of cognitive authority (as defined by Van Gennep (1909) in his study of rituals). Whether this is right or wrong is of no importance to the fact that the players trust that player to define the truth in their diegetic space. This can be linked to the part played by this player, their ease in playing the game and the level of competence attributed to the player in real life: all eyes are on them, and all listen to them when they define right and wrong in the game space (Goutx 2014).

The way in which this player acknowledges, more or less consciously, this role of cognitive authority is a significant factor in determining how the group of players will act in the game space. If their interpretations and decisions are contrary to the ideas of the training team, they can lose all control over the game.

6.2.2. *Magic circle and rabbit hole*

The players immersed in their diegetic space are still conscious of the rest of their environment, but the attention they give it is dependent on their degree of involvement in the game space. In other words, they can become so engrossed by the game that they are partially blind and deaf to the evolution of their environment. This shaping of a space in which the player retires from the outside world has been called the “Magic Circle” since Huizinga (1938), without always fully representing all the subtleties of this concept. It is not a rigid border separating game and reality but much more a collective resistance of the players to allowing elements from outside the game space to intrude on it (Harviainen 2012).

Concerning the crisis management exercise, being an immersive game and even a pervasive one (as called by McGonigal, 2003) with a starting point that the player’s environment is the game environment, there will always be some porosity between the diegetic or liminal space and the player’s environment. The ability of the players to discern which elements of their environment should have a place in

their diegetic space is very reliant on a kind of pre-coding of these elements according to the specific rules of the game space. Thus, one player telling any given information to the others out loud is not enough for the other players to acknowledge and internalize it. They need to see the characteristics of these external elements that will integrate these information in the game space.

Information that is certified by players taking on the mantle of cognitive authority in the exercise is immediately part of the diegetic space. It is not only the defining characteristic of the cognitive authority but also what makes a player a cognitive authority. More or less consciously, players have a tendency to offer information to those who took on the mantle of cognitive authority, like they would an offering to the master of a ritual. However, information brought by other players can also become part of the diegetic space immediately if they have characteristics that show they obviously belong to the diegetic space.

Some words linked to the context of the game are like passwords for any information. Thus, the same information given in a factual manner (“I just received a call from the Swiss consul’s wife, her daughter is in labor”) or in a manner geared toward the diegetic space (potential diplomatic crisis: the daughter of the Swiss consul is in labor and needs urgent medical help) will become part of the game space or not.

All objects in the players’ environment are subject to this same selection of what gets into the game space and what stays outside. For example, it is clear for the training team in charge of the crisis management exercise that the printer in this simulated crisis room is a fax machine through which all the information on the crisis from the other organizations managing the crisis with the players will arrive. Although this information has been given to the players at the beginning of the simulation, they will consider this printer as a fax machine that they need to keep an eye on only after they accept the first printout from it as part of the game.

Another prime example is what happens to mobile phones during the simulation. They are generally forbidden during the crisis

management exercise, in order to not allow external pressures (phone calls, e-mails, SMS) to take the players out of the diegetic space. This banning of the mobile phone from the start of the simulation pushes it out of the game space: whatever happens during the game, the use of a mobile phone by a player will not be considered by the others as part of the simulation. However, a significant part of the communications during a crisis is done via mobile phones (at least as long as mobile networks are up). Therefore, a player dealing with the intrusion of calls, external to the crisis management exercise, could be considered as part of what this person would have to do in a real crisis. Finally, this instruction could be misunderstood by the players, as they are summoned to the crisis management center by an SMS from the training team to reflect how it would happen in a real crisis. The mobile phone thus assumes the function of a rabbit hole (according to McGonigal, in reference to the rabbit hole into which Alice goes down to reach Wonderland), which gives access to the game space, but afterwards is put out of the game space by the training team's choice.

It is important to note that voluntarily exiting the game space is not such a threat to the whole of the diegetic space. One or more players can decide to temporarily leave the game (often called "game out") to talk between players rather than between characters, to share their understanding of the game situation or even to deal with personal needs not related to the game (have a coffee, make a personal call).

6.2.3. Characters and persona

If it is common to distinguish between the real situation and the fictional one when talking about crisis management exercises, we have to acknowledge that the distinction between the player and his character is rarely thought of. The first is the real person that takes part in the exercise, and the second is the projection of that person in a role played in this fictional situation (Waskul and Lust 2004).

However, one only has to consider that the exercise is played in a simulator, a space that the players are not familiar with but asked to consider at the crisis management center although they are more than

likely familiar with the actual crisis management center they are supposed to use in a real crisis, to understand that the players have to imagine themselves in roles similar (but not identical) to the ones they would have in a real crisis. It is even possible to say that if the players are not familiar with a real crisis nor its scope or how to deal with it, they will have to create a role for themselves without the help of a real example.

In any case, the fact that the player acts himself as a person in the fictional situation of the crisis management exercise should not hide the fictional doppelgänger whose skin he gets into, to be able to interact with the simulation. This doppelgänger is, in a way, his vehicle through the simulation, the more sophisticated for the richness and sophistication of the role: for example, a role as a recording secretary is less complex than that as a director of emergency operations.

The efficiency of the relationship between a player and his character is dependent on the participant's playing ability (Kapp 2013). This ability is based both on a form of game culture (although it is shown in the literature that this culture brings only a barely detectable and marginal advantage to the one that has it compared to the one that has not acquired it) and how well the player learned the normal ways to act and levers of the simulation. A player can learn this from two main sources. First, they can learn on their own through using the game material available (character's sheet or role sheet). Second, they can imitate another player who seems more at ease, or they can just ask for advice on how to behave (Tychsen *et al.* 2007). This learning curve will automatically create a lag at the beginning of the simulation while the players are not fully efficient in their roles.

In a subtler way, the interaction between a player and their character might be complicated by the fact that the player does not (purposefully or otherwise) exactly play their own role in the simulation, or that the role as defined by the training team is different from the experience and understanding the player has of it. The player then has to deal differently from what they know as a real person with what their character knows. It is even more important if the person has prior knowledge of some content of the exercise that would enable

them to anticipate or accelerate the actions of their character in the simulation, thus potentially damaging the realism of the simulation and creating a dissonance. In other words, the competence in gameplay is not necessarily the ability to outfox the scenario but the ability to allow it to develop in a realistic manner and to properly interact with it.

Another potential interaction between the player and their character is any knowledge the character was not supposed to have that the player has, and that can be thus transferred from the player to the character. So, if the player knows that, in real life, within the fictional circumstances they are in, they would have access to resources they are aware of (pool of retirees ready to re-up, any other network they can activate, etc.), they can push their character to demand they are made use of in the game. Thus, the player inserts something that was not there in the game: the efficient use of this freedom (due to the playful nature of the exercise) requires the training team to allow its use and for the cognitive authority in control of the “Magic Circle” to approve of it.

6.2.4. Game master

All games rely on a framework of rules that all the players adhere to. The simplest games have one or a few rules, easy enough to understand so that the players will understand them, respect them and make one another respect them. As soon as the complexity increases, either because the rules are opened to interpretation (e.g. make sure your actions are realistic) or because some of the elements of the game are highly changeable and thus the players need to regularly update their individual and collective understandings of these elements, the game needs a game master.

Among the usual duties of the game master (deciding between conflicting interpretations, narrating the story and providing contextual elements to the players, acting as non-player characters, that is, characters not played by one of the players but with which the players nonetheless will interact), some are discharged in the liminal space (then called game-in) and some in the real environment (then called game-out).

The training team, which prepares, organizes and then orchestrates the various components of the game, is instinctively perceived as fulfilling the game master's role. This supposes that the game develops in a unique game space: as soon as it fractures into several liminal sub-spaces, the training team might lose control over part of the game, and then the game master's role for one or more of these sub-spaces might devolve to the cognitive authority who maintains the coherence of that sub-space.

The risk to the proper flow of the game is then a conflict between the training team and its rival in this seceding liminal sub-space: by the nature of the cognitive authority, the players involved are more than likely to follow this authority rather than the elements given by the training team; then, the only way for the training team to recover their authority is to have a game-out adjustment, but that runs the risk of destroying some of the diegesis the players were adhering to.

Although this does not necessarily compromise the good flow of the game, the training team must adapt to this extra dimension and modify the way it is leading the game if they are even aware of this extra dimension.

6.3. Manifestations of Ludicity

6.3.1. Engagement and pedagogy

Pedagogues are so interested in games because it has been proven for a while that what is learned through play is acquired faster and better than in the absence of play (Lantis 1998; Sussking and Corburn 1999; Gredler 2004; Daniau 2005; Hopeametsä 2008; Szilas *et al.* 2009; Von Schaik 2012; Chowanda *et al.* 2016; Stavroulia *et al.* 2016). One of the reasons for this is that the trainee is active in the process of learning rather than being passive.

The engagement of the player with the game is more complex than meets the eye: the player loses themselves to some extent (which is called the degree of engagement) in the game and its rules while still being aware that it is only a game and they can step out of it at any time.

As for Ludicity in crisis management exercises, which pushes the participants in a game to some extent despite themselves, the engagement is of a similar nature. The fact that participants step into the role attributed to them and accept the hierarchical structure between the characters of the team in the simulation with more or less good grace is the participants' entry point in the ludic space of the exercise. These elements imposed at the start of the exercise last despite creating tensions during the exercise, with one participant accepting more or less graciously, as a person, that playing their character means submitting to another's authority, and another participant accepting to stay within the limits of their role without grabbing the competences attributed to another participant's character. This fact shows not only the conscious willingness of the players to play the game despite the tensions it generates but also a reluctance (not as obvious to them) to be the one player that would endanger the game by stepping out of it.

Measuring the engagement of players in order to maximize it and its effects on the efficiency of the participant's learning is not only a prolific field of study but also very much guided by the work on "Flow", as conceptualized by Csíkszentmihályi (Csíkszentmihályi 1990; Nakamura and Csíkszentmihályi 2002). It is difficult to measure a player's engagement, that fluctuates during the game (Shernoff 2014), without disrupting it by the intrusion of the observation apparatus. This measurement is essentially hindered in this instance by restricting its scope to only ludic activities that lead to high achievement. In the case of crisis management exercises, a player's engagement is due less to an assumed competition for the best crisis manager or a search for the ideal resolution of the crisis, but more to an honest and courageous engagement of the players with crisis situations which, by their very nature, will test the limits of their capacity to act and react.

More specifically, the participants' engagement in a crisis management exercise shows that they feel involved in the fictional situation they are steeped into, play their roles to the best of their abilities, allow others do the same and, if possible, contribute positively to solving the problems happening one after another (or all at once) during this exercise.

The parallel between role-playing games (table game or live action) is very enlightening: the best memories from games are often those associated with strong emotions felt individually or collectively during a certain moment in the game. It is then easy to speak about a state of grace, which is linked to role-playing and simply to the shared pleasure of playing together. While this feeling that is quite obvious to whoever felt it during a game is not well documented, it is enough for the moment to understand that it is linked to emotions felt by the player and other players of his team. Rather than trying to maximize a “Flow” that does not seem fit to describe the participants’ engagement in a crisis management exercise, it would be more useful to help create emotions which will by their repetition, intensity and diversity, anchor the game situation in the memory of the player and with it, the learning the training team wishes the players to retain.

6.3.2. Style of play

There are many modes of engagement with the game that the players can mobilize and combine to create their own unique style of playing (Morissette 2010).

Thus, by adopting an egotistical mode of engagement, the players will aim to the best of their abilities to resolve the crisis situation, which they are in charge of, by focusing on an individual approach even if it means an appearance of performance rather than an effective performance. For example, when a player understands that the member of the training team who is in charge of providing all the information from the outside world is their main source of solicitation, then they can try to pressurize this trainer to provide more information from the outside world to the point of taking so much of the trainer’s time that they will not be able to push the player. This style of play is really gaming the system, exploiting a deficiency in the game rules to shine in the game without deserving it (Franck 2012). Such a behavior, which might stem from a wrong understanding of the aims of the simulation or from the fear of being judged by the other players, does not have a major impact on the simulation: it simply deprives the group of players of the input of the player who

immured himself in this egotistical style of play and paralyzes the member of the training team.

The assumptions used to create a crisis management scenario seem to be conducive to a more theatrical style of play for the players, that is, imitating what one thinks is the role to be played. However, very little of a theatrical style is evidenced by the players: most of the interactions are done in a neutral tone and display some kind of reserve on their part. It is even rare for the players to call one another by their names, who instead labor to establish some communication from afar within the room and wait until they are close to one another or look at one another before interacting. The situation evolves when the tension rises, whether due to annoyance against a player in the room, against the problems coming from the training team making the scenario progress or by the player imitating the theatrical style usually adopted by the trainers in order to flesh out the non-player characters that they inhabit at that time. The instructions are then given in a more abrupt tone; the style used to convince the non-player characters played by the trainers becomes more florid. Paradoxically, adopting this theatrical style also brings a certain dose of improvisation which might bring realistic elements into the game space that the training team had not planned to incorporate in the exercise. The tendency is usually for the training team to discourage this theatrical style for this very reason. However, once a player has tasted the theatrical dimension of their role, and realized not only how efficient it is in the exercise but also how much pleasure they get from its impact on the other players, they will have a tendency to persevere in using such a style and enjoy it.

A more “emotional” style of engagement would be to fully give in to the vertigo created by completely engaging with the gravity of the virtual situation taking place in the exercise. For example, a retirement home threatened by rising waters or the report of an accident that happened to one of their emergency teams without knowing if anyone is hurt, or how badly, can create a feeling of fear in a player deeply immersed in the simulation, which we will discuss in the next section. However, in order to explore these emotions or just because they are curious, a player can by choice yield to these kinds of emotions and

adopt a style of play that leaves them vulnerable to the goings-on of the scenario. The stakes for such a player might be to live the crisis exercise as a virtual experience, giving them a chance to feel strong emotions, better understand themselves and master their emotions more effectively.

Finally, the “passive” or “fatalistic” mode of engagement will manifest by a certain passivity of the player in the way they play, waiting to react to events when they happen rather than trying to anticipate them or proactively devising protection against them. They will realize that chance has no place in the progression of the crisis scenario: in a crisis scenario properly managed by a training team, chance seems to intervene by the juxtaposition of crisis events at the worst times.

6.4. Managing Ludicity

6.4.1. *Observing and detecting Ludicity*

By its very nature, Ludicity, which is an underlying effect of the main activity of crisis management simulation, is hard to directly observe while being sure of not observing something else. Thus, the usual actions expected during a crisis rely on the coordination between players that follows a rational framework without requiring any Ludicity. They are nonetheless conducive to the engagement of the players beyond the minimum required to be operationally effective: how can we then distinguish between a zealous, but perfectly rational, use of operational rules dealing with the coordination between crisis managers and the unreasonable engagement of a player with their character to deal with the ludic stakes that they identified in the simulation?

Worse still, observing to check whether the participant in a crisis management exercise follows the proper use of best practices and operational rules in crisis management partially blinds the observer to the manifestation of Ludicity.

The first rule of observing the Ludicity of a crisis management exercise is to observe the room from the point of view of playing and

to ignore what the players should do or should have done to properly react to the events inserted in the game space by the training team. The main aim is to observe the holistic experience created and lived by the players dealing with the crisis exercise from their point of view. At the end of the simulation, what the players will remember from this experience will not be in the form of a rational retelling of a series of trials and actions that succeeded or not, but rather in the form of a continuum mixing actions and emotions from the player with the events and incidents that influenced the decisions made individually and collectively. In other words, the scenario as perceived by the players can be quite different from what the training team thought they created and played.

To realize this, it is important for the training team to have either a direct link to the players through an ally among the players charged with reporting to the training team the experience of the simulation they are sharing with the players or an indirect link through observers present in the room who are able to observe and report their observations to the training team or through a CCTV system which requires constant scanning to detect the fleeting moment of play.

The second rule is to focus on the appearance of Ludicity and how its elements manifest themselves: ease of each player in playing their characters, diegetic spaces that are subdivided or whole, cognitive authority, and the degree and type of engagement of the players. This requires separating the observation of the Ludicity of the simulation from that of the rational parts of the management of the crisis, for example, by either alternating between distinct phases of the observation of Ludicity elements and of the rational actions of the exercise by one observer or entrusting each subject to different observers.

The third rule is to focus the observer's attention (in real time or after the facts) on the moments when the Ludicity is most in evidence, that is, most clearly itself with no possibility of confusing it with the normal manifestations of the rational management of the crisis. These elements are of two kinds: the start, suspension or end of the simulations and when a dissonance threatening the normal progress of the simulation happens.

6.4.2. Using Ludicity to augment the simulation

Awareness of the potential Ludicity of a crisis management exercise and knowing how to use it helps to modify the way simulations are created and enacted to augment the learning experience.

Thus, it is essential that each player is at ease as quickly as possible in playing their character so that the lost time at the start of the simulation, when the player is not yet fully able to play their character, is reduced as much as possible. This can be done by giving each player a character sheet, which gives not only the general aspects of the role to be played but also the details about crisis management competences that the player can use in the course of the simulation (Lappi 2004). Otherwise, it can be done by boosting the character sheet with competences proposed by the player, depending on their knowledge of crisis management, during a discussion with the game master before the start of the simulation. This would be quite close to the process of character creation in a role-playing game, enabling both the player to start projecting himself in the simulation to come and the game master to insert in the game appropriate ideas coming from the players. This kind of discussion also helps the game master to discern the mode or modes of engagement preferred by the players in order to eventually adapt to how they run the game.

In addition to this character creation, another way to reduce this lag at the start of the game when the players are getting into their character is to subject them very quickly to an initiation trial that will enable them to realize their own capabilities in the game. It must be an event that happens very early in the simulation and, more importantly, must be easy to sort for the players to avoid distracting them from the subsequent major events. The trap of these kinds of starting events is that players might think it to be a major event and start spending more time and energy on it that would be liked by the training team. The best solution might be to make them manage a false alert, which the game master can discard when needed.

Despite the fear it can create in a training team, because of the flamboyance it entails, the “theatrical” mode of engagement should be

encouraged among the team of players but not necessarily from every player. In fact, this style of engagement pushes the other players to get more in the simulation and help them to express feelings which will enhance their learning experience (Jones 2004). To achieve this, we would first recommend adding to the character sheet an objective for the game so as to give the player a stake in the game based on past fictional experiences (in a role-playing game, we would call it “the background”). It can be something like: “As the person in charge of emergency services, you are still raw from the criticisms made by the population and the mayor during the previous crisis as to the lack of attention from the emergency services given to the concerns of the people affected by the crisis”. It is then important to make each player see one another as their character as quickly and as fully as possible. If wearing some distinctive piece of clothing is not always possible, it is imperative that at least the names of each character are known by all with the rank attached, if needed. Most importantly, during the simulation, the training team must fully engage in theatrical interactions with the players who are comfortable with this type of engagement; this will encourage other players to follow suit.

The other types of engagement should not be forgotten. The training team must identify and use them, giving each player what they need: the egotistic player needs to feel that their achievements are recognized, the emotional player needs to feel fear with dilemmas and soul searching and the passive player’s attention must be solicited more often than others.

By using the various types of engagement, the training team has a much better chance of creating a real group out of the players. They will ensure that the players have a shared view of the fictional situation (Badke-Schaub 2007) by pushing them to create a common representation that incorporates various viewpoints: creating or analyzing a map of the situation is one of the most efficient ways to do so (Röhl and Herbrich 2008); another possible tool is to write a summary of the situation. During such an exercise, or in case of a major incident during the simulation, the dissonance can threaten the simulation. If the training team has sufficiently increased the engagement of the players, they can hope that it will be enough to

maintain the liminal space and get over the dissonance. However, it might become necessary to make use of the cognitive authority, which the training team has identified in the group, by giving the player the information or the game-out decisions, which will enable them to decree the end of the dissonance.

6.5. Conclusions

6.5.1. *Using Ludicity to mend the simulation*

By its design, a crisis management exercise can be analyzed from the point of view of a game. If the exercise is not an endless repetition of the same processes but is created to place the participants in an unfamiliar situation with no predefined solutions, one can see in it elements showing that the participants are playing without realizing it, and we will call this “Ludicity”.

Beyond the elements that we have already discussed in this chapter (diegetic spaces, cognitive authorities, the type and degree of engagement of the players), the Ludicity of the game is also a force that binds the participants together in an animating part of the simulation that they inhabit. The strongest manifestation of this force is the fact that the simulation endures when a major dissonance occurs, either because of a mistake of the training team or a misunderstanding from some of the players threatens the collective representation of the fictional situation or simply because the training team suspends or terminates the simulation.

It is then noticeable that the players themselves keep the simulation alive in their imagination, while the training team repairs the break during the simulation or at the end of the simulation, for as long as the player needs to accept that the simulation is finished and they must step out of their character.

This should teach the training team that, after the initial lag, the simulation they are in charge of (and control) and the Ludicity of the game created by the players (which they control) get superimposed, and that the success of the exercise from the teaching point of view

depends both on the proper flow of the simulation and on its congruence with the underlying Ludicity.

6.5.2. *Crisis exercise or crisis simulacrum: does the exercise imitate life or does life imitate the exercise?*

What finally distinguishes the exercise considered as a simulation and the exercise where its Ludicity is cultivated resides in what researchers looking into Nordic LARP (live action role-playing) tend to call “high definition simulations”.

Through this notion proposed by Nordgren (2008), we can distinguish between low resolution simulations (which reproduce as faithfully as possible the way things happen, such as the re-enactment of a historical battle) and high resolution simulations (which enable the players to feel genuine emotions, such as the ones people in the real situation, which the simulation emulates, would feel). In other words, according to De Castel *et al.* (2014), we would distinguish between simulation (just like) and imitation (as if).

If the group of players is driven by one or more players playing in a theatrical or emotional mode, then participating in a crisis management simulation gives birth to emotions in the player which, according to our scale based on 30 primary emotions (Pelissolo *et al.* 2007), correlate at 90% to the ones experienced by people managing the real crisis. In this case, they are really what the Nordic LARP Players call a “high resolution simulation”.

This correlation between a crisis management exercise and the management of a real crisis is disturbing: if we consider that the crisis managers that we are here talking about are not hardened professionals in crisis management (like firefighters or soldiers) but rather civil servants detached from their agencies to help in solving the crisis usually without any training other than experiences from their past crisis, we can wonder if it is not due to, contrary to our intuition, an adaptation of these people’s behaviors while managing the crisis to how they believe they should behave in these situations, as they learned in simulations (Baudrillard 1981).

Finally, we can note that the 10% of diverging emotions between reality and simulation seem to be the pleasure taken by the participants in the simulation, which is not present in reality, and the fear, anxiety and goodwill felt in a real situation, which are not present in a simulation. It is important to note that this 10% difference between emotions felt in the simulation and in reality might not be an inveterate difference. It is simply that the fear felt and overcome in a simulation creates pleasure (Tammy *et al.* 2017), while the same fear when it is overcome in reality creates pride (Csikszentmihályi 1990).

6.6. References

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