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The Quantitative/Qualitative Antinomy in Virtual World Studies

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In a 2006 article, Alan Bryman surveyed hundreds of social science journal articles that used mixed methodologies.¹ Doing that, he found a great discrepancy between the rationales employed to justify a particular choice of methodology and their actual uses. He concluded that researchers lacked a reflexive view on their research: rationales for mixing methodologies were not given enough thought. This chapter is an attempt to fill this gap in the field of virtual world studies. It takes a resolutely reflexive look, such as advocated by Pierre Bourdieu,² at research that has been carried out from 2007 to 2009 on the video game *World of Warcraft*. It aims at making explicit the reasons why, in this research, qualitative and quantitative methodologies were conjointly used. Consequently, it will make visible the scientific practice that is usually left out of articles and reports, the trials and errors that influence the conduct of a research project. An empirical perspective, grounded on actual field research practices rather than *a priori* ideas on the quantitative/qualitative divide, reveals how difficult it is to make sense of this gap. More specifically, I will argue against the “two methodology” thesis³ that downsizes this divide to a simple theoretical opposition between objectivism and subjectivism.⁴ There are many similarities between the two methods. Furthermore, their differences cannot be accounted for only with their respective theoretical grounds. This counterproductive opposition can thus be replaced, with much profit, by a set or

methodological guidelines much closer to the practice of conducting a research. The real question, then, is not so much “which one is better?” as “what can each method show, and *under what conditions?*”

A Research Story

In his famous 1957 novel, *La modification (Second Thoughts)*, Michel Butor describes with the utmost precision the changing thoughts of a man travelling from Paris to Rome.⁵ As he climbs on board, the hero intends his trip to enact a life-changing decision: he will announce to his expatriate mistress that he wants to take her back to Paris and plans to leave his wife and family for her. His mind wanders during the one day long train ride, until he realizes he feels more intimately bound to the Italian city than to his mistress. The exoticism of the place is what he fell in love with. When the train reaches Rome, he decides not to stick with his initial plan. He will not contact her, but only spend a few days in Rome before quietly going back to Paris.

Social science research is very similar to the journey Butor describes. A researcher may hop on the train with a very clear picture of what they intend to find, but very likely these findings will raise issues that were not apparent at first sight. At the end of the journey, the question addressed might be far from the initial one. This “modification” usually disappears from the researcher’s report. They will simply state that the question they answer is precisely the last one they raised.⁶

However, this chapter does not aim at presenting the findings of a research so much as showing how qualitative and quantitative methods of data collection and analysis can be usefully mixed in a game studies research. To better understand how and why qualitative and quantitative methods can be mixed, it seems necessary to narrate how this research began, and how the questions asked gradually evolved. The research I will rely on in this text was conducted between 2007 and 2009 at the École Normale Supérieure de Lyon, France. We

studied socialization in online games using a mixed methodology, including ethnography (participant observation and a series of in-depths interviews with long-time players and former players, n=13), textual analysis and statistics (through an original online survey, n=1289), and focused on *World of Warcraft*, a popular MMORPG in both Europe and North America.

During this research, the question asked gradually shifted from “how does one become a player?” to “how can we explain social differentiation in playing an online game?” Climbing on board, the first question raised is a sociological classic. Socialization, the internalization of the social world, is the process that makes us who we are, including the different and sometimes contradictory aspects of our social being.⁷ Peter Berger and Thomas Luckmann distinguished primary (mostly education, family socialization, etc.) and secondary socialization (professional, leisure, etc.).⁸ The learning of the rules and techniques of the game, as well as the social norms and the identity attached, *i.e.* the socialization to the game, is an instance of secondary socialization. Then, what does this specific socialization process looks like? How can we describe the series of steps through which a player has to go before he can become a player?⁹

Addressing such a research question calls for ethnographic methods. Socialization is a process more easily grasped through a qualitative approach. It requires a precise biographical inquiry on the interviewees, as well as knowledge of their subjective view on who they are, how they are playing, and how their practice evolves, information that can only be gathered through in-depths interviews. The work started with this first research question in mind, “how does one become a player?”, and we thus decided to use ethnographic methods. However, analysis of the first wave of interviews amended this question. As opposed to many other types of games, there is not a single meaning to the word “playing” in MMORPGs.¹⁰ “To play” can refer to very different types of practices: high-level raiding, role-playing,

machinima production, and “social play” (where players focus on their community – usually a real-life group of friends using the game as a way to stay in touch) to name but a few.

Consequently, the starting question could not be answered in a single fashion and had to be rephrased as follows: “how does one become this or that kind of player?”

Rephrasing our research question was the first incentive to try quantitative methods. Admittedly, it was still possible to understand the differentiated socialization process from interviews. However, the use of statistics could greatly improve the results by mapping out effectively the actual types of play. Calling in correspondence analysis could give solid grounds to a typology of ways of playing the game. It would help underline the distance, or proximity, between two playing modalities, and thus defines groups of characteristics that tend to cluster in the players’ practices. For instance, correspondence analysis proved that possession of high-level equipment correlates with raiding experiences,¹¹ a result that may seem obvious, but also that it has very few links with any cultural activity, like fan fiction reading or machinima producing. Mapping out this practices thus suggested that competitive and “fan” (i.e. culturally productive)¹² players form two distinct groups.¹³

This first shift in the research question triggered a second one. Once different types of playing were spotted, we had to address the reasons why they differed. It meant not only to understand *how* players became players, or *what* kind of player they would become, but *why* would they evolve into one type rather than another. Again, such an analysis could not only rely on endogenous factors, but had to take into account the pertinent social properties of the players. Namely, being a male or a female, 15 or 45 years old, a college educated professional or a middle school graduate, could greatly affect the type of player one would become. A recent survey found, for instance, that among young teenagers, boys were more than three times more likely than girls to play video games every day.¹⁴

As before, qualitative methods can help raise hypothesis as of which properties have the greatest impact on the players, but they may also have a hard time actually distinguishing between them. Does age have a greater impact than gender, or income, or the level of education? These questions can be more easily answered through quantitative analysis and especially through regression analysis. It showed, for instance, that most of the effect gender seems to have on the choice of a type of playing disappears when the concentration of the last degree obtained is added to the model.¹⁵ Hence, it seemed that women play differently mostly because they study different topics. Recent works in the sociology of culture showed how important it is to take into account not only vertical (the level of education) but also horizontal differences when studying cultural consumptions.¹⁶ In this case, competitive players with a degree in humanities were three times more likely than those who obtained their last degree in hard science to engage in a culturally-productive practice, i.e. to be “fans”.

Qualitative methods are useful when it comes to the sociological interpretation of those results. How does the quality of education affect the way one plays *World of Warcraft*? Interviews with players with various educational backgrounds showed that they display similar behaviors in different spheres of cultural consumption.¹⁷ A foreign language graduate from one of the top French *grande école* (a highly selective, prestigious research university), a PhD candidate at the time of the interview, said she started playing her first MMORPG, *Dark Age of Camelot*, because the world reminded her of the medieval literature she had been familiar with since she was a kid (both her parents are history teachers), and studied in college. She played other games inspired by literature, like a browser-based MMORPG based on Isaac Asimov’s *Foundation* science-fiction series, and found the latter more interesting than *World of Warcraft*, because of its emphasis on role-playing rather than performance. Her own practice of *World of Warcraft* was quite far from the dominant, competitive model. She was not especially looking to improve her character, nor engaging in group playing (she said

she did not like talking to other people in the game). She thus developed a culturally productive, non-competitive, and non-sociable practice of video games, expressed mostly in her attraction for role-playing. Her practice is coherent with her educational background in humanities. On the opposite pole, some of the players with a hard science background would talk at length about the mathematics of, say, talent repartition (a feature of the game that allows one to customize their character within certain limits). Similar situations have been documented in the same game by Constance Steinkuehler.¹⁸

In the process of conducting interviews, the initial research question had undergone a double shift from singular to plural. It started with “How does one become a player?” We soon realized that there was not a single player, but several very different types, so that the question became: “what kind of player does one become, and how?” Then, it appeared that there was not one pool of undifferentiated individuals that could become players, but people with various backgrounds. The link between players’ backgrounds and their playing of an online game became central to the research and the question took its final shape: “How can we explain the social differentiation of playing practices?”

Nonetheless, there are other dimensions to this shift than the mere refinement of a research question. One of these is the mix of paradigms associated with the two methods. The initial research question is closely tied to the tradition of symbolic interactionism. The key concept here is that of career as a patterned sequence of stages. We relied mostly on Howard Becker’s work on marijuana smokers.¹⁹ Such a perspective is a powerful tool for the sociological apprehension of a socialization process. In fact, as Muriel Darmon puts it, career can play the same role of objectivation as concepts like “field” or “habitus” play in bourdieusian sociology.²⁰ It allows the researcher to focus on the activity of the actors, rather than on their identity. The study of deviant careers, for instance, helps deconstruct the idea that deviance is a characteristic of the individual. On the contrary, it lies in the interactions

between individuals: it is the result of a labeling process aimed at the “deviant”.²¹ Researchers of this tradition usually prefer qualitative methods, as they need to find numerous, precise information on an individual’s past to reconstruct their career pattern. Most of the time, this can only be achieved through in depths interviews.²²

With the shift in the research question came a need to mix paradigms as well as methods. Since it does not consider individuals socialized, but only actors in an interaction, symbolic interaction has yet to explain why people with different backgrounds have different practices, and thus different careers. Field theory developed adequate tools to answer this question. It situates individuals in a system of relative positions, a field, where positions are determined by the (social, economic, cultural, etc.) capital they hold. These forms of capital are usually specific to a field, although they can produce related forms of capital in other fields. For instance, the symbolic capital associated with the field of literature is specific to this field, but can sometimes be used in the “field of power”, when a writer uses his fame (i.e. his symbolic capital) to take a political stand. One’s position within a specific field depends, at least in part, on one’s position in other fields, and especially in the broader social space, a field encompassing others and determined by cultural and economic capital. An online game such as *World of Warcraft* can be seen as a field, a system of relative positions occupied by the players and determined by their possession of game-specific capital.²³ What, then, is the relation between this field and the broader social space? How does the position one holds in the social space affects the one they will hold in the field of the game?²⁴ Interestingly, this perspective on the social world inspired by field theory has affinities with quantitative methods and in particular with correspondence analysis, since it has the capacity to map out effectively a large social space with a few indicators on the specific practices in the field.

Adding to the methodological and the theoretical ones, there is a third level to this shift: the observational scale. There was an upward movement, from the micro-sociologic

scale of interactions to a macro-sociologic view of the structure of the social space of the game. This might explain why the paradigm mix is useful: both perspectives are pertinent, but they work at different levels. They both contributed to explain a side of the situation rather than compete for a scientific monopoly. This idea is well documented by Muriel Darmon in her work on anorexia, where she combined a study of a deviant career with a focus on the social conditions of eating disorder. She opposed the division of labor between disciplines imposed by the psychological construction of anorexia and argued that sociology had something to say not only about the social context, but also the process through which one becomes an anorexic.²⁵ Similarly, Bernard Lahire used the notion of “context” to account for the variations of observational scale and remarked that it has effects on methodology, as well as concepts. The micro- and macro approaches are not incompatible, but “they do not give access to the same social realities”.²⁶

Mixing Methodologies

How, then, can we mix methods in virtual world studies? There are many ways in which quantitative and qualitative methods can interact. Several authors elaborated typologies of the uses of mixed methods.²⁷ In our research, the quantitative step was preceded and followed by qualitative steps. Although there was no prearranged plan, the sequence appeared logical. Qualitative research raised questions that could only be answered through quantitative research; it in turn raised questions that had us return to qualitative methods. The first step allowed us to understand the socialization of “hardcore gamers”, as well as to draw hypothesis on the social differentiation of players; the second, to verify these hypotheses; the third, to go back to the mechanisms that ensured the transfer from the social world to the space of the game.

Among the last step’s research was, for instance, the study of the recruitment of new members by high-end raiding guilds.²⁸ Guilds, indeed, have in the production and

reproduction of the space of the game a function similar to that of higher education in the social world. The educational system has become in modern societies a powerful tool for the reproduction of social inequalities.²⁹ The school's function is to sort pupils on the grounds of their success; however, success and failure are largely determined by the possession of a series of dispositions towards legitimate culture that are very unequally spread between social classes. They include such competencies as mastering written languages.³⁰ Given that top-level schools pave the way for power positions in almost every field of society, the educational system acts as a filter that separates those who display the culture and behavior of the dominant class (and who are likely to belong to the upper and upper-middle classes themselves) and those who do not. Such a class based reproduction appears legitimate as it is assumed to be grounded on objective abilities.

Similarly, high-end raiding guilds usually have a very selective recruitment policy. It includes, of course, performance requirements: a candidate has to prove that they have mastered the control of their character, possess sufficient know-how to efficiently equip them, and display some knowledge of high-end gaming. The “presentation of self”³¹ matters greatly. Written language skills are almost often a prerequisite: an application too short, containing too many mistakes, or written in a phonetic language will most likely be rejected or at best ignored by the guild. A candidate should not only prove his technical abilities, but also show that he has a behavior, a set of dispositions, similar to the guild members who recruit him. In this sense, guilds have a great influence on the determination of game norms. They play a similar role as the educational system in controlling who can access dominant positions and how. The norms they set up are then diffused across the whole social space, whether because high-end guild members are active members of the community and often act as “moral entrepreneurs”³² or through “anticipatory socialization” of high-end guild candidates.³³ In short, the quantitative research revealed a need to focus on the institutions of the game, for

which mixed methodologies are adapted. The quantitative and qualitative analyses of guild applications enlighten both the influence of some characteristics of the applicants and guilds on the outcome of the recruitment and the rhetoric of applications.

There are other ways to combine quantitative and qualitative methods. Conducting research using quantitative methods, in virtual world studies, is rather inexpensive. A researcher can easily design and distribute a survey on his own. That is probably one of the main reasons why such methods are so common. Conducting our own research, once we had designed and tested the survey, we started looking for respondents, mostly on forums. Our primary goal, of course, was to find enough people to answer the survey. However, a log of this phase of the research was kept, as we would have done using ethnographic methods. The log data collected was useful not only in that it allowed a reflexive outlook on the methodology, but also because it enlightened one of the hypothesis of our study, although not a central one.

We were interested in the way the discourse on video games produced and diffused in the media by psychologists could be interiorized by gamers. A first review of the social science literature on video games revealed that games were almost exclusively studied by psychologists and psychiatrists until at least the mid 1990s. The discourse these approaches used was usually very critical of the games, blaming them for violent behaviors and addictions to the virtual.³⁴ Moreover, they had strong links with the broader discourse on “public problems.”³⁵ there seemed to be a strong public concern about the effects television, video games, the Internet, etc., could have on children. There are many ways these debates can affect players. First of all, players live in a society that is ambivalent about using video games for legitimate leisure, and, although this is changing, one still hears stories evoking the negative impact of gaming. Players, experts and politicians hear such things on TV, in the newspapers, and probably in their own family. One interviewee, whose parents were

divorced, said only his father knew he was playing *World of Warcraft*: he would never want his mother to think of him as a “freak”.

Moreover, social scientists themselves keep reminding video game players of the questionable nature of their play activity. There are many social science researchers browsing forums in search for survey respondents. One particular forum even had a special thread for researchers. In the ten months preceding our own survey, 37 surveys were announced, almost one every week. For half of the surveys where the main topic could be determined (n=24) game addiction or a related question dominated the narrative. It is not surprising, then, that the initial answers players gave to our announcement were very negative. They insisted on the fact that there were too many of us studying games (“yet another survey”) and that they were fed up with objectifying approaches (“We, geeks, are no lab rats! Get out, you noob!”). It often took a few days of discussions to convince forum goers that our survey was legitimate,³⁶ had no interest in the issues of addiction and violence, and mostly asked what could be seen as casual questions. In this sense, the short ethnographic research that took place within the recruitment phase of the quantitative research proved very useful in showing how players feel objectified by some social researchers. This “resistance to objectification”³⁷ also revealed, however, that many of the players had interiorized the low status society had assigned to them. A forum participant, for instance, advised the researcher to do “real research”, pick “a real topic,” revealing how little he thought of his own hobby, and others, in the survey or in interviews, insisted on justifying their practice, saying, for instance, that playing was always better than watching TV. Overall, many spontaneously brought up the theme of addiction in the survey, comparing, for instance, the game to a drug.

Theory and methodology

As explained before, the mix in methods corresponds to a threefold shift, in the object, the theory, and the scale, or more precisely to the combination of two objects, two theories

and two scales, although it took various forms. The cases of interactions between quantitative and qualitative methods that were presented in the last section raise questions as to what actually distinguishes qualitative and quantitative methods. In virtual world studies, for instance, Dmitri Williams argued that the difference is above all theoretical. There are, he wrote, too opposite sides among game studies: on the one hand, social scientists are concerned with the media effects on players, and on the other hand, humanists focus on the meaning players give to the games they play. The former rely mostly on quantitative methods; the latter, on ethnography. The divisions in the unit of analysis (i.e. the scale of observation) and the object further add to this opposition.³⁸

Williams called for a bridging of “the methodological divide”, an idea that has been advocated by scholars in many fields of social science.³⁹ Most of them agree that this divide is founded on an opposition between a positivist, objectivist, realist approach on the one side, and a phenomenological, constructivist, interpretive, subjectivist approach on the other side. Another expression of this opposition can be found in the understanding vs. explaining debate, positivists stating that social science should explain reality the same way natural sciences explain nature, and qualitativists arguing that there is a radical difference between nature and society.

However, it is not certain whether this portrayal of the methodology gap makes things any clearer. On the contrary, it seems like a caricature, whose primary goal is to enhance the interest of a third way that, in practice, already exists. First of all, this caricature tends to reproduce the objectivism/subjectivism opposition, by taking for granted the theoretical fundamentals of both methods. However, to invoke an argument Bourdieu has often used, such an opposition is a false one, for if social sciences are meant to explain objective reality, the subjective view of social actors is also part of that reality. Therefore, opposing structures and representations is a fallacy.⁴⁰

Moreover, the link between theories and methodologies is far from evident: if quantitative methods have indeed been introduced in social science in an attempt to mimic natural sciences, the constructivists have since been using it as often as the positivists. Quantitative methods can be used in a subjectivist perspective (for instance in opinion polls). Qualitative methods might as well be used in an objectivist perspective, where interviews are seen as a mean to gather precise data on an actor's past, without thorough attention towards their view on the world.⁴¹ Alvaro Pires, for one, pointed out the diversity of approaches that used qualitative methods: marxist, feminist, interactionist, weberian, etc.⁴² When we compare sociology to other disciplines of the social sciences, like history, the “two methodologies” thesis⁴³ does not hold.

A more comprehensive, multisided approach to video game research can be outlined here. Instead of focusing on the one theory, it would take into account the many factors that may influence the choice of a qualitative, quantitative or mixed methodology. Theory, of course, has a role to play in such a choice; the philosophy and sociology of science remind us of the links between theory and empirical apparatus.⁴⁴ However, this link is not so much a correspondence than it is an affinity. Some theories get along better with some methodologies rather than others, but this is in no way systematic. Let us consider, for example, the relation between Bourdieu's idea of a “social space” and Benzecri's statistical technique, correspondence analysis. Bourdieu explained his taste for this technique in the foreword to the German edition of *The Craft of Sociology*:

I use Correspondence Analysis very much, because I think that it is essentially a relational procedure whose philosophy fully expresses what in my view constitutes social reality. It is a procedure that 'thinks' in relations, as I try to do it with the concept of field.⁴⁵

The association, or “elective affinities” (Bourdieu) between a quantitative technique and a theory seems clear. However, when we take a look at the sociologist's actual practice, it appears that it is the representational mode of correspondence analysis rather than the

technique itself that matters. When correspondence analysis was not possible, or not adequate, Bourdieu used other techniques, including qualitative analysis; to draw social spaces quite similar to those statistical analysis would have given. He warns us, for instance, that although figures 5 and 6 in *Distinction* strongly resemble correspondence analysis diagrams, they have, in fact, been reconstructed on the basis of several types of analysis.⁴⁶ Moreover, he adopted the same spatial representation for other topics, such as the analysis of Gustave Flaubert's *Sentimental Education*, using a similar qualitative method.⁴⁷

Quantitative methods are difficult to use on populations that are by definition hard to reach widely. This is the case, for instance, of individuals engaged in deviant activity (i.e. labeled as deviant)⁴⁸ like prostitution or drug use;⁴⁹ or of population defined by their lack of a social attribute, e.g. housing (people without homes). Such populations call almost automatically for a qualitative approach. This is also the case for historical objects for which available data allows little quantitative analysis.

Finally, the context deemed pertinent to the study, i.e. the scale at which the object is apprehended, influences largely the choice of methodology. Cultural hierarchies, for instance, can be studied from a very broad macro-sociological perspective, that will emphasize the different types of cultural consumption among social groups,⁵⁰ or from a micro-sociological perspective focused on the way individuals deal with such hierarchies.⁵¹

Strengths and Weaknesses

Methodologies, then, should not be chosen for the affinities they have with a paradigm, but for their own internal characteristics. A researcher should first think about the plus and minuses of the two sides, and then choose whether they will stick to quantitative or qualitative methodology, or use a mixed method. Naturally, since the two methods characteristics are complementary, this reasoning often concludes with the adoption of mixed methods.

Writing about the field of *game studies*, Williams makes such a claim. The two symmetrical problems of quantitative and qualitative studies are, he argued, generalization and context. Quantitative methods are able to study vast populations, and thus to generalize their results, providing they were obtained through the study of a representative sample. However, they cannot render the context in which the actions take place. In short, they fail to understand the meaning the actors give to their actions and to the world around them. On the other hand, qualitative methods are very good at providing such a context. They can situate precisely a social situation within a broader frame, and grasp the complexity of those situations. But they are incapable of generalizing their findings, since their results are too closely tied to a precisely situated context.⁵²

It should be reminded that the use of quantitative methods does not guarantee the generalizability of their results.⁵³ Very few quantitative studies overtaken in the field of game studies actually have a representative sample. We can only think of one study, led by Dmitri Williams, that fulfills this condition: the sample had been provided to the research team by the owners of the game *Everquest 2*.⁵⁴ In our research, the sample we worked on was not representative of the population of *World of Warcraft* players, nor did it claimed to be. We never pretended to describe statistically the general population using the results of our survey. However, some researchers, using equally biased samples have made such claims. Griffiths et al., for instance, used polls posted on two online gaming fan sites, and yet claimed that their study could provide a better knowledge of who video game players really were. They aimed at “breaking the stereotype”, especially by showing that players were older than might have been expected.⁵⁵ In a similar article, Yee relied on a series of surveys he designed, recruiting his participants on game-related websites and forums, to evoke the demographics of players.⁵⁶

Such a reliance on game-related forum recruitment faces one major issue: we have to assume that the population of players who visit these sites is representative of all players. It

would if these forums were the place where the game is played. This is clearly not the case. Our own research mixed several types of recruitment. We relied not only on game-related forums, but also on social networks (Facebook and Skyrock Blog, a blogging platform and social network quite popular among working and lower-middle classes French teenagers) and on blogs. It gave us an opportunity to test the hypothesis of Griffiths and Yee, among others. Table 1 shows the weekly game time of players recruited on forums and by other means. It appears clearly that players recruited outside the forums are overrepresented in the lowest bracket (less than 14 hours a week), suggesting that there is a high concentration of intensive players on these forums. How, then, could one deduce, from answers given by a sample where the so-called “hardcore gamers” are obviously overrepresented, an average gaming time for all players?

Table 1: Weekly Game Time, by Origin of Recruitment

P=0.034	Game-related forums	other origins	total
0 to 14 hours ⁵⁷	28.3%	38.3%	30.5%
15 to 30 hours	42.8%	37.8%	41.7%
31 hours and more	28.9%	23.9%	27.8%
Total	100%	100%	100%

Then, what good are these surveys? Why bother building them if we cannot generalize about their results? The fact is that we can – only, not the kind of generalization we usually think about. There is no way we could describe the general population of players with them. Griffiths and Yee’s attempts failed in this regard. But we can still say a lot of things about the differences we can spot between players. For instance, nothing assures us that the proportion of men and women found in the sample matches the actual proportion, in the mother population. But when we relate this attribute to answers that describe the type of practice, we can see how there are gendered ways of playing. These differences can be generalized, for

there is no hint that recruitment was so gender-biased that it picked radically different men and women.

Furthermore, we can ask whether qualitative approaches are really incapable of generalization. Admittedly, sample size matters, and drawing conclusions solely on a few cases is a risky business. But as for non-representative but generalizable quantitative samples, the population ethnographically studied might be chosen as to allow a more general analysis. We can, for instance, try and find individuals who differ greatly in a few key variables, the influence of which the survey has to measure, and build a sample with enough male and female, hard science /IT and other educational backgrounds, working class and middle class individuals, etc.

But more importantly, we can always rely on the cumulativeness of social science research. The sociologist and epistemologist Jean-Claude Passeron wrote about the importance of analogy in “historical sciences”. It is true that every situation these disciplines study is uniquely linked to a time and space, and that it is, in this sense, specific. Thus, concepts are designed with regards to empirical situations, and stay indexed to the situations they designate even when they are used in other fields. He takes the example of medieval society: the characteristic features of Japanese medieval society do not match those of Europeans medieval societies. However, the analogy between these situations helps us understand both of them better.⁵⁸ Similarly, research in sociology holds little interest on its own, but has to be analyzed with regard to other researches.⁵⁹ There are many examples of such generalizations in the history of social sciences. Claude Lévi-Strauss’ classical book *The Elementary Structures of Kinship*, for one, relies on a wide array of monographic works to draw more general laws about societies, namely that the incest taboo is at their root, since marriage outside the family is the first form of exchange between social groups.⁶⁰

It is often difficult, to say the least, to take into account situations outside one's field. Moreover, a perspective that would analyze a lot of various situations might lose some of its pertinence. One of the main criticisms of Levi-Strauss' structuralism concerns the scale of his model. Generalization, thus, should always be cautious. But the amount of works in various fields of the social sciences allows a researcher to draw parallels between what they are looking at and what others discovered before them. Of course, that would mean, in the field of game studies, that we should not postulate that games are a completely new medium, but rather try to see empirically what is new and what is old about it. That is why we tried to relate the career of *World of Warcraft* players to a series of work on professional and deviant careers⁶¹ and found many similarities: the construction of a status through a necessary succession of steps, the possibility of a fork in the career, the necessity of personal efforts, the importance of the peer group, etc.

Bourdieu's theory of the literary field also helped a lot when we had to describe what the social space of the game looked like.⁶² Here, too, there are many resemblances. Like the literary field, the social space of the game is relatively autonomous. Huizinga defended a similar idea of autonomy with his concept of the "magic circle".⁶³ However, in Huizinga's perspective, the autonomy of the game is absolute: the game is a space radically cut from other social spheres, like economy. By applying a theory that has been built on a totally different object, the production of culture, the concept of "field" allows us to see that this autonomy is actually very fragile. It is not an ontological property of the game, but rather a never-ending social construction. The actors of this representation, the players and the producers of the game, have to continually strive to maintain their autonomy. Forbidding real-money trade is one of the ways to do it: outside world economic capital should not be convertible into specific economic capital.⁶⁴ Other means include the definition of allowed topics for discussion (no politics, no religion, said one interviewee, the administrator of a

private server).⁶⁵ Furthermore, field theory describes social spaces in terms of the unequal distribution of the different forms of capital. It thus makes visible the heterogeneity of the players, as well as the specific hierarchies of the game, as for instance the dominant position competitive players hold.

The major flaw of quantitative studies is, for Williams, their lack of contextualization. He gave one illustration: since the social scientists usually limit their analysis to a few factors (“school achievement, intelligence, and introversion”), predictions of an individual’s behavior are impossible. We could object that qualitative studies cannot predict behaviors either. Social sciences do not produce natural laws that would apply in every situation. Rather, they rely on probability. For instance, the sociology of education can only pinpoint the more influential factors of school achievement, and thus, knowing an individual’s attributes, predict their *probability* of success, but the outcome is far from certain. It can only draw the skyline of possible and probable futures, and say which one is most likely to happen.

Furthermore, qualitative studies, be they ethnography or textual analysis, may present the same “contextual flaw”. The “scholastic point of view” is a concept Bourdieu termed after an expression by John Austin. It describes a situation when the researcher gives to the actors they study their own point of view on the world: for instance, the formalized and experimental situations game theory refers to.⁶⁶ Some ethnographic works in game studies show the same scholastic bias. A recent and otherwise interesting edited book, *Digital Culture, Play and Identity, A World of Warcraft Reader*, has several of its contributors rely as much, if not more, on their personal experience of the game, than empirical research.⁶⁷ The emphasis they place on role-playing⁶⁸ or the history of Azeroth,⁶⁹ for instance, is characteristic of scholars being primarily interested in players playing the same way they do. Although the editors initially insist on the variety of potential practices,⁷⁰ the diverse types of players barely appear in the book. In this sense, qualitative studies may not always be the best way to contextualize

social action, since contextualization requires the acknowledgement of differences between the actors.

Some qualitative methods, especially textual analysis, reproduce what Foucault called the “juridico-discursive conception of power”.⁷¹ He warned us, in a preamble on his genealogical method, against the risks of taking written texts for granted. We should not only analyze what the law says (norms and rules), but also the actual practices, for there may be a gap between these two. The many works on the ideology of video games, or games in general, usually limit their study to the texts, in this case the code or the rules of the game, and let slip their reception and appropriation by the players.⁷² Some approaches studying online identities show the same bias. They assume that the Internet grants anonymity arguing that users can choose new identities online.⁷³ Yet they forget that social identities are deeply embodied in individuals. One of the major tensions between players in the virtual worlds, for instance, is the level of language. Many players complain that the virtual world is crowded with people who do not know how to write properly, use many abbreviations, and a phonetic language. They usually associate such a use of language with youth: it is, they think, how young teenagers talk. But the fact is that it is not only about age, but also about social class. Mastering of the written word is a very unequally distributed skill. The symbolic violence of the interactions about language reassesses the distinctions between social groups. They act as a sign of offline identity and limit the ability to freely build a different online representation of the self.

Conclusion

The distinction between quantitative and qualitative methodologies cannot be taken for granted. As we saw, it is much less simple than it appears, and even an approach of the risks and benefits of each method fails to strictly separate them, since they may both show the same weakness, depending on their uses. Therefore, the choice of a method should not be made *a*

priori, but negotiated in the field with regards to their capacities and to the questions asked.

The two methods should not be opposed, but rather combined. Instead of “which one should I use?” one could rather ask “what can I prove using them?”

The reasons why we should mix methodologies are quite obvious once we take a critical look, even one as short as this chapter, at their weaknesses. Complementarities of methods are the main reason, even though other uses of mixed methods are common.⁷⁴ To ensure this complementary use, it is important to think about what both methods can achieve in the specific context of the study, and given a specific research question. In other words, this means that the problem with the choice of a methodology is above all epistemological. It is a matter of the “sociological reasoning”,⁷⁵ of the conditions under which a scientific proposition can be held as true.

Howard Becker named his clever collection of tips for social scientists *Tricks of the Trade: How to Think about your Research while you're Doing It*.⁷⁶ Reflexivity, thinking about one's research, is essential in every research, and especially when mixed methods are used, at every stage of the research. Whatever the method used, we must make sure not to say more than we can say with the data produced. Then, mixing methodologies appears as a good way to produce a more comprehensive knowledge about a given object: “the social sciences must take benefit of every methods and every way of scientifically constructing social reality.”⁷⁷

To some extent, the lasting opposition between quantitative social science and qualitative humanities research resembles an opposition studied by Jean-Claude Passeron and Claude Grignon. Literature and sociology usually fall, they say, in one of two theoretical traps, *misérabilisme* (sordid realism emphasizing the complete lack of control lower classes have on culture, including popular culture) and populism (glorification of popular culture as an autonomous, coherent set). The former is embodied by the Frankfurt school's perspective

on cultural industries; the latter, by the parts of the cultural studies approach that ignores cultural domination.⁷⁸ The social sciences and humanities sides of games studies show the same opposition. Passeron and Grignon saw in the methodological divide one of the many factors that contributed to the reproduction of the *status quo*. Since then, many sociologists have worked on a refined definition of culture, which would acknowledge both the creativity and resistance of popular culture and its objective lower status in cultural hierarchies. Such a work is necessary in contemporary game studies. Video games should neither be seen as yet another product of cultural industries that oppresses and alienates players, nor as a fabulous new medium freeing players from outside world's norms. Researchers should display neither fear, nor fascination in their analysis, but only ask questions and answer them as best as they can.⁷⁹

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1. Alan Bryman, "Integrating Quantitative and Qualitative Research: How Is It Done?," *Qualitative Research* 6, no. 1 (2006), 97-113.

2. Pierre Bourdieu, *Science of Science and Reflexivity*. (Chicago: Chicago University Press, 2004).

3. Alvaro Pires, "Deux thèses erronées sur les lettres et les chiffres," *Cahiers de recherche sociologique* 5, no. 2 (1987), 85-105.

4. Objectivism, or realism, is a thesis stating that reality is independent of the mind. In sociology, it is often said to originate in the work of Emile Durkheim, and especially in his proposition to "treat social facts as things" [*The Rules of Sociological Method* (Glencoe, NY: Free Press, 1982)] Subjectivism, on the other hand, states that reality is constructed by human perception: social reality, in this perspective, is what social actors think it is.

5. Michel Butor, *Second Thoughts [La modification]* (London: Faber and Faber, 1958).

6. Howard Becker, *Writing for Social Scientists. How to Start and Finish Your Thesis, Book, or Article* (Chicago: University of Chicago Press, 2007).

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7. Bernard Lahire, *L'homme pluriel : Les ressorts de l'action* (Paris: Nathan, 1998).
 8. Peter L. Berger and Thomas Luckmann, *The Social Construction of Reality. A Treatise in the Sociology of Knowledge* (Garden City, NY: Doubleday, 1966).
 9. This is also a classic topic in social science research. See for instance David Snudow's account of learning how to improvise jazz on the piano, *Ways of the Hand. A Rewritten Account* (Cambridge, Mass.: The MIT Press, 2001), Loïc Wacquant's ethnography of a boxing gym, *Body and Soul: Notebooks of an Apprentice Boxer* (Oxford: Oxford University Press, 2004) or Sylvia Faure's work on the socialization of dancers, *Apprendre par corps. Socio-anthropologie des techniques de danse* (Paris: La Dispute, 2000).
 10. This is one of the reasons why a critical review of classical essentialist definitions of games such as Johan Huizinga, *Homo Ludens : A Study of the Play Element in Culture* (London: Routledge and Kegan Paul, 1944) and Roger Caillois, *Man, Play, and Games* (New York: Free Press of Glencoe, 1961) is much needed in the field of game studies.
 11. "Equipment" consists in virtual objects owned by the players' characters and allowing them to perform certain actions (fighting, casting a spell, etc.) Raids are usually difficult missions that have to be carried out by a team of players. High-level raids are where the best objects can be found.
 12. John Fiske, "The Cultural Economy of Fandom," in *The Adoring Audience. Fan Culture and Popular Media*, ed. Lisa Lewis (Londres: Routledge, 1992), 32-49.
 13. Although it should be noted that a group of players who are at the same time competitive and fans also exists. They spend more time playing the game than every other group, only engage in cooperative competition (Player vs. Environment, as opposed to oppositional competition, Player vs. Player), and are a minority among competitive players.
 14. Sylvie Octobre and Yves Jauneau, "Tels parents, tels enfants ? Une approche de la transmission culturelle," *Revue Française de Sociologie* 49, no. 4 (2008): 703.
 15. Concentration of the last degree obtained was roughly divided into humanities, hard sciences/technology, and law/economics/services. However, gender has been shown to have a proper influence on other aspects of social differentiation of video game play. For instance, it effectively explains the use vs. non-use of video games among young teenagers (Ibid.), as well as the genre of video game played. See Kristen Lucas and John L. Sherry, "Sex Differences in Video Game Play," *Communication Research* 31, no. 5 (2004), 499-523.
 16. Bernard Lahire, "Formes de la lecture étudiante et catégories scolaires de l'entendement lectoral," *Sociétés Contemporaines* 48(2002), 87-107.

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17. Pierre Bourdieu, *Distinction : A Social Critique of the Judgement of Taste* (Cambridge, Mass.: Harvard University Press, 1984).
18. Constance Steinkuehler, "Cognition and Learning in Massively Multiplayer Online Games: A Critical Approach" (University of Wisconsin, Madison, 2005), quoted in Constance Steinkuehler and Sean Duncan, "Scientific Habits of Mind in Virtual Worlds," *Journal of Science Education and Technology* 17, no. 6 (2008).
19. Howard Becker, *Outsiders. Studies in the Sociology of Deviance* (New York: The Free Press of Glencoe, 1963).
20. Pierre Bourdieu, Jean-Claude Passeron, and Jean-Claude Chamboredon, *The Craft of Sociology : Epistemological Preliminaries* (Berlin, New York: Walter de Gruyter, 1991); Muriel Darmon, "La notion de carrière : Un instrument interactionniste d'objectivation," *Politix* 82, no. 2 (2008), 149-67.
21. Becker, *Outsiders*.
22. Archives may show the same display of details a researcher would need. See for instance the classical analysis of Mozart's biography by Norbert Elias, *Mozart : Portrait of a Genius* (Berkeley: University of California Press, 1993).
23. Game-specific capital, in this case, is composed of a specific economic capital (the number and level of characters owned; their equipment and their in-game money), cultural capital (the knowledge of the game and the game universe history, of the game mechanics, etc.), symbolic capital (affiliation to a prestigious guild, PvP awards, etc.) and social capital (links with other players).
24. For a more developed argument in favor of field theory in virtual world studies, see Samuel Coavoux, "L'espace social des pratiques de *World of Warcraft*," in *Les jeux vidéo comme objet de recherche*, ed. Hovig Ter Minassian and Samuel Rufat (Paris: Questions Théoriques, 2010, forthcoming).
25. Muriel Darmon, *Devenir anorexique : Une approche sociologique* (Paris: La Découverte, 2003).
26. Bernard Lahire, "La variation des contextes dans les sciences sociales. Remarques épistémologiques," *Annales. Histoire, Sciences Sociales* 51, no. 2 (1996): 382.
27. Bryman, "Integrating Quantitative and Qualitative Research: How Is It Done?"; Jennifer C. Greene, Valerie J. Caracelli, and Wendy F. Graham, "Toward a Conceptual Framework for Mixed-Method Evaluation Designs," *Educational Evaluation and Policy Analysis* 11, no. 3 (1989), 255-74.

28. Guilds are organized groups of players or, more precisely, of characters. Their primary goal is to gather players so they can find gaming partners. Most of the end-game content being collaborative, guilds are essential in allowing access to this content.

29. Pierre Bourdieu, Luc Boltanski, and Monique de Saint Martin, "Les stratégies de reconversion. Les classes sociales et le système d'enseignement," *Social Science Information. Informations sur les Sciences Sociales* 12, no. 5 (1973), 61-113; Pierre Bourdieu and Jean-Claude Passeron, *Reproduction in Education, Society, and Culture* (London, Beverly Hills: Sage Publications, 1977).

30. Bernard Lahire, *Culture écrite et inégalités scolaires. Sociologie de l' "échec scolaire" à l'école primaire* (Lyon: Presses Universitaires de Lyon, 1993).

31. Erving Goffman, *The Presentation of Self in Everyday Life* (Garden City, NY: Anchor Books, 1959).

32. Becker, *Outsiders*.

33. Robert King Merton, *Social Theory and Social Structure* (Glencoe: Free Press, 1968), 265.

34. Rob Cover, "Gaming (Ad)Diction: Discourse, Identity, Time and Play in the Production of the Gamer Addiction Myth," *Game Studies* 6, no. 1 (2006); Craig A. Anderson and B. J. Bushman, "Effects of Violent Video Games on Aggressive Behaviors, Aggressive Cognition, Aggressive Affect, Psychological Arousal and Prosocial Behavior: A Meta-Analysis," *Psychological Science* 12(2001), 353-359.

35. Joseph R. Gusfield, *The Culture of Public Problems. Drinking-Driving and the Symbolic Order* (Chicago: University of Chicago Press, 1981).

36. Incidentally, the bad reception of the survey also had to do with the fear for malevolent programs (the survey was hosted on a French academic website, with a .fr, domain name instead of a .edu, and it seemed to have raised some suspicion).

37. Pierre Bourdieu, *The Weight of the World. Social Suffering in Contemporary Society* (Oxford, Stanford: Polity Press, Stanford University Press, 1999).

38. Dmitri Williams, "Bridging the Methodological Divide in Game Research," *Simulation & Gaming* 36, no. 4 (2005), 447-63.

39. R. Burke Johnson and Anthony J. Onwuegbuzie, "Mixed Methods Research: A Research Paradigm Whose Time Has Come," *Educational Researcher* 33, no. 7 (2004), 14-26; Abbas Tashakkori and Charles Teddlie, *Mixed Methodology : Combining Qualitative and Quantitative Approaches* (Thousand Oaks, CA: Sage,

1998); ———, *Foundations of Mixed Methods Research : Integrating Quantitative and Qualitative Techniques in the Social and Behavioral Sciences* (London: SAGE, 2008).

40. See Pierre Bourdieu, "Social Space and Symbolic Power," *Sociological Theory* 7, no. 1 (1989), 14-25; ———, "La double vérité du travail," *Actes de la recherche en sciences sociales* 114(1996), 89-90. This is not an unusual standpoint, however. See for instance Peter Berger and Thomas Luckmann, *The Social Construction of Reality* (Garden City, N.Y.: Doubleday, 1966) for a similar point.

41. It can of course be argued that such a use of "qualitative" methods of data gathering cannot actually be called qualitative, and that the way data is analyzed rather than collected is where the difference between quantitative and qualitative methodologies lie. However, this argument ignores the differences the methodological implications of a "qualitative" use of quantitative methods or a "quantitative" use of qualitative methods. An interview conducted in an objectivist fashion still differs greatly from a quantitative survey.

42. Pires, "Deux Thèses Erronées."

43. Ibid.

44. Ian Hacking, "The Seld-Vindication of the Laboratory Sciences," in *Science as Practice and Culture*, ed. Andrew Pickering (Chicago: Chicago University Press, 1992), 29-64.

45. Pierre Bourdieu, quoted by Henry Rouanet, Werner Ackermann, and Brigitte Le Roux, "The Geometric Analysis of Questionnaires. The Lessons of Bourdieu's *La Distinction*," *Bulletin de Méthodologie Sociologique* 65(2000), 5-15. On a somewhat anecdotal level, Bourdieu also said he liked correspondence analysis because it was "nice and funny" ["joli et drôle", quoted in Michel Gollac, "La rigueur et la rigolade. A propos de l'usage des méthodes quantitatives par Pierre Bourdieu," *Courrier des statistiques* 112(2004), 31.] The adjective "nice" also refers to the heuristic qualities of the method: it makes clear structures that may otherwise be hard to grasp.

46. Bourdieu, *Distinction*.

47. Pierre Bourdieu, *The Rules of Art. Genesis and Structure of the Literary Field* (Cambridge, UK, Stanford: Polity Press, Stanford University Press, 1996).

48. Becker, *Outsiders*.

49. For an example, see the approach of the social space of prostitution using ethnography as its main method developed by Lilian Mathieu, "L'espace de la prostitution. Éléments empiriques et perspectives en sociologie de la déviance," *Sociétés Contemporaines* 38(2000), 99-116.

50. Bourdieu, *Distinction*; Richard A. Peterson and Roger M. Kern, "Changing Highbrow Taste: From Snob to Omnivore," *American Sociological Review* 61, no. 5 (1996), 900-907.

51. Richard Hoggart, *The Uses of Literacy : Aspects of Working-Class Life with Special References to Publications and Entertainments* (London: Chatto and Windus, 1957); Bernard Lahire, *La Culture Des Individus. Dissonances Culturelles Et Distinction De Soi* (Paris: La Découverte, 2004). For an analysis of the relation between the two scales in the case of the sociology of culture, see Lahire, "La variation des contextes dans les sciences sociales."

52. Williams, "Bridging the Methodological Divide in Game Research."

53. Generalization is conditioned by a series of methodological precautions, or at least should be. Sampling is especially important in descriptive statistics. A representative sample can be built either at random (when every single individual in the mother population has the exact same chance of being part of the sample) or through quotas (the researcher, knowing the structure of the mother population thanks to previous survey, makes sure that the sample has the same structure). The study of cultural activities seldom has the opportunity to use one of those two sampling methods. It often settles for an alternative: individuals are surveyed on the place where they perform the activity (for instance in a museum).

54. Dmitri Williams, Nick Yee, and Scott E. Caplan, "Who Plays, How Much, and Why? Debunking the Stereotypical Gamer Profile," *Journal of Computer-Mediated Communication* 13, no. 4 (2008), 993-1018.

55. Mark Griffiths, Mark Davies, and Darren Chappell, "Breaking the Stereotype : The Case of Online Gaming," *CyberPsychology and Behavior* 6, no. 1 (2003), 81-91.

56. Nick Yee, "The Demographics, Motivations and Derived Experiences of Users of Massively-Multiuser Online Graphical Environments," *PRESENCE: Teleoperators and Virtual Environments* 15(2006), 309-29.

57. Weekly game time has been computed with answers to the questions "How many hours did you play the last seven days?" and "How many hours did you play yesterday?" People who declared they had stopped playing were asked the question "How much time did you play on average, when you were playing?" instead.

58. Passeron's argument can be better understood with a reference to Wittgenstein's concept of "family resemblance": the objects we call "games", the philosopher wrote, do not all share a common feature, but rather show a series of similarities, i.e. "family resemblances" Ludwig Wittgenstein, *Philosophical Investigations* (Blackwell, 2009), §66 ff.

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59. Jean-Claude Passeron, *Le raisonnement sociologique : Un espace non poppérien de l'argumentation* (Paris: Albin Michel, 2006).
60. Claude Lévi-Strauss, *The Elementary Structures of Kinship* (Boston: Beacon Press, 1969).
61. Howard Becker and Anselm Strauss, "Careers, Personality and Adult Socialization," *American Journal of Sociology* 62, no. 3 (1956), 253-63; Becker, *Outsiders*; Howard Becker et al., *Boys in White: Student Culture in Medical School* (New Brunswick, London: Transaction Books, 1965); Darmon, *Devenir anorexique*; Erving Goffman, *Asylums: Essays on the Social Situation of Mental Patients and Other Inmates* (Garden City, NY: Anchor Books, 1961); Everett Hughes, *The Sociological Eye. Selected Papers* (Chicago: Aldine-Atherton, 1971).
62. Bourdieu, *The Rules of Art*.
63. Huizinga, *Homo Ludens*.
64. By specific economic capital, we mean the series of virtual possessions of players that can produce a value in the world of the game (characters, items, gold, etc.)
65. A server that is not run by the editor of the game, Blizzard Entertainment.
66. Pierre Bourdieu, "The Scholastic Point of View," *Cultural Anthropology* 5, no. 4 (1990), 380-91.
67. Hilde G. Corneliussen and Jill Walker Rettberg (eds.), *Digital Culture, Play and Identity: A World of Warcraft Reader* (Cambridge, Mass.: The MIT Press, 2008).
68. Esther MacCallum-Stewart and Justin Parsler, "Role-Play Vs. Gameplay: The Difficulties of Playing a Role in World of Warcraft," in *Digital Culture, Play, and Identity: A World of Warcraft Reader* (Cambridge, Mass.: The MIT Press, 2008), 225-46.
69. Esther MacCallum-Stewart, "'Never Such Innocence Again': War and History in World of Warcraft," in *Digital Culture, Play, and Identity: A World of Warcraft Reader* (Cambridge, Mass.: The MIT Press, 2008), 39-62.
70. Corneliussen and Rettberg, *Digital Culture, Play and Identity: A World of Warcraft Reader*, 5.
71. Michel Foucault, *The History of Sexuality. Vol. 1. The Will to Knowledge* (London: Penguin Books, 1990).
72. Laurent Trémel, "Jeux, éducation et socialisation politique : Contribution au rappel de la permanence d'un processus," *Géographie, économie, société* 9, no. 1 (2007), 83-99.

73. Miroslaw Filiciak, "Hyperidentities: Postmodern Identity Patterns in Massively Multiplayer Online Role-Playing Games," in *The Video Game Theory Reader*, ed. Bernard Perron and Mark J. P. Wolf (London: Routledge, 2003), 87-102.

74. Bryman, "Integrating Quantitative and Qualitative Research: How Is It Done?."

75. Passeron, *Le raisonnement sociologique*.

76. Howard Becker, *Tricks of the Trade. How to Think About Your Research While You're Doing It* (Chicago: Chicago University Press, 1998).

77. Lahire, "La variation des contextes dans les sciences sociales," 384.

78. Jean-Claude Passeron and Claude Grignon, *Le savant et le populaire. Misérabilisme et populisme en sociologie et en littérature* (Paris: Gallimard, Le Seuil, 1989).

79. This is a classical precaution, first advocated by Max Weber, *The Methodology of the Social Sciences* (Glencoe: Free Press, 1949). In media studies, a similar has been made by David Buckingham, *After the Death of Childhood. Growing up in the Age of Electronic Media* (Cambridge: Polity Press, 2000).