An Autoethnographic Approach to Guide Situated Ethical Decisions in Participatory Design with Teenagers

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Abstract

Participatory Design methods have become a widespread practice in the development of digital technologies. Even if Participatory Design is grounded on a critical and reflective tradition, often the presence of implicit assumptions may have relevant methodological and ethical consequences, since they may unintentionally shape our way of considering or behaving with participants. To tackle this issue, we suggest that the assumptions and expectations of designers must be carefully examined. To guide this process, we propose using a self-reflexive critical practice based on autoethnography as a tool to reflect and construct knowledge out of our subjective experience of designers involved in Participatory Design. Grounded on our experience of Participatory Design with teenagers, we report how autoethnography allowed gaining a deeper understanding of one's own positions, assumptions and contradictions on aspects related to our standpoint on participatory practices, the images that we have of participants and our role in the design process. This awareness allowed us to take emotions, personal stories and values in ethical choices into account, hence guiding situated decision-making on ethical and methodological aspects. Furthermore, we suggest that this approach not only contributes to unveil incongruences and strengthens the validity of the research, but also facilitates conditions for enabling a suitable space for creation and support novel forms of reporting Participatory Design experiences.

Keywords: Participatory Design, Teenagers, Interaction Design, Situated Ethics, Autoethnography , Feminism , Design Research

1. Introduction

In the last years, the increasing complexity of HCI and its interdisciplinary needs are pushing forward an epistemological shift in the field (Harrison, Sengers, & Tatar, 2011). Under the umbrella term of "the third paradigm of HCI", novel methodological approaches, derived from critical theory, ethnomethodology, phenomenology and feminist philosophy of science, are gaining a growing attention in this research area (Harrison et al., 2011). This shift can be identified in the rising of methods such as Design-Based Research (Barab & Squire, 2004), Cooperative Inquiry (Guha, Druin, & Fails, 2013), Ecological Inquiry (Smith, Iversen, Hjermitslev, & Lynggaard, 2013), Value Sensitive Design (Friedman, Kahn, Borning, & Huldtgren, 2013) and Participatory Design (Muller & Druin, 2003). These approaches put forward a novel set of assumptions, values and concepts upon which designers can situate their perspectives on the world. At the same time, they propose different ways of constructing knowledge, which aims at taking into account the situated, relational and embodied nature of knowledge construction.

A paradigmatic example of this shift can be found in Participatory Design (PD) methods, which have become a widespread practice in the development of end-users technologies (Druin, 2002). Under the claim that collaborating with users is the best way to understand their needs and guide technology design (Luck, 2003), an increasing number of techniques are being developed to facilitate their involvement in the design process (Dindler & Iversen, 2007; Dindler et al., 2005; Giaccardi, Paredes, Díaz, & Alvarado, 2012; Janet Read, Fitton, & Mazzone, 2010). Nonetheless, alongside the development of tools and techniques, several researchers also pointed out the need of reflecting upon ethical concerns and ethical practices in PD (Bratteteig & Wagner, 2012; Munteanu & Molyneaux, 2015; Rogers & Marsden, 2013; Slegers, Duysburgh, & Hendriks, 2014). This necessity implies the definition of appropriate ethical guidelines. At the same time, it requires the researchers' reflection on their own standpoint and situated ethical decisions.

To address this latter requirement, we suggest the use of autoethnography (Allen & Piercy, 2005) as a tool to guide researchers' self-reflection on their own experience and assumptions. Autoethnography is a qualitative research method that combines the features of autobiography with ethnographical research (Ellis, Adams, & Bochner, 2011). Its aim is to use the author's experience as an instrument to understand the self, others and culture (Sparkes, 2000). Therefore, autoethnography can help researchers to consider their own subjectivity as an object of study, acknowledging their own embodiment, reflecting upon their own assumptions, contextualizing these aspects in a broader theoretical framework and reporting on it. Hence, we suggest that autoethnography, because of its

specific methodological features, may meaningfully complement existing research approaches in PD and can be particularly suitable to support self-reflection on ethical aspects and to guide situated decision-making.

To introduce this approach we will report the use of autoethnography to analyze the experience of the first author as researcher and facilitator in a PD workshop with teenagers. Using her experience as a starting point, we will discuss how the use of an autoethnographic approach for guiding self-reflexive analysis allowed her to track her own expectations, assumptions, feelings and conflicting criteria and unveiling the network of meanings that surround ethical decision making, thus guiding her situated ethical choices. Therefore, we suggest that this approach could, not only, help researchers in improving their situated practice in PD but could also enable conditions for facilitating creation and dialog. Finally, we will discuss the limits of this approach and implications for the training of researchers involved in PD.

2. Participatory Design and situated ethical values

During the last decades, research has repetitively pointed out how artifacts, computational practices and design methods can embody ideological discourses (Chun, 2004; Penny, 2013) , arrangements of power and authority (Winner, 1980) and specific conceptions about the human being and social practices (Turkle, 2012). As a consequence, designed artifacts and design methods cannot be considered as neutral, but rather as embodiments of specific values, assumptions and discourses (Agre, 1997; Bayazit, 2004; Forsythe, 1993). Hence, their analysis should not only focus on their functional properties but should also be contextualized in relation to their ethical standpoint and potential ethical consequences, e.g. the low-hanging overpasses described by Winner (1980) embody a systematic social inequality by impeding low-income inhabitants to accede to certain areas using public transportation.

In this context, Participatory Design (PD), understood as a methodological approach to actively involve end-users as full participants in design activities and decision-making processes (Muller & Druin, 2003) emerged in Scandinavian countries during the seventies. Its rise was motivated by the need to address requirements related to the pragmatic necessity of understanding user needs and the political claim for horizontality and participation (Frauenberger, Good, Fitzpatrick, & Iversen, 2014; Muller & Druin, 2003). At a political and epistemological level, the roots of PD can be traced within postmodern traditions such as phenomenology, Marxism and feminism (Frauenberger et al., 2014; Harrison et al., 2011).

For its specific features, PD has been claimed to be intrinsically "filled with ethics" (Steen, 2011) due to its focus on the ethical values of participation and listening to others (Carsten Stahl, 2014) and its concerns about questioning ethical dilemmas in its own practice, i.e. the distribution of power relations (Bratteteig & Wagner, 2012), the selection of participants (Rogers & Marsden, 2013), the ways to properly inform participants about their role and contributions (Read, Fitton, & Hortton, 2014), the views that researchers hold on participants (Slegers et al., 2014) and the issues that may arise in selecting and combining ideas (Guha, Druin, & Chipman, 2004).

Thus, from a theoretical perspective, PD offers affordances and qualities to support design practices grounded on a reflective standpoint about ethical concerns. However, as Buscher et al. (2002) point out these aspects are not guaranteed "a priori" but must be achieved during the situated practice. Our everyday life is often shaped by implicit assumptions and agenda of which we are not completely aware (Dweck, Chiu, & Hong, 1995; Sengers, Boehner, David, & Kaye, 2005). This lack of awareness runs the risk of transforming us into mindless bearers of unintended ideological and political structures, which not only have a methodological impact (Frauenberger et al., 2014) but may also carry potential ethical consequences.

To address this issue, Sengers et al. (2005) suggest that a critical reflection aimed at spotting out the unconscious values and the implicit agendas embedded in design practice should constitute a core principle of HCI. This reflective perspective is shared by several design approaches such as Value Sensitive Design (Friedman et al., 2013), Critical Technical Practice (Agre, 1997) and reflection-in-action (Schon, 1983). These approaches offer a wide set of tools through which designers can approach a reflective standpoint, e.g. formulating values-related questions (Friedman et al., 2013), questioning underlying values to think about technical alternatives (Agre, 1997) and dialoguing with the materials of a situation (Schon, 1983).

Nonetheless, in the context of PD, we suggest that the critical reflection should go beyond the analysis of the political, ideological and epistemological qualities of the employed techniques. Instead, it should also look at the self of the researcher (Ellis & Bochner, 2000) to carefully examine the role played by her subjectivity. On the one hand, this implies that the role of the researcher must be fully acknowledged in shaping PD processes. On the other, it requires approaches capable of digging into the nature of the subjectively lived experience. We, thus, suggest that this self-reflexive approach could be particularly helpful in reflecting on situated ethical decisions and dilemmas.

3. Toward a self-reflexive critical approach in Participatory Design

According to Guillemin and Gillam (2004) when dealing with ethical concerns it is necessary to differentiate between procedural ethics and situated ethics. Procedural ethics mainly addresses practical issues related to pre-established ethical regulations, seeking the approval from an ethics committee and obtaining the informed consents. Although a careful and flexible planning of context-specific ethical guidelines can be fundamental to effectively guide researchers (Munteanu & Molyneaux, 2015), conducting ethical research is much more than doing research that has gained the approval of an ethics committee (Guillemin & Gillam, 2004). In particular, researchers should pay close attention to situated ethics, understood as the issues and dilemmas that may arise in the act of doing research. To address situated ethical concerns researchers need of a trained sensitivity to micro-ethical aspects (e.g. participant vulnerabilities or annoyance, discomfort, etc.) and of a careful reflective analysis of the moment-by-moment ethical decisions (Guillemin & Gillam, 2004). As suggested by feminist approaches to ethics such as the ethics of care (Tronto, 1999) and Narrative Ethics (Meyers, 2003), our ethical decisions are deeply intertwined with our emotions and our own story. As a consequence, it is necessary to pay a close attention to researcher's emotions, empathy and personal biography (Martin, 2007).

In the context of PD, different authors have analyzed the role of the researchers and the relation that they establish with participants. For instance, Dindler and Iversen (2014) proposed the importance of the designers' relational expertise in shaping PD, Light and Akama (2012) analyzed designers' agency during a PD workshop, and Bratteteig and Wagner (2012) addressed the issues of power distribution and shared decision making. These studies constitute valuable contributions to an often-neglected aspect. However, this kind of analysis often tends to be framed from the perspective of the "modest witness" (Haraway, 1997) who observes, analyzes, interprets and reports phenomena from an external perspective, unbiased from her opinions or embodiment. Even though this approach constitutes a valuable and legitimate instrument to produce knowledge, we nonetheless suggest that we also need of complementary approaches capable of more strongly legitimating the reflection on subjectivity and embodied lived experience as a source of knowledge.

In the context of HCI, the notion of subjective experience is increasingly being explored as a design and research instrument (Buchenau & Suri, 2000; O'Kane, Rogers & Blandford , 2014; Neustaedter & Sengers, 2012; Wright & Mccarthy, 2008). For instance, Neustaedter and Sengers (2012) propose an autobiographical design method to derive knowledge on design improvements from the designer's subjective experience of a system.

Similarly, Höök (2010) employs the analysis of the personal embodied experience of horseback riding to reflect on design qualities for a satisfactory user experience. These approaches are indicative of an epistemological shift that sheds new light on the relation between subjectivity and HCI research (Harrison et al., 2011). Furthermore, reflecting on the self to understand other people can bridge initial guidelines to using the subjective and embodied experience in guiding situated ethical decisions. Wright and Mccarthy (2008) and O'Kane, Rogers and Blandford (2014) have carried out initial efforts in this direction. Specifically, the authors suggest the analysis of the researchers' experience as a tool to imagine and better understand how users may feel in certain situations, hence empathizing with them.

Starting from this perspective, we suggest that a careful self-reflexive analysis of our role and our subjective experience as researchers in PD does not only enable us to empathize with users (Wright & Mccarthy, 2008) but could also play a more substantial role in guiding ethical practice. Specifically, we suggest that this kind of reflection can also help researchers in becoming more aware of their unconscious values and assumptions, hence allowing to properly frame situated decisions regarding specific ethical issues.

However, taking full advantage of the subjective experience and carrying out a deep and worthy self-reflexive analysis may constitute a difficult challenge (Mauthner & Doucet, 2003), especially for researchers that are not trained in this kind of practice. Moreover, this difficulty can be further exacerbated if we try to address embodied lived experience, due to the legacy of our Cartesian education and tradition (Freiler, 2008). As Kelan (2010) pointed out, much of western education is distinctly disembodied. As a consequence, people tend to become inattentive to the potentiality of understanding through the body since they are generally trained to focus on "the mind". To tackle this issue, we suggest the need for methodological approaches capable of acknowledging and systematizing self-reflexivity and embodied knowledge. In this context, using autoethnography can become an important aid.

3.1. Autoethnography as a tool to support self-reflexive practice in situated ethics

Autoethnography belongs to qualitative research methods and derives from the epistemological, theoretical and methodological rejection of the positivist claim for objectivity (Montero-Sieburth, 2006). As a method, it situates the researcher at the center of the research. In practice, it may refer both to using ethnographic research as an insider within a certain group, as well as to using ethnographical methods to explain personal experience

(Cunningham & Jones, 2005; Wall, 2008). Its purpose is to use personalized accounts of the author's experience at an intellectual, emotional and corporal level (Esteban, 2001; Montero-Sieburth, 2006) as instruments to understand the self, others and culture (Sparkes, 2000).

In their procedure, autoethnographies are based on a narrative approach that combines the features of autobiography with ethnographical research (Ellis et al., 2011). At a discursive level, they are hence situated at the boundaries of academic research (Holt, 2003) by intersecting personal stories with theoretical frameworks derived mainly from sociology and anthropology (Allen & Piercy, 2005). In its practice, autoethnography generally entails taking personal raw notes about one's own experience in a certain situation or in relation to a particular object of study (Cunningham & Jones, 2005). In this note-taking process, autoethnographers include the knowledge proceeding from their senses, bodies, feelings, personal biography and related research (Ellis & Bochner, 2000). These notes are later re-elaborated through a posterior reflection and analysis. These different temporal dimensions of the analysis of personal experience allow employing reflexive accounts and autobiographical stories as tools to think with and connect with a broader research panorama (Ellis & Bochner, 2000). In their formal reporting, autoethnographies are generally written in first person and may include dialogues, emotions, self-consciousness and accounts from related research (Holt, 2003).

Therefore, this method contributes to self-reflexive practice by providing a deeper look into the self and the self-other interactions (Ellis & Bochner, 2000), and by facilitating the systematization of this knowledge. On the one hand, it allows gaining a deeper understanding of one's own positions, assumptions and contradictions, by promoting the linking of concepts from literature with our own personal experience (Taylor & Coia, 2006; Wall, 2008). On the other hand, by using one's lived experience as a way to understand culture, it allows us to take into account our own emotional and embodied experience and use it to understand others and empathize with them (Montero-Sieburth, 2006; Wright & Mccarthy, 2008).

Ethnography has a solid trajectory in PD as a methodological approach to better understand participants and their contexts (Crabtree, 1998). Nonetheless, ethnographic methods are generally used to inform researchers about the "others" and, to our knowledge, ethnography has still not been applied in self-analysis of the experience of researchers while they are conducting a PD workshop. In this context, we suggest that autoethnography, by helping in recognizing the role of our implicit assumptions, emotions and personal history, can provide instruments for guiding a situated awareness on ethical and methodological choices. For the purpose of this paper, we will focus on

analyzing how expectations and assumptions of researchers may influence ethical choices during critically important stages of PD. In order to perform this analysis, scenarios originating from the experiences of the first author will be used as examples, according to a broad perspective on autoethnographic methods.

4. A self-reflexive analysis of the assumptions of a researcher in Participatory Design

The described study addresses the use of autoethnography to research and reflect on ethical concerns rising in the context of a PD workshop with teenagers. As Druin (2002) points out, carrying out PD with youngsters implies a specific set of requirements, different from adult participation. Children and teenagers' universes of meanings may strongly differ from ours. Hence, even if empathy can constitute a relevant starting point to establish a relationship with them, it may not be sufficient to properly understand their worldview and their relationship with us. Furthermore, authority issues related to age difference can further complicate power distribution and ethical aspects. Finally, in working with teenagers certain methods or techniques may run the risk of appearing too childish.

In order to tackle these issues the first author, who was the facilitator leading the workshop, decided to apply autoethnographic research to dig deeper into self-reflection. Her research approach shared some conceptual affinities with the work reported by Duncan (2004), who employed autoethnography to answer the research question: "how she can improve her practice as an hypermedia designer". Specifically, in our context, the facilitator decided to apply this method to address the reflection on how she can improve her practice as researcher in PD and carrying out a situated ethical research.

At a methodological level, the facilitator was writing personal accounts of her experience after each workshop session. These reflections were framed in the form of a handwritten personal diary. Their function was not to provide a careful descriptive report of the session but to dig into her personal feelings about it and connect it with her own universe of meanings and personal story. Furthermore, in the writing process, the facilitator annotated on the side of the diary page, the self-reflective questions that were rising in her stream of thought.

As Ellis and Bochner (2000) have pointed out that there are different ways of writing autoethnographies, which are deeply shaped by the subjectivity of the involved researcher. Hence, the employed writing format and self-reflexive path was surely influenced by the facilitator's background in Art, Cognitive Science and Art Psychotherapy, by her affinity with relational psychoanalytic practice and by her personal relation with the writing practice (i.e. writing personal diaries since she was in primary school).

After this immediate note-taking, the writing reflections were revised and eventually further expanded before the beginning of each workshop session. Finally, notes were re-elaborated for structuring them in an auto-ethnographic report. The report was later discussed with other researchers to frame it more precisely. In the following sections, we report the autoethnographical analysis. The text on the analysis is written in third person describing the experience of the facilitator, while the notes from her diary are reported in first person to adequately differentiate it from the first.

4.1 The research context

As a part of a research and design process on critical games, the facilitator was leading a PD workshop for Spanish teenagers. The aim of the workshop was to co-design board games that critically depicted some of the perceived socio-economical problems of the country. At a design level, the goal was to define design possibilities for the development of critical games for teenagers.

The workshop was structured as an after-school activity and participants joined it voluntarily by responding to a public call. It lasted for a total of five sessions and concluded with an exhibition of the works of the participants. In the first three sessions, the facilitator chose to follow a semi-structured approach to introduce the game design praxis. Game design methods were introduced using the model for designing critical games proposed by Flanagan (2009). To guide the PD process, she provided participants with a set of prompts to guide them in the design process and with articles and reports proceeding from national newspapers and related to specific social issues. The excerpts from newspapers were grouped according to their main topic and collected into a series of envelopes labeled according to the addressed topic (e.g. unemployment, welfare policies, mortgage debt, etc.). Each group could choose one of the envelopes and use that topic to frame their game. Participants were accompanied in the reflection on the topic and in brainstorming, prototyping and testing their own board games.

After the third session, in order to push the contributions of the participants forward, the facilitator decided to eliminate newspaper articles and let them choose a specific topic. After explaining the activity, participants started to work in groups as they had done in previous sessions.

During the activity, two boys, who were working together as a group, started to propose scenarios related to medieval wars. They were very excited about their ideas and did not show any interest in contemporary social issues. Although their proposed game was playable, it clearly diverted from the original purpose of the study and from the facilitator's research interests and expectations. The facilitator was feeling frustrated by this deviation, so

she tried to reframe their proposals. First, she suggested thinking more about contemporary issues. Since they showed no interest, she proposed them to reflect upon whether the medieval game could work as a metaphor for contemporary social issues. However, her proposals were received with poor attention, and so she decided to give up for a while and the two boys continued to work on their medieval game. In the note-taking carried out after the session she went into a long reflection on the experience, which took her considerable more time with respect to the previous sessions. Here, we provide some excerpts from her diary[1]:

"I feel a little disappointed at today's session. M. and C. got into designing a medieval game and there was no way to change their minds. Although, perhaps, trying to change their minds was not what I should have done. Every time I talk to someone about education, I defend with nails and teeth the fact that we have to start from students' interests. But then I also fall into the trap and what interest them is not necessarily what interests me (...). Perhaps, I simply have to accept the fact that my research just shows that children are not interested in social issues (...). This lack of interest in social issues clearly frustrates me. Perhaps, I could be more open to accept that they are not interested in other topics (it reminds me of when I was in high school and I prepared a course on critical analysis of the media and nobody came). (..) Or maybe I just have to admit to myself that, in this session I have proposed an inadequate method..."

Alongside the notes, a series of questions were annotated on the side of the page and eventually answered. Questions were related with practical decision-making issues and with more conceptual concerns about the experience:

"How should I plan the next session? Should I just let the boys do whatever they want? Should I tell them they are not allowed to work on a medieval game? Should I discard their initial work and propose a new topic or move back to using the previous strategy based on selected topics? What other possibilities could be considered? And what does each one of those possible actions mean in terms of implications and ethical standpoint?"

"What does PD mean to me? Which values does it embody for me? Why do I choose to use it?"

"What image do I have of participants? How did I build this image? What concepts, assumptions, emotions and beliefs are embedded in this image? How is this image shaping the role that I assign to them and the way I behave with them?"

"How do I see my role in the design process? How do I relate to the designed artifact? Which parts of me am I projecting onto it?".

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[1] The excerpts of the notes have been translated for the purpose of this paper, but they were originally taken in a language that mixed Italian (the facilitator's native language) and Spanish.

4.2. Analyzing our standpoint in PD: assumptions about participant contributions

In the fourth session, the facilitator invited participants to define a social issue of their interest, expecting to collect some insights about what problems may matter to teenagers. Her mindset was completely directed toward obtaining the definition of a specific social topic as an answer. As a consequence, she perceived the deviation from this goal both as a personal methodological failure and as a diffuse form of disappointment toward the contributions of the participants. While, in a broader social science perspective, the lack of interest in contemporary social issues could have been considered as relevant data, the functional requirements of design practice may support an implicit tendency to consider as valuable only the contributions that respond to our design questions and goals. To deal with this tension between the feeling of failure and disappointment, the facilitator found important to reflect on her standpoint with respect to PD. From her notes: "*What does PD mean to me? Which values does it embody for me? Why do I choose to use it?*"

From this reflection, she recognized that her perspective on PD derives at an ideological level from her affinity with critical pedagogies (Freire, 1970). She chose to dedicate herself to this kind of research by considering PD a pedagogical practice, the values of which go beyond the design process. In particular, she generally sees this approach as a way to enable conditions for an empowerment pedagogy, where people that may be marginalized in decision-making processes can (re)gain their right to express their opinions and feel that their ideas are valuable and worthy. However, while reflecting on her reaction to the situation, she suddenly realized that, at that moment, she was dealing with PD mainly as a mere requirements elicitation strategy (i.e. "I want information on that"). From her notes: "*Somehow I'm just seeking that they give me the answer that I want. I'm behaving as if PD is not about what the teens want/need but about what I want/need (I want nice data)*".

Applying PD "as a requirement elicitation technique" or "as a pedagogical practice" influences the conceptions of the researchers about the knowledge that "should be created", the criteria for defining success or failure of a PD workshop, and the role of researchers and participants. We are not claiming that one perspective is "better" than the other, or that they represent two fixed dichotomic positions. Instead, we suggest that it is necessary to clearly reflect on how we consider PD during our research process, since different standpoints may entail potential risks associated to ethical decision-making.

In the described case, the facilitator's reflection on her contradictory standpoint allowed her to question the potential risks of her initial expectations, related to receiving some very specific contributions. As Scaife and Rogers

(1999) pointed out, PD is not about making participants tell us what we already know or what we want to hear. As a consequence, assuming this standpoint could run the risk of considering knowledge as an asset that can be delivered (Ackermann, 2007) and participants as mere "sources of information" (Forsythe, 1993). Forsythe (1993) carefully described the methodological risks of these latter assumptions. In her ethnographic study on the design of expert systems in Artificial Intelligence, she showed that the way in which researchers conceptualize knowledge influenced both the employed elicitation methods and the designed product. In her case, the tendency to consider expert knowledge as a formal cognitive asset led to the implementation of poorly functioning software (Forsythe, 1993). At the same time, Ho and Lee (2012) pointed out the potential ethical risks of this standpoint. Using Buber's concept of intersubjectivity, the authors describe how the relation between participants and researchers in a PD workshop can be framed either as an I-it relation or as an I-thou relation. The I-it relation responds to a reductionist perspective and materializes in treating others as objects or "sources of information". Instead, in the I-thou relation, people try to meaningfully understand and empathize with others (Praglin, 2006). Ho and Lee (2012) apply these concepts in the analysis of a PD workshop with elderly. They outline how often the relation of the researchers with the participants runs the risk of being framed under the I-it perspective, in which researchers only work toward extrapolating "direct" and "valuable" answers from participants, without making any effort to truly relate to them. As a consequence, some participants in their study withdrew from the workshop because they felt uncomfortable and that they were not listened to or respected. Even if this latter example may represent an extreme case, it nonetheless points out how biases and implicit assumptions about participant contributions are not only a matter of methodological shortcomings but also entail complex social responsibilities. These aspects, besides being in conflict with the facilitator's values, may be particularly difficult to handle when working with teenagers since the already existing power imbalance of age difference may make them feel that "they are doing it wrong", thus diluting the conditions for a suitable space for creation and dialog.

Several techniques have been defined to overcome approaches focused only on information retrieval in PD. However, as the facilitator's self-reflective analysis pointed out, assumptions related to this approach can persist, at least at an implicit level. Thus, an autoethnographic self-reflexive approach that questions and examines the researcher's standpoint during practice may constitute a valuable tool to connect one's own situated practice with the broad range of social and personal meanings that guide decisions.

To sum up, through this reflexive process, the facilitator recognized that among her goals in the project, an important one was also to adopt a critical pedagogical approach and make participants feel that they have the right to express their ideas. As a consequence, completely discarding or replacing the boys' proposal would have a detrimental effect in terms of the ethical consequences related to participant empowerment and coherence with her own standpoint.

Nonetheless, focusing only on a critical pedagogical approach may run the risk of an extreme relativism, where the participatory research could end up being detached from the phenomenon that we want to observe. It thus becomes necessary to reflect upon our position around the subtle line that divides the effort of guiding participants, from the tendency toward trying to make our ideas and proposals appealing to them. In this reflection, careful consideration should be given to the assumptions that define the kind of space that we provide to participants. In particular, in this context, we suggest the central importance of considering how we signify the role of participants and our role as designers and researchers.

4.3. Constructing the image of participants

Defining the role of participants and their level of agency represents a complex enterprise. Druin (2002) describes different levels of involvement of children in the design process: as co-designers, as informants and as testers. These different levels of participant involvement do not only address the specific goals of the study but also intersect with the expectations that the designer has about participant skills and the pedagogical model that she wants to apply.

In the previous scenario, by considering that participants understood and applied game design principles during the first three sessions, the facilitator decided to increase the level of demand by reducing the structure and guidance. This choice was motivated by her trust in the skills of participants and by the intention of widening the space for their contributions. This decision highlights how often, in PD processes, the definition of the level of agency reflects the image that designers have of the participants and their beliefs about what participants may or may not be able to do.

In this context, the facilitator questioned herself on aspects such as: "*What image do I have of participants? How did I build this image? What concepts, assumptions, emotions and beliefs are embedded in this image? How is this image shaping the role that I assign to them and the way I behave with them?*"

In the described case, the poor outcomes related to the changes in the game design method, led her to feel a frustration that was not only related to the goals of the workshop, but also to her construction of the image of the participants. In particular, she recognized that their image was partially adulterated by her feeling of a diffuse disappointment about the boys' indifference toward social issues (which, at an implicit level, she considered a sort of "moral duty", due to her activist past).

In psychotherapeutic processes, the abilities of therapists to recognize "what is mine and what is yours" and to track their assumptions, feelings and ideas about the other, constitute fundamental skills to support an ethical and valuable practice. We suggest that this form of self-reflexive awareness should be applied also in the context of PD since under-examined expectations may act as biased relational templates through which we see in other people only what we want or need to see (Boszormenyi-Nagy, 1965).

Thus, by recognizing the nature of her feelings and their effects on her image of the participants, she realized that an eventual explicit insistence on the importance of getting involved with socio-political issues would have only been a glare of her personal needs. At the same time, she recognized that the option of moving back toward a more structured approach would have been a reaction to her disappointment and a projection of the changes she experienced in relation to her image of the participants.

These aspects do not only have methodological consequences but may also entail relevant ethical considerations. From a relational perspective, the image that we have about participants and their skills would inevitably affect their self-image and eventually influence them to behave according to our view. This aspect may have important consequences at an ethical level since participants may end up feeling empowered, diminished or overwhelmed, depending on our requests. These considerations are particularly relevant when working with youngsters. According to Erikson's theory of psychosocial development, children between 6 and 12 years, need to experience situations in which they can demonstrate their competencies, track their achievements and feel they are capable of doing things. If children are encouraged and reinforced they may start to feel industrious and confident (Muñoz Garcia, 2010).

Allowing youngsters to feel confident is not only a responsibility of parents and schools but should also be incorporated as a designer's ethical principle in PD. Adults and children that join a PD workshop often do not receive any material benefits besides the actual experience. It is, thus, an ethical responsibility of the researcher to

facilitate conditions in which participants feel that their capabilities are recognized and that they are skilled for doing relevant and important things.

From this perspective, the facilitator decided to reframe the next session around what she perceived as the salient skills of the participants. The two boys of the medieval game were highly motivated, skilled and creative in game design (they enrolled in the workshop specifically to learn more about the topic). She, therefore, decided to prepare some materials on dystopian and utopian games and movies and use them as possible suggestions to allow participants to dive deeper into their game design process and connect it with eventual worries about social aspects.

To carefully examine our perception of participants and endorse their skills is even more relevant when dealing with children with special needs since this population tends to be underrepresented in decision-making processes and often, the focus on "needs" reduces the attention that can be placed on "skills" (Frauenberger, Good, & Keay-Bright, 2011). To illustrate this claim, we will describe another case from our experience in a PD workshop aimed at co-designing a learning game for and with children with Autism Spectrum Disorder (ASD). The literature on PD with children with ASD generally suggests the use of highly structured activities (Keay-Bright, 2007; Millen, Cobb & Patel, 2010), where participant contributions are often limited to accessory aspects or highly constrained decisions (e.g. selecting the color of an object from two given options). Building on these references, in our first PD with ASD we set a low level of expectations and prepared a set of highly structured materials. Nonetheless, during the unfolding of the workshop, an attuned and reflexive analysis of children's behaviors and emotions, allowed us to move far beyond our initial expectations and deeply broaden the space for children contributions. This ongoing shift allowed us to improve certain game design aspects at a deeper level and make children feel empowered and proud of their productions (Malinverni et al., 2014). Both this latter case and the described scenario illustrate how in PD, being flexible often becomes more important than keeping within a predefined plan. At the same time, they show how this adaptation process should be guided by an ongoing reflexive analysis where we should take into account both the ongoing situation as well as the network of meanings that surround decision-making

4.4.The researcher's role in the design process: authorship and identification

Often in a PD workshop, researchers and designers do not start from scratch but propose ideas that they have thought and formalized in some more or less elaborated way. For instance, in the presented case study, while concrete specifications were left intentionally undefined, the facilitator started with the clear goal of designing

critical games that depict some socio-political issues. As Kress (2010) has pointed out, design and ideation, as any other creative act, inevitably deals with projecting a little part of the self in the creation of something. This projective quality requires designers to carefully examine the relation that they are establishing with the designed artifact and how this relation may influence their behavior and their situated decision-making. Starting from this perspective, during the unfolding of the workshop the facilitator questioned herself on aspects such as: *"How do I see my role in the design process? How do I relate to the designed artifact? Which parts of me am I projecting onto it?"*

By asking these questions, she realized that she was not feeling a personal responsibility about the specifications of the games designed by the participants. Nonetheless, she was feeling responsible and worried about failing in the effort of properly addressing socio-political issues. At the same time, being a project funded by a grant, she felt the responsibility of presenting worthy results and make the process move in the intended direction.

Her perspective did not reveal a strong identification with the final designed artifact. However, it pointed out the importance of properly disentangling which is our position in the design process. In this context, we could perhaps find designers who, by considering their initial ideas as the result of their skills, develop a form of symbiotic identification between themselves and their proposal. As a consequence, changes and critiques to their proposals may be experienced as critiques specifically oriented toward them. This defensive position may be reflected also in their attitude toward participants and in the process of selecting and combining ideas.

These risks highlight the need for problematizing the notion of authorship and find novel metaphors and concepts to describe the nature of the design process. Postmodernist theorists proposed new conceptualizations of the notions of author and creative process by questioning and criticizing the notion of authorship. By identifying the creative power of the reader (Barthes, 1978) and the situated nature of creation (Eco, 1989), both Barthes and Eco proposed considering creation not as "subject-to-the-subject" (Chomsky & Foucault, 2011; Foucault, 1969), but as the glare of a complex socio-environmental network.

Recognizing the complex network of agents involved in a creative process may constitute a relevant standpoint to critically reflect on our role and authorship during PD. In the described case, for instance, the creative process of the two boys was, at least, shaped by their own standpoints (their culture, interests, motivations, etc.), by the facilitator's standpoint, by the aims of the project, by the affordances of the offered materials, by the setting of the workshop, etc. Tracing and reflecting upon the influence of these different agents allowed the facilitator to make

the situated and relational nature of their design visible, and hence better define her agency in this process. This standpoint allowed her to situate herself as a piece of a complex system, hence reducing the risk of identifying herself with the outcomes of the project. Furthermore, by recognizing that all ideas and proposals are already the result of a complex relational network, she managed to reformulate her worries about the project and avoid the risk of projecting them during the workshop. Thus, in the last session of the workshop, she decided to let the boys continue to work on their medieval games, but introduced them to some references about dystopian/utopian scenarios as sources of inspiration. This strategy showed to be useful for the research outcomes as well as motivating and interesting for the skills and interests of the two boys. They finally designed a role-play game about an anachronistic era where several issues related to social topics were represented (i.e. freedom of speech, discrimination and hate policies).

5. Discussion

Participatory Design with teenagers represents a complex social situation where multiple factors may encourage or discourage the conditions for a suitable space for creation and dialog. In the current study, we proposed the use of autoethnography (Allen & Piercy, 2005) to reflect upon one's own subjective experience and values and to situate them in a broader network of circumstantial, personal, social and cultural meanings.

In particular, in our case, the use of an autoethnographic approach, allowed the facilitator to guide her reflection on her standpoint in PD, the way in which she conceptualizes participants, and the way in which she perceives her authorship in the design process. These reflections guided her decision making process on methodological and ethical aspects. At the same time, it allowed "unpacking" the network of assumptions and values that surround her practice. This awareness unveiled how even simple decisions and behaviors have specific meanings that are grounded on a vast array of antecedents, which may lead to different kinds of consequences. Finally, these reflexive decisions allowed her to define a suitable space for creation and dialogue, respecting the interests and voices of the participants.

Therefore, this paper contributes to widening the amount of tools available for fostering reflexive practices in design and in situated ethical decision-making. In particular, we suggest that autoethnography may represent a helpful tool to take full advantage of and systematize the knowledge proceeding from a subjective embodied experience. While other reflexive approaches tend to focus mainly on cultural and social aspects (Agre, 1997;

Sengers et al., 2005), autoethnography sheds light on our felt experience. It thus allows focusing on aspects that are particularly relevant in PD and in situated ethics such as emotions, relationality and empathy.

At the same time, this approach responds to the need of finding ways to report on PD stories (Slegers et al., 2014) and reflecting on values embedded in research practices (Yarosh, Radu, Nw, Hunter, & Rosenbaum, 2011). This novel (and perhaps even risky) form of reporting PD studies, also questions whether the reporting standards, based on an impersonal "god's eye view" (Haraway, 1988), may be detrimental to allow researchers to properly examine their own practice at a deeper level.

At a methodological level, in our study, the use of a personal diary to annotate experience and questions showed to be particularly relevant in guiding the reflective practice. Furthermore, sharing of these thoughts with other people provided other viewpoints and lenses to guide the facilitator's reflection. From a practical perspective, we can offer some initial suggestions for researchers interested in carrying out autoethnographic research. First, in order to promote an insightful reflection in note-taking, it is advisable that the researcher finds a place, time, support and writing format that fit with her preferences. Second, while writing the notes, the researcher should consider them as produced just for her own personal use, instead of imagining an eventual reader. Third, in this process, the researcher should make an aware effort to try to connect in situ experience during PD with her feelings and personal history. Fourth, while writing, it may be useful to spot out and graphically highlight questions or key concepts that arise during the reflection process. Fifth, periodically revising and re-elaborating the notes can constitute a relevant support. Finally, finding situations and contexts to discuss one's own notes with others constitutes a crucial practice to shed different lights on our perspective and delve into self-reflection. As Heron and Reason (1997) have pointed out, the creation of intersubjective dialogic environments provides a privileged entry path to cultivate critical subjectivity. In our case, this sharing mainly took place in the dialog with people that share a similar background with the first author (other researchers and educators). Nonetheless, other possibilities can be found in extending this dialog also with participants according to models derived from participatory evaluation (Cousins & Whitmore, 1998) and co-operative inquiry (Heron & Reason, 1997).

To sum up, the proposed case offered suggestions and techniques to facilitate a self-reflexive analysis. However, it is important to notice that the researcher that underwent this autoethnographic process was already trained in similar types of practices. Therefore, it becomes necessary to carefully examine the requirements for the

training of researchers involved in PD in order to define educational guidelines and adequate materials and contexts for training.

5.1 Considerations on training practitioners

Often, in HCI, practitioners tend to proceed from a technical background, where specific training on psychosocial techniques and critical practices are (in general) not made available. This issue can be partially addressed by defining multidisciplinary teams. However, further considerations should be directed toward specifying requirements for training the facilitators involved in PD. While design skills and expertise are fundamental, they cannot be considered sufficient to properly facilitate a PD process.

As pointed out in section 5, PD entails complex social responsibilities and an unaware practice may have detrimental consequences on participants. Therefore, researchers in this field, beyond having a more or less refined social expertise (Dindler & Iversen, 2014), should take their role seriously and embrace the endeavors that it entails. While in other disciplines related to social inquiry, practitioners are generally trained to deal and cope with psychosocial complexities, this requirement is often missed in PD. As a consequence, beliefs such as the idea that anybody, even without a specific training, can be a facilitator in PD tend to be quite widespread. This bias is not novel to qualitative research methods. As Forsythe (1999) points out, carrying out qualitative research is not just a "matter of common sense". Instead, it involves specific knowledge to be capable of seeing social situations in specific ways and maintaining a careful epistemological discipline.

At the same time, in contexts such as PD, these requirements become even more demanding since practitioners are also in charge of enabling the conditions for generating a space for dialog and creation with the participants. Winnicott (1971), referring to psychotherapeutic process, points out that the task of the therapist is to allow the patient to enter a playful area where creation and transformation can occur. Even if PD does not have the transformational goals of a therapeutic process, it does entail the requirements related to creating a suitable space, where participants may feel confident, creative and comfortable. The delicate nature of this necessity becomes even stronger if we consider that, often, creative processes may assume a personal and projective nature, deeply intertwined with the subjectivity of the person that produces a particular artifact. This situation requires a careful and trained attunement to participant needs and emotional states.

Therefore, to tackle these necessities the preparation of practitioners involved in PD should address the training in qualitative research methods, psychosocial facilitation and reflexive research and eventually incorporate practices such as keeping personal diaries and role-playing. At the same time, also supervision and shared discussion aimed at digging into the researchers personal experience (in a format similar to the one employed during the training of psychotherapists) can represent a helpful instruments. This latter practice can constitute a particularly useful tool to extend and provide new perspectives to critical self-reflection through dialog and confrontation. To sum up, we suggest that research in PD should embrace a serious reflexive practice aimed at questioning its own modus operandi and the improvement of training of practitioners in order to become aligned with ethical and methodological concerns.

5.2 Limitations of the proposed approach

Even if the proposed approach offered relevant insights and contributions, autoethnographic research carries its own challenges. As Wall (2008) and Holt (2003) pointed out, autoethnography is often a complex task that faces the researchers both with her own personal issues as well as with the difficulties of framing it according to an academic format. Putting the self at stake in research can be an uncomfortable practice for researchers. Furthermore, its deeply subjective nature may trap the analysis between the excesses of self-indulgence (Cunningham & Jones, 2005) and the excess of self-criticism, and few criteria can help us to properly evaluate our practice (Ellis & Bochner, 2000). As a consequence, this kind of analysis may run the risk of offering an account that is too individualized and that poorly contributes to construct knowledge. Even if these issues may be partially addressed through dialog and confrontation with others, committing to this kind of analysis requires a willingness of the researcher to dig into her subjectivity and deeply questioning her practice.

6. Conclusion

In this study we have reported an autoethnographical analysis of the first author's experience in Participatory Design with teenagers. Through this case study, we showed that a careful self-reflexive analysis of her subjective experience as researcher in PD does not only enable her to empathize with users (Wright & Mccarthy, 2008) but also played a substantial role in guiding ethical research and in improving her practice as researcher in PD. Specifically, the use of autoethnography allowed the researcher to gaining a deeper understanding of her own positions, assumptions and contradictions, hence guiding situated decisions regarding specific ethical and

methodological issues. This approach, therefore, allowed her to consider the role played by assumptions, emotions and personal history in situated ethics.

In particular, its focus on the researcher's standpoint on PD, the image she has about participants and her role in design, allowed delineating the network of meaning that can influence situated decision-making. In this context we especially pointed out the ethical responsibilities related to clearly disentangling our projections in a PD process and the duty of facilitating conditions in which participants feel that their capabilities are recognized and that they are skilled for doing relevant and important things.

Starting from this personal experience, we provided suggestions and possible reflective paths to guide researchers in an autoethnographic analysis of their practice in PD. We have therefore proposed that a constant self-reflexive practice, a constructive critical dialog with others and the refinement of practitioners training, could represent powerful instruments to facilitate the conditions for a good enough space for dialog and creation.

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