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Gender differentiation in children's play:

A sociocultural perspective

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ATTESTATION

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Le doyen
Matthieu Honegger

Abstract

My PhD research explored gender differentiation in children's play. We live in a time where gender equality constitutes a core issue in many institutions and countries' political agendas (National Geographic, 2017; UN WOMEN, 2020; UNICEF, 2020). Across the fights and discussions for gender equality and women's rights, two conceptual questions cut through debates: i) *what* is gender? and ii) *where* does it come from? In this work, I focused on gender in young children's play. What interested me was to understand how comprehension, guidance and preference participate together and sometimes clash, in what a child can or cannot not do in relation to gender. Methodologically, I showed that focusing on play constitutes a spontaneously defined laboratory to look at the joint work of social constraints and psychological autonomy in development. The main research question addressed was: where do the differences in how children do gender come from? I explored several sub-questions: Where can we find gender in people's lives? How does the social and material environment guide children's interactions in relation to gender? What is the margin of freedom children have in its reconstruction? What defines this margin of freedom? Do children appropriate elements of the gender system? If so, is there some logic, typology or recurrent form in doing gender? Do children internalize the gender system? If so, what is the result of such a process? What are the stable aspects that result of gender construction in the life of a person? Answering these questions demands an approach that provides at the same time i) a definition of gender; ii) a way to study it; iii) tools to distinguish social and psychological dynamics; and iv) a model of its development. It is by combining a semiotic, developmental and sociocultural psychology with a performative approach to gender that I attempt to make sense of the development of gender. The main thesis of this work is to show that gender is a dynamic semiotic system children encounter, act within and internalize in different ways. In this sense, I argue and show that the gender system provides certain forms of social guidance, has particular normative weight, and the child evidences a certain margin of freedom in its reconstruction. The form of social guidance that the system provides frames the forms of doing gender. But as I show, gender development cannot be separated from people's development of other modes of engaging with the world in general. The modes of combination the children construct to interact with the gender system are not specific to it and may speak to broader relational dynamics, as we will see in the parallel between family, school and children's modes, and through the notion of psychological patterns. As such, one of the interesting findings of this thesis is the fact that the development of gender may not be separated from the child's development in general, and it may be employed instrumentally, as it appears sometimes as a subcase of the way in which the child constructs her relationship to norms, to play and to others, in different situations. With these propositions, the work aimed to contribute to the fields of gender studies and sociocultural psychology and further research lines have been proposed.

Résumé

Cette recherche doctorale a exploré les différences de genre dans le jeu des enfants. Nous vivons à une époque où l'égalité des sexes constitue une question centrale dans les agendas politiques de nombreuses institutions et pays (National Geographic, 2017 ; ONU FEMMES, 2020 ; UNICEF, 2020). À travers les combats et les discussions pour l'égalité des sexes et les droits des femmes, deux questions conceptuelles traversent les débats : i) qu'est-ce que le genre ? et ii) d'où vient-il ? Dans ce travail, je me suis concentré sur le genre dans le jeu des jeunes enfants. Ce qui m'a intéressé, a été de comprendre comment la compréhension, l'orientation et la préférence participent ensemble et parfois s'opposent, dans ce qu'un enfant peut ou ne peut pas faire par rapport au genre. Méthodologiquement, j'ai montré que le fait de se concentrer sur le jeu constitue un laboratoire spontanément défini pour étudier le travail conjoint des contraintes sociales et de l'autonomie psychologique dans le développement. La principale question de recherche abordée était la suivante : d'où viennent les différences dans la manière dont les enfants sont sexués ? J'ai exploré plusieurs sous-questions : où pouvons-nous trouver le genre dans la vie des personnes ? Comment l'environnement social et matériel oriente-t-il les interactions des enfants en matière de genre ? Quelle est la marge de liberté dont disposent les enfants dans sa reconstruction ? Qu'est-ce qui définit cette marge de liberté ? Les enfants s'approprient-ils des éléments du système de genre ? Si oui, existe-t-il une logique, une typologie ou une forme récurrente dans la prise en compte du genre ? Les enfants internalisent-ils le système de genre ? Si oui, quel est le résultat d'un tel processus ? Quels sont les aspects stables qui résultent de la construction du genre dans la vie d'une personne ? Répondre à ces questions nécessite une approche qui fournisse à la fois i) une définition du genre ; ii) une manière de l'étudier ; iii) des outils pour distinguer les dynamiques sociales et psychologiques ; et iv) un modèle de son développement. C'est en combinant une psychologie sémiotique, développementale et socioculturelle avec une approche performative du genre que je tente de donner du sens à l'évolution du genre. La thèse principale de ce travail est de montrer que le genre est un système sémiotique dynamique que les enfants rencontrent, agissent avec et internalisent de différentes manières. En ce sens, j'argumente et montre que le système de genre fournit certaines formes d'orientation sociale, a un poids normatif particulier et que l'enfant fait preuve d'une certaine marge de liberté dans sa reconstruction. La forme d'orientation sociale fournie par le système encadre les formes de pratique du genre. Mais comme je le montre, le développement du genre ne peut être séparé du développement par les individus d'autres modes d'engagement avec le monde en général. Les modes de combinaison que les enfants construisent pour interagir avec le système de genre ne lui sont pas spécifiques et peuvent témoigner de dynamiques relationnelles plus larges, comme nous le voyons dans le parallèle entre les modes familial, scolaires et enfantins, et j'adresse ceci à travers la notion de patterns psychologiques. À ce titre, l'un des résultats intéressants de cette thèse est le fait que le développement du genre ne peut être séparé du développement de l'enfant en général, et qu'il peut être utilisé de manière instrumentale, car il apparaît parfois comme un sous-cas de la manière dont le L'enfant construit son rapport aux normes, au jeu et aux autres, dans différentes situations. Avec ces propositions, le travail vise à contribuer aux domaines des études de genre et de la psychologie socioculturelle et d'autres lignes de recherche ont été proposées.

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Chapter 1 - Introduction

> *It's a sunny spring day at Olive school and the first-year students are doing an Easter egg-hunt, running around the classroom for eggs. Tom, who had not found many eggs so far, finds a big pink egg and smiles; he looks at it for a while and then mumbles to himself: "it's so pretty". Before putting it away in his basket, he sees I am looking at him from my chair and explains: "I know it is for girls, but me, I really like pink".*
>
> *Observation, March 2018*

The present monograph explores gender differentiation in children's play, and this goal presents several difficulties. First, it is concerned with a phenomenon which seems ubiquitous. There are traces of gender in advertisement, political speeches, informal discussions, coffee-shop meetings and genetic research reports. It seems to be everywhere. If we are to study it, where to start? Where to look for it? Secondly, there is an incredible number of studies and literature on the topic. To approach gender from any discipline implies entering a complex field filled with different views and positions on the topic. The first thing one realizes when starting to read on gender and sex differences is the fact that there is no agreement between scholars on any of the issues defining it. The way in which arguments fly back and forth, and completely opposed positions coexist, is rather striking. Certain scholars argue genders are biologically defined, while others argue that they are a result of cultural constructions (for a review, see Richardson & Robinson, 2020). There is also a third reason that makes it difficult to study gender: the phenomenon itself can be inherently contradictory. In terms of our experiences with gender, we know that, as people, we have certain knowledge about what gender might be, about who we are and what we can do, but that we also feel or act sometimes in opposition to our own beliefs. We might believe in gender equality and feel uncomfortable with a little boy in a skirt; or think men and women are "naturally" different, while having no problem being a stay-at-home-dad, and this appears rather strikingly when looking at testimonies of people's gendered experiences (West & Zimmerman, 1986). Thus, observing and analysing gender will necessarily prove itself a complex endeavour.

Beyond the possible difficulties, there are several reasons that justify studying gender. First, on a social level, we live in a time where gender equality constitutes a core issue in many institutions and countries' political agendas (National Geographic, 2017; UN WOMEN, 2020; UNICEF, 2020). Since the French revolution, and increasingly so afterwards, the fight for women's rights and for gender equality have gained popularity and become relevant issues in media discourses, school curricula, theories and laws (Bereni et al., 2008; Guionnet & Neveu, 2004; Richardson & Robinson, 2020). The so-called "gender revolution" (National Geographic, 2017) constitutes a two-fold movement of political activism and conceptual reflections primarily developed within feminism and gender studies. Across the fights

and discussions for gender equality and women's rights, two conceptual questions seem to cut through debates: i) *what* is gender? and ii) *where* does it come from? Scholars from different disciplines provide answers to such questions, giving rise to concerns regarding development, societal organisation, behaviour, feelings, and institutions, among many others. And the contradictions abound. It appears thus fruitful to attempt a systematic empirical exploration of these questions and an integrative proposition that articulates the two questions within a conceptual framework. Secondly, in terms of psychological experience, the gender assigned at birth constitutes one of the first social marks, along with the child's name, that babies receive. It organises in a central manner the way in which children and adults define and position themselves in the world (Fausto-Sterling, 2000; Jackson, 2006; Maccoby, 1988; Martin, 2011). As such, understanding how children make sense of this assignment, and the differences it entails, appears necessary to understand what children and adults can and cannot do or might and might not do in relation to gender, following such an assignment.

To explore these contradictions in the making, in this thesis I decided to focus on gender in young children's play.

When I started the research, I observed classes of children in the last year of kindergarten and first years of school, to get a sense of where I could find traces of children doing gender in their interactions. And it was in a first-year class of one of the schools I visited that I had a first encounter with "where gender could be". This very first observation condensed many of the things I was interested in exploring. I encountered a little boy having fun and playing the Easter-egg hunt. He was happy to have found a pink egg and was enjoying that moment. When he saw me looking at him, he immediately clarified that he "knew" pink was for girls, but that he still really liked pink. In this short game of doing the Easter egg hunt, the child's knowledge about gender and his preferences clashed. The observation made me aware of the importance of the objects and their social markings, of the role of the others, and of personal preferences. I saw, in this case, that the shapes and colours of things, their disposition and materiality, prescribed different uses. Eggs were hidden around the classroom and this meant they were part of a collective Easter ritual. They had different colours and sizes, leading children and adults to label them differently according to their preferences and expectations. Also, children enjoyed much of what they were doing: some smiled and had fun in their activities. But Tom felt he had to justify his preference to me: he told me he "knew" pink was for girls and still, he "really liked pink". This is then what will interest me across this thesis: to understand how comprehension, guidance and preference participate together and sometimes clash, in what a child can or cannot not do in relation to gender.

This observation showed me another important aspect of children's development: the episode took place during playtime. Situations of play and pretend-play are moments in which, in principle, the child is free to choose what, where and who to play with (Vygotsky, 2016; Winnicott, 1990). Authors

consider it an activity that has an important role in the child's development as well as in the development of her creativity (Vygotsky, 2016; Winnicott, 1990). It is a time where the child can freely explore different worlds (Bruner, 1985; Winnicott, 1990) or make sense of her past experiences (Freud, 1923), while choosing the activity, the partners and the setting. It is, in comparison to other activities the young child engages in, the less restricted and explicitly framed by adults (Winnicott, 1990).

Yet, this supposed freedom is not absolute. The child plays games with characters that she constructs based on her experience. Made up characters can have mommy's scarf or grandma's nose, and speak in a squeaky voice, just like a teacher. The child also uses toys that have been bought, placed and chosen by others. And within this framing the child engages in play. The social world makes its way into the realm of play through the presence of others and the materiality of spaces and objects. What a playmate says or which toys are in her bedroom frame and guide the space within which the freedom of play can be deployed.

I will show in this work that play situations thus allow analysing three different aspects of doing gender in interaction. First, they provide a space to analyse a child's preferences and margin of freedom: they allow seeing the child's active role in doing gender. Secondly, play situations guide the child's possibilities and frame this margin of freedom. It is in these situations of social interaction with others and through objects that we can see the implicit and explicit norms that define gender and play. Play thus allows considering the role of social guidance and normativity in doing gender. Third, when playing, the child understands but also acts and feels in different ways about gender, and this is the result of a developmental process of construction and reconstruction of the gender system. Methodologically, I propose to show that focusing on play constitutes a spontaneously defined laboratory to look at the joint work of social constraints and psychological autonomy in development.

Within this methodological choice I assumed a particular role as a researcher in situations of play. Taken in the complexity of gender dynamics, I played and interacted with the children and adults of the study, I collected and analysed data, but also negotiated and defined my position with the people involved.

Beyond the methodological choices, in theory, speaking of gender confronts us with different sets of issues and problems that need to be defined. First, as mentioned, we need to define *what is gender?* Is it a social construction, a psychological identity, a social label, a system, an innate characteristic, an oppressive category? It further entails some assumptions as to *where does it comes from? How does it appear?* Is it innate, socially constructed, psychologically defined?

Within these sets of issues, the main question I try to address in this work is: **where do the differences in how children do gender come from?** In order to study it, I propose to explore several sub-questions: Where can we find gender in people's lives? How does the social and material environment guide children's interactions in relation to gender? What is the margin of freedom

children have in its reconstruction? What defines this margin of freedom? Do children appropriate elements of the gender system? If so, is there some logic, typology or recurrent form in doing gender? Do children internalize the gender system? If so, what is the result of such a process? What are the stable aspects that result of gender construction in the life of a person? Answering these questions demands an approach that provides at the same time i) a definition of gender; ii) a way to study it; iii) tools to distinguish social and psychological dynamics; and iv) a model of its development. It is by combining a semiotic, developmental and sociocultural psychology with a performative approach to gender that I attempt to make sense of the development of gender.

The main thesis of this work will be to show that gender is a dynamic semiotic system children encounter, act within and internalize in different ways. In this sense, I will argue and show that the gender system provides certain forms of social guidance, has particular normative weight, and the child evidences a certain margin of freedom in its reconstruction. The form of social guidance that the system provides frames the forms of doing gender. But as we will see, gender development cannot be separated from people's development of other modes of engaging with the world in general. The modes of combination the children construct to interact with the gender system are not specific to it and may speak to broader relational dynamics, as we will see in the parallel between family, school and children's modes, and through the notion of psychological patterns. As such, one of the interesting findings of this thesis is the fact that the development of gender may not be separated from the child's development in general, and it may be employed instrumentally, as it appears sometimes as a subcase of the way in which the child constructs her relationship to norms, to play and to others, in different situations.

With these propositions, the work aims to contribute to the fields of gender studies and sociocultural psychology in different ways. While revising studies on gender, I found that many of the studies conducted in psychology on children mainly refer to its cognitive aspects, that is, to how children understand and comprehend gender (Bussey & Bandura, 1999; Halim et al., 2017; Maccoby, 1988). In these studies, gendered actions are considered to follow such an "understanding". Contrarily to these ideas, within the field of what is called gender studies (Bereni et al., 2008; Guionnet & Neveu, 2004), authors claim that gender is rather performed than "understood" and that comprehension and performance do not necessarily coincide (Butler, 1990; McNay, 1999). I contribute to this debate by empirically discussing certain claims of these two fields in different ways. Firstly, within developmental psychology, I empirically show the importance of looking at *doing gender*, in a complex form, beyond its understanding. Secondly, also within developmental psychology, this study expands the sociocultural approach in psychology (Valsiner, 1998, 2018a; Zittoun, 2018, 2020) to a field it had only scarcely addressed, that is, the study of gender. I thus propose a theoretical contribution to research on gender. Thirdly, analytically, I aim to contribute to the field of gender studies by conducting a

systematic and empirical exploration of gendered interactions, developing particular analytical tools, from an anti-essentialist and performative perspective (Butler, 1990; Martínez, 2015; Martínez & Femenías, 2015), which might complexify power-based interpretations (Martin, 2011; McNay, 1999) of actions and interactions in relation to gender.

In the written form of this monograph, I invite the reader to follow the reasoning movement that accompanied my work and to discuss empirical material alongside conceptual reflections. In this sense, the structure of the thesis echoes Branco & Valsiner's methodology cycle (1997) (see Chapter 5) and includes, before presenting the methodology and the results of the study, the theoretical propositions of this work, which emerged from an iterative movement between theory and data. I also chose to present different examples from my empirical corpus along the way while discussing conceptual issues, in order to give justice to the movement I followed as a researcher: from theory to data and from data to theory. Thus, the monograph does not follow a classical methodology-data-results organisation; the reader will find examples and conceptual discussions in the seven chapters this work comprises. After this introduction, in **Chapter 2**, I review the literature in gender studies where I can find a theory of gender. I look at the approaches that propose an answer to the question of what gender is, and a developmental perspective that answers how it emerges. In so doing, I show the need for an anti-essentialist and empirical study of the development of gender. **Chapter 3** presents a review of developmental and sociocultural perspectives in psychology. I then develop the approach adopted for this study: a developmental, sociocultural and semiotic psychology. In presenting it, I identify the strengths and limitations of the different lines within developmental psychology, and propose to expand the core framework of semiotic sociocultural psychology to the study of gender and I pose several research questions. In **Chapter 4**, to answer the questions raised in the previous chapter, I outline the theoretical model, the heuristic hypotheses and the conceptual propositions I will demonstrate in the results. I first propose to show that gender is a dynamic semiotic system that normatively materializes in everyday life arrangements and that is organized around two attractors. Secondly, I develop the idea that people interact with the gender system and the institutions in regular forms of externalization called modes of combination defined by an operator, a semiotic mode and a communicative function. And thirdly, I argue that children develop unique and privileged combinatory modes that can be called psychological patterns. In **Chapter 5**, I present the methodology of the study: I describe the general approach, the research design, the methods for analysis and some ethical considerations. I there justify the construction of a qualitative ethnographic multiple case study of three children finishing kindergarten and starting primary school. In **Chapter 6**, I develop the results, and show that the extension of the sociocultural framework to the study of gender allows the theory to address an underexplored phenomenon, but also specify some of the claims made so far. In particular, I develop an analytical grid for a semiotic outlook to play in space, a typology of

externalization modes, and a discussion on the notion of psychological patterns, rather than identities, to understand people's development. Finally, in **Chapter 7**, I summarise the contributions and propose several open questions to explore in the future.

Chapter 2 - Studying gender

Many studies have made gender their object of study. Within the landscape defined by studies of gender, it appears to be a complex and multifaceted phenomenon (West & Zimmerman, 1986). In order to grasp this complexity and define a possible approach to gender for this study, I propose to discuss an example from my empirical corpus and then look at different propositions, which have been developed within gender studies. I will argue that gender has been studied as something we come to understand and also feel and negotiate in our interactions with others (Maccoby, 1988; Martin, 2011), that it becomes evident in many different situations and guides our ways of acting and communicating (Butler, 1990), but also defines the ways in which people can think and act, as it appears deeply related to power dynamics (Richardson & Robinson, 2020).

Let us now look at a play situation from my empirical work in which I am playing at a child's home:

> *Nadine gives me a small Spiderman and takes a big Barbie doll. She has a box of small shoes for the toys and puts boots on Barbie and pink heels on Spiderman. She then says, "Ok, let's fight!" and we pretend to fight with the toys. Her Barbie beats my Spiderman when she says, "You should know she is mega-strong". After fighting, Spiderman has to go take care of the babies in the cabin and we thus also go to the cabin and drink hot cocoa together.*
>
> *Observation 16: Nadine & researcher at home (16/09/18)*

In this small observation, I am with Nadine, a four-year-old girl who is about to start primary school. Nadine comes from a family composed of a mother and a father, an older brother of nine, and a younger sister of two –with whom she shares toys and bedroom. Her parents are artists constantly promote creativity and invention in their children. As in this situation, when playing with me, Nadine does not acknowledge things we may consider gender markers as such, and she playfully engages with them: Spiderman can wear high heels. As the main interest of this research is to study gender differentiation by looking at children doing gender, and because of this, there are a number of core elements that we can find in this observation where "gender becomes relevant" and that I consider for studying gender.

Firstly, we can see here that gender can socially guide actions and interactions through its normative character and materialization in objects and spaces. In this case, Nadine owns different toys: the Barbie and the shoes are hers, but the Spiderman is her brother's, and this defines a certain realm within which the toys can be used. People also have a certain margin of freedom in constructing and dealing with gender norms as well as to act within, outside or transform the norms. This observation

stroke me as I would have assumed that the child may show some resistance to put pink heels on Spiderman. Instead, this was not at all a problem for Nadine, nor was it even relevant to distinguish the clothes or the actions of the characters depending on their assumed gender. Furthermore, the way in which norms are constructed and dealt with has consequences beyond the specific situations in which they appear, and may have personal traits that define us as who we are, unique and different from others. Nadine, coming from this family of artists, in encouraged on a daily basis to play with the social world in a way, not to take what is as it comes, but to come up with her own ways of doing. Thus, gender is not merely something we understand in a certain setting, but is a part of more personal and stable aspects of our lives, defining our feelings of who we are in relation to gender. Nadine may relate to gender through family models and personal preferences. And these stable aspects can change and transform. As such, gender develops, that is, we can say there are processes through which we come to feel and understand ourselves and others as gendered beings and these may change over time.

In this chapter I review scholarship in gender studies which has been developed and which provides tools to define a theoretical perspective on gender and to analyse observations of gender in the making, or of doing gender, such as the one just commented. For this, I limit the review to research that proposed to answer two questions: what gender is, and where it comes from. This means that I only review scholarship bringing forward a theory of gender –thus answering *what* it is- and a developmental perspective on it –to answer *how* it emerges. Such a choice leads me to leave out a number of studies on gender because their definitions or developmental perspectives are absent or too implicit to be clearly defined.

I proceed first by presenting the key antecedents in the field of gender studies. Secondly, I present the criteria used for this review of the literature, the elements that allow me to assess the value of each theory, and the lines of research that emerge from the use of such criteria. Third, I review each line in turn by showing the strengths and limitations of the propositions, both conceptually and methodologically. And finally, fourth, this review leads me to propose an anti-essentialist and sociocultural perspective for the study of gender because this approach takes the mutual construction of the person in her environment as its starting point, that is, it starts from considering core elements just defined as constitutive in defining any form of human development.

1. The emergence of gender studies: key antecedents and criteria for analysis

I now present a short introduction to the emergence of what can be called gender studies (Bereni et al., 2008; Guionnet & Neveu, 2004; Richardson & Robinson, 2020).

Gender studies is a pluri-disciplinary field that has primarily been concerned with sex and/or gender identities and positions. It is an academic field which developed as a reflection accompanying the emergence of the political movement called feminism. Feminism, in turn, is a set of movements of political, social and philosophical ideas rising at the end of the XIX century (Richardson & Robinson, 2020). Even though social movements favouring women can be found in earlier periods, along with essays defending the "feminine sex" since the XV century –such as in C. de Pisan, considered a pioneer for feminism (Guionnet & Neveu, 2004)- the organised expression of an egalitarian aspiration only appears with the French Revolution and constitutes a social movement in the late XIX century (Bereni et al., 2008; Guionnet & Neveu, 2004).

In the literature analysing such movements, scholars identify three and sometimes four "waves of feminism", although there have also been critiques to the metaphor of wave because of its homogenizing tendency (Richardson & Robinson, 2020). Broadly, in the "first wave", authors place the first political attempts to reform institutions and change the social order to bring equality of rights and access to men and women, in particular, the suffragette movement (Richardson & Robinson, 2020). This wave, taking place in the early XX century between the 1920s and 1950s, shows a paradoxical position adopted by women demanding equality: as wives and mothers, they demand better conditions for women workers and political rights, while still complying with social norms and traditions for women in the household. During the "second wave", starting in the 1960s, we find the first ideas that contest the essentialising definitions of womanhood that characterised the first wave. De Beauvoir's (1949) claims are a key antecedent here, and particularly those developed in *Le deuxième sexe* which is considered a founding work for what is defined as an anti-essentialist perspective. The term anti-essentialist refers to the fact that it questions the idea that there is an essence of womanhood or manhood. Anti-essentialists question the gender binary and the supposed "natural" foundation of gender identities: for them, it is not nature that defines our gender identity but our socialisation and interactions. Alongside these conceptual changes, during this wave take place the institutionalisation of feminism and the creation of multiple associations and institutions for women's claims. It is also at this time that the academic field of "gender studies" starts to be developed, sometimes called "feminist studies" or "women studies". During the "third wave" emerge systematic critiques of the domination lived by different groups through a power lens. It is also the time in which the assumed link between gender and sexuality starts to be questioned, through Queer theories. It is not only the case that womanhood and manhood are constructed and changing, but they also do not define a certain form of sexuality –feeling as a woman does not have any bearing on who I am attracted to, and this is not necessarily stable or definable. Finally, during the contested "fourth wave", discussions move to intersectionality issues. This means that gender is studied in relation to other social categories, such as race, migration, sexuality, which are argued to be interweaved and co-

constructed. Moreover, authors of this wave criticise the somewhat abstract and detached from people's everyday life concerns that theories from the second and third wave have had (Richardson & Robinson, 2020).

The reflections on gender from the academic milieu, and the questioning of natural sexes and a gender binary can be thus considered to emerge from two parallel lines. On the one side, as a consequence of the fight for equality of men and women, the question of what that equality implies – equals in front of the law, biologically equal, psychologically equal, among others- emerges. This question gives rise in turn to a large body of research comparing subjects defined as males or females in terms of their brains, behavior, feelings, among many other aspects (Joel et al., 2015). The results of such studies tend to arrive at the conclusion that although the social context has a naturalistic and binary perspective on gender (Hyde et al., 2019), the ways in which gender is defined biologically, psychologically and socially is muti-faceted and complex (Diamond, 2020). Secondly, after the second wave, a growing mass of testimonies of people giving account of their struggles with gender categories (Rivas, 2015) start to appear. These experiences and the findings in research constitute empirical bases that question existing conceptual and legal frames.

Within gender studies, the uses of the concept of *gender* have several key antecedents. One of the first authors to approach the notion of gender is Margaret Mead (1935) in her analysis of the differences between sex and temperament in 1935. As an anthropologist, she travelled in the 1930s to Papua New Guinea where she identified patterns of male and female behaviour in every society she visited, although they did not coincide with those she knew from her home country. Simone De Beauvoir, after her, in *Le deuxième sexe* (1949), more explicitly distinguishes between "femme" (woman) and "femelle" (female), as we are born "femelles" but become "femmes". John Money, in 1955, is one of the first to speak of "gender differences" (Money, 1955). And later on, psychoanalyst Robert Stoller, in 1968, presented the distinction between "sex" and "gender" and the idea of a gender identity (Stoller, 1968). Since the beginning of the 1950s, the literature on sex and gender, feminism, women and sexuality has done nothing but grow. There have been theoretical, political, methodological and empirical reflections on gender differences, sex, oppression, women and non-conformity to normative roles. These approaches show gender as socially, interpersonally, psychologically, and materially constructed. And since the 1970s, the development of new categories in defining one's gender identity or expression (Diamond, 2020) as transgender, non-binary, gender-queer and gender fluid, introduce, first, new terms in the pallet of possibilities, and secondly, as they are not defined in relation to the traditional dichotomies, they, in a way, tend to blur the boundaries of such assumed constructs.

2. Criteria for the review

In order to make sense of the different perspectives and contributions, I now define the criteria I will use to organize the field. As mentioned, this review is limited to approaches defining what gender is, that is, providing a definition of gender, and secondly to developmental perspectives, that is, approaches proposing a view on the way in which gender emerges and changes. To organise these studies, the criteria I use to review the studies on gender is threefold: i) first, I use an epistemological criterion to distinguish between essentialist and anti-essentialist perspectives in defining gender (Martínez, 2015); ii) second, I employ a theoretical criterion to analyse theories in terms of their perspective on development, as they use either additive or transformative models of development (Lenzi et al., 2010; Overton, 2003, 2007); and iii) thirdly, through an empirical criterion, I define four dimensions that have been unequally considered in the different approaches to study gender: the material environment, the social relations, the psychological processes and the construction of stable aspects of the person. While the first two dimensions –material environment and social relations- speak to the more normative and deterministic characters of gender, the two last ones –psychological processes and more stable aspects of the person- will speak to the active role of the person and her margin of freedom in the construction of gender. These criteria allow me to define five general lines of research: American feminism, cognitive developmental psychology, sociocultural developmental psychology, psychoanalytic feminism, and post-structuralist psychology. To present this review, Table 1 presents a synthesis of the main ideas the different lines develop across the criteria (Table 1). The table presents each of the defined lines of research in terms of their main authors, ontological position, model of development and empirical dimensions. Reading the table vertically provides a quick outlook on each line's assumptions, models and empirical focus. This allows mapping the field in order to compare the perspectives and evaluate their pertinence for this study.

2.1. Epistemological criterion

First, ideas on what gender is and what participates in its construction usually come hand in hand with assumptions on the relationship between gender, sex and the body –which defines authors' ontological and epistemological assumptions. For clarity purposes, the first criterion defined is epistemological. I classified the theories, thus organising this field of knowledge depending on the theories' ontological assumptions. That is, I analysed them in terms of the answers they provided to the question of what gender was. Following Martínez (2015) I identify two main ontological positions: essentialist or biological foundationalist, and anti-essentialist perspectives (Martínez, 2015).

The essentialist approach supposes that all manifestations of masculinity and femininity emerge from a biological predisposition. Although not all essentialist perspectives necessarily accept uncritically a biological determinism, they often view sex-linked behaviors and traits as essential properties of individuals. There are then different degrees to which the body or the biological traits are thought to intervene in the definition of gender. Certain authors such as Garfinkel (1967, pp. 116–118) define women and men as naturally different with distinctive psychological and behavioral traits that can be predicted from their reproductive functions. Others further recognize factors from the environment that intervene in the construction of a psychological identity (Money, 1955). Others still, such as Robert Stoller (1968) and Nancy Chodorow (1978, 1991) share an understanding of gender as a social construct, while they argue there are fundamental biological and psychological differences that define feminine and masculine essences. In all these cases, the anatomical body remains a normative reference point to analyse the cases in which sex and gender do not coincide. In these explanations, the anatomy acts either as a predisposition, or as a normative criterion (Martínez, 2015, p. 343).

The anti-essentialist perspective questions the natural definition of sex and gender and its supposed essence. Authors claim that sex is not the basis on which gender is "deposited" through socialisation, as a way to cover its surface. On the contrary, and building on the works of Foucault (1970), Deleuze & Guattari (1999) and Derrida (1972), authors believe that it is gender which institutes the anatomical sexual difference as a natural fact (Butler, 1990; Martínez, 2015). Under the discursive sign of "natural", sexual reproduction, chromosomes, hormones and differentiated genitals appear as the substantial supports of the essence for the "natural sex" (Anne Fausto-Sterling, 2000). In this approach, bodies cannot be thought of outside the social gender mark. The sex/gender distinction loses relevance, as the body becomes a discursive construct we experience as "natural", as a result of strategies within the social field (Foucault, 1970). Authors such as Judith Butler (1990), Christine Delphy (2000) and Monique Wittig (2006) insist on the plurality of gender identities and do not understand sexual identity as coming from a natural reality opposed to gender as a cultural product. These perspectives remove "the truth of sex" (Martínez, 2015, p. 344) as coming from bodily reality. The body stops being a reference point legitimizing the identities that would "naturally" correspond to it. This allows making room for the fluidity of gendered actions and experiences, which are there recognized fully and no longer understood as "deviations" from a natural norm.

Across this division between essentialists and anti-essentialists, what all these approaches have in common is that they share the idea that gender is constructed in some way, and that it maintains some form of relation with the notion of sex. These positions thus all define gender and its relationship to sex and the body. In so doing, they raise the question of where gender comes from: as a natural emergent of anatomical distinctions, as the result of the influence of multiple factors, as a discursive

practice, etc. To understand the authors' answers to this question, I propose a second criterion to identify the model of development that is implied in the theories.

2.2. Theoretical criterion

In his epistemological analysis of developmental theories, Overton (2003) defines two main models of development in terms of the understanding of how change occurs: additive and transformative models. Additive models understand change is occurring in a linear manner. Change is variational in the sense that it occurs in terms of degrees from a standard, norm, or average (Overton, 2007, p. 27). These models consider change as a continuous, quantitative and linear modification of things, and it implies an addition of influences, skills or strategies that vary progressively (Lenzi et al., 2010). On the other hand, transformative models define change as taking place in the form, organization, or structure of any system (Overton, 2003; Overton, 2007, p. 25). In these models, modifications are located at the level of the organization or structure of a system –in its form- and give rise to the emergence of novelty, materializing in more and more complex forms (Lenzi et al., 2010, p. 150). Change is here considered as discontinuous, due to the possibility of the qualitative transformation of states.

2.3. Empirical criterion

To explore these changes then, the authors in gender studies employ a variety of sources, whether literary, empirical or theoretical. To consider these variations, I defined a third empirical criterion. I classify the approaches as they consider all or some of four non-exclusive different dimensions: tending to the material environment, its organization, objects and spaces; considering social relations and interactions; defining social and psychological processes; and proposing theoretical aspects which contribute to define stable, unique or personal aspects contributing to a model of the person. Authors focus on one or more of these dimensions, giving more weight to certain aspects in their definitions. Some theories then account for the spaces and objects, the material aspects that frame and define gender dynamics. Others consider the role of social interactions and the relationship to others in understanding gender. Others still, propose processes through which, both socially and psychologically, gender is constructed. And finally, some define concepts to address what it is that defines gender in relation to the person as a whole –her identity, patterns or subjectivities, among others.

2.4. Mapping the field

As can be seen in Table 1, five research lines with different theoretical genealogies emerge from these three criteria. In reading the table vertically, we can see the different assumptions and models each of these lines propose. American psychoanalysis theorises gender taking Freud's theories as a starting point and contextualising them within the growing literature on gender and the feminist fights for women's rights. Cognitive developmental psychology studies in a largely empirical manner sex and gender differences based on experimental designs. Sociocultural developmental psychologists, in turn, propose a contextualised theorisation of gender building on some of Vygotsky's ideas. Psychoanalytic feminism emerges from the double influence of structuralist psychoanalysis, such as Lacanian perspectives, and deconstructivist ideas, from Derrida or Deleuze. Finally, post-structuralist psychologies build mostly on deconstructivist ideas to propose empirical research tending to deconstruct naturalistic and reproductive views on the gender binary.

In order to judge the theories' contributions and their possible use in addressing gender differentiation, I will keep in mind the five elements defined above which appear to be fundamental in understanding gender: its materiality; its normative, social and interactive nature; the margin of freedom people have in constructing and dealing with gender norms; the more personal and stable aspects defining our feelings of who we are in relation to gender; and the development of gender, that is, the processes through which we come to feel and understand ourselves and others as gendered beings.

I now present each of the research lines in turn, showing their strengths and limitations for understanding how gender is socially and psychologically constructed, while considering the person's margin of freedom in this process.

			Lines of research	Antecedents	American psychoanalysis	Cognitive developmental psychology	Socio-cultural developmental psychology	Psychoanalytic feminism: French school	Post-structuralist psychology
			Main authors	Mead, Linton, Parsons	Stoller, Chodorow, Benjamin, Goldner, Sweetnam	Kohlberg, Maccoby, Bussey & Bandura, Campbell, Bem, West & Zimmerman, Huston	Gilligan, Duveen & Lloyd, Mieyaa & Rouen, Rainio	De Breauvoir, Delphy, Wittig, Butler, Kristeva, Irigaray,	Davies, McNaughton, Martin, Fausto-Sterling
Ontological position	**Essentialist**			Distinction between sex and temperament Role theories (Linton, Parsons)	Anatomical and psychological differences between the sexes; psychological and social constructions of biological differences	Biological basis for the distinction between sex and gender	Biological basis for the distinction between sex and gender		
	Non-essentialist							No biological determinism; sex is a product of gender, social and psychological dimensions	No biological determinism; sex is a product of gender, social and psychological dimensions
Model of development	**Additive**	**Process**				Factors influencing sex-typing			
		Product		Sex and temperament; sex roles		Gender schema; gender identity; structures, stereotypes			
	Transformational	**Process**			Identifications; defenses		Systemic transformations in gender differentiation		
		Product			Gender identity; psychological positions		Social identity, gender identity, sexed identity	Fluid and dynamic gender identities and modes of identification	Agency, patterns
Dimensions	**Material aspects**						Objects and spaces where interactions take place	Materiality of the spaces and the bodies	Objects and spaces
	Social relations			Social and cultural influences on sexual distinctions	Early social interactions; power dynamics	Social interactions as factors	Social interactions as constitutive	Social interactions as constitutive; power dynamics	Social relations as constitutive; power dynamics
	Stable aspects/model of the person				Dynamic model of the psyche based on affective dynamics	Static identities or schemas	Identities as static and stable aspects of the person	Fluid and dynamic model	Patterns
	Psychological processes				Affective and unconscious	Social, psychological and biological factors of influence	Socialization, differentiation, individuation processes	Materialization, deconstruction, abjection, iteration	

Table 1: Mapping the field. Criteria and lines of research within gender studies

3. American feminist psychoanalysis

One of the main sources of inspiration for research on gender issues has been psychoanalysis, particularly developed in the United States as American feminist psychoanalysis. Building on the ideas of Sigmund Freud (1905, 1923) on the role of unconscious processes in psychological dynamics, the authors within this line stress the importance of early childhood relations to the mother or significant others that mark subsequent ways of being and feeling about oneself in terms of gender. An aspect of these relations to the mother is described as identification. What this means is that the child, through her emotional bond with the mother, makes her into an invested object and, as such, takes some traits or aspect of that significant other as model onto herself, when constructing her own identity.

The way in which the approaches in this line define gender can be considered essentialist, as they take the anatomical difference of the body as a reference point and as defining certain psychological and social predispositions. They nevertheless define a transformational model of development, and consider change is systemic and qualitative in the systems or positions. They develop mostly ideas on social and psychological processes in the development of gender, such as identification or reproduction. They also use classical psychoanalytic notions, such as positions (Klein, 1936) –which are structural ways of acting, as stages that define what a person can or cannot do in different situations- to explain gender construction at the level of the person. Although this brings forward the processes involved in gender construction, as well as a certain model of the person, authors within this line thus pay little attention to real social relations, although they recognise them as constitutive, and do not particularly consider the role of the material environment in gender construction. They also leave little room for the active role of the person in appropriating and transforming what she takes from the others in her development. Empirically, as psychoanalysts, all authors in this line base their claims on clinical cases.

The first reference of this line is Robert Stoller (1968), who proposes the idea of a gender identity. For him, gender identity is psychological, in both individual and intra-psychological terms as it emerges inter-personally. Gender is conformed through early, pre-oedipal identifications. That is, it is built on the basis of relationships established before the fourth year of age, when the child still has not constructed social norms and understood what is forbidden or impossible in her relationship to her mother. The results of this identification process remain regulated by the biological body, due to a natural sexual complemetarity. Stoller's (1968) conception of a genetic approach to gender, as an achievement and not as biologically defined, leads him to propose what he calls a primary femininity. This means that the first traits the child identifies with are feminine, as they come from the mother.

These elements mark further separations of the self from what he considers the primary identificatory object: the mother (Stoller, 1976).

Along this line, other authors such as Chodorow (1978, 1991) equally define gender identity as the result of the separation of the self from the object. Chodorow (1978) does not believe children come to act as boys or girls based on imitation or obligation. Rather, they do so because these boy and girl *traits* become strongly significant to them. She supports this with object theory in psychoanalysis: primarily invested objects, such as a loved one, are subsidiaries and heirs of the primary identificatory objects, i.e. the mother, with which there was a fusion, as between baby and mother. She further claims, in continuity with some of Freud's ideas, that the person takes cultural elements about sexuality from parent's discourses and combines them in a unique, idiosyncratic way. Gender identity has here a highly intra-psychological, individual and conflictive component: it is the product of the compromise the child finds between cultural elements about sexuality and gender, the psychological conditions of her relationship with the mother, but framed by anatomical differences presented in binary terms –the mother is considered female, the child is male or female. Thus, first Stoller and then Chodorow shed light on the role of pre-oedipal time in sexual and gender differentiation and identifications.

Within American feminist psychoanalysis, Jessica Benjamin (1988) claims the self is constructed inter-subjectively through recognition. She argues that there is a dialectic in the recognition dynamic for defining positions. A position is an abstracted set of affects and representations that define how people act and feel in different situations (Klein, 1936). People then adopt certain gendered positions, behave in different ways, depending on the different relationships they establish with others and how others see and define them. Benjamin (1988) is opposed to the notion of internalization of gender because she claims it supports domination. She instead proposes to understand the construction of female subjectivity through inter-subjectivity. Although Benjamin (1988) takes the social dimensions of the construction of gender into account, eliminating the internalization processes renders the active role of the person invisible in the dynamics. Yet, although tending to inter-subjective processes, recognition is done based on biological traits defined by anatomical differences of sex.

Sweetnam (1996), in the same line, takes the same Kleinian positions as Chodorow to claim that gender experience changes depending on which psychological position contextualizes it at any given time. A person might more easily identify with the description of a "strong" or feel more comfortable with "beautiful" depending on whether the person is in a depressive or paranoid position. Paranoid positions are more likely to frame masculine identifications, while depressive positions frame more often feminine identifications, because of the higher dependency in the depressive position and the presence of symbolic markers for the equivalence female=weak. Goldner (1991) also argues that "since gender is a psychic and cultural designation of the self that 'cleanses' itself of opposing tendencies, it

is, by definition, a universal, false-self system generated in compliance with the rule of the two-gender system" (Goldner, 1991, pp. 258–259). If we analyze this claim, defining a false self implies that there would be something “true” or underlying, in this case, sex, or anatomical differences, and this implication re-edits the essentialist position found in the other approaches. Drawing on family systems theory, Sweetnam (1996) suggests that it is the "system" of gender that is internalized, that is, patterns of relating and organizing of conflicts, rather than any actual, monolithic identity being internalized. These authors focus not on a conceptualization of gender in terms of singular identifications or single developmental issues, but on the multiplicity of gender identifications, which is a less linear developmental approach, considering the social context, and the fluidity of gender experiences. As such, they propose a transformational understanding of change in terms of systemic transformations of positions or selves (Goldner, 1991; Sweetnam, 1996).

But the fluidity or fixity of gendered forms is dependent here of the psychological positions that determine the type of relations in which in person can enter. There is a structure that defines what is possible. Such an overarching view leaves little room for the margins of freedom in the adoption of certain positions in relation to gender, depending on the context, the person or the other. It, in a way, subsumes cultural and relational determinations to psychological positions, defined by biological traits.

3.1. Synthesis

The approaches reviewed here as American feminist psychoanalysis can be considered to share an essentialist perspective (Martínez, 2015) with a transformational model of development (Overton, 2003, 2007).

While gender identity might emerge as a result of identification processes, the destiny and line along which such identification occurs mirrors anatomical differences. There is then here little room to consider the person’s active reconstruction of differences, as well as for the social and ideological nature of gender construction. These authors understand that there is a separation of the self from the object and that this separation structures gender identity. They suggest there is a form of imprinting on the psyche of a certain form, feminine or masculine, which is pre-verbal, and, although they stress it is not directly anatomic, thus constructed, it gives little room for the active role of the person. The child, based on how the separation is done, will have one or another gender identity. The question that appears here is, what elements participate in this separation? How does the process of separation define normatively what ought to be constructed? Is there no margin of freedom for the child to reconstruct such strategies? And if there is not, how do we explain the presence of non-conforming gender identities? To answer these questions would demand a non-essentialist view of sex

and gender, although the transformational understanding of change allows us to make sense of some of the dynamics in the process. The construction of gender is considered here to be achieved through discontinuous qualitative and systemic transformations that define the transformational model of development.

These approaches have thus the value of putting forward i) the psychological processes through which gender is constructed –primarily through separation and identification; and ii) the construction of stable elements that define gender identities, such as positions (Sweetnam, 1996). However, they do not address the margin of freedom the person has in this construction. They also do not particularly pay attention to gender as normative, as could be evidenced by analyzing social interactions or the role of the material environment, objects or spaces in the construction of gender.

These last two points have been the starting point for many experimental studies within cognitive psychology, although not in their normative character: researchers explored the development of gender through object manipulation and relationship to others, as elements which indicate the gender construction, tending less to processes and more stable aspects of the person. It is to this line of research that I now turn.

4. Cognitive developmental psychology

Within developmental psychology, a large body of research on sex and gender differences rapidly grew since the 1970s. The main characteristics of this line of research are its empirical orientation, and its complex experimental designs. Scholars compare, measure, classify and analyse sex and gender differences in tasks, toy manipulation and various behaviours. The empirical and experimental focus define some of the conceptual characteristics of the approaches in this line: authors consider gender as socially constructed, but at the same time, claim that there are “natural” biological characteristics with which gender can coincide or not. This essentialist position regarding sex and gender also marks some of the models of development the authors propose. As there are social and biological traits interacting with one another in defining gender, their relations are of influence; they are factors in an additive understanding of change and transformation. Factors and elements interact and relate to each other although not qualitatively transforming or redefining the whole.

Linton (1936) and Parsons (1951) can be considered as some of the precursors in the studies of gender in developmental psychology. They propose a “role theory”: the authors understand that there is a social construction of gender categories, called “sex roles” which are learned and enacted. What these authors stress is the social and dynamic aspect of role construction. Thus, roles are situated identities, while sex categories, which are natural, are “master” identities, cutting across situations.

These ideas are taken up by other authors to show the social nature of gender roles. Goffman (1976), for example, studies advertisement campaigns and accounts for gender in terms of "gender display". He argues that humans in interaction assume that each person possesses an essential nature (Goffman, 1976, p. 75), and that this assumption is based on the presence of "natural signs". Although there are conventional acts, these are expressions of essential natures. He adds to this that although they reveal clues to essential divisions, they are optional performances. In this way, he accepts the interactional nature of gender: it emerges in interaction with others and it has a socially constructed nature. Yet, he first defines it as an expression or an assumed expression of a natural essence of male or female, thus essentialising or founding gender differences. Secondly, Goffman does not explore the psychological significance of the construction, remaining at a social level of this definition without exploring the relationship of such a construction with other spheres of a person's life, how they may feel about it themselves, and their margin of freedom in choosing one or another available options. Furthermore, a gender role displayed by a person is, in this perspective, the result of a sum of social signs the person has the option to enact, proposing an additive model of how the roles develop.

Building on these ideas and in a similar vein, West & Zimmerman (1986) examine people's narrative accounts of deviant behavior in terms of gender. They analyze testimonies of non-conforming adults in literary texts. Through this, they distinguish between sex, sex category and gender. And they argue that this distinction only becomes relevant when what is expected does not match what is perceived or performed. The authors provide a valuable definition of gender as done, situationally defined and in relation to others: "gender as a routine, methodical, and recurring accomplishment" (West & Zimmerman, 1986, p. 126) which "involves a complex of socially guided perceptual, interactional, and micro-political activities that cast particular pursuits as expressions of masculine and feminine "natures"" (West & Zimmerman, 1986, p. 126). Although they accept it is individuals who do gender, the authors state that it is a situated doing, an emergent feature of social situations: "both as an outcome of and a rationale for various social arrangements and as a means of legitimating one of the most fundamental divisions in society" (West & Zimmerman, 1986, p. 126). In turn, "sex is a determination made through the application of socially agreed upon biological criteria for classifying persons as females or males" (West & Zimmerman, 1986, p. 127). And placement in a sex category is achieved through application of the sex criteria (West & Zimmerman, 1986, p. 127) yet established in everyday life through maintaining socially required identificatory displays that proclaim one's membership in one or the other category. These authors, although they show the complexity of social aspects in the construction of gender, do not particularly consider their normative character and remain in an essentialist position, where what is socially performed or showed is defined by biological traits.

Taking some of the previous propositions regarding sex roles and social aspects involved in

gender, other scholars experimentally study and dissect gender behavior to understand which part is social, psychological and biological or physiological. Ideas regarding roles are explored through empirical studies mostly developed in the 1970s in the United States. Authors propose concepts that refer to stable aspects of the person, such as the development of sex and gender "stereotypes" (Martin, 1989), "sex roles" (Lewis & Weinraub, 1979; Weinraub et al., 1984), "identities" and "schemata" (Bem, 1981). They do so by comparing differential toy preference (Miller, 1987), play with toys (Caldera et al., 1989; Fagot, 1984; Libby & Aries, 1989; Maccoby, 1988; O'Brien & Huston, 1985) and differential activities and behaviour (Bloch, 1987; Fagot, 1974) in children's play. As for the specific studies on play, some authors in this line claim that children engage in different forms of play depending on their gender (Fein, 1981; Singer & Singer, 1990). For example, girls would more often engage in care activities, such as doing family or making lunch, whereas boys would prefer constructing scenarios, vehicles or homes for longer periods than they may do imaginary play. These studies look for sex and gender differences in children's development, considered a long ignored aspect or "variable" for the explanation of changes in people's behavior, thinking and development in general. As such, they imply an additive model of development within an essentialising perspective, and they explore gender differentiation through people's uses of objects, in social interactions, and propose certain results of this development, such as the construction of stereotypes and identities. Although these studies provide a large number of empirical descriptions, they fail to elaborate on the processes and models that might contextualize and explain them.

In a way, this is what Carol Gilligan (1982) attempts to do. Lawrence Kohlberg (1973) had presented a theory of stages in moral development, building on his interpretations of the Piagetian theory. In 1982, Gilligan argues that such stages had been defined only through a masculine voice, placing women's experiences and forms of morality as less developed. Through the analysis of adults' narrative accounts and resolutions of moral dilemmas, she suggests instead that there are feminine and masculine voices with different characteristics. The masculine voice focuses on abstract justice and individual logics, while the feminist voice emphasizes care and interpersonal relations. Abstraction and logics comprise disinvested manipulation of elements, whereas care refers to contextualized interpretations that take the other into consideration as a whole. Care perspectives are socially and emotionally embedded and thus frame differently the possible train of thought. I will come back to this distinction between abstraction, logics and care in defining how gender is organized in the classroom, as it leads researchers to pay attention to the different types of activities children do depending on the voice that they come to develop. Although in this approach gender differences still re-edit a basic sexual distinction between men and women, Gilligan's claims open the door to examine the processes that lead to the emergence of differentiations and their normative characters. But how to study this process in an experimental setting?

Huston (1985) develops a conceptual matrix which allows her to empirically dissect gendered behavior. She experimentally studies different activities children engage in, such as school tasks or play with toys. Huston is specifically concerned with studying the process by which gender and sex differences appear which she calls sex typing. Sex typing is a multidimensional process and includes, for the author, biological gender –a rather obscure concept- activities and interests, personal-social attributes, gender-based social relations and stylistic and symbolic content. Activities and interests include toys and play activities, occupations, household tasks, family roles, and areas of achievement. In this way, she articulates a conceptual model with its empirical study.

Contemporary to Huston's work, we find perspectives trying to find a middle ground between empirical attention and theoretical elaboration in understanding the process of gender differentiation. What Huston called sex typing is now divided into different factors participating in the development of gender (Adams et al., 1995; Bussey & Bandura, 1999; Halim et al., 2017; Martin & Ruble, 2002; Weinraub et al., 1984), each author stressing a different factor without invalidating another, as they stand in the same importance level. Among these authors, some claim to propose an integrative model (Bussey & Bandura, 1999) while others study the relationship between a certain factor and a behavioral or emotional aspect of people's life (Adams et al., 1995). Bandura and Bussey (1999) conduct experimental studies with young children to "assess" different factors constituting a gender schema, gender competencies and gendered play, among many others. They ask the children to play or choose toys, or even evaluate other classmates' behaviors in relation to gender when having been videotaped. They propose to consider cognitive, environmental and biological factors to be equally important in the development of gender, and they define a model which considers an addition of factors without accounting for how they are related and for the way in which they participate in defining gender. With a different aim, in a longitudinal study, Adams and colleagues (1995) examine the emotional content of parents' conversations about past events with their children, and ask whether the use of words referring to emotions depends on the child's gender. They find that parents' references to emotion are more frequent and varied with daughters than with sons. This study shows that, even though there were no differences at 40 months of age, by 70 months, girls mention more unique emotion terms than boys do. These results are interpreted in terms of gender as one possible "factor" in the development of emotions.

These authors then, within the same essentialist view of sex and gender, propose an additive model of development, where "factors" influence one another in defining gender expressions. As mentioned, the relationship between the factors and the studied behavior is linear and there is no systemic or qualitative understanding of holistic transformations. In terms of the empirical work, conducted, these authors consider mostly processual, material and social aspects, with little attention to the normative character of gender constructions or more integrative psychological propositions. As

for their research designs, the authors in this line propose experiments with controlled settings and variables for the analysis.

4.1. Synthesis

The approaches reviewed here in cognitive developmental psychology can be considered to share an essentialist perspective (Martínez, 2015) with an additive model of development (Overton, 2003; 2007).

In their research designs, the authors in this line define experiments, with controlled variables and situations, which in a way limits the possibility of understanding gender beyond the specific situation and the task that is proposed. As such, through this methodology, more stable aspects of the person or the relationship between gender and other aspects of people's lives remain unexplored. Nevertheless, the empirical designs are mostly conducted with children and many of them with children playing –a choice I will come back to in Chapters 4 and 5.

Empirically, these studies have brought forward the importance of considering the material aspects of gender development –that is, for example, by looking at the divergent manipulation of toys. They have also shown the psychological construction of identities, roles and schemas, as well as some of the processes through which these appear –such as sex typing. Finally, they have explored some of the interactional aspects in the construction of gender by looking at parent-child manipulation of toys or task resolution.

Identities, roles and schemas are believed to reflect and converge more or less with biological traits defining gender. In the cases where processes are proposed to understand gender differences, the authors conceive them in a factorial way, as discrete elements influencing behaviour and emotions, and not in their normative character restricting or allowing possibilities. Yet, the different aspects that participate in gender experiences would merit to be explained in their relations: how is it that gender can be a factor of behaviour? How do we understand that some aspects of gender roles can be taken up by people and not others? These questions have lead other authors in developmental psychology to consider gender development from a systemic perspective that accounts for the mutual constitution of the person and the environment. I will now review these approaches within sociocultural developmental psychology.

5. Sociocultural developmental psychology

Sociocultural perspectives scarcely address gender in their studies (see for exceptions Lloyd & Duveen, 1992; Mieyaa & Rouyer, 2011). The few that do adopt a systemic approach to gender and

define the person and the environment as mutually constituting each other. In opposition to cognitive approaches, they do not define external factors but parts of a system that define gender.

Although the central tenets of the sociocultural approach will be developed in the following chapter (CH3), I consider here the contributions and limitations of the studies on gender from this perspective. I argue that the authors propose a transformational model of development, as well empirical studies of normative, material, social, psychological and processual aspects of gender construction. Yet, they have remained within an essentialist perspective on sex and gender, which limits the possibility to consider the person's margin of freedom and active role in the reconstruction. Empirically, scholars in this line focus on children, and some have shown the importance of collecting naturally occurring data (Lloyd & Duveen, 1992), although most of the studies are based on experimental designs.

One group of researchers from this perspective studies gender construction in educational settings. Through interviews with children, they look for the appearance of differences in abilities and life choices, based on gender differences created by the form of interactions in the school. For them, sexual identity is the result of an individuation process referring to a biological, social and psychological system (Mieyaa et al., 2010; Mieyaa & Rouyer, 2011). It is composed of "objective" (Mieyaa et al., 2010, p. 2) elements such as the assignment of sex and sex roles, and "subjective" elements, which they believe comprise a feeling of belonging.

These authors recognize the normative weight that gender aspects in people's surroundings can have. They also acknowledge some of the singularity of the person, claiming, for example, that children's sexed identity cannot be isomorphic to the elements provided by the context: each child transforms and appropriates such representations in different ways. They also stress the importance of the other, and relationships, based on children's speech on sex and gender (Mieyaa et al., 2010). What this line of research does not particularly explore is, first, what is the singularity in the children's reconstruction –by using a socialization model, the accent is primarily on the reproductive aspects of the activity, and second, how what they call personalization (Mieyaa et al., 2010), that is, the individual reconstruction of the system, occurs –what is the grammar of construction of such sexed identities. Finally, as with other uses of the notion of identity, defining it in terms of elements coming from bodily realities, does not inform us on the margin of freedom of the person, or the stable aspects of such a construction. It is true that the authors say that as a result of the process children construct cognitive elements –how they understand sex and gender- and affective elements –how they feel about themselves and the sex group-, but are there any relations between such constructions? Do they constitute a coherent whole? Can there be contradictions?

Along similar lines, within French social psychology, researchers distinguish sexed social relations and sexed identities to understand identity aspects related to people's discourse and behaviour in

terms of sex and gender (Devif et al., 2018). Conceptually, they also maintain an essentialist reference to sex as a biological basis, which pathologises the consideration of different expressive and emotional forms. Empirically, Devif and colleagues (2018) explore how children perceive stereotypical and counter-stereotypical characters which appear in stories that are told to them in interviews. Identifying the work of stereotypes constitutes a way of accounting for gender norms, although they interpret such perceptions in terms of an un-questioned assessment of what it is to be "stereotypical" and "counter-stereotypical". So, how can we define outside the specific context of study what is or not stereotypical? Furthermore, if sex and stereotypes are transmitted through stories and adults, and children accept and adopt them as identity supports at an early age, what is it they "adopt"? Is there a psychological version of such stereotypes? How do they participate in how they feel, what they say and do? Distinguishing within children's reactions to counter-stereotypes, elements such as the use of language, the other in dialogue, the context in which the character is found and the activity carried out (play, homework, etc.), might shed light on the specific mechanisms through which such adoption is achieved, without reducing it to a parallel between biological traits and psychological or social ones.

Some authors actually start from the recognition that it is the social context that has a fundamentally binary perspective on gender, which is reflected across a range of social and linguistic practices (as reviewed by Hyde et al., 2019). This assertion leads them to precisely define what is the relationship between gender and discourse (Ochs, 1992) and account for the normative and guiding character of both. These authors study language socialisation focusing on the process of becoming a culturally competent member of society through language activity (Aronsson & Thorell, 1999; Ochs, 1992). By boing ethnographic observations and recordings of different practices such as taking care of a baby in different countries or listening to folk tales in villages, these authors analyse different forms of language use in relation to gender For them, gender ideologies are socialized, sustained and transformed through verbal practices such as talk. Conversational practices are for them, the primary resources for the realisation of gender hierarchy (Ochs, 1992). In these theories, there seems to be an excessive focus on the discursive aspect of social interaction, and although they not explicitly reduce discourse to verbal interaction, this is what appears to be argued when considering their stances. As the focus is so fundamentally on language, there are no claims as to the role of objects or spaces, or to the construction of stable aspects defining a person or her margin of freedom in the reconstruction.

Rainio (2009) conducted an ethnographic study on the development of agency and its relation to gender categories in play situations. This is based on sociocultural ideas that sustain that play is a core aspect for child development (Rainio, 2009; Vygotsky, 2016). In this study, play is used as a pedagogical tool, and the pretend play scenes are proposed to the children as classroom activities. The empirical material analyzed is of girls engaged in pretend-play and the way in which they built a character called the "horse-soldier" which allows them to move between dichotomically defined groups and spaces.

The author finds that in play, taking an animal identity may offer children an ambiguity that goes beyond gender categories or dichotomies such as boys-girls, men-women (Cook-Gumperz, 2001; Rainio, 2009). Yet, their interpretation of the interaction in done through a power dynamic lens: why a girl playing a horse soldier, can become a part of a boys' game or be rejected from it, is explained by this power dynamic. The question that remains unanswered is what allows the children to come up with the horse-soldier proposition that combines more or less feminine, masculine and neutral elements belonging to the social categories defining gender.

In terms of the processes leading to gender construction, the author proposes to use the notion of "generalized action potence" (Holzkamp, 1991; Rainio, 2009). This notion is a construction of each person: he or she develops a potence that is a strength or possibility to act in a certain way that is general and stable across time. This action potence is partly socially defined, leading the person to either accept or transform socially established boundaries, situations or gender norms. This proposition is a way to specify the notion of agency in sociocultural psychology. A person has more or less agency in situations depending on the modes of action potence. The limits of this idea is that it does not look at precisely what is done with the elements of the social world, how they are combined, subsuming the mode of action to this "action potence". It also does not address how these possibilities appear in life. Looking at these two elements –the combination modes and the origin of these possibilities- might inform us on where the margins of freedom come from, if they cannot be fully annulled to define a person, and second, it might specify what are the different elements participating in something as an action potence: what it is made of, in relation to who, what is its structure –as it is not the same to refuse a proposition by ignoring the other, rejecting her or making fun of what they said.

As we have seen, all these researchers rarely directly examine gender-typed interests and behaviors as developing and changing in time. That is, they do not look at what changes or does not change with time as a result of the construction of gender. And the existing accounts of this aspect in the literature are rare (Huston, 1985). Variability in terms of children and contexts does not eliminate the importance of looking at the stability in gender related aspects in time. It may thus be interesting to longitudinally study how one aspect of a child's actions, for example, a salient interest of a child for vehicles, can persist in different forms into adulthood, as she becomes a mechanic or watches many action car-chase movies later in life. Going beyond content in gender-related analysis and looking at transformation of content may be fruitful to identify such stabilities.

To look at this stability, Trautner and colleagues (2005) are some of the few authors to conduct a longitudinal study of the development of gender in children. They want to trace what the literature calls the peak in rigidity when it comes to gender (Trautner et al., 2005). This peak refers to the fact

that authors observe gender related speech becomes more frequent at the age of five. Also, this rigidity refers empirically to the higher intolerance the children show to oppose or transgress gender norms. They argue the children have functioning knowledge of the sex and gender categories and stereotypes by the age of four, and that associative behavior, choices and preferences, seem to follow more clearly such knowledge at the age of five. The interpretation for this is that there is a rigidization in the "gender developmental stage" (Trautner et al., 2005), thus proposing the notion of stages to understand stability. Yet, I argue it may be important here to distinguish the preferences, actions and choices from the knowledge and their parallels. Starting school, having a brother or sister or moving to a different town may be relevant and specific developmental tasks for the children, thus marking the way in which gender can be expressed.

To look at this complexity of contexts and levels, Martin & Ruble (2010) propose that a fruitful line of research may be developed if dynamic system theory is applied to gender development. They suggest that an analysis of sex segregation may focus on the patterns that emerge over time in a child's choice of play partners and examine how these choices vary over the school year. They propose that "through repeated interactions and reshuffling, patterns of play may change as interactions become increasingly governed by children's experiences with classmates; their responsiveness to bids, play styles, and shared interests" (Martin & Ruble, 2010, p. 368). Martin and Ruble (2010) further suggest, "intensive data collection about toy choices would be particularly interesting. Also, to better understand factors influencing such choices, other information about the play situation (e.g., other available toys, presence of peers), parents (e.g., stereotypic beliefs), and children (e.g., gender knowledge, activity level) should be collected" (Martin & Ruble, 2010, p. 343). This proposition done by the authors but not empirically developed appears interesting and is expanded upon in this thesis.

One researcher within sociocultural developmental psychology argues that children's ongoing physical interactions and psychological experiences with parents, peers, and culture, fundamentally shape and reshape their experience of gender developmentally, as different brain and body systems couple and uncouple over time (Fausto-Sterling, 2012). For her, gender is not a stable achievement, but rather "a pattern in time" (Fausto-Sterling, 2012, p. 405). Defining stability in gender construction through patterning and not through the notion of identity is a rather novel and original proposition that I will develop and build on in the following chapters (CH3; CH4).

The works of Gerard Duveen and collaborators (Duveen & Lloyd, 2005; Lloyd & Duveen, 1992; Psaltis et al., 2009), within cultural psychology, focus on the ontogenetic development of social representations of gender in children. They develop a systemic approach to gender and look at short time-scales to understand the construction of social identities, while defining gender as a semiotic system, considering material and social dimensions in its definition. The authors conduct a longitudinal, ethnographic study combined with interviews and experiments with children starting

primary school in England. They do so to consider developmental as well as social and cultural elements in the explanation of gender construction.

Duveen and Lloyd (1992) define gender as follows:

> Gender is also a more diffuse phenomenon which surrounds the child through a variety of semiotic media: the toys which children play with carry gender markings; the social roles articulated in comics, picture books and television programmes are also marked for gender; and in the collective institutions, such as the nurseries and schools which children attend, representations of gender structure complex patterns of interaction. In all of these media the categories of gender are articulated as a collective semiotic system which effect a fundamental division in the social world. Becoming a part of this world means both internalising the social representation of gender and establishing an identity with one category or the other (Lloyd & Duveen, 1992, p. 92).

Duveen and Lloyd (1992) thus explore the social and material dimensions of gender by studying the ontogenesis of social representations on gender, yet they define an unquestioned perspective on gender in relation to sex. Although they define it as a semiotic system, they maintain the biological framing of its construction.

5.1. Synthesis

Within the developmental sociocultural research on gender, most of the authors' assumptions on sex and gender have not been particularly thematized, and thus reproduce an essentialist view of gender. They understand that there are unquestionable biological traits that are somehow objective or natural and that define a certain directionality in the possibilities for action. In terms of their view on development, the models defined here adopt a transformative and holistic view of change: systems or configurations qualitatively change as a result of transformations in the construct as a whole.

Empirically, these studies focus mostly on children, and some propose ethnographic longitudinal designs. They show the importance of considering the material culture (Lloyd & Duveen, 1992), social interactions (Ochs, 1992), psychological processes (Mieyaa & Rouyer, 2011) and the need for defining more stable aspects in the construction of gender (Fausto-Sterling, 2012; Martin & Ruble, 2010; Trautner et al., 2005). There is a general agreement across these researchers that the first gender-marked behaviors in infants appear around 24 months (Martin & Ruble, 2010; Mieyaa et al., 2010). These rudimentary representations are believed to become progressively differentiated after the age of four (Mieyaa et al., 2010). Some scholars believe that such a progressive differentiation is a result of the developmental tasks the child is facing at that time: as she expands her identificatory model, moving away from the direct influence of the family sphere, and into different institutions (such as kindergartens or schools), the child starts behaving according to expected roles of sex (Dafflon Novelle,

2006; Mieyaa et al., 2010). But why would a child follow sex roles and not something else in such moments of diversification? What makes the form she chooses relevant? To answer these questions it may be necessary to understand, on the one side, how the child constructs stable guiding forms of interaction that lead her to one or another direction, and on the other side, how the social context normatively defines what can be considered relevant or even thought of in a specific situation. The second question is the starting point for the psychoanalytic feminist line that I will now consider.

6. Psychoanalytic feminism: French school

The pioneer of psychoanalytic feminism is Simone de Beauvoir (1949). As seen above, she was one of the first authors to develop an anti-essentialist view on gender. Particularly, she argues that there is no innate biological determination, no immutable essence of womanhood or "instincts": "we are not born women, we become women" (de Beauvoir, 1949, p. 5). Her claims derive from her analysis of women's experiences, her own experience, as well as descriptions of children's everyday life shared experiences. Specifically, what is usually considered "feminine" –the attitudes, the feelings, the need to be admired, the docility, the shame related to sexual pleasures and activities- does not come from an innate biological determination. De Beauvoir shows the way in which children come to construct a relationship to their sexuality that is represented around the two poles of feminine and masculine. For this she defines a mix of social recognition and guidance dynamics, such as the comments of parents, the games of children, and psychological processes inspired by psychoanalytic theories, about the penis envy, the function of substitutes and the possibility for anchorage. She states the environment reinforces the girl's narcissism, while it demands the boy to abandon it and replace it with the care of his penis. She further claims, "sexual hierarchy is first discovered in the family experience" (de Beauvoir, 1949, p. 38).

The so-called anti-essentialist perspectives expanded de Beauvoir's claims and have post-modern or post-structuralist inspiration (Martínez & Femenías, 2015). Authors claim that the construction of gender relations is characterised by a form of domination, and they bring the idea of the differentiation of the sexes as culturally built. Authors such as Judith Butler (1990), in the performative line, and Christine Delphy (2000), from the materialist perspective, insist in the plurality of gender identities and understand that sexual identity does not come from a natural reality opposed to gender as a cultural product. We can also see in these authors the influence of Foucault's ideas in *Histoire de la sexualité* (1976) that denaturalises common sense categories taken for granted as biological or universal. The two main lines of reflection developed in anti-essentialist understandings are materialist feminism, building on Marxist ideas and some psychoanalytic claims, and performative approaches, informed by French psychoanalysis.

Materialist feminism argues that gender precedes sex. Monique Wittig (1992, 2006) claims that there is an economical basis for the distinction between the two classes defined as man and woman. Based on the analysis of linguistic forms in Latin languages, they argue that there is only one gender, that is, woman, because the masculine is what is general (Wittig, 1992) –when speaking generally of people, in Latin languages one uses the masculine form for both genders, while having to specify the linguistic form when it refers to women. The line Wittig inaugurated is anti-naturalist and anti-essentialist. For example, within this materialist feminism Chritine Delphy (2000) states that male oppression created gender, which in turn created sex, and if gender did not exist, sex would lose its significance, and would only be another physical difference among others. These authors bring forward the constructed nature of gender differences and their relation to material conditions of production, although they do not address the personal reconstruction and significance of the oppression. Remaining in the sphere of theoretical argumentation, they further have not developed specific empirical studies.

French psychoanalysis strongly informed the gender perspectives of authors such as Julia Kristeva (1980), Lucy Irigaray (1977), Juliet Mitchell (2007) and Judith Butler (1990). Although they have more or less comprehensive theories of gender dynamics at social and psychological levels, they agree on the fact that gender institutes the anatomical sexual difference as a natural fact. As such, under the discursive sign of sexual reproduction, chromosomes, hormones and genitals constitute the substantial support for the essence of such a "natural sex" (Butler, 1990; Irigaray, 1977; Kristeva, 1980; Martínez, 2015).

Juliet Mitchell (2007) addresses an interesting aspect of gender construction. She problematizes the categories of sexual difference and gender by bringing forward the importance of the sibling (or sibling-like) relations in the construction of gender, largely overlooked in the psychoanalytical tradition. As such, she proposes to distinguish gender and sexual differences along the lines of what she calls "non-reproductive" and "reproductive" relations. The appearance of another that was expected to be equal to self (the new baby brother or sister) fulfils such an expectation in excess, and it is this excess that creates a trauma, a structural ambiguity in the fraternal relation. In order to maintain sameness and selfness, the differences are enhanced between different categories, and eliminated within the same one. What Mitchell states could have consequences for developmental psychology to attend to in basic research: if gender differences emerge in the sibling (or sibling-like) relationship rather than in vertical reproductive lines (mother/teacher), then this ought to be accounted for with empirical data. Although it is not the object of the present study to explore this, Mitchell's claims could open a line for empirical research that does not consider the body as defining the lines along which gender emerges.

Judith Butler (1990) in proposing a perfomative approach to gender is a highly influential author within gender studies and she develops a very comprehensive theory of gender. She argues that there are two levels at which gender appears: the social heterosexual matrix at the level of the social world that defines lines along which gender identities are performed, and the level of gender performance in people's lives. To develop these ideas, she first criticises the effect that American psychoanalysis has had in the production of discourses on gender. As I have shown in the section on Americal feminist psychoanalysis, through the reference to the biological body and offering a metanarrative on moments in development and the acquisition of a gendered identity, it has contributed to fixate gender differences in a normative progression (Butler, 1990, p. 77).

Influenced by the French psychoanalyst Jacques Lacan, among others, Butler develops the idea of the frailty of gender identities. Lacan had posed that identities, rather than fixed, delineated constructs, were frail and mutant traces of investments (Lacan, 1957). Judith Butler poses that gender is not a stable identity, but rather an identity weakly constituted across time, through the styled repetition of acts. A permanently gendered Ego is only an illusion. Gender production is intertwined with acts, subtle bodily movements that through repetition produce the belief that there is a permanent gendered I and it locates the I within some agent that would be the cause of production of such acts leading to identify its gender. For example, when throwing a ball, it is common that girls' way of throwing is defined as "throwing like a girl" (Young, 1980). This way of moving is enacted by certain girls in how they play sports, creating the illusion that the reason they throw in that way, is because of their gender.

The gender acts establish in others and in the actor himself, the implicit link between the performance and the identity that apparently originates it (Butler, 1990; Martínez, 2015). This produces a rupture with ideas like Stoller's (1968) who proposed a substantial model of identity.

In this perspective, the structure of a gender identity is imitative and situational. Far from being a psychological substantial reality, it is a virtually regulating fiction that, through the internalization of the norm, produces the fiction of interiority. It is presented in a land of constitutive restrictions. It is a fiction that brings the subject to existence; it gives the subject a psychological density without substance. Gender is here seen as a dispositif (Foucault, 1976) of social regulations, defining ideal and rejected spaces for identification. Among others, the Oedipal complex appears as a dispositive that establishes a symbolic network of power relations that, under the threat of punishment, perpetuates coherent genders.

Furthermore, the gender identity becomes objectified by constitutive acts. It is such constitutive acts that establish performatively a naturalized gender identity (Butler, 1990). This implicit link contributes to perpetuate the naturalization of gender norms (Butler, 1993). But what is it that allows making such an assumption that gender is a fiction produced by repetition, that there is no gender

essence, which is expressed or exteriorized? Butler analyses for this what has been called "abject sexualities", as well as figures such as the Drag Queen. The Drag Queen's performance is clearly theatrical and produced within an acting frame, which situates the acts as different from the reality. In opposition, in daily contexts, gender performance is absorbed by the naturalized reality of gender conformity, that is, the expected coherence between gender acts and the biological sex of who performs those acts.

In this way, "the norm is what makes each and every body meaningful, and by extension recognizable (or viceversa)" (Brady & Schirato, 2011, p. 12). Butler claims that what is perceived as gender norms are first, forms of classification that allow recognizing forms, and second, that which maintains the boundaries of supposed constructs, keeping things of the social together. In their construction by people, "the psychic operation of the norm is derived (…) from prior social operations" (Butler, 1997, p. 21). The subject reconstructs social norms through her actions, derived from recognized and existing forms in the social.

Resistance to gender norms can be done through the interruption of the multiple gender forms. She uses the term *pastiche*[1], in opposition to the original, to refer to non-normative forms of gender, which she then deconstructs. She shows that the Drag Queen or the trans woman, are perceived as pastiche, as deviations from some original. Adopting a diachronic outlook, the existence of such possibilities for performing one's gender, founds new gendered forms that show precisely that there was no original to begin with, that gender is the result of constitutive acts, that is, performed (Butler, 1990). The nucleus is permanently constituted by cultural ideas and social norms restricting the voluntary proliferation of identities. As Butler puts it: "there is no original or primary gender that drag imitates, but *gender is a kind of imitation for which there is no original*; in fact, it is a kind of imitation that produces the very notion of the original as an effect and consequence of the imitation itself" (Butler, 1993, p. 313).

These two ideas, that of the frailty and performative nature of gender identities, and of the construction of gender norms together provide a double view of gender as socially defined and psychologically reconstructed within a gap that allows their transformation. The biology of the body is considered as a naturalization that appears as an apparent basis. But this naturalization is not made merely through discourse: the body is a materialization of language. It is a set of contingent identifications, not anchored in essences or invariable substances. Yet, in Butler's claims, there is an excessive focus on the diffuse nature of social constructs which at times fails to provide tools to explain how we come to recognize gendered forms we believe belong together –such as women cooking or

[1] A pastiche is a work of art which imitates the style or character of the work of one or more artists. As opposed to parody, pastiche celebrates rather than mocks the work it imitates.

men building. Although this perspective gives us elements to think the processes of transformation of norms, it leaves us without an explanation to the more or less stable constructs we find in the social and that we can identify in our experiences of gender and gender norms. In turn, her ideas on the imitative and situational structure of identity would require a systematic empirical exploration in order to understand what forms are adopted in different situations and why.

6.1. Synthesis

Anti-essentialist perspectives question the natural definition of sex and gender. The authors interrogate claims of sex as the basis on which gender is defined. They believe that it is gender which institutes the anatomical sexual difference as a natural fact (Butler, 1993; Martínez, 2015). In this approach, bodies are defined and produced through the social gender mark. As I have shown, Judith Butler (1990), Christine Delphy (2000) or Monique Wittig (2006) insist on the plurality of gender identities and do not understand sexual identity as coming from a natural reality opposed to gender as a cultural product. The body is no longer the primary reference point in defining people's identities that "naturally" correspond to it. This allows making room for people's margins of freedom, and for the fluidity of gendered actions and experiences, which are recognized fully and not as deviations from a natural norm.

These propositions have also the value of showing the production of material dimensions, such as the body, through discursive mechanisms of reproduction. In authors such as Butler (1990) we find this further articulated at the level of the social and the psychological –a dimension underexplored by materialist feminism. And although their claims have not been developed alongside systematic empirical investigations, it may be fruitful to do so. In what follows, I consider post-structuralist psychological studies which have built on these conceptual propositions to conduct empirical studies within psychology.

7. Post-structuralist psychology

The last line of research I present here is post-structuralist psychology. What characterizes this line is firstly, the fact that it builds on the conceptual critiques to the essentialist view developed by the authors within psychoanalytic feminism. And secondly, based on this, the authors propose a more systematic empirical exploration of gender construction. These authors then define an anti-essentialist approach, a transformational model of development, and they propose to tend empirical attention to social, material, psychological and processual aspects of gender development. It is interesting to note

that most of the authors have focused on children and women's experiences and actions, as well as on play as a particular activity for the study of gender in children. This methodological choice of studying children and play, they share with many cognitive studies and will be discussed in the methodological chapter (CH5), as well as integrated in the theoretical model developed in the next chapters (CH3 & 4).

By mostly focusing on children, authors such as MacNaughton (2000) argue that feminist poststructuralist theory offers a way of understanding that the development of gender identity is an ongoing process, formed within social situations. Relationships between individuals and social institutions are seen to be inseparable and interdependent, and power is considered the central aspect in defining these relationships (Weedon, 1999). In her empirical work, MacNaughton conducts a longitudinal study where twelve kindergarten teachers implement different "gender programs" such as to fight stereotypes and support girls and boys in expressing themselves equally. Working also with children, Bronwyn Davies (1989) uses feminist tales that tell stories with counter-stereotypical characters, such as princesses who do not want to marry princes and wear paper bags instead of dresses. She is interested in exploring how children in the first years of primary school re-tell these stories after having read them. Methodologically, tales are tools employed for research because they are a part of an activity children know, that of story-telling, a ludic type of activity many engage in on a daily basis. What she finds is that children have either negative evaluations of such counter-stereotypical characters –the princess was mean or a witch- or "correct" the story line to have the princess get married and dress properly to fit stereotypical story-lines present in the social context. In this line, both Davies (1989) and MacNaughton (2000) argue that children do not just soak up identity from social institutions and people around them. Young children reshape and develop their individual identities as they engage with the diverse, and often contradictory, messages they receive from caregivers, at home, from the media, and in school settings. Drawing on the work of Foucault (1971), they use the notion of discourse to refer to social, institutional and emotional frameworks and practices through which humans make meanings of their experiences. A discourse refers here to a way of speaking, writing, interacting or thinking that is made up of particular given truths that define what can and cannot be included, said or done (Paechter, 2007). This body of research thus interprets children's actions as part of a positioning movement within discourses in Foucault's terms. That is, these studies examine how they become competent actors in a system of power dynamics.

Martin (2011) builds on these authors' findings and analyzes children's play in school through observations and ethnographic work. Here again, but more explicitly, the children's actions are interpreted within a certain activity: that of play. This methodological choice seems to be a fruitful tool for the study of gender in children. In her findings, she shows how children's agency emerges and is constrained within a social context that has a pool of options of the different forms of masculinities

and femininities. Children learn to become competent actors within such contexts and they learn to do so by participating in communities of practices (Lave & Wenger, 1991; Martin, 2011; Paechter, 2007). Empirically, she looks at children's uses of spaces in terms of same or opposite sex association and group composition (Martin, 2011). She, again, interprets the results in terms of power relations (Martin, 2011), arguing that the way in which the space is used is a result of power dynamics where some children learn to dominate or be submissive, express themselves more or less loudly and take up more or less space for speaking and deciding (Martin, 2011).

Within post-structuralist studies on play, other authors look at the type of characters and scenarios children chose depending on their gender (Børve & Børve, 2017; Carlson & Taylor, 2005). They ethnographically analyse school settings in which children play with others and argue that girls tend to choose more family related characters and engage in caring activities such as cooking, putting babies to sleep or changing them, while boys choose more super-hero related characters, spending more time in manual forms of play such as construction, rather than engaging in the imaginary scenarios to make the characters play. Here again, the interpretation of such a difference is based on power dynamics. The ways in which children are socialized pushes the girls towards a preference for care activities, at the basis of the traditional woman's role in the household, whereas the boys are directed towards manual, practical or abstract forms of engaging in play. This distinction will be later explored and discussed in the empirical material of this study.

7.1. Synthesis

Deconstructivist empirical studies start by not assuming same or opposite sex categories but define them in context, in a more or less organized manner for different people and in different contexts and situations. By inverting the definition of sex through socially defined gender discourses, they move their attention to cultural elements such as books and classrooms where the gender power dynamics are materialized and actualized. Within this, they propose an empirical distinction in children's choices based on gender: girls tend to engage more in care play, while boys spend more time on manual, practical or abstract forms of play. Empirically, they thus examine the social and material aspects of gender development, as well as the processes through which this takes place, although they do not particularly study stability of gender construction in people's lives or specifically explain the possible margins of freedom in the life of a person.

However, these authors provide a power-based interpretation, without considering its structure and nuances. For example, analyzing gender aspects in space could also tell us something about normative systems and how they might affect and overlap with other aspects of people's development. Although power can be a relevant reference point, it needs, first, to be defined with the

context, and second, explained in terms of what of the same or the opposite gender is chosen, changed, maintained or done. Adopting these deconstructive and non-essentialist views of gender would thus require a middle step, before interpreting people's actions in terms of power dynamics. I argue for the need for a detailed grammar in understanding gendered actions. It is thus not enough to evaluate congruence or divergence between same or opposite sex or gender. An outlook on the grammar of doing gender, instead of directly moving to the level of hierarchical power dynamics, might allow understanding the solutions children find to complex contradictory situations as well as the various forms that their interactions might adopt. Here it would be interesting to compare different spaces such as school and home settings to analyze the different types of guidance provided not only by the presence of others, but by the materialization of the gender system in the spaces. Moreover, these studies may be enriched by also considering stable and individual levels of gender construction, that is, what of the person is constructed and remains, by adopting a first-person perspective.

8. Defining an approach to gender

In this chapter I have organized the field of gender studies through three criteria: i) an epistemological criterion to distinguish between essentialist and anti-essentialist perspectives in defining gender (Martínez, 2015); ii) a theoretical criterion to analyse theories in terms of their perspective on development, as they use either additive or transformative models of development (Lenzi et al., 2010; Overton, 2003, 2007); and iii) an empirical criterion, to define four aspects that were unequally considered in the different approaches: the material environment, social relations, psychological processes and the more stable aspects or people's lives which contribute to define a model of the person. These criteria allowed me to define five general lines of research: American feminism, cognitive developmental psychology, sociocultural developmental psychology, psychoanalytic feminism and post-structuralist psychology.

If we first take the epistemological criterion, an anti-essentialist definition of gender allows making room for people's margins of freedom, and for the fluidity of gendered actions and experiences, which are there recognized fully and not as deviations from a natural norm. Taking the second criterion of the developmental model proposed, a transformational view of change allows us to understand some of the processes involved in gender construction: it is achieved through discontinuous qualitative and systemic transformations. This provides a holistic view of gender as it considers how the elements participating in its definition mutually define each other. As for the empirical value of the studies, across the scholarship, we see that most authors consider the social dimension of gender construction, that is, the importance of defining the role of interactions, of social

models or discourses in how people understand and act according to it (Bem, 1981; Bussey & Bandura, 1999; Butler, 1990; Chodorow, 1978; Davies, 1989; de Beauvoir, 1949; Lloyd & Duveen, 1992; Martin, 2011). Most scholars propose some processes through which gender construction takes place (Benjamin, 1988; Butler, 1990; Chodorow, 1978; Delphy, 2000; Gilligan, 1982; Goldner, 1991; Lloyd & Duveen, 1992; B. Martin, 2011; Mieyaa & Rouyer, 2011; Rainio, 2009; Stoller, 1976; Sweetnam, 1996; Wittig, 1992), Fewer authors showed the importance of the material environment in guiding the gendering process (Butler, 1990; Lloyd & Duveen, 1992). And lastly, the less developed aspect of studying gender is its stability. Although some have proposed to look at stability by defining identities and positions (Chodorow, 1978; Goldner, 1991; R. Stoller, 1968; Sweetnam, 1996), only few propose to adopt a more nuanced and cross-cutting definition of stability in how gender is done (Butler, 1990; Fausto-Sterling, 2012; Martin & Ruble, 2010). It may be that what is recurrent in doing gender is a result of multiple levels in defining what is relevant and what is possible in a child's life.

Authors have also addressed the restrictive aspects of gender through the notions of stereotypes (Davies, 1989; Rainio, 2009), social representations (Duveen & Lloyd, 2005; Lloyd & Duveen, 1992) or norms (Butler, 1993). They empirically all refer to how different social elements which function together provide a certain weight to gender expectations as well as restrict people's actions. In what follows, I will keep the term norms to refer to this aspect as it allows describing "sets of relations that define forms of communicating, feeling, acting and thinking" (Cabra, 2020b, p. 1), considering at the same time their social aspect and psychological construction.

We can admit with the authors presented above that power dynamics constrain children's possibilities for different forms of action. We could also admit that gender is a core category in defining oneself and it relates to other constant aspects of the person. But whether from a post-structuralist or more classical essentialist perspective, authors have not been particularly interested, as psychoanalytic perspectives have, in understanding how gender shapes and is reconstructed in a meaningful manner in interactions and through life.

By showing the strengths and limitations in these propositions, this review leads me to adopt an anti-essentialist view on gender, following some of Judith Butler's claims on gender performativity and norms, and a transformational model of development. As Butler's claims were not developed in a psychological perspective, her claims need to be defined within psychology. Empirically, thus, I will define an approach which then looks at children *doing gender.* This perspective considers different aspects that participate to gender construction in children's play: its material, social and normative character, the processes through which gender is constructed and the more stable aspects that participate in defining the child as a person beyond gender, in order to understand how gender participates in the different spheres of children's lives. I will further explore the claims regarding the type of play children engage in based on their gender –care or practical. To integrate these elements,

I adopt a developmental, semiotic and sociocultural perspective for the study of gender because, although it has only scarcely addressed it, it is an explicitly developmental theory and takes the mutual construction of the person in her environment as its starting point. What is important here is the fact that the sociocultural perspective not only takes different aspects into account but also understands them in a systemic way, as mutually constituting one another. This leads me to consider gender in a dynamic way as constructed at the level of the social and of the person in her life. Moreover, by defining a semiotic approach, I propose a detailed grammar to construct a middle step between the empirical analysis of the dimensions, and its interpretations in terms of power dynamics. In the following chapter, I thus discuss sociocultural perspectives in psychology.

Chapter 3 - Studying development

In the previous chapter, I have reviewed studies on gender with different ontological assumptions, various models of development and empirically exploring several aspects that participate in the construction of gender. The authors presented argued that gender is a socially and historically changing notion and construct, as well as a psychological concept or identity marker. Through the previous review, I showed the value of adopting an anti-essentialist perspective on gender and a transformational model of development. But how could we study gender defined in this way from a psychological perspective? Let us look at another example from my empirical corpus:

> *I am playing imaginary animals with Tina and Nadine. Tina asks Nadine what she wants to be called in the game and Nadine is indecisive between "Rose" and "Rainbow". Tina chooses to be called "Lily" and Nadine asks me to choose a name. As I am thinking which name to choose, Nadine explains I should pick a girl name, anticipating the possibility that I might choose a boy name (as I study gender and sometimes transgress the gender norms on purpose). I ask her why I need a girl name and she simply responds, "because you are a girl". To this, I reply "but we are allowed to be animals", which was the theme of the play, and she agrees to let me have a "boy animal name". I choose Simba, the name of the small lion from the Lion King, and she suggests I change it to "Sinfa", on which we agree and continue to play.*
>
> *Observation 27: Nadine, Tina & Researcher at home*

In this sequence, we can see two children and the researcher *doing gender.* What can be done and said in play is being negotiated. Certain gender norms are called upon but we also see references to fictional characters and imaginary scenarios. The lion from the Lion King brings references from a movie, where certain things are possible while others are not. We are discussing the choice of a name, how to arrive at an agreement, manipulating a small unit, in this case, a sign. By changing the letters, we play with the materiality of the word, which has effects as to what we can accept or not. In this sense, a play situation, which appears in principle quite open for the child to freely choose what she wants, brings in a number of elements from the social world which constitute it. Here, for example, this may happen with the resonances the movie the Lion King might bring. But how this is negotiated is also related to more personal aspects of how we are and how we deal with norms and the social world. Nadine is a little girl who plays with different norms, materials and others in her own personal way.

To go back to the previous chapter and the literature, gender is something that authors claim is "in the social" –gender is expressed in character names, in toys, rooms, clothes, ways of moving, speaking, writing and interacting- then it can also appear in different situations, such as those taking place in school, during an Easter Egg hunt, at home during play time with friends, at work, in a couples' discussions, and it can have different normative weight in the various situations. It also is a part of how people think and feel about themselves and each other. People's experiences of gender tend to be more or less stable in time: some aspects of how we feel about ourselves may change while others remain constant throughout our lives.

In order to make sense of changes and continuities in how people do gender, we need to consider what is it that is constant across those changes: what defines people at a more personal level and allow us to identify them as who they are. Also, to understand the role of the social and the material environment in the construction of gender across spaces, objects, forms of action and interaction as in play or school work, it appears necessary to adopt a perspective where I can trace the same form of markers across these objects and situations. This would allow to analyse Lego toys, names and clothes choice in a coherent way.

I will justify in this chapter that to explore these issues I adopt a developmental, semiotic and sociocultural perspective. Furthermore, I will show that this perspective sheds light on the development of gender in children when considering play situations, as it can constitute a spontaneously defined laboratory to look at the joint work of social constraints and psychological dynamics.

In order to outline the core premises of my approach, I first discuss the value of different issues that the field of developmental and cultural psychologies have elaborated upon. I then justify the adoption of a semiotic perspective and present some of the core concepts that constitute my conceptual network. These elements allow me to consider the development of gender in children's play, in context, and to propose a theoretical model and some heuristic hypotheses that I define in the following chapter (Chapter 4) and which I later explore empirically (Chapter 6).

1. Developmental and cultural psychologies

How does gender emerge, change and develop? This question can be studied at the level of societies, institutions, groups or individual people –we can study how gay marriage was approved, universities' implementation of female quotas in their faculty, the experience of children who have friends to whom they can speak about their gender transition, or even the feelings of men who felt they were not allowed to show sadness and weakness because it was considered "un-masculine". But social changes can influence psychological ones and vice versa -people can fight political fights in

movements they very much believe in yet stay quiet when their jobs are on the line. To address these different forms of change and their relations, there is a field of approaches in psychology that has taken these links as a starting point for understanding human development. Cultural psychologies share the basic assumption according to which there is an interdependence between person and context in which the two cannot be studied as independent "factors", but should rather be seen as co-constitutive, that is, as constituting each other (Cole, 1996; Leont'ev, 1978; Lurija, 1976; Piaget, 1932, p. 19; Valsiner, 1997, 2000, 2019; Vygotsky, 1978). To "constitute" something implies that something that was not there appeared, something changed, emerged, and we could ask the question whether or not it "developed" from the previous state (Valsiner & Connolly, 2002). I now first define the different forms of understanding change and development and then justify adopting a developmental cultural psychology.

1.1. Developmental psychologies

Firstly, there are many approaches that are defined as developmental psychologies (Overton et al., 2015; Valsiner & Connolly, 2002). As we have seen in the previous chapter, there are two ways in which development can be understood. Broadly, there are two questions that the approaches answer differently, although not explicitly, and that define which model of development they hold: *how* does change occur and *where* do the transformations come from? Change may come from a progressive sum of elements; in this case, the model of development is considered additive and the change variational (Lerner, 2006; Overton, 2003). Much of the scholarship in developmental psychology can be considered to propose additive or mechanistic models of development (Lerner, 2006; Overton, 2003). This means that these approaches provide extensive catalogues of "what is" –how people understand certain situations, what things children can do at what age, etc.- or describe "what is" as directly defined by social contexts and situations –migrant mothers would have a certain view on parenthood because of their migration, or American children would learn in a different way than French children because of their "culture", etc. Change may also occur as the result of a qualitative reorganization of what was, thus defining a transformational model of development. These holistic perspectives attempt to define transformational models that consider the joint work of social, cultural and personal dynamics (Lerner, 2006; Overton, 2003). These holistic developmental perspectives in psychology, in terms of their epistemology, centre their problems around two general issues: the emergence of novelty and the possibility for change in complex systems (Winegar & Valsiner, 1992).

In order to understand how novel forms emerge and how change is possible, authors propose to consider states of things in terms of dynamic systems transforming through different processes in irreversible time (Fogel, 2009; Valsiner, 2001). As change then occurs within this irreversible time, the

systems produce a certain directionality in the progression of the change. The transformation of a stage A into A1 or B defines a vector towards somewhere or something else. Accepting that phenomena can be understood in terms of dynamic systems requires a relational epistemology, that is, to accept the fact that elements in the system are defined by the links established with others and that they acquire meaning or significance based on these relations. A relational epistemology (Castorina, 2016) is a frame which rejects classical dualism between individual and society, showing that symbolic production takes place in the interrelations between subject, other and world-object (Castorina, 2016). Thus, to understand the process of *how* development takes place, development needs to be defined as the constructive transformation of form in irreversible time through the process of organism-environment interchange (Chapman, 1988; Overton, 2003; Valsiner, 1997, 2000). What this means is that **first**, "what is", what people say or understand, is constructed and transformed through *qualitative reorganizations of forms*; **second**, that the forms that emerge change in a time that is not reversible, that is, in systems where the same state does not emerge twice but is always somewhat transformed (because of the *irreversibility of time*); and **third**, that these processes take place through the *interchange between people and contexts* or organisms and environments.

1.2. Cultural psychologies

Cultural and sociocultural psychologies share the three points just developed: the fact that they admit the qualitative reorganization of forms, the irreversibility of time and, the co-constitution of organism and environment in their relations. Yet, the starting point for research within this field, as well as the core assumption that gives the field its name is the importance of people-context or organism-environment interchange. Development in cultural psychologies is the process of transformation and emergence of novelty in the on-going transaction between the person and the cultural environment (Valsiner, 1997). This implies an approach to the study of development which maintains the relationship between person and environment as an inseparable unit of analysis, and further considers that development can only be conceptualized as an infinite process, due to the dynamic and reciprocity in the relationship between person and environment (Branco & Valsiner, 2012; Hviid & Villadsen, 2014).

Synthetically then, developmental, cultural psychologies share, with other developmental psychologies, the importance of considering the irreversibility of time, that is, the fact that what happens in a dynamic system can never repeat itself in an identical form, as they are interested in the becoming of people and consider the processes of emergence of novelty. Secondly, they define a relational approach to the phenomena under study: person and sociocultural environment are co-substantial and co-determine each other.

Adopting such developmental epistemology, cultural psychologies have two basic assumptions. If change is considered to be occurring both at social and psychological levels, then their relationship needs to be defined, considering them as mutually constitutive and evolving in time (Overton, 1994, 2003; Valsiner, 1997, 2006). The two basic assumptions of cultural and developmental psychologies are: (i) that the environment has a role in the emergence of mind; and (ii) that the person has an active role in constructing her relationship to the world (Leont'ev, 1978; Lurija, 1976; Rogoff & Lave, 1984; Rogoff, 1990, 2003; Vygotsky, 1978).

Furthermore, socio-cognitive, sociocultural and cultural-historical perspectives (Hedegaard, 2012; Perret-Clermont et al., 2004; Rogoff, 2003; Rosa, 2007; Valsiner, 1997; Zittoun et al., 2013), which are different approaches within cultural developmental psychology, claim that in order to understand people's development, we need to look at people's participation in culturally organized activities (Leont'ev, 1978; Lurija, 1976; Vygotskiĭ, 1978, 1987). I propose now to review a number of issues different approaches have addressed and what this may tell us for a study of gender. As I mentioned, the approaches reviewed here all share the double consideration of the active role of the person in terms of the psychological processes, and the material or social environment. Thus, all the approaches will at least answer one question in each set of the list below, constructing this double anchorage that defines the sociocultural approaches.

The questions that have been addressed in sociocultural developmental psychology can be formulated as follows:

1. In considering the active role of the person:
    (i) What *psychological processes* are developed and explain people's interactions, behaviour and thoughts? How do people reason, argue, understand, imagine alone, with others and in different institutions?
    (ii) What characterises a person at a more personal level? What is it that makes them unique and able to recognise them across situations?
2. In considering the role of the social and material environment:
    (i) What is *the role of the social environment* in people's ways of thinking, acting and/or feeling in the world?
    (ii) What is *the role of the material environment* in people's ways of thinking, acting and/or feeling in the world?

Beyond these shared assumptions, I now identify different issues that have been addressed within developmental and cultural psychologies, which inform my theoretical perspective in this study: the role of action, the studies of children in interaction, the definition of social objects, the study of play,

the role of processes, the importance of a semiotic outlook and the attention to more personal aspects of the person.

In order to clarify the perspective adopted, I will centre my analysis on the approaches that can be defined as sociocultural. And although many other approaches term themselves cultural or sociocultural psychologies (Rosa & Valsiner, 2018), I will limit myself to those who not only share the abovementioned assumptions, but who have a fundamental interest not only for the social and material environment, but who examine the psychological processes that explain change and transformation.

1.2.1. The role of action

Jean Piaget was, at the beginning of the XX century, particularly interested in the development of knowledge. Within his project of a genetic epistemology, he defines a psychology that allows him to explore the processes of knowledge construction in real time (Piaget, 1973). Piaget's psychology addresses the child's understanding of the world and defines the different processes by which knowledge is produced. In so doing, Piaget inaugurates a line of work that can largely be thought of as focusing on psychological processes that are developed throughout life.

Although the centre of Piaget's interest in studying children is to explain the processes through which knowledge is constructed, not only in childhood but also in science, the epistemological assumptions regarding the relationship between the person and the world, in his terms, the subject and the object, confer an active role to the subject. This leads him to consider cognitive structures. Piaget places a strong emphasis in the regularities found in what the subject constructs of the world (Piaget, 1975). As a result of his actions, the subject begins to coordinate and generalize what he can do with the different objects. This is what Piaget calls the level of the coordination of actions for the subject, which he addresses through different notions such as "schemes", "structures" and "operators" (Piaget, 1977). The effort to define these structural characters of knowledge construction is a key contribution to psychology as it defines how the subject coordinates his actions in regular modes of acting. The processes are then defined within certain regularities: the fact that the child learns something new, can do something he could not do before, is evaluated in relation to how she was able to do it in a previous situation, where the elements of the situation were organized in a different way. In this way, Piaget thus inaugurated a line of work which focuses on psychological processes but also on how the subject coordinates his actions individually and with others in order to act in the world.

Within Piaget's team, Barbel Inhelder (1943) was interested in the child's development of knowledge from a psychological perspective. She studied more closely the psychological subject,

different from Piaget's core epistemic interest. This means paying attention to a subject that is situated, with a particular relation to the situations in which he acts. Many studies in psychology, since then, build on Jean Piaget's genetic psychology (1977), and in general on the works of the International Centre of Genetic Epistemology, and Inhelder's ideas but also on Vygotsky's theory of social and psychological development (1987). Within these, many were interested in explaining psychological processes and the role of the social environment in their emergence. They start from an assumption that the subject has an active role in the construction of knowledge, even in socially defined situations. They consider that the primary form in which the subject relates to the world is through action, and take up Jean Piaget (1977) definition of the process of signification or of making meaning as that which the subject can do with the object. In these approaches meaning making appears defined inseparably from action.

1.2.2. The child in interaction

The influence of Vygotsky (1987) further lead scholars to pay attention to semiotic mediation and to social aspects allowing or defining our actions. The line of work further attempt to explain the role of the social environment in the construction of knowledge and the functioning of psychological processes (Perret-Clermont et al., 1991; Psaltis et al., 2009).

With the growing importance of cultural psychologies in the 1990s, in Europe, Piagetian inspired researchers centre their studies on psychological processes in interactions. The works of scholars such as Anne-Nelly Perret-Clermont (2004) and Gerard Duveen (Duveen & Lloyd, 2005; Lloyd & Duveen, 1992) on socio-cognitive conflict, on argumentation, the child's reasoning and the ontogenesis of social representations are examples of such works. Perret-Clermont and colleagues, within the Piagetian tradition (Perret-Clermont et al., 1991), consider the role of the social environment in cognitive functioning (Perret-Clermont et al., 1991). They also understand the social dynamics as constitutive of cognitive functioning. In particular, relevant for this work is that they elaborate on Piaget's ideas on conflict as the motor for development. Piaget (1975) poses that conflicts emerge in cognitive functioning. These psychological conflicts result from contradictions and are due to the emergence of perturbations in the structures. He considers different forms of conflict resolution, focusing on psychological resolutions of a conflict at the level of the subject's coordination of actions. What Perret-Clermont and others propose is that conflict needs to be considered in its social as well as psychological aspects: she proposes the notion of socio-cognitive conflict. The latter is defined as a conflict between different socially experimented viewpoints, then resolved cognitively (Zittoun et al., 1997). Thus, there is a social inscription of the psychological functioning, and an active role of the subject in cognitively resolving it. To understand how conflict could emerge, the authors within this line of research are also

interested in processes of knowledge construction. A large body of research was produced to understand reasoning and argumentation in children (Eemeren & Garssen, 2015; Greco et al., 2018; Iannaccone et al., 2019; Mirza & Perret-Clermont, 2009; Muller Mirza et al., 2009), as it allows observing how points of view can be opposed, and how contradictions can be resolved in interaction. Within this line, other scholars further showed the importance of considering action in relation to the social settings in which it is carried out. Cintia Rodrigues, in particular, showed the importance to analyse the uses of objects, their functions, as action coordination does not emerge in a vacuum but is defined through the symbolic network in which objects are inscribed (Moro & Rodriguez, 1994; Rodriguez & Moro, 2008). These authors thus show two important things for the study of children. First, the need to define knowledge construction and possibilities for action within a socially defined situation. Second, the importance of attending to transversal modes of action in different situations. In my study, I will adopt the social inscription of knowledge construction as a starting point, and reflect on the value of defining aspects that are recurrent in how children act and deal with different situations.

1.2.3. The construction of social objects

In parallel, in Latin America, Emilia Ferreiro, Antonio Castorina and Alicia Lenzi, among many others, define a critical version of Piagetian constructivism (Castorina, 2016; Lenzi & Tau, 2012). This line of work empirically explores children's understanding of different social objects, such as money (Carraher et al., 1991; Faigenbaum, 1997), justice (Barreiro & Zubieta, 2005), death (Tau, 2017), and school authority (Castorina et al., 1991). Their studies have the value of defining which are the characteristics of social objects; what is specific to the interactions people have with them and which defines how they can be understood and acted upon.

Methodologically, many develop experimental designs and use the clinical-critical interview method proposed by Piaget. This method is based on a three-fold structure which considers the perspective of the child as central, and tries, through exploration, justification and counter-suggestion questions, to find out what is the child's point of view, how she justifies it, and what is the stability of the child's construction when encountering opposite claims. These claims about accessing "the child's point of view" have been questioned and reframed as forms of negotiating meaning in a socially defined situation, in which child and researcher interpret and adapt to each other's demands and expectations (Arcidiacono & Perret-Clermont, 2009). But although experimental settings prove useful for the study of knowledge construction, they remain limited when there is an interest in preference or choice of the child, as the researcher establishes the setting. In what follows, I will show the value

of spontaneously defined settings for the study of other aspects in child development, although I will retain some aspects of the use of counter-suggestion to explore children's ideas (see Chapter 5).

In terms of their research questions, these authors then attempt to understand the socially constructed nature of the objects, and they focus on the epistemic functions by which the world becomes intelligible and interpreted for children. One of their main contributions is the definition of the characteristics of each object and how they frame the possible forms of interaction with that object. In particular, they bring forward the normative "weight" of objects, that is, the values and expectations that fall upon social objects. This constitutes a novel proposition within the Piagetian tradition.

Other authors within sociocultural psychology define the specificities of certain social objects. Elinor Ochs (1993; Ochs & Capps, 1996; Ochs & Schieffelin, 1984) and Clotilde Pontecorvo (Pontecorvo, 1993; Pontecorvo et al., 2001; Pontecorvo & Fasulo, 1999) study the role of language in broader social and psychological dynamics. Particularly, Ochs looks at the role of language in socialization (Ochs & Schieffelin, 1984), in the development of social identities (Ochs, 1993) and of narratives in the construction of the self (Ochs & Capps, 1996). She develops a line of research that brings forward the importance of language in the understanding of socialization, as well as the cultural framing of the process of language acquisition (Ochs & Schieffelin, 1984).

In their empirical studies, Pontecorvo and colleagues study children's participation in school discussions (Orsolini & Pontecorvo, 2009), moral and social discussions at dinner times (Pontecorvo et al., 2001; Pontecorvo & Fasulo, 1999), the socialization of taste (Ochs et al., 1996), as well as children's construction of historical notions (Pontecorvo & Girardet, 1993), among many others. Within this line, Aarsand & Forsberg (Aarsand, 2010; Aarsand & Forsberg, 2010) use video-taped ethnography to study family life and children's gaming activities. Methodologically, they collect "naturally occurring data" (Flick, 2009) which includes conversations and practices at home, focusing mostly on conversations, and sometimes on bodily movements accompanying such conversations (Aarsand & Forsberg, 2010).

In particular, in their studies on the socialization of taste in children across dinner situations and conversations (Ochs et al., 1996), the authors show, by studying the way in which food is spoken about, the ways in which children come to be able to take part and express themselves on food and taste in interaction with adults. The families' ways of "doing dinner" resembles, in a way, the socialization into "doing gender". Yet, dinner as a social practice has a different status than gender: the latter constitutes a central element for defining oneself and feeling about oneself; it is a form of operator that intervenes in various situations, while doing dinner pertains specifically to that particular activity or to eating in general.

By analysing the role of language acquisition in children's socialization, the authors are able to infer that the ways in which linguistic interactions are structured can tell us more broadly about the

way in which child-adult interactions are structured in certain groups. This is mostly done by tending to parent-child early interactions which can be verbal, motor, based on intonation, etc. Nevertheless, what is of interest is how all these elements support and hold the process of language acquisition by the young infant. Adults can either adapt the situations to the child or try to adapt the child to situations, which is also what is done more broadly in other socialisation situations. Thus, Ochs and colleagues (Ochs, 1993; Ochs & Schieffelin, 1984; Ochs et al., 1996) address the cultural framing and the adult guidance. This raises a question I tried to address in the present study: adults guide interactions and pattern the way in which these will take place by doing specific tasks, like teaching the child how to speak or how to eat; then, the children find themselves in other situations where they may reproduce some aspects of these frames; but which do they take as are and which do they change? What is the active role of the child in this process? What is children's degree of freedom in the personal appropriation of cultural constraints?

1.2.4. Play and ethnography

Certain cultural-historical approaches attempt to understand children's actions but also the activities in which they take part, the different situations and forms in which children can act in these situations. Marianne Hedegaard and Marilyn Fleer (Hedegaard, 2012; Hedegaard & Fleer, 2015, 2019), through interviews and ethnography, examine activity systems in which people participate and that frame their ways of being and their interactions.

Methodologically, these studies examine spontaneously occurring every-day life activities in which children take part, such as walking to school or doing homework. They propose to look at the child's margin of freedom in the participation in culturally defined situations through the notions of motives, motivations and intentions (Hedegaard, 2014, 2014). In this perspective, humans are considered to act based on intentions, motives and motivations. Intentions define the goal-directedness of actions. Motives are dynamic aspects of self-other relations that are more long lasting than intentions, which are more grounded in the specific situations in which people act. What the authors argue is that "children's motives, cognition and identity formation take place through participation in everyday life in communities within different institutions" (Hedegaard & Fleer, 2015, p. 187).

Empirically, these authors start from considering the participation of children in cultural practices, such as school tasks, going to school or getting dressed, which allows them to connect different levels of social and personal dynamics. They define a state, an institutional and a personal level at which there is change and development, and suggest that the three need to be considered in relation to cultural practices, in order to understand children's development. For example, in order to explain

how children participate and feel in school situations, they consider “cultural traditions” (Hedegaard, 2005) in different countries –such as Denmark and Turkey-, parents’ and teachers’ expectations and forms of framing activities, as well as school regulations on tasks and discipline. It is in the concrete practices -such in the school task- that we can see the children’s motives, the different value positions defined by the institutions, as well as the parental positions that transpire in everyone’s participation in cultural and institutional practices. These practices comprise situations like eating dinner, behaving in school or celebrating a person’s birthday. It is interesting that the notion of motives addresses a personal aspect: it is that which guides intentions, it is long-lasting, and allows recognizing the person across situations –such as someone for whom it is important to train to get be a better student.

Methodologically, these authors show the value of ethnographic studies in psychology and in particular, for studying different cultural practices in which children take part. Such an approach allows the researcher to become familiar with the environment, to establish trusting relations with participants and to be able to engage with what matters also for the participants beyond the specifics of a research question.

For this, some other authors have chosen to study play in particular to understand children’s actions, social identities and knowledge construction, among others. Play has been studied from all sorts of perspectives and disciplines, but within sociocultural psychology, most build on Vygotsky’s idea that play creates a zone of proximal development for the child. In this sense, research looks at how the child progressively acquires the ability to do “pretence” (Singer & Singer, 1990), but also how the presence of others allows the child to develop cognitive abilities and psychological functions (Sluss & Stremmel, 2004). Winther-Lindqvist (2009), for example, studied how children construct social identities and negotiate them while playing games in school through an ethnographic approach. She shows the richness of attending to play to explore children’s worlds. Similarly, Pernille Hviid (2008; Hviid & Villadsen, 2017) argues that play is a fundamental existential activity in which children engage and in which they fully engage as persons, beyond it being a mere tool for assessing some level of competency of the child. These authors privilege ethnography to enter and understand the worlds of children’s play. This idea that play has a fundamental function in children’s social and cognitive development is adopted here in this study and expanded upon, because as Hviid (2008) shows, it also allows us to look at more broad personal dynamics of children’s engagement with the world and their development as persons. But what of play situations can be analysed and looked at?

1.2.5. The role of semiosis and the person

Sign-based approaches are primarily concerned with meaning making, and assume that mind is possible through language, signs and/or narration. The starting point of these perspectives is that

what characterises human mind is that it can proceed through substitution –impressions are substituted by signs, signs by images or representations by narratives.

A first line of semiotic perspectives, the narrative approach, develops from the works of Jerome Bruner. In proposing a narrative approach to cultural psychology, Bruner (2004) defines another form of thought that is not reasoning but that is the use of narratives to construct our "autobiographies" (Bruner, 2004). Empirically, he develops a line of work which focuses on how people tell stories about themselves and others, and where they deploy such narrative mode of thought. The narrative approach places strong emphasis on the sense that people attribute to their experience: the unique idiosyncratic way in which they come to tell stories about their lives, which have a social root and may reproduce culturally defined forms, but are always mutually defined in a unique way (Bruner & Haste, 2010). It also is one of the first to show that people construct stories based on the internalization of narrative cultural models that are present in the environment (Bruner, 2004).

One of the core theses of the approach is that "we seem to have no other way of describing "lived time" than in the form of a narrative" (Bruner, 2004, p. 692). He believes that "we become the autobiographical narratives by which we "tell about" our lives" (Bruner, 2004, p. 695). He argues that "life" imitates narratives (Bruner, 2004). What this means is that there is no "life" outside of the narratives we tell about ourselves and our lives, but in a very specific sense: he does not eliminate the fact that there is a world beyond our stories of the world, but he is concerned with the psychological construction of a life through narratives, which "eventually (…) achieve the power to structure perceptual experience, to organize memory, to segment and purpose-build the very "events" of a life" (Bruner, 2004, p. 695). The material world is considered by Bruner as a "scene", as the personal and inter-personal construction of psychological spaces or geographies (Bruner, 2004). Other authors within this line (Nelson, 2003) argue that it would be fruitful to consider, alongside the fundamental function of narratives, the possibility for there to be experiences, actions and feelings that do not have a narrative structure, and that also constitute what or who we "become". Katherine Nelson (2003) also develops the narrative approach in cultural psychology, focusing on autobiographical memory. She focuses primarily on the development of memory and particularly auto-biographical memory in children and adults (Nelson, 1993, 2003). It is noteworthy that Nelson's perspective on experience, while largely focused on narration, does not limit experience to it: experiential time can be different from narrative time. Memory is considered in its psychological and social function, and in relation to narrative as a medium. But does autobiographical memory exist in a non-narrative form? Bruner (2004) sees narrative as an inherent mode of thought, while she poses that the "narrative form is a cultural invention, one that may be adopted by individuals in organizing their own autobiographical memories" (Nelson, 2003, p. 129). She thus does not subsume all experiences to narratives. Although it is through narration that she considers how memory functions, she accepts the premise that

experience may not have a narrative structure, and narration is a process through which a certain temporal and logical form is given to experience. In terms of her model of the person, she understands memory in relation to "life stories" (of narrative structure) told in dialogue, and in relation to the "self-system" (Nelson, 1993, p. 8). Children's autobiographical memory emerges through the construction of a narrative form in interaction and develops later than episodic memory.

Empirically, she studies how children's experiences are narrated in dialogue with others and then become psychological, by developing a narrative form (Nelson, 1989). In particular, methodologically, she bases her analysis on "naturally occurring data" (Flick, 2014) such as conversations recorded by parents, which expands the possibility of capturing the child's personal way of making sense of her experience.

Through this, Nelson (2007) further presents a developmental model of representing, where there are different levels of representation that can coexist and define the way in which we think and recall events (Scholnick et al., 1999). Representations can proceed through different modes that define the mode of possible expression for representations, whether elaborated accounts of events or diffuse feelings. These are psychological processes that, coordinated with one another, specify the model of the person the author develops.

Another perspective which shows the importance of attending to semiosis and that I wish to consider is a holistic approach to the person and her environment. Jaan Valsiner (1987, 2000, 2014) defines a semiotic cultural psychology that looks at the role of signs in mind. I will come back to these propositions in detail in what follows, as it constitutes the approach I adopt in this study. The authors following this line attempt to make sense of the way in which culture guides the person in constructing her world (Valsiner, 2007, 2014a, 2019; Zittoun, 2018, 2020) by claiming that mind is better apprehended at the level of a smallest unit of analysis of mind: that of signs –things that designate other things for a given mind (Peirce, 1894; Zittoun, 2014). Mind and human action are considered to be enabled by semiotic mediation (Vygotskiĭ, 1987), resulting from the internalization of signs into mind, traces of past experiences and their combination and creation into new syntheses (Lawrence & Valsiner, 2003; Zittoun & Gillespie, 2015b). Valsiner (1997, 2001; Valsiner & Lightfoot, 1987) and Zittoun (Cabra & Zittoun, accepted; Zittoun, 2018, 2020; Zittoun et al., 2021) develop this semiotic perspective in which they consider the role of the social and material environment and their normative and constraining aspects in the emergence of psychological processes and they attempt to propose more holistic models of the person (Zittoun, 2012; Zittoun et al., 2013).

Pernille Hviid & Jakob Villadsen define a Cultural Lifecourse Perspective to people's development (Hviid, 2008, 2016; Hviid & Villadsen, 2014). The authors understand development within what Vygotsky defined as a "social situation of development" (Vygotskiĭ, 1987) and by considering people's concerns and engagements. The social situation of development is a way to understand the social and

material environment through its organization and significance in relation to the child. People's engagements are defined as "situated zones of potential development. They unite potential interests of the child with certain aspects of the environment. Like interests, engagements does not stem from inside but are created by the child *in* the situation she experiences" (Hviid, 2008, p. 184). Concerns, on the other hand, are more personal, long-lasting questions that underlie engagements and that provide a certain coherence or orientation to how people live their lives. As we can see, this approach considers psychological processes in their relations to one another, and in defining together what a person can and cannot do in different situations, that is, they define a model of the person. They further consider the social environment in which interactions take place. By employing the concept of social situation, they nevertheless focus less on the material environment or on the relationship between different socializing institutions in the lives of children. These last semiotic and holistic approaches to development thus propose different models of "the person".

1.3. Defining a sociocultural perspective

The developmental approaches in sociocultural psychology discussed share the core assumption that development takes place through people's actions and participation in culturally defined activities. Language, communication and meaning making are defined as emerging in relation to action. These approaches primarily explore the social dimension of the construction of knowledge and they propose different processes to account for it. Particularly, Piaget shows the value of considering the subjects' coordination of action (Piaget, 1977), that is, the level of the person. Perret-Clermont and colleagues (Perret-Clermont et al., 2004) highlight the importance of considering conflict and conflict resolution in socially defined situations, while Castorina and colleagues (Barreiro & Zubieta, 2005; Castorina et al., 1991; Lenzi & Tau, 2012) develop the normative weight certain objects and interactions can have. Hedegaard & Fleer (Hedegaard, 2005; Hedegaard, 2014), develop notions to follow people's transformations in time. They all show the role of the social environment in interactions (Castorina et al., 1991; Hedegaard & Fleer, 2015; Psaltis et al., 2009).

Some of these studies have methodologically the importance of tending to the subject's level of organization of actions (Castorina et al., 1991; Piaget, 1975, 1977; Tau, 2017) by methodologically developping experimental designs that have the value of employing the clinical-critical method and particularly, counter-suggestion as a strategy to explore children's point of views.

The semiotic approaches to cultural psychology in turn, tend to non-linguistic semiotic systems, allowing to consider the role of the material environment (Moro & Rodriguez, 1994; Rodriguez & Moro, 2008; Zittoun, 2020; Zittoun et al., 2021), while others propose different models of "the person" (Hviid, 2008; Hviid & Villadsen, 2014; Zittoun, 2012; Zittoun et al., 2013).

Empirically, many of these studies show the value of collecting "naturally-occurring data" in order to grasp the joint work of social and psychological dynamics (Aarsand & Forsberg, 2010; Hviid, 2008; Nelson, 1989; Ochs et al., 1996; Pontecorvo et al., 2001; Zittoun, 2020), a finding I will come back to in the methodological chapter (Chapter 5).

For this study, I define gender as a social object people interact with in socially defined situations. I also tend to the relationship children engage in with this object as it done in time and changing. In order to do this, I tend to play through an ethnographic approach and look at uses of signs as it allows tracing gender markers across situations. Finally, I look at more stable and personal aspects which define certain aspects of who we are as people.

In what follows, I will show that the semiotic approach in cultural psychology allows tracing gender markers transversally across verbal, material, enacted and symbolic forms, as well as their normative function and the person's margin of freedom in the reconstruction. Moreover, I will tend to the material dimension of the environment, by posing that signs are what circulate between the social and the psychological. Adopting this proposition will allow me to trace gender markers as signs across situations and modalities of expression. In the next section then, I consider the different processes and aspects that the semiotic perspective develops, which will allow me to assess their value for the study of gender development, and to then propose a conceptual model and a set of hypotheses that I derive from it and which I have will try to demonstrate in the results (Chapter 6).

2. The semiotic point of view in cultural psychology

As I have argued, within cultural psychology, many authors propose models allowing to account for the ways in which humans organize their experience so as to develop complex forms of thinking and action. Jaan Valsiner (1997, 2000, 2007, 2019) among others, develops a semiotic approach in cultural psychology, building on the works of Lev Vygotsky, Charles Sanders Peirce, as well as Tartu semiotics (Valsiner, 2007). He proposes a theory of social and psychological dynamics around a core idea: that of semiotic mediation, which suggests that what circulates between psychological, social and material worlds are signs (Valsiner, 2007; Vygotsky, 1987).

Given that the interest of this study is to understand gender development, and more specifically, how gender emerges and is organized in different situations, dialogues, activities, and through different objects and people, I define an approach that allows me to trace gender markers transversally across verbal, material, enacted and symbolic forms. The semiotic perspective in cultural psychology, by posing that signs are what circulate between the social and the psychological, allows tracing such gender markers as signs across modalities of expression.

In what follows, I broadly define such semiotic approach in cultural psychology and consider three main aspects that sow together the propositions of this thesis. These three points constitute possible answers to the questions presented in the previous section: (i) how does the social and material environment guide people's development? I will argue that signs are considered to regulate mind thanks to the process of *social guidance* (Valsiner, 2001), and that social guidance has a fundamentally normative character (Valsiner, 2018a); (ii) what psychological processes are involved in people's meaning making? Signs allow people's thinking, acting and communicating in the world, through their *internalization and externalization* in different modes of combinarion; (iii) what is the proposed model of the person? Concerns, engagements (Hviid, 2008), spheres of experience and patterns (Zittoun, 2020) are attempts to define aspects for a model of the person within this perspective, and I will discuss the value of such propositions for the understanding of gender.

2.1. Signs and semiosis

Broadly, the semiotic approach in cultural psychology is an attempt to make sense of the way in which culture guides the person in constructing her social and psychological world (Valsiner, 2007, 2014a, 2019; Zittoun, 2018, 2020). As mentioned, this perspective suggests that mind is better apprehended at the level of its smallest unit of analysis: that of signs –things that designate other things for a given mind (Peirce, 1894; Valsiner, 2007; Zittoun, 2014).

A sign according to Peirce, is "an object which stands for another to some mind" (Peirce, 1873/1986, p. 55). A traffic sign, a comforting word or a song can all be defined as signs. Every sign can further give rise to other signs in an infinite recursive movement. For example, a traffic indication may be a sign primarily to tend to the slippery road ahead of me. But it can become a reminder of the pending driving exam I need to pass. To understand this, Peirce claims the sign has a triadic structure composed of the sign, the interpretant and the ground. The triadic relation is defined as there being something, which stands for somebody for something in some respect or capacity. It addresses somebody, that is, creates in the mind of that person an equivalent sign, or perhaps a more developed sign. That sign which it creates he calls the interpretant of the first sign. The sign stands for something, its object. It stands for that object, not in all respects but in reference to a sort of idea, which he calls the ground (Peirce, 1955, p. 99). In the example above, the same sign –the traffic indication- can refer to different interpretants and grounds, that is, different ideas and objects –the road or the exam. But it can also give rise to other signs: all other indications on the street may become signs for traffic signs, thus making them the object.

The use and transformation of signs has been called s*emiosis*. It is the "process of construction and use of signs of different kinds (..) that guides the person's development, eventually leading to

semiotic regulation of the self" (Valsiner, 1998, p. 281). What this means is that human mind and action become enabled by what is defined as the process of *semiotic mediation* (Vygotsky, 1987). Through the internalization and externalization of signs, people come to make sense of the world in which they live as they engage in *semiotic work.*

These definitions of semiotic mediation, signs and semiosis come from the use, within cultural psychology, of claims developed within the linguistic field of semiotics (Valsiner, 2007). Semioticians argue that semiotics "provides not a method first of all but a point of view" (Deely, 1990, p. 10). When considering ideas, authors claim that these "are not self-representations but signs of what is objectively other than and superordinate to the idea in its being as a private representation" (Deely, 1990, p. 10). Semiotics, then, or the semiotic point of view, is concerned with the emergence and transformation of signs, considered to be the minimal unit in the functioning of mind.

2.2. Social guidance: the role of the social and material environment

When applied to the problem of meaning making, action and thinking, the semiotic approach leads us to consider the role of all forms of signs and networks of signs in the world of humans, as well as to their functioning in mind –how they are reconstructed and used further in relation to other signs. This is defined in cultural psychology through the term of *social guidance*, referring to the fact that signs have a role in the organization of people's thought, action and communication in the environment, and through the *internalization and externalization* processes for reconstruction and further use of signs (Valsiner, 2007).

Jaan Valsiner largely studied and used the notion of social guidance, albeit never specifically defining it (Zittoun, In press). If we look at the term guidance, etymologically, it means directionality for motion (Murray, 1884): the presence of a certain directionality for movement that can have effect, modulate or produce the movement, of any sort, in that direction. Its characterization as social refers to the fact that the directionality in movement is defined by humans in their relations, in their different systems, homes, schools, cultures and societies.

One of the epistemological assumptions of cultural psychology, presented above, is that directionality is a central aspect in the becoming of systems. Because of the irreversibility of time, a direction in motion and transformation can be identified when looking at development. Thus, we can say here *that social guidance is the process by which directionalities are defined within social and psychological systems in their becoming.*

Social guidance in semiotic terms is theorized in terms of systems and fields (Valsiner, 1997, 2019; Valsiner & Lightfoot, 1987). Valsiner starts from considering the notion of field proposed by Lewin (1936) to theorise the space in which children can move and act. He later on keeps the notion of zone

and pattern to account for it. This allows looking at the directions set within networks of signs in interaction. Authors in this line study how spaces and other people guide behaviour in terms of zones or patterns (Valsiner, 1997, 2019; Zittoun, 2020). For example, Jaan Valsiner (1997) conducted a study on how children progressively learn to use a spoon and proposed that there are different zones –of promoted and possible action and of proximal development- where adults use objects with children, such as providing a malleable spoon or guiding the hand of a child, and the child reconstructs such guidance within the zones that establish the realm of possibilities for action for the child and her participation in this socially defined situation. In her study of a hill, Tania Zittoun (2020) describes the patterns of movement found in folk-rituals and people's daily routines which she proposes can be metaphorically interpreted as following certain patterns of the geography of the hill. In these cases, relational and material aspects of interaction are considered to play a fundamental role in development (Lloyd & Duveen, 1992; Valsiner, 1997; Zittoun, 2020). Through them, people learn how to move around the classrooms, to avoid dangerous plugs, play with princesses or dragons, deeply marked by relational, geographical and spatial arrangements of their surroundings (Spark et al., 2010; Valsiner & Lightfoot, 1987).

Another example of patterned guidance is Valsiner's (2019) study of ornamentation. He shows that the upward pointing of shapes and figures in a Catholic church lead our eyes to higher points of the building and thus, maybe, to higher places closer to God, in the skies or Heaven. He proposes that these ornaments guide our psychological experiences because they have three important characteristics. They first have a high redundancy, or repetition of form, such that they can be recognized in many places. Second, they involve directionality of suggested movement (enacted or in thought): they guide movements in one or another direction. And third, they are perceptually peripheral but semantically central, that is to say that they provide the semiotic framing for the possible movement, although they are not part of any conscious deliberation. His basic thesis is that "it is through the peripheral experiencing of external ornaments that we develop their internal field-like counterparts in our minds" (Valsiner, 2019, p. 11). This field-like counterpart that we may reconstruct in our mind is a symbolic reconstruction of the guidance provided by the objectivized field. Zittoun (2020) proposes to extend this proposition to the material and symbolic arrangements of our everyday life, and I will follow this idea to look at these recurrences in places such as bedrooms and classrooms.

Within socially guided actions, the paths or ways of doing can be more or less imperative: in different moments of a person's life, certain norms become more or less relevant depending on the situation, the people present and the action in which they are engaged in. For example, it may be the case that a child can never touch a plug, because he would get electrocuted, but a teenager can decide to provocatively write an informal essay to make a point. Depending on the domain and the possible

consequences of violating a norm, these can become more or less imperative. Valsiner (2018a) thus claims that the process of social guidance has a fundamentally normative character (Valsiner, 2018a) and the normative weight of each action is defined within the situation and between the people involved. He argues that it is only by looking at how norms are constructed, by people, in relation to other people and in a shared environment that we can understand why they are fundamental for the functioning of any social group or collective. In this approach, norms are considered "cultural tools –made possible by sign mediation –that mediate the personal and collective movement towards the immediate future" (Valsiner, 2018a, p. 10).

But it is not simply that some actions have a normative character and others do not: Valsiner poses that all human psychological phenomena are normative (Valsiner, 2018a). Normativity is considered to be what sets human systems apart from others and that "the normativity of the psyche is the developmental result of the interiorization processes from the materials available in the social environment –but not reducible to the latter" (Valsiner, 2018a, p. 9). Thus, from social normativity, the psychological normativity comes from internalizing, through the available material, a certain way of establishing relations between things –"when I see the sun comes up, I must wake up" relating my looking at the sun, to getting out of bed.

For Valsiner and colleagues, normative systems, at a social level, such as how one is expected to behave at work or brush one's teeth, are considered to be socially crystalized (Zittoun et al., 2003) in everyday-life arrangements. The ways in which desks are set in an office and the types of objects that can be found –pens and paper, clips, computers, and no drinking glasses, party dresses or costumes– provide guidance of what things are or are not possible in each setting.

Formally, such social guidance is understood as made of semiotic constraints. Drawing on Lewin's (1936) model of fields of possible movement, Valsiner defines constraints as what creates partitions in a field of otherwise indeterminate possibilities (Valsiner, 1997, p. 50). In that sense, norms are derived from constraints creating the "bounded indeterminacy" of developmental processes: they create directions for development, which are not imposed, but orient the infinity of possible forms. Norms are then generalizations from the repeated encounters with such constraints and can be defined as emerging configurations or sets of relations.

But norms are not simply there: they are constructed through experience. By playing, children test their limits, explore their boundaries and appropriate them depending on their consequences. Through imagination, adults engage with their transgression, their enforcement in an unfair situation or their transformation to avoid a social catastrophe. More so, through thinking, arguing, discussing, people give form and transform norms, statements and scenarios. We can engage with a foreign world while sitting in a small windowless apartment and then feel better about our confinement, or yet decide to breach it and leave. These are processes that can explain how norms change and emerge

both at a social and a psychological level –and they have been a central part of sociocultural psychological research (Valsiner, 2019).

Furthermore, the modes in which norms are cristalized in spaces and mediating our relationships to others thus leave traces in the ways in which we then act, think and remember (Zittoun, 2020). Social guidance is considered to take place through *semiotic mediation*, the mediation of signs in experience and thought, what I have defined above as the basic premise of a semiotic perspective.

2.3. Internalization and externalization: psychological processes and the active role of the person

As I have defined it before, semiotic mediation refers to the fact that signs, born in culture, between people or in thought, carry meaning and mediate thought and action (Valsiner, 2001, 2014a). Semiotic mediation implies that signs make the very flow of our consciousness possible, and also that they guide it. Mind is enabled by semiotic mediation, that is, the mediation of signs (Valsiner, 2001; Zittoun, 2018). They have a role in the organization of the on-going flow of experience as they give form to the immediate ways of being in the world, or to our future orientation (Valsiner, 2017). Through our words and thoughts we make sense of what has happened, act in the present and imagine what is to come. Signs in their relations allow us not only to think and communicate but also to organise and make sense of what we experience, in order to invest possible futures yet to come.

Yet, how does this semiotic mediation take place in human minds? What role does the person play in this guidance and mediation? Internalization and externalization are the two processes through which semiotic mediation takes place (Valsiner, 2007). The notion of internalization, initially presented by Vygotsky, refers to the fact that: “Every function in a child’s cultural development appears twice; first, on a social level and later on an individual level; first, between people (inter-psychological) then inside the child (intra-psychological)” (Vygotsky, 1978, p. 57). It is “that which allows an active engagement and reconstruction of the social” (Vygotsky, 1978; Zittoun & Gillespie, 2015b), “the process of analysis of externally existing semiotic materials and their synthesis in the novel form in the intra-psychological domain” (Valsiner, 2007, p. 340). Specifically, what is reconstructed is not signs or meanings in themselves, but “a propensity for a certain movement, a simplified guidance pattern” (Zittoun, 2020, p. 144). And at the same time, while internalizing, people establish relations with other interests and wishes, memories of the past, relationships, possibilities and impossibilities. A parallel and complementary process to internalization is that of externalization: “externalization is the process of analysis of intra-psychologically existing (subjective) personal-cultural materials during their transposition from inside to outside of the person and the modification of the external environment as a form of new synthesis of these materials” (Valsiner, 2007, p. 340). Yet, this supposed “transposition”, although based on previously internalized elements, always entails a modification of

what is externalized, it is always becoming. And externalized forms can appear in different mediums: people may speak, draw, sing or dance; there are different semiotic modes through which sense-making and communication are possible (Cabra, In press; Kress, 2010).

Thus, if mind is enabled by semiotic mediation, and this takes place through internalization and externalization of signs, then, I can now define *social guidance as the process through which social and psychological systems set directionality for motion –whether symbolic or practical, and in more or less normative ways- through the processes of internalization and externalization of signs.* But how does this process of analysis of existing forms in mind or in the world take place? Why can we do or think of certain things rather than others? In order to understand this, I need to consider more stable aspects which define who we are, and authors' proposed models of the person.

2.4. Models of the person

Within sociocultural psychology, different aspects to define models of the person have been presented as attempts to account for that which remains across developmental change, that which allows us to feel who we are or to recognize ourselves in different situations. Hviid (2008; Hviid & Villadsen, 2014) and Zittoun (2004, 2012, 2020) articulated different propositions I now consider.

Pernille Hviid and Jakob Villadsen (2008; 2014) propose a model of the person that draws on existential philosophy for its articulation. Empirically, they adopt an ethnographic approach to the study of children's interactions in day-care centres (Hviid, 2016). This approach allows them to consider the children's engagements as unfolding as they participate in different activities in school. Conceptually, they argue that children and people in general develop "concerns", which are existential questions, emerging in their life, which frame and guide their engagements (Hviid, 2020). Central questions about human life, death, and of meaning, would be the basis of why people do or think about certain things and not others. A fundamental concern about the finitude of life might guide the choice of a certain work path as a forensic doctor or a biologist. "Engagements", in turn, are situated forms of "feeling-into" particular situations of being merged in and within the world. The choice of looking for clues in bodies to determine the cause of death or researching cures for viruses may be examples of such concern-framed engagements. Although there is in these propositions an articulation between reasons for actions, thinking and action, the definition of concerns as guiding people's lives through "questions" raises two issues that remain unanswered: where do those questions come from? And, if what guides a person is a question, are there no recurrent modes of answers that characterise her? These are questions that are treated by another author within semiotic cultural psychology who proposes analogous aspects for a model of the person.

Tania Zittoun, in attempting to construct a model of the person, develops a few metaphorical propositions. References to knitting and stars (Zittoun, 2012), spheres (Zittoun et al., 2021) or melodies (Zittoun et al., 2013) are examples of such metaphors used to model more integrative aspects of people's lives. Empirically, she has mostly studied the development of the person through interviews (Zittoun, 2004, 2006), diary analysis (Zittoun et al., 2008) and analysis of documentary films (Zittoun, 2017a) although more recently, she has moved to adopt a more ethnographic approach to the phenomena under study –such in her recent study of a Czech hill and of older adults (Zittoun, 2020; Zittoun et al., 2021).

If we take her propositions chronologically, in her study of parents' choice of names for their children, she first proposes an extension of the Freudian psychic apparatus (Zittoun, 2004), which constitutes an attempt to integrate affects in the dynamics of meaning making. Yet, in this initial proposition, there is no reference to "what remains" with what changes: how do we recognize a person across situations? What is it in people's lives that is recurrent and stable? The Freudian apparatus and its extensions are conceptual propositions, which are non-observable, and where their possible forms of expression would merit to be explored. In this model, Zittoun (2004) defines the role of affects as psychic traces, which accompany semiotic work.

Later on, in studying young people's transitions and uses of symbolic resources, to answer this question, Zittoun (2006, 2015; 2021) proposes that the person can be considered through the configuration and reconfigurations of spheres of experience. These are considered to designate "a pattern of activities, modes of engagement, feelings, relations, and so on, that is sufficiently recurrent for a person to feel *the same* across time and space" (Zittoun et al., 2021, p. 3). If we consider the term closely, the idea of sphere hints to a form where boundaries can be defined. Second, it is a sphere of *experience*, which means that it is the result of something that could be defined as experience. In the work of the author, she claims that "experience is semiotic" (Zittoun & Gillespie, 2015a, p. 1). In so doing, she seems to move to equate experience and semiosis (Zittoun & Gillespie, 2015a). Yet, in her previous understanding of affective dynamics (Zittoun, 2004), the possibilities of the psyche for experiencing are based on different "modes of representing" (Zittoun, 2009) or the different types of psychic traces, which can be more or less semiotized. Furthermore, Zittoun & Gillespie argue that experiences "can be layered experiences, including activities, and their embodied, emotional and aesthetic counterparts" (Zittoun & Gillespie, 2015a, p. 6). If we take these two claims together, does an experience already have a structure or does it become apparent when constructing a "sphere"? Furthermore, spheres of experience appear to be defined by putting in the same plane of analysis feelings, activities, etc., and, if experience can have a more or less semiotised form, and have "embodied, emotional and aesthetic *counterparts*" (Zittoun & Gillespie, 2015a, p. 6 emphasis added),

how is a sphere semiotic and not semiotic at the same time? What are the boundaries for such spheres?

One way to overcome these contradictions may be to define them as *semiotic spheres*, remaining at the level of semiotic translation of experiential aspects, and to consider for that three indications in people's externalization, which are always already semiotized: i) the task, activity or parcel of knowledge the person is referring or involved in –such as "having a coffee with friends"; ii) the self-referential aspect of such an activity –that is, which identification aspects it brings up for the person (the mother, the one who always wins, the boss); and iii) the affective valence or quality accompanying the task or activity –such as warm feeling of support or excitement of competition.

In a recent move, Zittoun (2020) starts considering patterns in psychological activity which are strongly linked to the social and material environment in which they emerge. In an ethnographic case study of a Czech hill, she explored these patterns as emerging from an abductive movement within certain repetitions within spheres of experiences. Yet, in her work, there is no distinction between social and psychological patterns. When speaking of psychological constructions, patterns are semiotic and dynamic, and they constitute the result of the internalization processes. But when speaking of patterns in materiality, these are defined through the ideas of decantation and materialization (Zittoun, 2020).

Spheres of experience may provide useful tools to study older children and adults; yet, the focus on discursive modes for their definition limits their use for the study of younger children's development and their modes of acting. As the child starts to be able to use language and participate in communicative situations, the fluidity of semiotic configurations in childhood may come first from adult or spatial patterns than from the construction of semiotic spheres which are less defined for the child. They further may have affective roots or reverberations. The notion of pattern, in turn, may require a conceptual distinction to separate social and psychological aspects of patterning experience. It is the patterned aspect of psychological activity I propose to consider as one aspect which might participate in defining a model of the person within the semiotic perspective.

2.5. Synthesis

The semiotic approach in cultural psychology provides a fruitful entry point for the study of gender for several reasons. First, it builds on previous research showing the importance of tending to the role of action in development, the specificity of social objects and the socially defined nature of interactions. Second, it defines a unit of analysis which makes it possible to trace social markers of gender across situations and people's modes of action. Third, it proposes processes through which the social guides and provides a normative ways to possible ways of acting in the world, at the level of

people and at the level of the social world. Fourth, some authors within this perspective define a model of the person or parts of it that contextualizes such processes and integrates them within people's development across the life-course. And fifth, they empirically define an ethnographic approach which allows collecting naturally-occurring data bringing forward the mutual work of social elements and personal dynamics.

In terms of the conceptual propositions, so far I first defined social guidance as the process by which directionalities are defined by social and psychological systems in their becoming. I claimed that if mind is enabled by semiotic mediation, and this takes place through internalization and externalization of signs, then social guidance is the process by which social and psychological systems set directionality for motion –whether symbolic or practical, and with different normative weight- through the processes of internalization and externalization of signs. I argue that this raises the question of *what directionality does the social and material environment set for people's interactions and activities?* Secondly, in presenting the parallel and complementary process to internalization, I claimed that externalized forms could adopt different mediums, that there are different semiotic modes through which sense making and communication are possible. This claim thus raises two complementary questions: *What are such semiotic modes? And is there some logic or recurrent forms of externalization?* Thirdly, when considering people's internalization, what is reconstructed is not signs or meanings in themselves, but "a propensity for a certain movement, a simplified guidance pattern" (Zittoun, 2020, p. 144). And at the same time, while internalizing, the person brings other interests and wishes, memories of the past, relations, possibilities and impossibilities that make her who she is and recognizable across situations. The question that emerges there is: *what are these more stable and personal aspects of a person's life?* In what follows, I attempt to provide some answers to these questions.

3. Moving forward

I defined in this chapter the general field which has contributed to define the theoretical framework of this study. I first presented commonalities of cultural and developmental psychologies, in terms of epistemological assumptions and conceptual propositions, as well as their conceptual and empirical contributions to cultural psychology. I discussed different fields of problems these approaches have contributed to and then defined specifically the semiotic perspective adopted for the study of gender development. I lastly indicated certain questions that remain unanswered in this line and that I try to address in the following chapter. Thus, in order to answer where do the differences in how children do gender come from, I propose to explore several sub-questions*: Where can we find gender in people's lives? How does the social and material environment guide children's interactions in*

relation to gender? What is the margin of freedom children have in its reconstruction? What defines this margin of freedom? Do children appropriate elements of the gender system? If so, is there some logic, typology or recurrent form in doing gender? Do children internalize the gender system? If so, what is the result of such a process? What is stable in time of this construction?

Methodologically, I will build on some of the propositions of the authors, to define an ethnographic approach to the study of gender in children, by focusing on situations of play through naturally occurring data, because of the possibilities that this approach offers in looking at the joint work of social and psychological dynamics.

Conceptually, I will define gender as a dynamic semiotic system, which socially guides and provide a normative weight within which certain actions are possible. This allows considering the social aspects of gender with the materiality, and their transformation in time. Secondly, I will explore recurrent modes of externalization I call combinatory modes. And thirdly, I will propose that psychological patterns result from the internalization process and account for stability in how a person acts and feels about herself in her life. I now expand these conceptual propositions and present the model and heuristic hypotheses I explore in this study of gender.

Chapter 4 - A theoretical proposition

I started this monograph by claiming that whenever starting a study on gender, two questions needed to be defined: what gender is –a definitional question-, and where gender comes from –a developmental question. Thus, in the previous chapters, I reviewed studies from gender theories, and sociocultural, developmental psychologies with different definitions and models in order to provide answers to these two questions.

First, this review leads me to propose adopting an anti-essentialist perspective on gender in its study, following some of Judith Butler's claims on gender performativity and norms, and a transformational model of development. The reason for this is that the performative approach allows adopting a non-normative outlook on differences: what children do or do not do in relation to gender is not a "deviation" from a natural reality but has meaning in itself and in constituting what gender is. Furthermore, this view attempts to provide tools for explaining change and transgressions in normative gender systems.

In order to define a developmental theory on gender, I showed the importance of considering a number of aspects in studying gender in children: its material and social dimensions, its normative character, the processes through which people construct their relationship to gender, the margin of freedom people have in this construction, and the way in which gender relates to other aspects of people's lives, thus defining more personal aspects for a model of the person. To explore these issues I argued that it was necessary to adopt a semiotic approach within sociocultural psychology.

Second, once we have a definition of gender and a certain general model of development, as well as the key aspects that ought to be considered for its study, it is further necessary to define what, within the complex field of phenomena that is the construction of gender, will be looked at. And here I come back to the initial question I presented in Chapter 1, that is, where do gender differences come from? As I mentioned, Jean Piaget (1973), at the beginning of the century, when interested in the genesis of knowledge, turned to child psychology because it allowed him to witness knowledge construction in the making. Inspired by this effort, I propose to study the process of gender differentiation in childhood, as it allows looking at the genesis of gender differences in the making.

If I am to look at childhood, we have seen that authors within sociocultural psychology and gender studies used many different methods. To assess the value of their choices, two arguments appear relevant here: i) the focus on spontaneously occurring data provides a unique entry-point in the study of social dynamics and personal preferences (Atkinson, 2015; Cabra, 2020a; Geertz, 1973; Jessor et al., 1996), and ii) this is possible in children through the study of play –play can be a natural laboratory for the study of gender dynamics (Martin, 2011; Martin & Ruble, 2010; Rainio, 2009; Vygotsky, 2016).

Thus, third, in order to study children doing gender, I focus on spontaneously occurring play situations. But this choice requires a certain justification. And although it is not the centre of this work to develop a theoretical perspective on play, the large abundance of literature and theory, beyond its methodological function, requires defining the core elements that characterise play and justify its importance in the life of a child.

The fact that children play is a largely observed studied and reflected upon phenomenon (Freud, 1923; Handelman, 2001; Kilvington & Wood, 2016; Martin, 2011; Rainio, 2009; Vygotsky, 2016; Winnicott, 1990). Despite its pervasiveness, there is a wide variety of interpretations as to the function and origin of play (Bruner, 1985; Freud, 1923; Handelman, 2001; Winnicott, 1990). What we know is that children play. Authors in psychoanalysis and psychology have placed great importance on play for its emotional and cognitive functions in development. Winnicott argues that play provides a safe-space for the child to explore the world, develop her creativity and emerge as a person in relation to others (Winnicott, 1990), Piaget claims it allows the child to develop the symbolic function (Piaget, 1920), Freud shows its function to elaborate experiences (Freud, 1923) and more recently, Meadian inspired-scholars show the function of play in appropriating social roles and positions (Gillespie, 2006). In other words, through play, children become who they are and who they will be.

Play situations are considered, in principle, as situations in which the child is free to choose what, where and who to play with. But, as I will show, this supposed freedom is not absolute. The child can play with the toys she has, make up characters based on things she knows, has seen or can imagine, and in this process, the social world makes its way into what is supposedly a "free-space" for the child. In particular, there are many things that we can interpret in terms of gender when looking at children's play. They sometimes explicitly say that some things are for boys and others are for girls, they enunciate rules which regulate actions in terms of gender, but they also sometimes simply express preferences –playing with a doll rather than a truck or building a tower instead of feeding a baby- which, as researchers, we may read in terms of gender. In play we can see gender at work, both in how it constrains children's actions, but also in terms of what it allows.

Based on this, I will empirically explore the following questions in children's play and address them with several heuristic hypotheses (Lakatos, 1978) which are conceptual propositions emerging from the back and forth movement between theory and data:

1) How does the social and material environment guide children's interactions in play relation to gender?

> **Heuristic hypothesis:** Gender is a dynamic semiotic system that materializes in everyday life arrangements and is organized around two attractors, which normatively frame the child's possibilities.

2) When people appropriate elements of the gender system, is there some logic, typology or recurrent form of externalization?

Heuristic hypothesis: People interact with the gender system and the institutions in regular forms of externalization called modes of combination defined by an operator, a semiotic mode and a communicative function.

3) What do children internalize of the gender system? What is more personal and stable as a result of the child's internalization of the gender system?

Heuristic hypothesis: Children develop unique and privileged combinatory modes called psychological patterns.

In what follows, I outline the theoretical model that allows me to look at gender at a social and psychological level in children's play, across time, by presenting the hypotheses and the conceptual propositions I demonstrate in the results. The model I propose emerges as a result of an abductive movement (Zittoun, 2017), from the initial questions to the empirical material and back to the conceptual tools developed within the field.

1. The gender system

I propose that to explain social guidance and its normative character in relation to gender, within the social and material environment, gender needs to be defined at two levels. First, I argue that gender can be defined as a system that normatively distributes bodies, objects and spaces and organizes patterns of behaviour. And this system is materialized in institutional settings. Second, gender emerges as something done by people within these systems, that is, as performed. This double anchorage provides a distinction between the environmental guidance and people's forms of engaging with it.

To justify this proposition, I follow three steps. First, I adopt Butler's (1990) distinction between the heterosexual matrix and the performativity of gender, that is, between what is socially defined and what is personally reconstructed or done. Across the different points, I justify why Butler's claims may be compatible with a semiotic and dynamic perspective on gender. Secondly, I use the notion of dynamic system rather than matrix as well as those of patterns and attractors, to define the gender system. As I am interested in understanding transformations, I draw from the developmental perspective of dynamic systems (Fogel, 2009; Van Geert, 2003) to understand the transformation of the configurations as well as their stability. Finally, in order to study gender from a psychological

perspective, I define the system in semiotic terms (Lotman, 2012) which introduces the dimension of the person and how she makes meaning within socially defined systems.

1.1. The heterosexual matrix

As I have stated, one of Judith Butler's (1990) primary contributions to gender theory is her understanding of its performative character. She argues that gender is nothing but the repetition of a form and the recurrence of modes of doing gender, through gestures, clothes, wordings and postures. What people recognize as their gender becomes apparent through that recurrence: it is not something that is "there"; it is done. This "recognition" of one's own gender and the attribution of genders to people around us, through recognizing repetitions, is done within something she calls the "heterosexual matrix" (Butler, 1990, p. 113). There are certain elements of the social world that normatively constrain or define what is of one or another gender and these are materialized in our everyday life arrangements.

There is, for her, a symbolic system of heterosexual intelligibility according to which the human being becomes intelligible as man or woman (Martínez & Femenías, 2015, p. 33). This intelligibility also produces its normative character: what is recognized is understood in terms of what should or ought to be, defining a realm of what she calls the "abject". The abject is that which doesn't have an inscription in the system, that which the rules of combination cast aside or define as impossible or undesirable. This process defines the gender norms of the matrix. In claiming gender is done, recognized, and produced within the matrix, Butler is attempting to define a socially given symbolic system while not excluding the capacity for transformation of such systems by people.

Butler claims that the matrix is produced through a process of materialization (Butler, 1993; Martínez & Femenías, 2015). She there follows Foucault (1976) and claims that discourses describe the bodies but also formulate and constitute their material realities (Foucault, 1976). Different meanings of what it is to be man or woman or how one should behave as one or the other circulate in the discourses and cultural practices, which are historically transformed and inscribed in the bodies and identities. Every claim on a person, a practice or a body, even if descriptive, marks them in a specific way. Each way to see and experiment is necessarily mediated by such elements. And although when people act and speak they "cite" existing norms, this citation or taking up of socially defined elements is not merely reproductive; she defines it as "creative citation" (Butler, 1993, p. 141; Martínez & Femenías, 2015). In this way, Butler defines a socially defined matrix which guides gender construction and which, while not specifically addressing it, leaves room for the person's margin of freedom in that construction.

It is noteworthy that Butler does not use the notion of system because she is attempting to differentiate her claims from a "structuralist" view on gender (Butler, 1990), which she considers to be static and totalizing. She discusses largely different definitions of structure, and fears that such a notion will eliminate the possibilities of transforming systems. She thus criticises a totalizing effect as a reproductive determinism of the system over the people, thus losing the point for transformative and subversive acts that change the way we see the world. That is why she speaks of heterosexual matrix and not of system.

While Butler's argument is valid in some sense, depending on the theoretical heritage of the word "system", it can refer to more or less static and determining structures. Within dynamic systems theory, the notion of system allows keeping a reference to a totality, even though not a closed one, and the possibility of its transformation. In order to understand the dynamic aspect of the gender matrix and the way in which people inhabit it, I propose to maintain Butler's distinction between socially prescribed arrangements and people's performance of gender, while terming the former a semiotic dynamic system. As mentioned, the notion of system keeps a reference to a totality that is not totalizing, while the notion of matrix loses the possibility to understand how the combination of elements in partial moments of closure might give rise to novel emergences. I will now consider the notion of dynamic system and its implications for gender.

1.2. Gender as dynamic system

Within dynamic systems theory (Fogel, 2009; Van Geert, 2003), a dynamic system is defined as a set of elements subject to transformation and that are defined in interaction (Van Geert, 2003). The elements within a system acquire meaning and function through their relations and oppositions. A set of elements can be considered a system when their properties emerge from their relations and do not exist prior to them. A system is dynamic when the point of departure for its study is the consideration of its possibilities for transformation.

In this sense, gender defined at a social level can be considered as a dynamic system. What it is to *be* man or woman or anything else one may experience in relation to gender, within a certain society, depends on what people wear, how they speak, where they work, live, how they love, befriend, etc. The resulting feelings or understandings of who we are are emergences, syntheses from a system, which is defined by the relations between what constitutes it. Furthermore, it is dynamic because precisely through such syntheses, the system can be rearranged and transformed. This relational understanding echoes Butler's (1990) claims on the way in which the heterosexual matrix organises possible ways of acting and being in relation to gender.

Fogel (2009) proposed that within systems there are patterns that are defined around attractors:

> The central theme of dynamic systems theory is to understand how the patterning of the collective is related to the co-regulation between the constituents. In the view of dynamic systems theory, the constituents of a system act together to constrain the multiple actions of other constituents so that the complex system organizes and reorganizes over time into a series of semi-stable patterns of behaviour called attractors (Fogel, 2009, p. 8).

This notion of attractor allows organizing the system around different elements. When it comes to gender, the gender patterning or the gender recurrences can, as I will show in Chapter 6, be conceived as organized around attractors. In the case of gender at a social level, I propose there are two prevailing attractors, and although there may be others in different situations, these two correspond to the dichotomy that is considered to be at the basis of many discussions on gender (Børve & Børve, 2017; Gilligan & Attanucci, 1988; Maccoby, 1988; Spark et al., 2010). As we have seen in Chapter 2, the understanding of gender always has a reference to a certain dichotomy between male and female, masculine and feminine, or the different elements associated to one or another. When considering children's play, I have stated in Chapter 2 that authors in gender studies describe different types of play as being more common in children depending on their gender. As such, they argue care and family play are found more often in girls, while manual or practical play of construction are more common in boys (Børve & Børve, 2017; Carlson & Taylor, 2005; Fein, 1981; Singer & Singer, 1990). What I propose here, based on these ideas, is to define two attractors within the gender system following terms used in the gender literature on play and morality (see Chapter 2): the care and the practical attractor. These attractors define patterns of behaviour, and bodies and objects are distributed and organized around them. They can be considered as dynamic organizations that can have some form of stability in things such as the recurrence of gestures, the choice of clothing, decoration of rooms or building of places such as bedrooms. This dichotomic distribution can also be found in Butler's (1990) definition of the matrix as heterosexual, that is, as based on a differential object choice of male and female normatively organised.

As I am interested in adopting a psychological perspective on gender, the dynamic system is here further defined as semiotic. A semiotic approach to dynamic systems has been argued to allow bringing the person, her meaning making process and history into the equation (Valsiner, 1998, 2001; Zittoun, 2009).

1.3. Gender as a dynamic semiotic system

The semiotic perspective on systems in psychology builds on the Tartu semiotics tradition although de Saussure was one of the first to describe language as a system (Saussure, 1986). According

to Lotman (2012) a semiotic system can be defined as the sum of a language and a field. Language, in turn, is defined as the sum of a lexicon, the elements that constitute it, and their rules for combination. A field is the space in which the language substantiates and acquires significance. Both in language and in field, there are abstract and material elements. Fields and languages can serve to different simultaneous semiotic systems. He also includes the notion of actors as a fundamental component of a semiotic system, as they produce sentences. The latter are defined as the result of the combination of elements with its rules, while an utterance is the materialization of a sentence in a specific substance, the actual production of an expressed word.

I propose here to consider that gender is not only a dynamic system, but also a semiotic one. As such, it would be materialized within classrooms and homes, among others. There, the elements composing what Lotman called the lexicon would be the objects, gestures, words, movements, which can be combined in different forms, according to different rules and norms. These combinations of elements materialize in certain arrangements –the flickering of someone's hair can accompany the twirling of their skirt- and this can be done through specific substances: voice, plastic, movement or paste. What this means is that the system can manifest itself in different materialities such as buildings, beds, toys, gestures or words. I argue this semiotic perspective specifies what Butler means by the materialisation of the gender matrix.

Within sociocultural psychology, Duveen and Lloyd (1992) are the first to define gender as a semiotic system for its study in the classroom. They nevertheless do not go much further in theorising what they mean by this. In an attempt to specify the relationship between semiotic dynamics and what these authors have called the "material culture" of gender, I add to their definition that gender as a dynamic semiotic system.

Building on the three points developed so far, gender is here considered, at a first level, as a dynamic semiotic system organized around two attractors: the practical and the care attractor. If gender is a semiotic system, then buildings such as the homes and schools are its field; objects, words, gestures compose the lexicon of its language; and rules or norms define their possibilities for combination. Put together, they would define patterns of communication and behaviour around two attractors, giving a certain dichotomic stability to the distribution.

In the results, I will try to substantiate the heuristic hypothesis according to which **gender is a dynamic semiotic system that normatively materializes in everyday life arrangements and is organized around two attractors.**

2. Modes of combination

Systems and institutions do not exist independently of people engaging with them (Hedegaard & Fleer, 2019; Valsiner, 1998; Zittoun, 2016b). From a psychological perspective, I am here interested in how children take part in these semiotic systems and how they engage with the semiotic elements that constitute it within play.

Cultural psychology proposes that social guidance, in its relational and material aspects, has a fundamental role in development and in the way children learn to engage with different cultural systems (Lloyd & Duveen, 1992; Valsiner, 1997; Zittoun, 2020). The fact that children learn how to move around their living room, to avoid table corners, play with dolls or trucks, has been studied as deeply marked by the geographical and spatial arrangements of people's surroundings (Spark et al., 2010; Valsiner & Lightfoot, 1987). Furthermore, authors argue that the modes in which people and things are organised in each person's lives, leave traces in the ways in which they then act, think and remember (Zittoun, 2020).

In Valsiner & Lightfoot's (1987) study on safety in children, the authors claim "the child's actions (and thinking about these actions) are related to the structure of the environment (…). Specifically, the structure of a particular environmental setting determines the range of possible actions available to the particular child, who has developed a certain level of action skills and reasoning capabilities by the time that setting is encountered" (Valsiner & Lightfoot, 1987, p. 63). What they show is that little children may need, at first, safety blocks for plugs, in order not to put their fingers in them, or table corners so they don't hit their heads. With time, such devices become redundant, as the child learns to avoid the plugs and the table, constructing a zone of possible movement which includes places to be avoided, often in a peripheral way and not as a part of the conscious stream of thought. If we think of adults, they don't usually hit their heads with tables and neither do they move around thinking "I will avoid the table now" every time they walk past it: the peripheral guidance of their movements in space has somehow become part of their inner-psychological life.

As we have seen in the previous chapter (Chapter 3), the core processes through which cultural psychology understands that these peripheral elements or signs "become mind" and can then be used in interaction are those of internalization and externalization (Valsiner, 1998; Zittoun & Gillespie, 2015b). As I have said, the notion of internalization, initially presented by Vygotsky, refers to the fact that: "Every function in a child's cultural development appears twice; first, on a social level and later on an individual level; first, between people (inter-psychological) then inside the child (intra-psychological)" (Vygotsky, 1978, p. 57).

Although there has been much debate around the definitions of the notions of internalization and appropriation (Valsiner, 2006; Zittoun & Gillespie, 2015b), I employ here the definition according to which internalization is the process where "meanings that are held out for the individual by social structures and social others are brought over into the individual's thinking" (Lawrence & Valsiner,

2003, p. 730) but further as “not only a circulation, it is also construction and integration” (Zittoun & Gillespie, 2015b, p. 4). It designates an active process of reconstruction, through which signs leave traces through their sedimentation and active reconstruction in mind. Alongside the process of internalization is that of externalization, which “connotes activities in the injection back into the social environment of material that once was social in character and had become personal” (Lawrence & Valsiner, 2003, p. 730). But does this injection follow some logic or regularity? Are there recurrent forms of externalization?

As I have said (Chapter 3), Piaget (1975) pays special attention to what he calls the regularities in the coordination of the actions of the subject. Through the notion of scheme, he addresses the aspect of actions “that is general and can be transposed from one action to another” (Piaget, 1972, p. 67). He also claims these schemes change through different processes. They can be coordinated or integrated in different ways, through the appearance of what he calls perturbations in the system (Piaget, 1975). In this way, in his studies on mathematical, logical and physical objects, he identifies schemes of action that coordinate and allow the subject to act in a certain way, that is, they provide a certain logic to the process of externalisation. This notion in the Piagetian tradition has remained linked to mathematical and physical objects due to the fact that they are more easily identifiable and delineated in the different aspects that constitute them. Gender, in contrast, as I have shown, is a fluid complex multi-faceted social and psychological object that does not allow identifying clear-cut distinction of actions involved in defining it. What I argue here is that there is some regularity in externalization, in how children act in relation to gender, what Piaget called “forms of organization of actions” (Piaget, 1975). But, instead of speaking of schemes, because of the nature of the object of study, I propose to address this regularity by defining regular modes of externalization I call ***modes of combination***.

These modes can have different logical structures –or operators-, they can be expressed in different semiotic modes, and have different functions in communication.

The modes of combination are therefore defined by three elements: their form, their material and their function –that is, how they are constructed, what they are made of, and why they are produced. I address their form through the notion of **operators**, their materiality through the idea of **semiotic modes**, and the reasons for their production as their **communicative function**. Let us now consider each of these propositions in turn.

2.1. Operators

To address transformations in the modes of organization of actions, Piaget claims that perturbations can give rise to conflicts in the system and they are understood as the motor of development (Piaget, 1975). In order to resolve these conflicts, the subject can have different forms

of reactions to the perturbations. There are three forms of reaction to "perturbations" in the systems of coordinated actions, that is, three forms in which contradictory elements can be dealt with: alpha, beta and gamma (Piaget, 1975). The alpha reaction refers to the denial or ignoring of the perturbation and continuation of the course of action without taking it into consideration. The beta reaction is a compromise solution that partially integrates the perturbation in an incomplete solution. Finally, the gamma solution is a synthetic proposition that integrates the perturbation and redefines the system in a way that makes its integration coherent in the whole (Piaget, 1975). The resolution strategies presented by Piaget refer strictly to the resolution of conflicts. What I propose is to extend these resolution strategies to dealing with different elements in a system. This is because, in considering gender a dynamic semiotic system, the elements are defined by their opposition, and thus do not necessarily entail the appearance of conflicts. The fact that there are opposing elements in the gender system makes that the person, in her action, can have different reactions to the oppositions. I propose that these reactions can be found more generally within the modes of combination, as operators, and not just of conflict resolution –as forms of dealing and engaging with the system. These operators have a logical structure and can also be expressed through different semiotic modes, such as pictoric, tactile or auditory.

Operators are defined, from the point of view of natural logic (Piaget, 1977) as combiners that define the possible transformations to be reproduced or manipulated. When pertaining to signs, they can be defined as logical functions that define the relationships that are possibly established between the signs. Whenever two or more signs appear simultaneously or diachronically within the same sequence, they can either be integrated to arrive at a synthetic proposition, alternated so as to maintain both signs unmodified, added and maintained, or selected so as to maintain only one and refusing the other. Operators refer to the personal level of coordination of actions, that is, how the child constructed a certain form of doing with the elements she encounters. Thus, I propose to re-read Piaget's (1975) proposed reactions to the emergence of a perturbation within a system in terms of logical operators for the treatment of signs:

1. Negation operator: refusal, rejection or opposition to a new sign or proposition
2. Addition operator: link or acceptance of several propositions at the same time
3. Compromise operator: alternate or incomplete acceptance of both propositions or signs
4. Integration operator: synthesis of propositions or signs and qualitative transformation of propositions or signs

I include the operators of addition and negation that are both part of Piaget's alpha reaction (1975) because they appear as distinct forms of reaction the children express in their dealing with the

gender system. While their distinction was not pertinent for Piaget's interest, in the case of gender, although the general structure of the system may not change through them, the acceptance or negation of a proposition speaks to children's margin of freedom in dealing with the gender norms.

2.2. Semiotic modes

Operators can employ different materials for their expression, and these can be defined as semiotic modes. A semiotic mode is defined by the physical substance or sign materiality which it employs as well as the semantic field to which it refers (Bateman, 2011). Examples of semiotic modes are drawing, speech, music and gesture. As such, they may employ various materialities, such as sound, which can be common to speech and music, or imagery, common to photography and drawing, or even bodily movements, which are symbolic, common to gesture and dance. They are not universal, as what is a gesture in a specific context might not be one in another. In that sense, they are also defined in terms of a semantic field, an organized cultural system that gives them the statute of an interpretable mode in a specific context. Semiotic modes are further perceived in different sensory modalities, such as visual, auditory, tactile, gustative and olfactory.

What is defined by Bateman (2011) as a semiotic 'code', will be considered here as a semiotic system, to highlight its open-ended and dynamic nature. For Bateman (2011) a code is defined to "include a non-material component taking in both the content and expression planes and, in addition to these, a material component. The material substrate provides for the physical possibility of any systems of choice within an expression plane but is itself distinct from such systems" (Bateman, 2011, p. 21).

Semiotic modes can serve different communicative functions. For example, gestures can be used to joke or convince, to negotiate or to please. In this sense, I use the term function of communication in a wide sense, in order to consider different intentions, goals and effects of what is produced in interaction. Children can argue, repeat or employ utterances and gestures playfully and they can negotiate with one another.

2.3. Communicative function

When children are communicating in play situations, they produce different forms of speech with different functions. Some of these functions coincide with what Roman Jakobson's (1960) terms emotive and conative functions of speech, that is, they refer to either the addresser's goal, or to the effect the message is intended to have on the addresser or on the interlocutor. What I describe here as the communicative functions of speech could be one or the other, as I do not have access to the

child's intentions or to whether what she does or says is done with a certain goal or to produce an effect, but merely to the possible function such a form could have had in the interaction.

In order to specify the different types of functions for speech, I employ John Searle's (1969) classification of the different types of illocutionary acts. The illocutionary aspect of speech-acts refers to its "purpose or rationale" (Danesi & Rocci, 2009, p. 63). Things are said or communicated, and they can be analysed in terms of why and for what they are produced. Although there are many forms of illocutionary acts, I here focus on three functions of illocutionary acts, which are the ones I will explore in the results: there are assertive acts –which denote acts designed to get the interlocutor to form a belief about something in the world or to think about something, such as stating or argumenting-, directive acts –intended to get an interlocutor to do something, such as asking, requesting or negotiating-, and expressive acts, which allow the speaker to express a psychological state or an attitude towards the interlocutor, such as thanking, apologizing, showing anger or joy (Searle, 1997). In this way, I propose to consider three different communicative functions that acts can have: argumentative, negotiation and ludic.

In children's interactions I thus define the specific functions of illocutionary acts as:

1) Argumentative function, which is a form of assertive illocutionary act where the child presents premises and justifications for a certain point of view.
2) Negotiation function, a form of directive illocutionary act, where the child attempts to get the interlocutor to accept something or do something as she wants.
3) Ludic function, which is a form of expressive illocutionary act, in which the child expresses a psychological state, i.e. joy, pleasure or satisfaction.

In the results, I will explore the hypothesis according to which **children engage with the gender system and the institutions in regular forms of externalization called modes of combination, defined by an operator, a semiotic mode and a communicative function.**

3. Psychological patterns

But finally, what do children internalize of the gender system? In order to integrate the previous propositions within a model of the person, I argue that across these modes of externalization, there are combinatory modes that are privileged by each child, and I will call them psychological patterns, resulting from the internalization of privileged modes of combination.

As mentioned, from the sociocultural approach, the social level of gender norms and possibilities appears materialised in objects, themes or phrasings. This social system is reconstructed by people (Zittoun, 2018) and, as a result, they come to feel and think about their gender. This reconstruction is

not only defined by the affordances of the objects and experiences. The gender system is considered to be internalized (Vygotsky, 1978; Zittoun & Gillespie, 2015b), that is, actively reconstructed. In this reconstruction, the person always has a certain margin of freedom in the way in which elements are internalized and combined. Specifically, what is reconstructed is not signs or meanings in themselves, but "a propensity for a certain movement, a simplified guidance pattern" (Zittoun, 2020, p. 144). And at the same time, while internalizing, people bring other interests and wishes, memories of the past, relations, possibilities and impossibilities People's way of engaging with the world might be social and reproductive but also, somewhat unique, making us "us", different from "other". If we want to capture something of this psychology and regain some insight into people's possibilities within the social world, we need to be able to account for that uniqueness, of the space in which the common and shared make up for something other, unique or distinct.

There are many terms in the literature to refer to such uniqueness: some authors speak of "subjectivity" (Valsiner, 2019), "identity" (Gillespie & Cornish, 2010) or "subject position" (Stenner, 1993). All of these terms refer to something ontogenetic, constructed at the level of a person's life-course, and which has some form of prevalence and recurrence. Building on other propositions within sociocultural psychology, I propose to address this question of the uniqueness or privileged modes children have in the social world, through the notion of **psychological patterns**. Patterns are privileged and recurrent combinatory modes, as I defined above. They are semiotic and relational ways of engaging with the world. In other words, they are recurrent ways in which the semiotic elements in the world may be combined. Patterns are forms that produce ways of organizing the world and which can be recognized in a person's actions across various situations and at different levels, such as how someone chooses to match their clothes, mix ingredients in a recipe, and reach an agreement at a work discussion.

The notion of pattern can be understood as similar to that of motif. A motif in music, is a short musical phrase, it a salient recurring figure, a fragment or succession of notes that has a special importance or characterises a composers work or composition (White, 1976). Musical metaphors of motifs and melodies can be found in the works of different scholars such as Von Uexküll (1982) or Vygotsky (1971/1960). Von Uexküll (1982/1940) in his theory of meaning speaks of a "growth-melody" of each living body: "A chime composed of living bells must possess the capacity to let its tune resound, not only because it is driven by mechanical impulses, but because it is governed by a melody" (Von Uexküll, 1982, p. 29). This is a constant meaningful shape, produced by the subject. Vygotsky (1971), in his work, and especially in his analysis of Bunin's "Gentle breath", looks at the novella composition through musical metaphors. From it stems the idea of identifying motifs as the dynamic ratio of the sounds making the bases of a melody. He states that every story has a specific structure, which differs from the material upon which it was based. It makes the style unique because: "by studying the

teleology of the technique, the function of each stylistic element, the purposeful direction, teleologic significance of each component, we shall understand the very essence of the story and witness how a lifeless construction is transformed into a living organism" (Vygotsky, 1971, p. 211). More recently, Zittoun, Valsiner and others (2013) propose there is a "melody for living" in reference to a "unique style with which each of us deals with the unexpected" (Zittoun et al., 2013, p. 20) evolving with time but recognizable: "rather than saying human specificities in terms of traits or inbuilt characteristics, our melodies of living are dynamic –the evolving outcome of our playing and imagining with what life offers" (Zittoun et al., 2013, p. 20).

As mentioned in the previous chapter, in his study of ornaments, Valsiner (2019) explores how ornamentation can guide our psychological experiencing. It is interesting that Valsiner (2019) there considers ornaments as a type of pattern, an aesthetic pattern, which has been objectivised. But people have also been shown to develop something that remains and which allows recognizing oneself and others across various and different situations. Zittoun (2020) defines patterns as "a movement that follows a specific configuration of dynamically coordinated elements, and that has certain stability (…) in a given environment also generates dynamic patterns of feeling, perception, thinking or acting, and thus engages experience" (Zittoun, 2020, p. 32). People can thus be thought of as developing stable modes of engaging with others and with the world. And although many controversial terms such as personality or identity have been used to define such constancy in people's lives, I speak here of patterns, as a way to bring forward their grounding in everyday life relations, actions, as well as their dynamicity, and to define one aspect participating in the definition of a more holistic model of the person.

Zittoun (2020) employs the term pattern to designate both the social and material recurrences as well as the personal reconstructions of unique "melodies". In order to distinguish these two levels, I will maintain the term *psychological pattern* for the more personal and individual forms of regularities at the level of the person, and speak of *attractors* at the social level. These patterns are then a form of organizer of experience, a mode by which people enter in relationship with another and the world. As they refer to abstracted forms that appear in different forms of action, thought and communication, they can have many modes of concretion: they can be recognized in oral dialogue, written forms, drawings, clothes and house decorations.

I then propose that **children develop unique and privileged combinatory modes called psychological patterns.**

4. Synthesis

I have defined here the conceptual model, the core hypotheses and conceptual propositions I will substantiate in the results chapter (Chapter 6). To understand how the social and material environment guides children doing gender in play, I define gender as a dynamic semiotic system that normatively materializes in everyday life arrangements and is organized around two attractors –the care and the practical attractor. Within this system, to explain what is the form in which people appropriate elements of the gender system and thus externalise it according to some logic, typology or recurrent form of externalization, I propose to define modes of combination. People thus interact with the gender system and the institutions in regular forms of externalization called modes of combination, and these are defined by an operator, a semiotic mode and a communicative function. Finally, in order to engage in these different modes of externalization, children internalize different elements of the gender system within the margin of freedom that construction allows. To reference the uniqueness of such internalization, I propose that children develop unique and privileged combinatory modes called psychological patterns.

Before moving to demonstrate such propositions in the results, I now move to explain the methodology of this study, the type of empirical material analysed and its organization.

Chapter 5 - Methodology

In this chapter, I present and justify the methodology adopted for data collection, treatment and analysis in the present study. As the main goal of this research is to understand gender differentiation in children's play, I have so far defined a number of research questions, heuristic hypotheses and conceptual propositions that will allow me to explore the process in the making. I will now present and justify the methodological and analytical choices, as well as the ethical considerations for the data collection process. In this chapter, I proceed as follows: I first broadly introduce the study and the analytical lens chosen to observe interactions around gender –situations of play. Then, I present the adoption of a qualitative approach to then discuss each of the methodological decisions for the research design and the analysis, in light of the research questions presented in the previous chapter. Finally, I present the ethical considerations that defined my relationship with the participants.

Before presenting the research design, I frame these methodological considerations within a cyclical understanding of the research process (Branco & Valsiner, 1997; Valsiner, 2017), as this explains the way in which the study was carried out.

A sociocultural approach to the study of gender implies a certain set of epistemological assumptions as to the relationship between theory, methods and data. In terms of methods, this means that any method or technique can only be judged as a function of the problems it can help address. Research questions about the state of things or about change are formulated based on a certain understanding of the world. These problems are thus framed by ontological and epistemological assumptions about how the world is and how knowledge emerges. These assumptions can be found to be more or less explicit in theories and can also be changed by the resistance their depictions of the world provoke in researchers' attempts to study phenomena. For what interests me here, I will focus on the fact that techniques for constructing data are predominantly led –although not determined by- the research questions (Branco & Valsiner, 1997; Valsiner, 2000) and it is then important to specify the methods in relation to the research questions presented in the previous chapter (CH4).

1. Studying gender through play

In very broad terms, the aim of this study is to explain how gender differentiation takes place by looking at cultural guidance in children's play and at how it is reconstructed at a psychological level. This aim thus poses the questions of which elements can be considered as cultural guidance, what is

the psychological significance they may or may not have, and what may be their long-term relation to the person's development. These questions are here explored by constructing a multiple case study (Denzin & Lincoln, 2007; Flick, 2009) of children doing gender through play. And, as I am interested in the construction and reconstruction of gender at a psychological level, the study has a developmental outlook (Diriwächter & Valsiner, 2005; Overton, 2003). This further means constructing a sequential and longitudinal case study (Denzin & Lincoln, 2007; Flick, 2009).

Methodologically, as I have argued, there are two different reasons for focusing on pretend-play and gender. First, pretend-play is considered a privileged activity for young children (Freud, 1990; Winnicott, 1990) as well as central for sense making and development (Handelman, 2001; Hedegaard & Fleer, 2015; Kilvington & Wood, 2016; Vygotsky, 2016). Secondly, sense making around gender has a pervasive nature in social and political debates, everyday life discussions and negotiations, object choice and more long-lasting identity construction. This makes gender in pretend-play an interesting proposition to look at the socially constructed character of a psychological activity.

Analytically, gender and pretend-play call for the adoption of a first and third person perspective (Zittoun, 2020) as defined within sociocultural psychology. A third person perspective allows to study the social level, the study of the environment in which children live –how it is organised, how social representations are materialised in the space in which they inhabit, the rules, etc.-, whereas the first person perspective allows understanding children and parent's actions and points of view. Even though I did not explicitly ask the children about their feelings and views on the issues surrounding gender, I can say that I adopt a first person perspective in the sense that I tend to the children's point of view, to their positions in discussions and forms of behaving, as has been done in other sociocultural studies (i.e., Zittoun, 2020). These two perspectives are combined through a micro-genetic analysis of concrete interactions (peer- and adult-child interactions) and followed across time. On a methodological level, this means adopting different techniques for data collection that inform each perspective and that I present in what follows.

In terms of the research design:

1) For the first research question, how does the social and material environment guide children's interactions in relation to gender, I adopt an ethnographic approach. This allows a holistic documentation of the environment and the interactions.

2) For the second question, when people appropriate elements of the gender system, is there some logic, typology or recurrent form of externalization, I conduct a micro-genetic analysis of interactions within the ethnographic approach.

3) For the third question, what do children internalize of the gender system and which forms do psychological patterns have in human mind, I trace the modes of interactions across time, over a period of ten months.

For the analysis, I conduct a thematic, categorial and a semiotic analysis of i) spaces and objects, and ii) interactions. I now develop each of these points in detail.

2. A qualitative approach

Qualitative methods is a term that frequently regroups a large variety of strategies destined to observe, interpret, analyse and explain subjective or sociocultural phenomena, not based on their frequency of occurrence but on their meaning (van Manen, 1990). It is moreover considered as a type of approach that allows addressing social phenomena such as the experience of people, interactions in the making, and the traces of those experiences and interactions (Flick, 2009).

It is defined as an approach which allows describing phenomena that have specific characteristics (Flick, 2009). This definition is framed within a philosophical tradition that separates the type of knowledge that disciplines can produce based on the nature of their objects.

Dilthey's epistemological considerations inaugurate a systematic distinction between modes of knowing nature and modes of knowing the spirit, which lead to two different strategies of knowing: comprehension and explanation (Dilthey, 2010). Understanding or comprehension refers to an account of the inner-production of the phenomena: the emergence of the psychic from the psychic (Jaspers, 1997). Explanation comes in when it is not possible to explain a novel emergence within a system without introducing a reference to an element external to the psychic. Thus, if the social is involved and we want to understand how the social becomes psychological in relation to the gender system, both modes of knowledge can be employed complementarily to address the phenomenon. This discussion between understanding and explanation, found again in Jasper's psychopathology, has since then been re-contextualized in a developmental epistemology in which the principle of complementarity allows to consider different forms of defining and addressing the system considered based on the question that is posed (Valsiner, 2014b). In this case, it is the interest in the changing and socially constructed nature of psychological activity that guides the design of the study.

2.1. A developmental longitudinal study

Studies in developmental psychology frequently adopt qualitative approaches, although not exclusively (Diriwächter & Valsiner, 2005; Mey, 2000). An important reason for this is the fact that developmental psychology is concerned primarily with change (Overton, 1994). It is interested in understanding what changes, how it changes and why it changes, and within this interest in change through time, experience and events can be interpreted in their content rather than with numbers

allowing to understand the reasons and conditions for such change (Flick, 2009). A type of research design within qualitative studies is longitudinal studies. These have less frequently been adopted, based on the resources they require and the difficulty for their implementation (Flick, 2009). Nevertheless, a few exceptions show their fruitfulness for accounting for the evolving and contextual nature of development (Cavalcante & Rodríguez, 2015; Español, 2004; Moreno-Nunez et al., 2015; Nelson, 1989). A prolonged fieldwork and analysis in time enables following the subjects or system under study to trace changes and their possible explanations.

In this case, I constructed a case study of three children finishing kindergarten and starting primary school that I followed over the course of ten months in order to follow and compare different forms of dealing with the gender system.

2.2. The ethnographic approach

Within developmental psychology, the sociocultural line has not been interested only in the change of systems and/or of people, but also in the socially constructed nature of such systems and people (Zittoun et al., 2013; Zittoun & Gillespie, 2016). Ethnography, as a methodological approach, accounts for this socially constructed nature. This is a kind of design more commonly developed in anthropological research (Palacios & Castorina, 2014) and the study of "culture" (Spradley, 1979) and that has more rarely been adopted in sociocultural psychology (for exceptions see Hedegaard & Fleer, 2019; Hviid & Villadsen, 2018; Lloyd & Duveen, 1992; Zittoun, 2020). Following these few examples, I adopt an ethnographic approach for this study and demonstrate that it is the shared epistemologies between certain ethnographic traditions (Atkinson, 2015; Geertz, 1973) and developmental psychological theories (Valsiner, 2000; Zittoun, 2016a) that justify this decision.

If we, firstly, consider Geertz's (1973) description of the ethnographic approach's central aspects, we can see that he points out three points that coincide with the core assumptions of socio-cultural psychology in the line that I adopt (Zittoun, 2016a): 1) The focus is on the person: ethnography allows understanding how people define themselves as persons and what they are concerned with. 2) They both have a semiotic approach to culture: ethnography searches and analyses what are called "readily observable symbolic forms" (Geertz, 1973, p. 134): words, images, institutions, behaviours in terms of which people represent themselves. Social and cultural forms are produced in interaction and define "man (as) an animal suspended in webs of significance he himself has spun" (Geertz, 1973, p. 140). Culture is considered in terms of those webs and their analysis in done through an interpretative search for meaning. 3) Both accept the interdependent relation between conceptual structure and "experience-near" concepts (Geertz, 1973, p. 134), for instance between action and thought, semiotic mediation and psychological activity. Moreover, ethnography proceeds through thick description,

which is characterised by following the flow of social discourse; it tries “to rescue the said of such discourse from its perishing occasions and fix it in pursuable terms” (Corsaro, 2015, p. 20). It thus appears that the general principles of an ethnographic approach are theoretically compatible with the sociocultural perspective.

If I now consider the research problem within which this study is concerned, that is, the psychological dimensions of doing gender in play by children, it is to be noted that much research into interactions is centred on short instances and exchanges of a few seconds or minutes (see for example Brauner et al., 2018; and for a critique Marková, 1990). These exchanges are often interpreted from within the text, avoiding reference to phenomena beyond it, through contextual or co-textual references (Gillespie & Cornish, 2014). Also, and although the process of categorization is central to how people understand the world in which they live (Gillespie et al., 2012), its outcomes, the *categories* are often studied by researchers as taken-for-granted, pre-defined constructs (such as, in the case of gender, what it means to be a girl, or which colours are adequate for boys). From a sociocultural approach, categories are perspectival, historical, and dynamic social constructs (Gillespie et al., 2012). As such, it is important to go beyond intra-textual interpretations. When speaking of categories, ethnography, while it does not address directly how people construct them, problematizes (Cornish, 2006; Freire, 1976) what researchers define as social categories (Gillespie et al., 2012), within the context in which they are constructed. I define categories in the analysis as semiotic configurations made of cultural elements and considered as they are used in people’s interactions. This definition fits with the semiotic account of culture proposed by Geertz (1973).

Thus, a longitudinal ethnography first draws attention to the symbolic web around which interactions are configured maintaining the concern for context-specific definition of terms. It defines the terms in their relations but also as depending on the context in which they appear. All interactions are taken in a web, in Anzieu’s (1975) terms, or here a semiotic system, made of cultural elements, which make it last (Anzieu, 1975). The activity considered can be that of playing, cooking or organizing a wedding but in order to study an interaction in the activity taking place, and because they are organized around a differentiated semiotic culture, the method implies a semiotic approach to culture through ethnography (Geertz, 1973; Lloyd & Duveen, 1992).

3. Research design

Based on the previous considerations, I designed a qualitative longitudinal multiple case study (Denzin & Lincoln, 2007; Flick, 2009; Marková et al., 2019; Vasilachis de Gialdino, 2006) with an

ethnographic approach (Atkinson, 2015; Corsaro, 2015; Geertz, 1973; Zadeh & Cabra, 2019). The research consists of two parts with pilot phases and a definitive study.

3.1. The pilot phases

The first part involved the three pilot phases, with exploratory transversal participatory observations within a kindergarten and a primary school of children in the final year of kindergarten (3-4 years old) and 1st, 2nd and 3rd year of primary school (4-7 years old). As I have shown, within gender studies authors speak of a peak in the expression of gender in children when they start primary school (Lloyd & Duveen, 1992; Trautner et al., 2005). As these conclusions were reached in other countries than Switzerland where school starts at different ages, I looked at the first three years of primary school and final year of kindergarten, thus including the age primary school starts in most countries.

The main aims of this phase were: i) to test the preliminary hypotheses constructed from the literature review –i.e. that gender differences are crystallized in the passage from kindergarten to primary school, ii) to identify clear observables and typical situations for the definitive study, and iii) to establish contact with the families that I would be working with for the definitive phase.

The findings of this phase are, first, that it is necessary to problematize the supposed crystallization of gender differences when starting school –as I will show in the results, there did not seem to be a radical change in entering primary school, but rather a more complex way of doing gender for each child. Secondly, a result of this phase was the decision to focus on the semiosis of play, because it would allow a fine-grained analysis of gender in interaction.

3.2. The definitive study

The second phase involved a longitudinal multiple case study of three children finishing kindergarten and starting primary school. I followed 3 targeted children in school and outside formal education settings and I specifically observed play scenes and attended to children's reflective or meta-commentaries on gender. The three children were between 3;6 and 4;6 years of age at the beginning of the study (4;4 and 5;4 at the end) from families in Neuchâtel, Switzerland. I conducted participant observations, interviews, put in place breaching strategies and asked the children to keep holiday journals during the summer holidays. The data I finally treated for the analysis came from the pen and paper notes and observations I did. The resource of the holiday journal was not systematically explored due to a number of difficulties. The idea of the holiday journal was to ask the children and their parents to keep together a diary of whatever they felt like writing or putting in a diary while I could not see

them because they were on holiday. This would have allowed me to speak with them about what they lived while they were away. Yet, in practice, only one child kept a diary during the holidays. Another one of the children did not draw or do any crafts and she cut or put away the notebook whenever she had it. And a third child did not keep a diary but did homework in the notebook or glued pre-defined drawings to colour inside. Because of this, I only employed the journal I had merely as a support for a discussion with the child about her holidays.

3.3. Case selection

Atkinson (2015) indicates that successful productive fieldwork proceeds in a cyclical fashion, in agreement with Valsiner's claims (Valsiner, 2000) but in a more concrete way as well. The development of what he calls "analytic themes" are considered emerging properties of the engagement in the field and the systematic reflection on the data, the latter being able to guide more focused fieldwork (Atkinson, 2015). The way in which the cases are constructed is through theoretical sampling, which entails a gradual definition of the sample structure in the research process, based on observations and reflections during an initial phase of the study, as well as through the entire research process (Flick, 2009; Glaser & Strauss, 1967). Flick (2009) indicates that flexibility is an important feature to consider in sampling. He suggests a preliminary assessment of the field by spending an initial period of time, which allows deriving preliminary working ideas and identification of case possibilities. Based on this, during the pilot study, which entailed a short observation stance at Dalby Nursery School, I talked with the headmistress of the institution about which families would be contacted for the case study. She suggested the families she thought would be more "open" to collaborate with me and I selected from those and based on my observations of the group based on two criteria: one was the fact that there were several families in which the parents had an explicit concern about gender equality issues (either university studies or activist engagements) which meant that I thought I could see an extreme condition of social guidance (normative guidance in school and gender-informed guidance at home, although this turned out differently as the study went on); the second was related to the first, but practical, as the parents' pre-existing interest in gender equality issues would make them more likely to be interested in the issues I was proposing to explore. They can thus be considered critical cases, as they are those in which the relations to be studied become especially clear (Flick, 2014, p. 175).

3.4. Unit of analysis

The unit of analysis can be defined as the "type of object about which information is sought within research" (Marradi et al., 2007, p. 87). They are bits of content on which analysis start to be elaborated

(Marradi et al., 2007). The unit does not refer to a particular case and cannot be confused with the empirical elements from which the necessary data is obtained. It is thus not "the person" or the participant, neither is it the interaction or the epistemic subject, separated from relationality. I propose the unit of analysis is the *use* of semiotic means (Gillespie & Zittoun, 2010; Rodriguez & Moro, 2008; Rodriguez & Palacios, 2007) when children do gender in play. Semiotic means are seen as elements part of the cultural world and that people use to think or act in the world. For humans all elements are cultural, in the sense that mind emerges by communication and not the other way around (Marková, 1990; Mead & Morris, 1962). Semiotic means are defined by their use and not a priori as part of an a-subjective system existing out of time and out of relations. To study children's use of semiotic means, in relation to the unit of analysis, which is conceptual, the observational unit (Samaja, 2004), that is, the "slices" of data, meaningful (Marková, 1990) or sense units (Zittoun, 2004) –units at which the unit of analysis can be located- are play sequences. These are defined based on 3 (or 6) criteria: in each observation I asked the questions: *what, where and who* (developed in section 4.2) –what is being done; where is it done; and who is doing it? These questions are answered both at a factual and fictional level in the situations of play.

3.5. The research participants

Empirically, the study thus concerned one kindergarten, two primary school, three classrooms, as well as three families and their children (Table 2, Table 3).

The Dalby kindergarten is a school located in the centre of a Swiss city. It is composed of three groups of children from the ages of four months to four years of age, at which point they start primary school. The groups are composed of approximately 15 children per day, divided in three different floors of a big old house. Each group has between two and four pre-school teachers each day, depending on the availability and size of the group.

The Olive school is a school located also in the centre of the same Swiss city, in close proximity to the kindergarten. It is a very big school with five or six parallel classes per year and several bilingual courses. Each group was composed of approximately 20 children and one teacher.

The Sheep school is a school located in a village at the outskirts of the city in which the kindergarten was. Its main characteristic is that the first two years attempt to keep a similar structure to that of kindergarten in order to facilitate the transition to the school system. There is at this school only one group per year, composed of approximately 30 children per day and between two and four teachers, depending also on availability and size of the group.

The families who agreed to participate in the study belong to middle socio-cultural sectors (Table 3). The parents had attended university for their studies, live in urban sectors and were born in Switzerland.

In Paul's case, his family was composed of his mother and father, who were not married, himself and a little brother of 2 years of age at the time. Paul's father worked at a university in another city and his mother worked in a government administrative position. The parent's had both been politically active in the fight for women's rights in their youth. The members of this family spent a lot of time playing board games and discussing rules. They seemed to enjoy enforcing and discussing them in playful situations. Paul was 4;6 at the beginning of the study, he had his birthday during the research, which I attended, and was 5;4 when I finished the data collection.

In Natalie's case, the family was composed of a married couple, the mother and a father, and a twin brother. Her parents both worked in private companies and her mother had done a Master thesis within gender studies. The parents here seemed to be concerned with the issue of separating the twins: how to educate them as individuals without making them suffer or miss each other. Natalie was 3;6 when I met her and 4;4 when I finished the study.

In Nadine's case, the family was composed of her mother and father, an older brother of 9 years of age, and a younger sister who was 2 years old at the time. The parents in this family were artists and designers. They spent much time drawing, painting, building things and creating. They spoke often about the importance of fostering creativity. Nadine was 4;6 when I met her and 5;4 when I finished the data collection.

Institution	Sector	Age group	Group composition	Teacher presence
Dalby kindergarten	Urban	3 and 4 years old	15 children per group	3 or 4 teachers per group
Olive school	Village	4 to 6 years old	20 children per group	1 teacher per group
Sheep school	Urban	4 to 6 years old	30 children per group	2 to 4 teachers per group

Table 2

Family	Composition	Socio-cultural sector	Parent's occupation	Relationship to gender
Paul's family	Mother and father. Children: Paul (5) and Octave (3)	Middle class	University and state	Gender activists in their youth
Natalie's family	Mother and father. Children: twins, Natalie and Luke (4)	Middle class	Private sector	Post-graduate studies on gender
Nadine's family	Mother and father. Children: Olindo (7); Nadine (5) and Vrinda (2)	Middle class	Independent, artists	Personal beliefs in equality

Table 3

3.6. Breaching strategies

During my interactions with the children, to see the space there is in play for transgressing or bending gender norms and rules, I started doing something I call *breaching strategies*. These strategies are thought of as a hybrid between the Piagetian mode of questioning called counter-suggestion (Piaget, 1935) and Garfinkel's (1967) breaching experiments. Counter-suggestion was originally defined in Piaget's clinical method as a step in which the child was presented with an opposing argument, in speech or in action, to the one just given, to see the stability of the production and the way in which the new proposition was included in the child's system of thought. Since Piaget's work, different authors have questioned the assumption that such counter-suggestions "show" the child's structure, and propose instead that what the child can respond to in such situations is a result of a co-coordination with the adult (Arcidiacono & Perret-Clermont, 2009; 2010). The adult's interventions have effects in the child's thinking and the child anticipates and adapts in different ways to the adult's demands and expectations. Thus, all exchanges between researcher and participant can be considered as a result of an interactive and dynamic process in which they both expect and anticipate the others' demands and which is a unique emergent of such a configuration, rather than a reflection of someone's "thought" or "mind". Breaching strategies, on the other hand, were explicit social norm transgression by the researcher to evaluate the participants' reactions (Garfinkel, 1967), which can also be considered as a result of this co-coordination here between child and researcher.

In my field work, empirically, what I did is that I would sometimes enter the play as also wanting to play something, like all of them. Because, when we play, there is always a part of the play which is negotiating who is who, what is what and where we play. Who is the dog, if the blue rug is the pool or the see, etc., and I started saying things, which I considered "breached" the usual sign configurations they come to agree on (based on gender). For example, when playing in the family corner, I would ask to be the dad, or play with a knight instead of a princess. Other times, the breaching was subtler, such as turning myself into a toad instead of a princess. These strategies are "breaching" on two levels: one is in relation to my way to read the field, how gender is categorized and materialized in the spaces they navigate, but also, "breaching" is defined après coup, by the children themselves. As an example, Nadine once put heels on a super-hero toy and I would have taken this to thinking it would "breach" the configuations. But the girl I was playing with didn't even notice this act as breaching or unusual, it was accepted as anything perfectly usual in play. In this way, there is breaching in relation to the context and breaching for and with the child.

Moreover, in line with the ideas according to which the children's statements do not simply reflect their thought but are a result of a coordination with the adult in the situation, the children adapted in different ways to how they interpreted my expectations. As I employed these strategies regularly in

my interactions with the children, in time, they started being anticipated and integrated as part of the form in which we played together. In this sense, this resource came to be identified by the children and became a part of "who I was" to them in the interaction.

Nevertheless, the children's responses to different attempts to "breach" the gender configurations were present in their interactions with other adults and other children, and thus not only specific to the form of relationship they had established with me.

4. Data collection & data treatment

The data collection took place in three homes, one kindergarten and two primary schools, as well as in various outdoor settings (farm, market, forest) during ten months between March 2018 and January 2019 in Switzerland. The empirical material is centred on three children's daily lives, and was collected via participatory observations, divided into sequences (n=116) (Table 4).

Child	Kindergarten	Home sequences	School sequences	Total n° of sequences
Nadine	6	13	11	30
Paul	17	13	12	42
Natalie	13	21	10	44
Total	36	47	33	116

Table 4: Number of observations per setting and per child

Child	Play sequences	
	General	Gender-related
Nadine	22	4
Paul	26	9
Natalie	24	6
Total	72	19

Table 5: Number of play sequences and gender-related play sequences per child

4.1 Field notes

I took three kinds of field notes, following Spradley (1979; Vasilachis de Gialdino, 2006): a condensed account of events –which are brief notes taken in the moment of the observation which are meant to trigger more information in a later expansion of the description-, an expanded account – which builds on the condensed account as a more extended explanation of the situations and, in my experience, is better produced right after leaving the field-, and a journal which allows documenting personal experiences, feelings, general counter-transferential aspects which emerge during the observations.

In this study, I chose not to film or record the interactions. I wanted to allow for the evolution of the interaction in the most spontaneous form possible, and a recorder or a camera would have further transformed the possibilities for expression for the participants. My presence and note taking already changed the way in which they might speak and behave in terms of gender thus, as such, I tried to keep this intervention to a minimum. Moreover, the type of relationship established was also more direct, as without recording we could share more private things of our lives without worrying about where they might appear or who might read them.

For each observation I transcribed my notes and organized them based on three factual criteria:

1. The day in which the observation was done (Monday, Tuesday, etc.),
2. The people I arranged to see (parent, teacher, child)
3. The location where they took place (school, house, park)

In my notes there would be, for example, three "observations" for one day:
- Monday 8h15 in school class A with teacher X
- Monday 10h15 in school class B with teacher Y
- Monday 14h in the city centre with parent Z

What can be found in records?

As the case was constructed through theoretical sampling, emergent issues such as norms in play, rule establishment, conflict resolution, and parents' interventions were privileged in note taking. The focus was throughout the study, on children's play, but under other guiding questions such as, what form do past experiences with gender adopt? How does the way in gender is organized in spaces and done by others appear in what children do? And therefore, child-other interactions of different kinds were documented, especially when related to gender-marked aspects. These gender-markings were established in relation to the physical settings in which children participated: toys, movies, books which were identified as gendered by the researcher and the participants (children or adults).

This process required formalized note taking while keeping an open spirit for novel emergences. A theoretically informed outlook leads to this guided note taking in the field but also to clustering information behind the written marks made on the field. As psychoanalysts train in floating attention, this requires developing a way to 'see' what is going on (Corsaro, 2015). Some forms of grouping the information in mind can manifest in writing down prompts or taking pictures: it requires a form of memory training. In terms of hardware, I used not only pen and paper for notes, but also the construction of a table in which the notes were transcribed immediately after the observation. For this, I used a four-column table including: (1) time indications—the date and place of the observation—

, the type of activity—free-play, visit to the woods, etc.; (2) para-textual information—the researcher's description of the situation and all non-verbal information of the interaction; (3) textual information or dialogues—transcription of conversations; (4) and initial analytical points guiding subsequent observations—elements interesting to look at further. When the speed of the interaction did not allow noting textual information or dialogues, columns (2) and (3) merged into a content column, as in Hedegaard & Fleer (2019). As in classical ethnography, the construction of data is already part of the analysis (Flick, 2014). The transcription immediately after the observation is not only a way to remember as many details as possible, but also a way to elaborate on what was observed, and so to reorganize the information. Writing it down again leads to thinking about the data in new ways, establishing new relations, and a move towards identifying analytical points that guide further observations.

In Observation 23 below, we can see an example of the table used and the notes taken, where as a researcher I reflected on the way in which children defined "what it is like to be a child in school", and the children speak only of the rules they have been taught.

Observation 23 - School

Date et moment de la journée	Description	Conversations	Commentaires/ analyse
31/08/18 - 14hs (parascolaire)	Ils montent de la salle de repos où ils regardaient un film. Luke et Natalie me voient quand ils entrent et rigolent. Ils sont au coin regroupement. Je me présente. Je leur demande si eux ils savent comment c'est d'être un enfant à l'école et ils commencent à énumérer des règles.	Luke : Il faut pas taper.	Définition d'enfant par rapport aux règles.

4.2. Sequences

For the analysis, as observational units (Samaja, 2004), I then defined **sequences of interaction** based on the following criteria: the factual and fictional *what, where and who*. A new sequence can start when a new theme (the *what*) is defined. New theme indications can be: propositions to play something else ("Let's play mommy and daddy"), abandonment of the play object(s) (putting things away), change of activity (going to have lunch). These don't correspond to single utterances or turns. The interaction sequences constitute "slices" of data corresponding to meaningful units (Marková, 1990), sense units (Zittoun, 2004) or observational units (Samaja, 2004): the level at which data is cut.

WHAT → *Factual: playing, drawing, eating, walking, etc.*

→ *Fictional: being lost in the forest, fighting, napping etc.*

WHO → *Factual: teacher, mother, researcher, child.*

→*Fictional: characters (I am the unicorn, This is Spiderman, You're the mommy).*

WHERE → *Factual where and with what: kitchen corner with oven, plastic food, on the rug*

→ *Fictional where: imagined farm with a pond on a blue spot on the carpet*

Observation 30 is an example of a play sequence defined by the criteria just defined. In this case, Nino, Erin and Min are playing in the middle of the classroom. They are playing pretend family with a daddy, a brother and a cousin; thieves come attack them and they build a cabin.

Date: 12/05/18 – Example of play sequence in kindergarten

Description	Conversations
Nino joue avec Erin. Min arrive vers eux.	Min : Je peux jouer avec vous ?
	Nino : Ouais, si tu veux mais faut pas que Erin elle parte, parce que c'est ma copine.
Min commence à prendre des blocs par terre.	Nino : Non, non faut pas faire ca !! C'est pour faire la décoration ça. On joue à papa et maman ?
	Min : Oui, mais moi j'étais le papa.
	Nino : Et alors j'étais qui moi ?
	Min : Le bébé.
	Nino : J'étais plutôt le grand frère.
	Erin : Et moi la cousine.
	Min : Le papa et la maman ils étaient morts.
	Nino : Moi je vais chez le dentiste. Non, non Min !! Il faut ça dans la porte, c'est la clef !
Nino chante tout seul un peu bas. Erin part parler avec une éducatrice. Nino la regarde de temps en temps pour voir si elle revient.	Nino : Tu pars ? Tu veux faire une cabane Erin ?
	Min : Oh, non ! Des voleurs ! On fait un château fort ?
	Nino : Non, j'ai pas envie. (à une autre fille) Tu veux jouer avec moi à la cabane ?
	Fille : Plus tard.
	Nino : Plus tard ce sera trop tard et tu pourras plus jouer.
	Fille : On fait la cabane alors.
	Nino : Avant c'était trop tard mais maintenant c'est plus trop tard.

4.3. Data analysis

For the analysis, I conducted thematic, categorial and semiotic analyses, which allowed, respectively, a first approach and an organisation of the material; then, the definition of dimensions and theoretically informed categories of analysis for looking at space, and finally, a fine-grained lens to look at children's interactions in play. Across all these forms of analysis, I also did frequency recording (Collier-Meek et al., 2020), that is, I counted the number of occurrences of the different categories, in order to include an illustrative quantification for the frequency of appearance of each category.

The corpus was analysed across children and for each child across time, but systematically not across settings. Although I analysed the settings differentially in terms of their spatial organisation and

compared parents' and teachers' discourses on gender and play, a more systematic study on institutional dynamics may shed light as to further differences in the institutional guidance. Yet, the centre of this study was to attend to the difference between the child's particular form of doing gender, and the guidance the environment provided.

4.3.1. Thematic analysis: themes and types of play

Thematic analysis was the step after the definition of sequences in the data reduction. This is a kind of analysis allows identifying recurring themes in response to the questions guiding the establishment of sequences (Braun & Clarke, 2006). The themes are a result of looking, in every sequence, for the answer to the question of who, what and where –who is there, who are they playing, what are they doing and where are they or where are they pretending to be. These responses were then regrouped by building larger themes: "human" and "animal" are themes that answer who they are pretending to play; "fighting" and "caring" respond to what it is they are playing at; and "everyday life" locations and "imaginary" locations answer where they are playing. This step allows comparing the presence of certain characters or people in certain activities or places, to try and progressively construct categories –which is the objective of the following analytical step.

4.3.2. Semiotic categorial analysis: analysing space

As activities are situated, and interactions within them unfold in different settings, conversations refer to various present and absent objects, places, and experiences. Researchers analyse such conversations and sometimes look at use of social categories. Categorial analysis (Mayring, 2000) is commonly employed for the reduction of data and to organise the themes based on a hierarchical and relational definition of how the themes are related (Mayring, 2000). Within this frame, the relations and hierarchies between the themes and elements are abductively defined. Categories are here considered as dynamic, thus also changing and defining relations with other categories. Their borders indicate particular configurations, are dynamic and simply speak to a specific concretization in time and place of the semiotic elements in question.

In order to account for the children's interactions and with the cultural elements that together would constitute the researchers' ideas what was "gender" as a category, the different elements need to be defined from within each setting, space and group. Cultural elements evoked, for example, in play, can be play themes—playing pirates or family—; characters—Spiderman or Snoopy—; and worlds—as life on another planet or in the Middle Ages. If we consider the researcher's category of

gender, these cultural elements constitute what is understood as gender in their relations as semiotic configurations. For instance, while in children's books, Spiderman has certain characteristics, wears certain clothes, and does certain things such as fighting and jumping on buildings, when children themselves play Spiderman, some of these characteristics are different: Spiderman may wear Batman's clothes or drive his car, he may also have a baby rabbit and live in a cabin in the forest. Comparing the different ways in which elements combine makes the categories more complex and dynamic, while not losing the specificity of the interaction in the process.

Practically, this leads to retracing the objects, the spaces and the arrangements around the semiotic system explored and to paying attention to the materiality of the spaces and to objects as carriers of social meanings. It is firstly a matter of reconstructing the symbolic and material spatiality: *What was there? What was said about it? How was it used?* The categories for analysing space are constructed by triangulating the objects present, the spaces as they are organized, people's uses of these elements, with the original category that was of interest, in mind –in this case, gender. I drew a map of the different places, listed the objects that were found and characterized them from the perspective of the researcher. In the transcripts, I looked for people's references to objects and settings, to how they spoke about them. I then coded for explicit references to the setting description and looked for people's uses of those spaces and objects. Finally, I triangulate (Flick, 2014) between the researcher's setting description, the actors' discourse of those settings and objects, to construct the semiotic configurations. This is a first approximation to study how categories are crystallised in everyday life settings.

4.3.3. Triangulation

The concept of triangulation was proposed by Denzin in the 1970s. At the time, he distinguished different types of triangulation. In this study, I proceed through data triangulation (Denzin, 1989; Flick, 2014), which refers to the use of different data sources (Flick, 2014, p. 183). Denzin (1989) distinguishes between time, space and persons in the subtypes of data triangulation, recommending studying phenomena at different dates and places and from different persons. As mentioned, I triangulate between the researcher's setting description, the actors' discourse of those settings and object, but also the children's uses of objects and their engagement in play.

I further use triangulation in the data analysis: I conduct different forms of analysis on the same data. This later allows me to try and find links between these analyses at the level of each case and then across cases. Triangulation in analysing data also allows looking for links on the level of data sets: "this means analysing the (…) data first and looking for patterns in them. Then we analyse the

observations for patterns in them (…) In the next step, we compare the patterns we obtain in each analysis for similarities and difference" (Flick, 2014, p. 188).

Thus, through triangulation in the data collection and the analysis, I compare perspectives and sources, as well as different forms of interpretation, which leads to finding recurrences and patterns explaining how gender guides and is done by the different participants.

4.3.4. System of categories

As a result of the analyses, I constructed a system of categories for the reduction of the data (Table 6: System of categories. Through categorical analysis (Mayring, 2000), in an abductive movement (Peirce, 1894; Valsiner, 2018b; Zittoun, 2017b), I arrive at a system of categories composed of three dimensions and I now define each category by comprehension (In Chapter 6, I will define each category by extension).

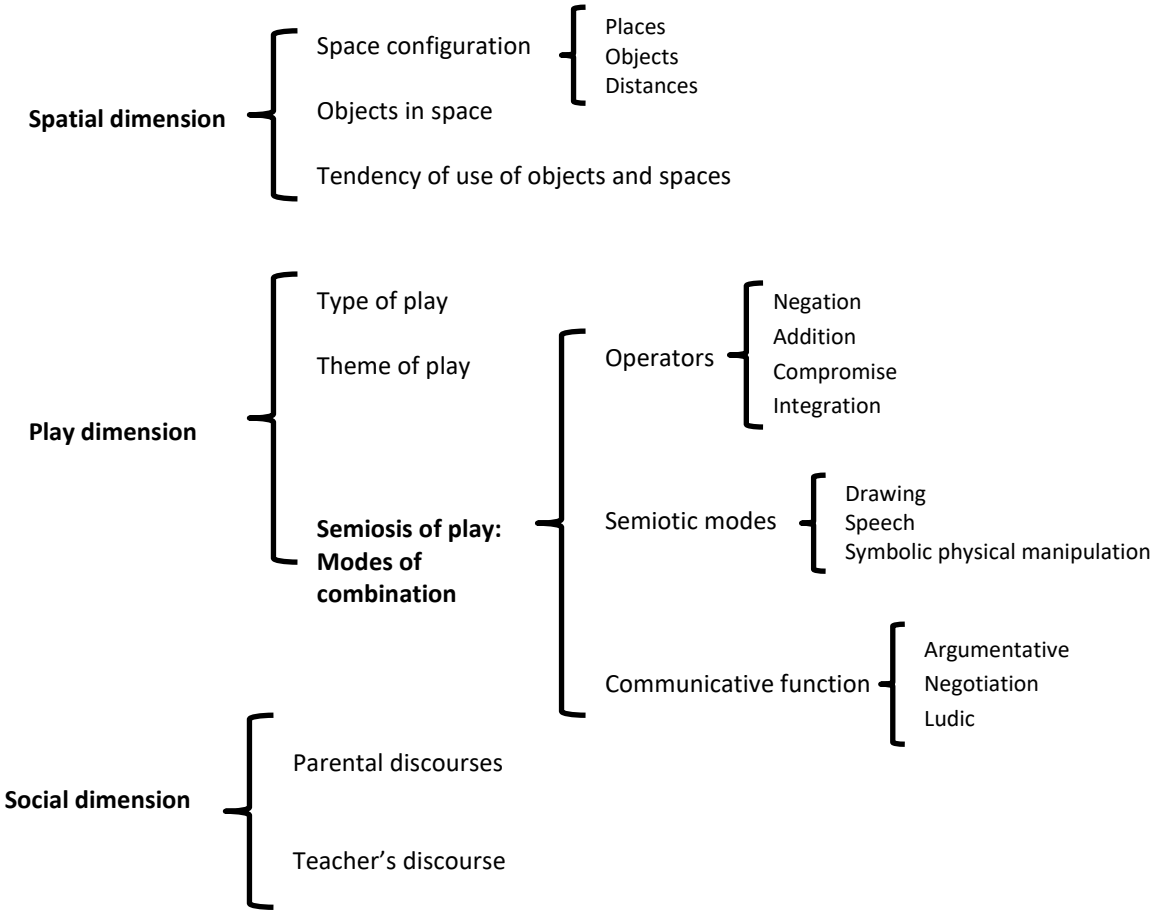


Table 6: System of categories

The first dimension I define is the spatial dimension. Within this dimension, I first analyse space configuration by describing the places, coding the different objects present and looking at the

distances and placement of spaces. Then, I look specifically at the objects that can be found in the defined spaces. And finally, I trace some of the tendencies of usage of such object and spaces by the children. This dimension allows me to show the materialization of gender as a dynamic semiotic system normatively organised around two attractors.

The second dimension I define is the play dimension. Within it, I coded the type and themes of play. Within the themes, I defined characters and activities which made up some of the emerging themes. Characters could be animal or human, and existing or non-existing (or imagined). The activities were of fighting, caring and construction, in accordance with the two attractors I define based on the gender literature which defines a dichotomic distribution in the organisation of gendered spaces. I then look at the relationship between object presence in the spatial dimension and types and themes of play. As there is not a straightforward concordance between these two aspects, I define a sub-dimension: the semiosis of play, which allows me to conduct a more fine-grained analysis of children doing gender. The category I thus define to look at this semiosis of play is that of modes of combination, which are composed of operators, semiotic modes and communicative functions, as I have re-defined these terms in the context of this research (Chapter 4).

Finally, the third dimension I propose is the social dimension. I use this term to designate the fact that I look at parental and teachers' discourse on norms, gender and play. This is only a beginning of reflection to have some elements in order to understand where the children's forms of doing gender may come from; yet, I did not conduct a systematic analysis of this dimension. Such work would require further research into the topic.

Considering the three dimensions together will allow me to show a number of findings across children and in time as I will show in the next chapter (Chapter 6).

4.3.5. Presentation of the results

For the presentation of the results, I chose data excerpts that illustrate the categories, as they provide examples of the different elements found in each category. The data presented in not exhaustive of all of the observations found. Nevertheless, all play sequences were coded an analysed through the above-mentioned procedures. I also decided not to translate the observation notes in order to keep the fidelity to the children's speech. Thus, the observations referenced here are always accompanied of a long commentary that describes in detail what took place.

In order to maintain my involvement in the research process, I chose to write in the first person singular throughout the monograph. This choice is a way of taking responsibility as a researcher for my claims and to avoid dissolving it into a general and impersonal "we". Yet, when analysing the data, in order to take some distance from the material for its analysis, I sometimes spoke of myself as "the

researcher". Lastly, I used the first person plural when presenting examples of the conceptual propositions, as a way to invite the reader to think with me and imagine the value of the propositions in different empirical situations.

5. Ethical considerations

The practical considerations developed to explain the research design are framed by a number of ethical considerations which define the type of relationship established with the participants.

In very broad terms, ethics is the study of the ensemble of principles and normatives related to moral conduct that attempts to use, in the field of scientific research, some of these moral notions or systems as a way to avoid "damage" to researchers and others (Tau, 2017). Ethical principles are, as they speak about human characteristics, human actions, and normativity, also part of psychology's domain. The prescriptive and proscriptive claims about humans and their actions ought to be in line with the psychological perspective adopted, as this is a psychological study. Thus, instead of an external body annexed to the conceptual frame, or a set of philosophical reflections about humans, a psychological account of the ethical principles locates and makes sense of them within the research process. Building on this articulation, I describe the ethical position adopted and inscribe it in the psychological perspective of this study. This allows me to derive practical consequences in the engagement with people of the study and in accounting for my own position as a researcher. Finally, I refer to the international and national instruments that regulate ethical conduct, which constitute an institutional crystallisation of the theoretical reflections preceding them.

5.1. Dialogical ethics

Dialogically based ethics stems from ontological premises defining the irreducible nature of the Self-Other unit. This irreducible nature, defined by Marková (2016) and traceable in the philosophical basis for dialogicality, leads to defining a set of ethical principles that characterize that relation (that is, dialogical rationality, as opposed to individual rationality (Marková, 2016)). In the claims about the irreducibility of the other (Levinas, 1974; Marková, 2016), there is something that insists or remains, beyond any relation, thought or action I can have or establish. This ontological claim has a consequence at the epistemic level. Knowledge becomes always relative but only so in relation to the Other: the other is that of the world which resists my reduction of it to thought or communication. More so, the irreducibility and uniqueness define, in ethics, characteristics that more deeply guide possible considerations and responses, such as that of answerability.

5.2. A psychological account of ethical principles

In the early work of Bakhtin there is a distinction between two forms in which answerability can be understood: as an ethical principle, answerability goes "deeper" than its textual understanding. Bakhtin claims that "what guarantees the inner connection of the constituent elements of the person", is the "unity of answerability" (Bakhtin & Brostrom, 1990, p. 1). It is not only a characteristic of utterances –that come from and call for other utterances in an infinite flow of replies- but pertains to "an answerability for my own uniqueness, for my own being" (Bakhtin & Brostrom, 1990, p. 43; Marková et al., 2019). He thus speaks of this "deeper sense of answerability" (Marková et al., 2019) as the fact that we are answerable "in life" (Bakhtin & Brostrom, 1990). Similarly, Levinas' (1974) notion of "face" when referring to the irreducibility of the other appears to be an ontological premise: there is something beyond what categories can apprehend, which resists reduction. And this has consequences on the statute of the type of knowledge I can reach: if I arrive at idea A about Bob, idea A does not fully characterize Bob, Bob can change, disagree with A, not fully correspond to A, thus leading me to change A to A' or even B. Then, when we speak of answerability, uniqueness, responsibility, *are we not talking about a characteristic, not of dialogue, but of the researcher or participant as person, thus something maybe explained through the lens of psychology?* Concretely, there is a distinction between answerability as a general ethical principle, and then answerability as "consciousness of answerability", thus possible to address in its psychological unfolding: *Can we become aware of the fact that we are answerable? How do we concretely answer with our own life?* The reason for this distinction could be in the fact that when we look at ethical reflections, a common element is that ethical principles and reflections come from "problems", discomfort, embarrassment, situations that somehow transgress the acceptable in research situations. Maybe the moment in which the researcher becomes aware she is answerable, is the moment in which these "problems" are experienced. And, if this is the case, then one can analyze the inner-dynamics of this psychological unfolding of a consciousness of answerability.

5.3. Practical implications about the researcher position

The researcher is part of the ethnographic encounter and thus, does not study interaction "out there" but enters the semiotic web, and being part of it, comes to understand it (Gillespie & Cornish, 2014). The researcher-researched relationship unfolds beyond an unquestioned adherence to traditional "ethical" protocols—parents, children or teachers providing consent. Over time, both researchers and participants may acknowledge the relationship established through this method as

something more than a researcher-researched relation, although this aspect is always present. The dialogue between them should remain reflective of potential asymmetries in engagement and rather than expecting participants to align themselves to researchers' perspectives (Aaronsson & Hundeide, 2002), the researcher engages with the participant's perspective above her own (Levinas, 1974). Such an approach avoids putting participants into "dialogical difficulties" (Hviid & Beckstead, 2011), that is, monological conversations in which they believe to be having a conversation with the researcher 'about' something, while the researcher is measuring, for example, "cognitive abilities" or the "linguistic code". The method requires that researchers do not think of the ethics of the research as ending at ensuring written consent and explaining the research process as indicated by traditional ethical guidelines. The researcher engages in a genuine dialogue with people's ideas and concerns (Marková et al., 2019). What I am referring to here goes beyond a strict adherence to traditional ethical guidelines, which requires participants' consent and comprehension of the process. Rather, I propose to foreground the other's concerns and engagements to one's own. The other is not "evaluated" or "tested" but engaged in a human relationship to someone else, with different concerns at different moments. This may be a way to try and go beyond "asymmetry of engagements" (Hviid & Beckstead, 2011).

Even though it is indicated that participation implies a personal and even existential commitment on the ethnographer's part, as this participation is the researcher's analytic resource in understanding and documenting everyday life (Atkinson, 2015), something similar to what is called a limited engagement was adopted (Jessor et al., 1996). In practice, this involved a participation of the researcher in activities proposed by the participants, but a non-complete involvement in everyday life. For example, when proposed to join Natalie's family at the beach with my 15-month-old son, I kindly agreed to join without him, not only for practical reasons –it would be virtually impossible to observe while running after a toddler- but to try and maintain some sort of distancing for reflection and research. That is, some anchorage in a larger process so as not to lose the big picture and stop being "the researcher" to fully become "the mom" or "the friend"; although, as a person, I was always all of those things. So, as another example, when asked by the parents and children about my son, I talked about him, showed them pictures and even introduced them to him on an occasion in which we ran into each other at the park.

This identificatory mode was at times chosen and at times involuntary. As people involved in a long-term relation and sharing everyday life activities, we found ourselves talking about many issues not specifically related to the research project: our nationalities, football teams, the advance of technology, etc. This "sharing" is part of the researcher position in consistence with dialogical ethics. Establishing an I-Thou (Buber & Smith, 1958) relation with the people involved means acknowledging

them fully as humans and not mere bits of empirical material responding to some question about gender differentiation.

As for parent-researcher and teacher-researcher relations, an important fact in the way our relationship was defined, both with the families and the teachers was the fact that I am a mother. As most of the people I interacted with were mothers too, this lead to a quick assumption about "common grounds" for conversation. These common understandings "because you are a mom too", removed the discomfort and suspicious attitude some parents and teachers showed at the beginning of our contact. There was not a full identificatory fusion with the people, perhaps thanks to the fact that I am not Swiss, bringing forward a kind of "I will help you understand" attitude both from parents and children. The curious position of the researcher is carefully maintained and attempted at not falling into an inquisitive or persecutory position for the participants. The first decision that lead to this was to disclose that I have a son: the headmistress asked me if I had kids at our first meeting. I became "a mom" for her, for the other moms, for the pre-school teachers, for the children. This tag I think allowed them to make sense of a lot of the things I did: the children easily accepted me in the group, the fact that I was interested in children, etc. Nevertheless, allowing for such an assumption that we have "common grounds" was not an empathic relationship but an analytic resource, it was a way of making explicit and taking up the so-called "interference" to make it a part of the defined relationship (Barker & Wright, 1951).

In terms of child-researcher relation, since contacting the parents and agreeing on working with them, I went to school once or twice a week for 1h30 and came to children's houses once or twice a week for 1h30. Coming to their homes could also take the form of tagging along with their plans –going to the market, to the forest, to the playground. I have been at times an adult providing some security for children, such as when Nadine didn't want to stay in school but accepted staying because she saw me and asked to hold my hand until we got inside. Also, for the parents, I was asked to be a mediator for them between school and home and at times, a reassurance that "everything is going ok". Regarding the relationship with the children, I decided to be physically engaged with them. I played, I sat on the floor and we read books. I also sometimes simply sat in a corner and took notes. They also bossed me around a lot and told me what to write. I thus maintained a sensitivity throughout data collection to the things and propositions that mattered to the children I studied. As a result of this, it seems that I acquired a special status to the children –not really a child, but not a usual adult either. As a small indication of this, one child characterized me as "not a real one" (i.e., adult).

5.4. Technical aspects

As for the technical ethical aspects, the present project complies with the SSP (Société Suisse de Psychologie) and FSP (Fédération Suisse des Psychologues) ethical guidelines, in which Art. 36 states that "*les projets de recherche ne doivent être exécutés qu'en conformité avec les dispositions pertinentes des législations fédérale et cantonale ainsi qu'avec les directives de la Société Suisse de Psychologie"* (p. 14). These guidelines are referred to in the ethical code of the Psychology and Education department of the University of Geneva as well as the document *"Guide Vert: Recueil de documents relatifs à la déontologie pour la recherche en psychologie et éducation"* of the University of Neuchatel which forms the basis of ethical considerations for this research.

In accordance with Article D15-D19 of the *Guide Vert,* a written informed consent was asked to the parents of the participants before entering the institution. For the exploratory study, I approached the cantonal and city administration department, as well as the heads of the institutions in order to present the project and ask for their consent (Annex I). I also designed an informed consent form for the parents to accept or not the researcher's participation in the school activities (Annex II). More so, children were also asked verbally for their willingness to participate and engage with the researcher.

Complying with the abovementioned documents, the identity of the participants is annonimized. Any reference to the participants' actions or sayings is stripped from any reference that would allow anyone identify its source. More so, personal details are not divulged and the privacy will be respected.

6. Synthesis

In this chapter, I have presented the chosen approach, the research design, the data treatment and ethical considerations of this study. In what follows, I will present the results of the analyses conducted and the way in which they answer to this project's research questions.

Chapter 6 - Results

> Jorge Luis Borges spoke of a 'certain Chinese encyclopedia' in which it is written that 'animals are divided into: (a) belonging to the Emperor, (b) embalmed, (c) tame, (d) suckling pigs, (e) sirens, (f) fabulous, (g) stray dogs, (h) included in the present classification, (i) frenzied, (j) innumerable, (k) drawn with a very fine camelhair brush, (l) *et cetera,* (m) having just broken the water pitcher, (n) that from a long way off look like flies'. In the wonderment of this taxonomy, the thing we apprehend in one great leap, the thing that, by means of the fable, is demonstrated as the exotic charm of another system of thought, is the limitation of our own, the stark impossibility of thinking *that*.
>
> Michel Foucault (1970), *The Order of Things,* p. 15

In this chapter, I present the results of the fieldwork and its analysis. First, I introduce the proposed system of dimensions and categories. Second, I present the analysis of spaces and argue it shows that the system of gender is materially distributed and organized around two attractors. Third, I move to propose that a way to understand the semiosis of play, that is, how children engage in pretend-play, through regular modes of externalization I call modes of combination. With this, I show that when applying such a frame to situations in which gender becomes relevant, its normative character becomes apparent. Fourth, I present parallels between children's ways of engaging in play semiosis, and parents' interactional styles and relationship to norms. This parallel nuances the normative strength of the gender system in favour of a relational and child-specific mode of engaging in play. Thus, lastly, I argue the children may have privileged modes of engagement and externalization that I call psychological patterns. These patterns speak more broadly of the child as a person and may characterise her relationship with the world beyond the gender system.

1. Steps for the demonstration

In order to understand how children did gender through play, I analytically organize the empirical corpus according to what I was interested in observing. First, I describe and analyse the spaces and the objects in space in their relations as defining a gender system. Second, I look at what and how children played in those spaces. And third, I analyse parental discourses on gender norms and play, to understand children's play in space. For this, I define a system of categories composed of three dimensions. Through categorical analysis (Mayring, 2000), in an abductive movement (Peirce, 1894; Valsiner, 2018b; Zittoun, 2017b), within each dimension, I define categories and subcategories of analysis (Table 6).

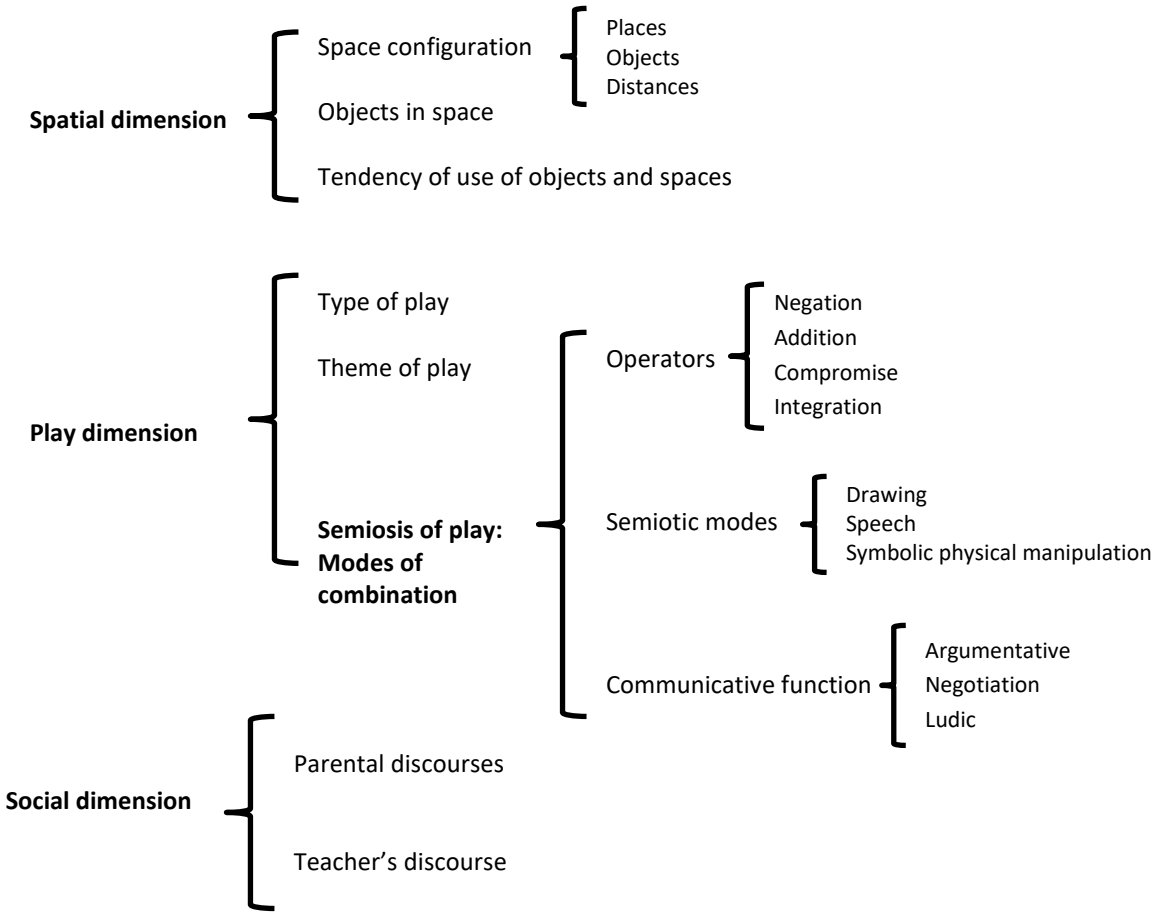


Table 7: System of categories

When considering the three dimensions together, I suggest that we may be able to identify personal modes of playing gender in children that I defined as psychological patterns. In what follows, after presenting the dimensions and categories, I analyse specific play sequences that show such intersection of the dimensions and the definition of psychological patterns. I now define these categories in turn, as they support the heuristic hypotheses developed in a previous chapter.

2. Spatial dimension

In Chapter 4, I argued that gender can be considered a dynamic semiotic system with particular normative weights. I further proposed that it can be seen through its materialisation in everyday life arrangements. From those theoretical assumptions, I defined the gender system as organized in theory around two attractors, spatially in the antipodes of one another. In this section, I substantiate this hypothesis this by presenting the results of an analysis of spaces according to three aspects: the physical

disposition, the objects presence, and the type of play promoted, as well as some children's tendency of usage.

To arrive at this, methodologically, I first present maps and pictures of the places that the children frequented that show the different spaces defined by institutions and adults. For this, I also report some of the adults' comments and ideas about the spaces and their organization. Second, I note the objects that were present and where they were. Third, I look at the tendency of usage, that is, the frequency with which children visited the different places or used the different toys. The triangulation of these three aspects allows me to show that the gender system is materialized in these spaces and organized around two attractors.

For the demonstration, I here follow three steps: I first describe the schools and homes, their spaces and the objects within. For each case, I also speak of the activities and the use children make of the spaces. Finally, I propose that the spaces can be thought of as organized around two attractors that distribute patterns of possible actions and behaviour.

2.1. Classroom organization

The children I observed went to the same kindergarten when I started the observations but to different primary schools after the summer. There are certain elements in the organization of the classrooms, which were common to both the schools and the kindergarten, whereas there were others that differed. In particular, I will explain the fact that all the classrooms studied were organized around "play corners", a term used both by participants and in literature on children's development.

In kindergartens, as in other organizations, indoor physical environments are usually divided into different zones that give signals and normative guidelines to what tends to take place there and what is appropriate or inappropriate to do there (Børve & Børve, 2017; Frønes, 2001). A "play corner" is a zone, a part of a room that is organized around an activity, a type of object or a form of play. The classroom areas are thus divided into many corners. These can be for reading or dressing up; to play cars, or farm animals; and they can also be to play cooking or family. They have a sort of suggested contour that can for example be defined by a carpet, or the disposition of cushions in a circle.

There are a few typical corners that are found in all schools and kindergartens:

- The doll corner has a name referring to its content, that is, the objects found in it. It contains a little house, little dolls of different imaginary ages, usually an adult female and an adult male, a few children and an old female or male. It also contains many little furniture and pets.

- The family corner has a name referring to the imaginary play it is supposed to promote: playing family. In it we find toy kitchens, table and chairs, cushions, eating supplies, phones and baby dolls, among others.

- The construction corner has a name referring to the activity that it is supposed to promote: constructing things. It contains Lego blocks, Lego little people, as well as other building blocks.

- The animal corner has a name referring to its content: it contains mostly farm animals but also other types of animals, objects to construct ponds and drinking spaces for the animals, and Playmobil people.

- The reading corner has a name referring to the activity it promotes, and contains books.

Figure 1: Corners

What I will show in what follows is that the teachers do not randomly set up these typical corners in the classrooms. Neither do they consciously define a certain organization in terms of gender. Rather, they dispose them in space in a way that opposes some of them, materializing the gender system. The corners organized around what I will call the care attractor, which includes the doll corner or the family corner, are usually found opposite to those organized around the practical attractor, including the construction or the car corner. I will also show that there is also a type of corner corresponding to a neutral area, such as the animal corner, or the reading, play dough and drawing corners, found spatially in between the two opposed areas.

Figure 2: Family corner

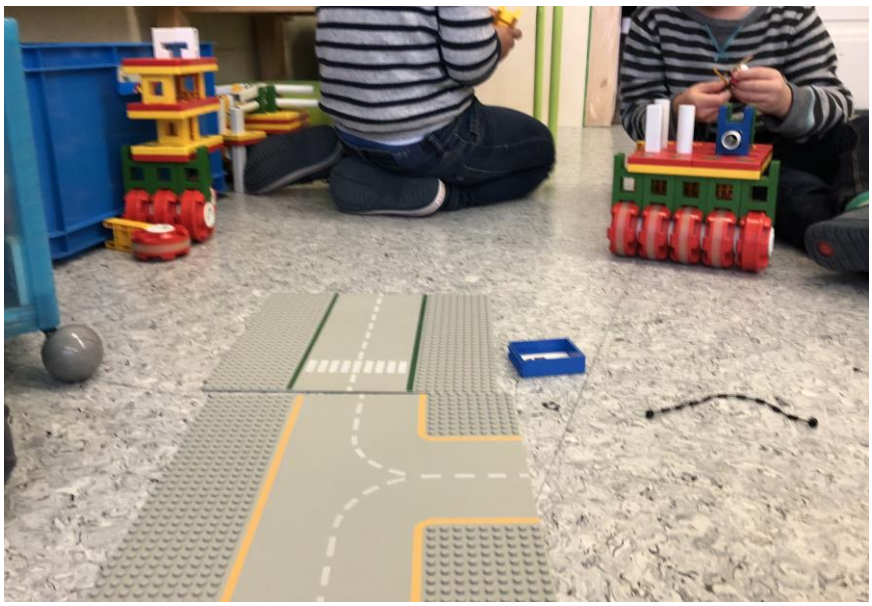


Figure 3: Construction corner

2.1.1. Dalby kindergarten

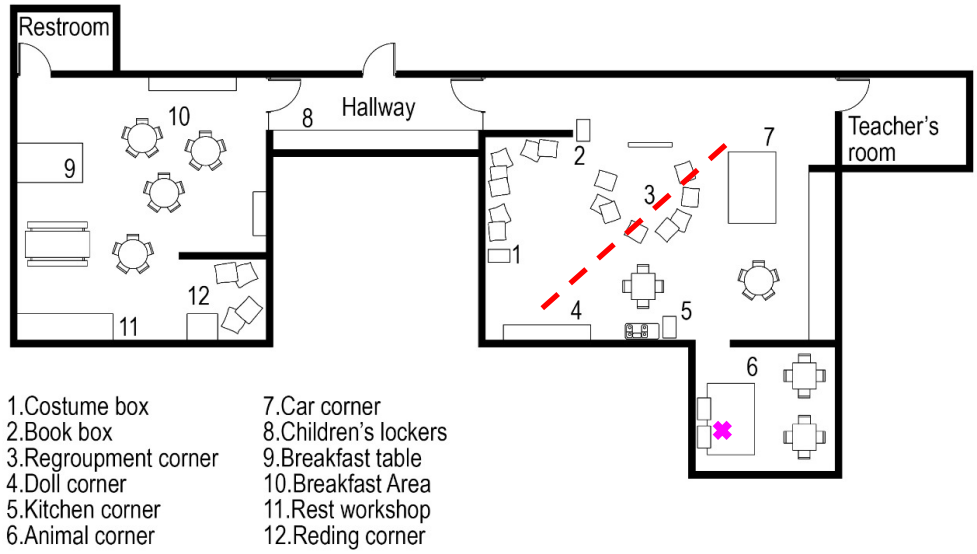
The first institution I visited was Dalby kindergarten. There, the children were divided into three groups according to their age: the babies' group, the "pirouettes" and the "hide and seek" group. The babies' group had children from 4 months to two years old, until they learned how to walk. The "pirouettes" group went from two to three years of age, one year before they started school. And the "hide and seek" group had children from three years old until they started primary school. Thus, in the last year of kindergarten, they entered the "hide and seek" group, which I followed. In the building, this group was assigned the first floor of a big house and they did their activities in two different rooms. As in the map below, the breakfast and play area were accessible from a hallway.

2.1.1.1. The start of a typical day

Children at Dalby kindergarten arrived between 7h30 and 8h30 the morning and had breakfast in the room on the left side of the map. If they had already eaten, they could play in the rest (11) and reading (12) corners while the others finished their breakfast. When the breakfast was done, children and teachers moved to the room on the right side of the map and sat around the "regrouping" corner (3). In this corner, they sang welcome songs, spoke of their days, the weather and of the activities for the day. After this moment, there was a 2 hour long "free-play" time and the children scattered around the room, each choosing which play corner they would like.

2.1.1.2. Analysing the space

The spatial organization of the classroom in terms of gender comes from looking at the disposition and usage of five different corners in terms of placement and activities.



Kindergarten map 1

The dotted line in the map indicates that the doll corner (4) and the car corner (7) are in the antipodes of each other in the classroom, that they are diametrally opposed in the room. Numbers 1, 4 and 5 in the map indicate three play corners that are in close proximity. Number 1 is the dress-up corner. It has a costume box with wigs, adult clothes such as skirts and shirts, and fantasy costumes from tales or cartoons such as dragon or fairy costumes. Number 4 is the doll corner. In this corner there are baby dolls, blankets, prams and beds. Finally, number 5 is the kitchen corner, where there is fake food, an oven, tables and cutlery to prepare meals and eat them. As mentioned, these three corners are on the other side of the room than the car corner (7), which has small cars, trucks garages and roads. In terms of physical dispositions, accessing the car corner from one of the first three or vice versa, requires the children to walk all the way across the room, while moving from dress-up (1) to doll (4) or family (5) corner is facilitated by their contiguity. As they are so far away, children are spatially more likely to move between corners 1, 4 and 5 or to stay in corner 7, but less likely to play in both ends of the room. In terms of activities, because of the objects present, corners 1, 4 and 5 are respectively defined to promote an action centred on enacting everyday life roles and doing "care" or everyday life activities, such as cooking, eating or putting a baby to sleep. Children can also dress-up as different characters and then move to enact the care or the everyday life activities afforded by the doll (4) and family (5) corners. Yet, they are less likely to dress-up and go play with the cars, or to make food for them, as it would demand a larger spatial movement.

The cross in the map indicates the animal corner (6), which is composed of boxes of plastic animals, wooden farms, but also Playmobil, knights, princesses and plastic objects to construct a pond, a jungle or a castle. In terms of physical disposition, it is located right in sight when entering the room and mid-

way between the family-doll-costume corners and the car corner. In terms of activities, the teachers define playing with animals as a "neutral" activity in terms of gender: children can play farmers, pigs or cows and these "have no gender", as one of them said. In comparison to the four corners considered before, the "mid-way" position that characterises the animal corner, in terms of space, activity and use might set the stage for a more mixed use of the corner.

Taken together, these aspects support the hypothesis according to which the way the corners and their respective objects are disposed are a materialization of the gender system, and subsequently subtly guide the children's play and actions.

2.1.2. Olive and Sheep school

After the holidays, I visited the schools the children attended after kindergarten. One of them was the Olive school, a very big school, with 5 parallel classes per year and located in the centre of the city. The other one was the Sheep school: it was small, had only one group per year and was in a small village outside the city. Their size affected some aspects of the activities that were proposed in the schools. In the first one, the teachers made more autonomous propositions, where the children were expected to do things by themselves, while the second one proposed a closer follow-up of the children. Of the children I followed, two went to Olive school, but to different classrooms, and the other to Sheep school, in the same classroom as her twin brother.

2.1.2.1. Paul's class at Olive school

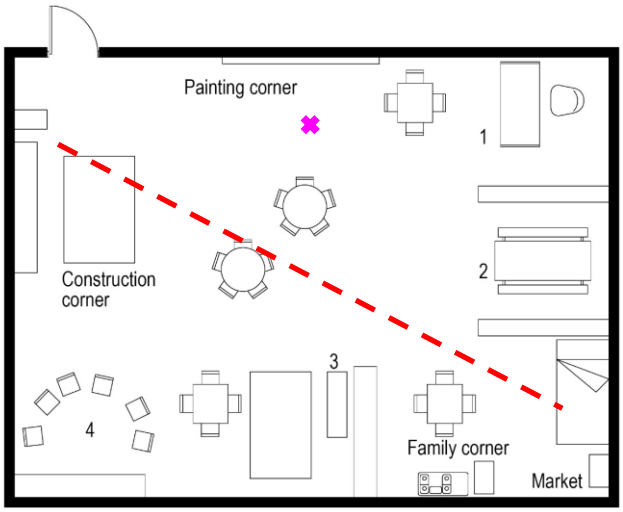
2.1.2.1.1. The start of a typical day

Children arrived in school at 8h15 and were expected to enter and go up to their respective classrooms by themselves. They all met at the regrouping corner –corner 4 in the map below- where they talked about the date, the weather, their day and activities with the teacher. After regrouping, the children had a long "free-play" time where they could choose between play corners and more structured activities such as writing or painting. They then had a small break and another "free-play" activities time until it was time to return home at 11h45.

2.1.2.1.2. Analysing the space

In this classroom, five corners merit to be mentioned in order to bring forward the spatial organization of the classroom.

In the map (School map 4) we can see a family corner next to the market corner, and next to the doll-house corner (3) corner. In the family corner there is a bed, a kitchen, babies, blankets as well as cleaning supplies. In the market corner, there is fake food, a registry, a counter and some shelves. The doll corner, next to the family one, has a big dollhouse with the same objects than the family one, but in miniature size. These three corners are on the opposite end of the room to the construction corner. This corner has roads, wheels, building blocks, Playmobil and vehicles that can be built and combined with others. In terms of physical dispositions, accessing the construction corner from one of the first three or vice versa, requires the children to walk all the way across the room, while moving from family to market or doll is facilitated by their contiguity. As they are close to each other, children are more likely to move between the family, doll and market corner or to stay in the construction one, but less likely to play in both ends of the room. In terms of activities, the family, market and doll corner are defined to promote doing "care" or everyday life activities, such as cooking, eating, buying or putting a baby to sleep.



1.Teacher's desk
2.Playdough corner
3.Doll house
4.Regroupment corner

School map 2

The playdough corner (2), in terms of physical disposition, is located between the construction corner and the family-doll-market set. Playdough is a soft material that does not have a prescribed shape, and which may afford adopting many different shapes depending on who uses it. It appears that in this classroom, there are corners that define specifically what can be done with them and what they can be mixed with, whereas others, through their less defined forms, allow for a more mixed frequenting by the children. Taken together, these aspects might mean that the way in which the

corners and their respective objects are disposed subtly guide the children's play and actions as a materialization of the gender system.

2.1.2.2. Nadine's class at Olive school

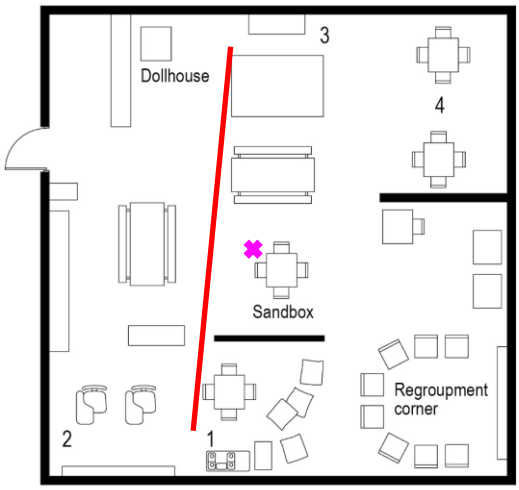
2.1.2.2.1. The start of a typical day

Children arrived in school at 8h15 and were expected to enter and go up to their respective classrooms by themselves. They all met in the regrouping corner, where they talked about the date, the weather, their day and activities. After regrouping, the children had a long "free-play" time where they could choose between play corners and more structured activities such as writing or educational games. They then had a small break and another "free-play" activities time until it was time to return home at 11h45.

2.1.2.2.2. Analysing the space

To understand the spatial organization of the classroom in terms of gender, I again look at the spatial disposition and objects present.

In the map (School map 6) we can see a family corner (1) next to the school corner (2). The family corner has a table, chairs, a bed, a kitchen, baby dolls and cooking or eating supplies. The school corner has school benches, a board, chalk and books to play with. These two corners are on the opposite end of the room to the construction corner. This corner has mostly building blocks, Playmobil and small cars. In terms of physical dispositions, going to the construction corner requires the children to move across the entire room and through a small wall to go from the construction corner to the other two, while moving between the family and school corners is facilitated by their proximity. In terms of activities, teaching, cooking and caring for babies are everyday life activities that require some form of care for the other -to teach, to cook, to put to sleep; whereas in the construction corner children build things: houses, garages or trucks. The dollhouse is here located in close proximity to the construction corner, yet, although not visible in the map, it is next to the teacher's supply closet and hidden under all sorts of objects, making it very rarely used.



1.Family corner
2.School corner
3.Construction corner
4.Drawing corner

School map 3

There is a sandbox corner in the classroom, marked by an x on the map. Spatially, it is in the middle of the room, between the construction corner and the family and market corner. As for objects, sand does not have a pre-defined shape, just as playdough, and can be made into castles, crabs or anything one might think of. Here again, these aspects taken together might mean that the way in which the corners and their respective objects are disposed subtly guide the children's play and actions as a materialization of the gender system. Moreover, some corners specifically define the type of activities that can be done and thus, follow a more separated frequentation, while others allow for more mixing and flexibility in their usage.

2.1.2.2. Natalie and Luke's class in Sheep School

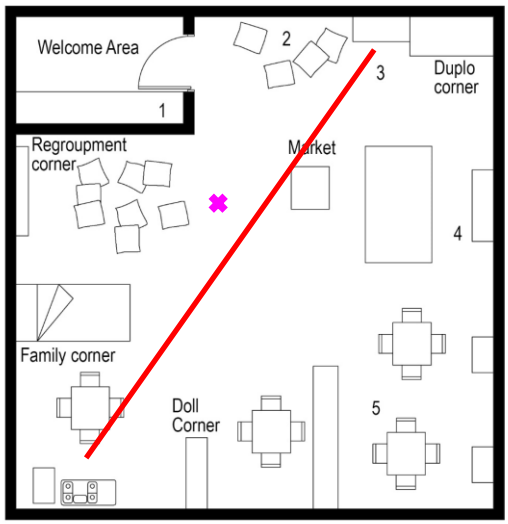
2.1.2.3.1. The start of a typical day

Children arrive in school anytime between 7h30 and 9h. They have a moment of "free-play" until 9h when they must go to the regrouping corner. During this first part of the morning, they are allowed to keep their security blankets or toys. In regrouping, they speak of the date, the weather and their days and activities. After this, they are again allowed some "free-play" time. During these, children can choose the corner they wish to visit and play in. More structured activities are proposed at the end of the morning and before lunch during 30 to 45 minutes. In this school, children attend full-days, that go up until 18h30.

2.1.2.3.2. Analysing the space

I now describe five corners that allow me to analyse the spatial organization of the classroom in terms of gender.

In the map we can see a family corner next to the doll corner. The family corner has a bed, a table, a kitchen, a huge teddy bear, baby dolls and costumes. The doll corner has a very large dollhouse with furniture and little people to live in it. These two corners are on the opposite end of the classroom in relation to both the construction corner (3) and the Duplo corner, that although also has construction toys, is on a different table, and more specifically oriented to the younger children. The construction corner has building blocks and cars, and the Duplo corner has Duplo blocks, animals and knights. In terms of physical dispositions, the two pairs of corners require the children to cross the entire classroom to go from one to the other. Their proximity might facilitate moving between corners that are next to each other than to cross the room, unless one has a specific goal or idea in mind. In terms of activities, caring and everyday life activities appear to be promoted within the family and doll corner, whereas the construction and Duplo corner are used to build all sorts of different objects. In order to perform a care activity, one would first have to build something to do it with, whereas in the family corner, the objects are ready for their use in a care play. These aspects taken together might mean that the way in which the corners and their respective objects are disposed subtly guide the children's possibilities for play and actions.



1.Lockers
2.Reading corner
3.Construction corner
4.Necklace rack
5.Computer and drawing corner

School map 4

The market corner is here in the middle of the classroom. In terms of physical disposition, it is then between the construction and Duplo corners and the family and dollhouse corner. In terms of activities, when not associated to the family corner, in the market children buy and sell goods, toys or food. Here, all corners specifically define the type of activities that can be done, yet, how they are put together guides their usage.

2.1.3. Synthesis

What appears to be common to all classrooms, in the schools and kindergarten alike, is the presence of corners that are separate in terms of place, objects and activities promoted. Alongside these separated corners, there were also "mid-way" corners, where the activities promoted and the objects present, were considered "neutral" by the teachers.

	Opposite care/practical corners	Neutral corner
Dalby kindergarten	X	X
Sheep school 1	X	X
Sheep school 2	X	X
Olive school	X	X

Table 8: Corners per institution

Specifically, in terms of gender, there are two interesting points: one is that care and everyday life activities -such as doing family, cooking, teaching- are in these cases grouped far from corners where things are designed and put into practice -such as constructing or building. The second is that there are neutral corners, which are spatially mid-way between the care and practical corners. These corners promote activities and have objects that are less marked in terms of gender, in the view of the participants, and might afford more mixed visits from the children.

The opposition in the type of activities promoted by the spatial organisation and the objects present cannot be considered accidental. The presence of a dichotomic separation between care activities and manual or practical activities re-edits the distinction found in the literature regarding gender-related differences as feminine and masculine (Børve & Børve, 2017; Francis, 2010; Logue & Harvey, 2009). In particular, this spatial analysis joins Butler's (1990) claims on the materialization of the prevailing gender system in physical spaces. It appears here that the classrooms evidence a materialization of the gender dichotomy in how the places are organized.

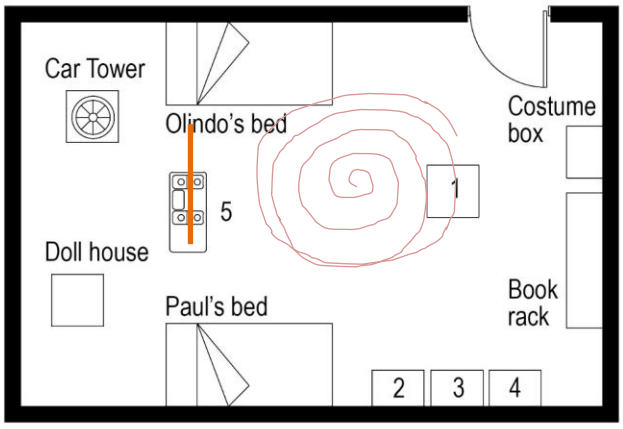
In what follows, I analyse spatiality in the children's homes, to explore if they converge with the guidance defined by the spatial disposition of corners and toys in classrooms.

2.2. Children's homes

In parallel to analysing the school classrooms, I regularly visited the children's homes and I analysed the spaces used for play. The three homes were located in the centre of a Swiss city and all of the children shared their bedrooms with their brothers and sisters. I now analyse the children's bedrooms and more broadly, what I defined as their play areas, that is, the areas of the house they usually play in and have toys or other personal objects in. The analysis is also done based on the physical disposition of objects and possible activities.

2.2.1. Paul's bedroom

Paul shares his room with his younger brother Olindo. As can be seen in the map below, in the room there are costumes, Playmobils (1 & 4), Ninja Go's[2] (3), cars (2), a castle, a kitchen (5), a bookrack and a dollhouse.



1.Playmobil castle
2.Car box
3.Ninja Go box
4.Playmobil box
5.Kitchen

Paul - House map 1

In terms of physical disposition, corners 1, 2, 3 and 4, that is, cars, Playmobils, Ninja Go's and costumes are close to each other and easily accessible, directly at the entrance of the bedroom. There is a kitchen to play with between the beds, although it is full of other objects on it, such as scarves or stuffed animals, making it difficult to use. Behind the beds and the kitchen, there is a car tower and a

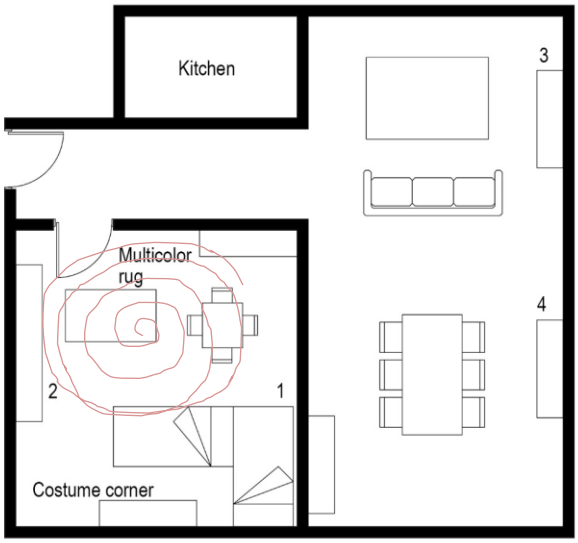
[2] Ninja Go's are Lego figurines from a movie portraying transforming fighting characters.

dollhouse, full of little people and furniture. These are quite difficultly accessible, as it would require moving the kitchen or the beds to reach either of them. The Playmobil castle (1), in the middle of the room, seems to spatially organize the play themes that the children engage in. The spiral in the map points toward this central role of the Playmobil castle. In terms of activities, the easily accessible toys are construction blocks, action figurines and knights. They are mostly toys to engage in construction or imaginary fighting. It appears here again, that the way the corners and their respective objects are disposed, are a materialization of the gender system and subsequently subtly guide the children's play and actions.

2.2.2. Nadine's house

Nadine shares her bedroom with her older brother and younger sister. Their room is in the lower left side of the map. There, the children have a table (number 2) that has all their toys together –the knights, the Barbies, the bunnies, some books, toy mice and food supplies. They also have a costume box that has all their costumes together. In the living room, on the right side of the map, there is Nadine's mother's "rack" (3), and the rack with the painting supplies (4). In the rack there are all sorts of craft supplies. From standard paper, markers and paint, to leaves, fabric, seeds and toys, all these objects disposed for "crafts" are together in the rack. The rugs in the house are of all sorts of colours and no particular shapes or prints.

In terms of physical disposition, the brother and sisters' toys are all together, equally close to each other and equally accessible. Their proximity facilitates their joint usage. The spiral in the map indicates here this possible movement around all objects present in the bedroom. In terms of activities, we don't find many toys to play care or everyday life activities, but rather imaginary or fantasy characters, as well as craft material. Taken together, this way of arranging the bedroom and living room, may guide the children towards the possibility of equally using everyone's toys and material; a hypothesis I will explore in the next section.

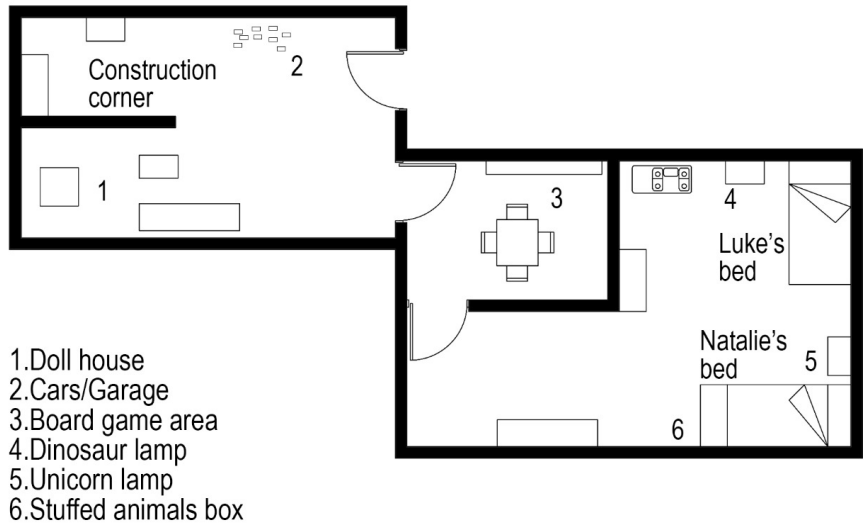


1.Bunk beds
2.Mixed toys table
3.Mom's rack
4.Painting supplies

Nadine - House map 2

2.2.3. Natalie's room and play area

Natalie and Luke share their bedroom and play area. Next to Natalie's bed there is her unicorn lamp (5) and stuffed animal box (6). Opposite from her bed, is Luke's bed and his dinosaur lamp (4). In the play area, in the top left side of the map, there is a half-wall separating the construction corner, which has building blocks and cars, and the doll corner (1), which has a doll house, babies, prams and little baby clothes. Between the bedroom and the play area, number 3 indicates the board game space.



Natalie - House map 3

In terms of spatial disposition, their beds are opposite from one another and their respective lamps characterise the themes of their blankets and toys. In the play area, the construction and doll corner are separated from one another with a half-wall, which makes moving from one to the other somewhat difficult. The board game area (3) is in-between the two very separate spaces. In terms of activities, the doll corner is full of toys to do care or everyday life activities, whereas the construction and car corner allows for building and constructing new objects. It seems here that the children's toys are very separate in their distribution of objects. This thus makes playing together with them difficult which in turn guided the play themes and the possibilities for action. It further seems that the construction of a board game area in between might allows both children to participate in the activities that can be done within it.

2.2.4. Synthesis

This analysis of the children's homes thus shows that, in the case if the bedroom shared by two boys, the toys appear to be organized around a construction pole, while the toys for care activities are difficultly accessible. In the second case, in the room shared by one boy and two girls, the children have mixed toys in the play areas and there does not appear to be a care or construction pole as in the school classrooms. In the third case, as in the classrooms, the rooms shared by a brother and a sister show there are two poles, separated in space and divided in terms of the objects found within each.

	Opposite care/practical corners	No distinctions	Neutral corner
Paul's home	X		
Nadine's home		X	
Natalie's home	X		X

Table 9: Corners at home per child

This disposition in space reproduces the one found in the schools, yet it is specific to the cases in question. In the case of Paul, an all-boy's room, even though they have toys used for care or everyday-life activities, these are, as mentioned, difficultly accessible. In the mixes shared rooms, one case, Natalie's, re-edits the school classroom separation, while the other, Nadine's, appears to be quite different as everything is mixed and disposed together. Butler's (1990) claims about the materialization of the gender system are here mediated by the parents' decision on how to design their childrens' rooms; however, it requires a closer look at the tendencies of usage.

In their free-play time, do children act as they are socially guided? Answering this would shed light on the specific guidance the material organization of spaces provides for children's activities. I now look at the tendencies of usage by the children of the school and home spaces to show possible convergences with the social guidance for action and play defined by the spatial organization.

2.3. Tendencies of usage

Alongside the analysis of homes and classrooms, I trace the tendencies of usage of the different corners and spaces. Table 10 shows the frequency of attendance of each child to the construction or practical and care attractors, as well as to the neutral corners. From the total of observations, I only consider here those that were observations of play situations and counted the frequency of attendance.

As can be seen in the table below, Paul tends to play in the construction corner in school and with Lego's at home, while Natalie tends to prefer the family corner in school and the babies' corner at home, engaging in care play. The case of Nadine, as shown in the analysis of spaces, does not evidence a distinction in corners or form of play, as she mostly chooses to play in neutral corners.

Home/School	Total observations	Play observations	Construction/practical	Care	Neutral
Paul	40	26	**15**	2	4
Natalie	44	24	3	**17**	4
Nadine	30	22	3	5	**13**

Table 10: Tendencies of usage in play observations

The frequentation of the corners that are signalled in the spatial organization would support the idea that it is the spatiality that guides the form of play. Some studies from psychology have shown space and toy preferences in children (Caldera et al., 1989; Campenni, 1999; Pomerleau et al., 1990; Wood et al., 2002). The authors have looked at the frequency of choice of certain toys in children's play in experimental situations, according to two categories –for girls and for boys- which are considered to be "gender-specific". This distinction puts dolls and domestic items as more frequently used by girls, while tools, sports equipment and large and small vehicles more commonly used by boys. In my analysis of the tendencies of usage of toys in the corners, I find that the toy preference, and in this case, the visiting of certain corners with those toys, matches such results.

2.4. Synthesis: Attractors

As we have seen through the spatial disposition of classrooms and homes, and their tendencies of usage, there are spaces organized around certain objects and activities. Their disposition in space guides, in a way, the possibilities for acting within them. In this analysis, it appears that most of the spaces have two poles or attractors that would guide possible forms of activities and play, although there may be others. On the one side I define the care attractor, and on the other the practical attractor, around which all the objects are arranged. The care attractor is characterised by corners where care and everyday life activities can be done. The practical attractor appears to be characterised by building or fighting activities and mostly frequented by the boys. There also appears to be some corners which allow for a more mixed or flexible usage of the objects and activities chosen within them, and frequented equally by boys and girls.

	Space organisation				Tendency of usage	
	Opposite care/practical		No distinction		Opposite care/practical	No distinction
	School	Home	School	Home	School	Home
Paul	X	X			X	
Nadine	X			X	X	X
Natalie	X	X			X	

Table 11: Space organisation and tendency of usage per child

We cannot assume that it is by chance that this disposition repeats itself in the homes and classrooms observed. First, if I follow Butler's claims that the gender "matrix" is produced through a process of materialization (Butler, 1993; Martínez & Femenías, 2015), the analysis of space yields such implicit functioning of the gender system. For Butler (1990) gender is not only done by people speaking and moving, but further by producing the materiality of spaces and bodies in the world (Butler, 1993).

Secondly, in semiotic terms, the ideas according to which the materiality of a system is a substantiation of its rules and the elements composing them (Lotman, 2012) allows me to read the found dispositions as speaking of an implicit dichotomic distinction between two poles for gender, which reproduces the classical dichotomy that has been so largely discussed and contested in the past 50 years (National Geographic, 2017).

Thirdly, if we accept that gender is not only a semiotic system but also a dynamic system, these two poles can be defined as attractors (Van Geert, 2003), defining possible forms of action and play. In the case that I analysed, these attractors can be defined as care and practical attractors in terms of the type of play and the activities promoted by the objects and disposition within them. The care attractor defined a space to do everyday life activities, such as cooking and washing up, with objects such as kitchen supplies, babies, dolls and beds. The practical attractor organized the space around building and doing things with construction blocks, Playmobils, Lego's, among others.

However, what I have not addressed here is the themes and forms of play children enegage in with those toys. When children are involved in symbolic play, they can make symbolic uses of such objects, and employ for example a hammer as a microphone, or a fork as a comb. In that sense, looking at toy or place preference is not enough to understand how gender is done. Although the literature on gender and play further claims that such spatial disposition gives rise to a certain type and themes of play (Børve & Børve, 2017; Francis, 2010; Frønes, 2001; Logue & Harvey, 2009), the mere use or frequentation does not tell us anything regarding the themes and types of play that are carried out within them. The mere guidance provided by the spaces and objects, or their frequentation by children, does not tell us much about the themes, types and forms of play that are actually carried out within them. In what follows, I move to show how the children play within such spaces, and more specifically how they deal with this materialized system in their interactions.

3. Play dimension

In order to look closer at the forms in which play is carried out in situations in which gender became relevant, I first explore types and themes of play. To then understand how such themes unfold and change, I define a typology for the regular modes of externalization found in the children's interactions. This allows me to substantiate the hypothesis according to which there is regularity in the forms of externalization in the play situations I call modes of combination, composed of operators, semiotic modes and communicative functions.

3.1 Types and themes of play

When looking at the forms of children's play, a common distinction has been proposed regarding the type of play –i.e. symbolic, board game, rough and tumble, etc. (Børve & Børve, 2017). Yet, in this case, the distinction between the types of play, such as symbolic, imaginary, manual or practical (Børve & Børve, 2017) is difficultly established, as children's engagement in imaginative scenarios equally occurs in all children and across all types of objects. As I will show, children construct complicated imaginary scenarios in which, from drawings they can move to pretend-play, and come back to construction activities in a way that cannot be identified as one or the other type of play. Instead, they use various operators and semiotic modes with different functions to carry out their play.

A second way of analysing children's play is to look at different play themes, characters, roles and activities. Some of the literature on children's play and gender argues that there is a gendered distinction both in the activities and the characters chosen by children in pretend-play (Carlson & Taylor, 2005). Authors claim that boys tend to choose more super-hero themed characters, while girls would choose more family-related roles (mom, dad, baby) (Carlson & Taylor, 2005; Fein, 1981; Singer & Singer, 1990). Yet, these studies do not specifically distinguish the chosen roles and their activities. It is assumed that when choosing a mother role, the character will engage in care activities, whereas when choosing the Hulk, a green angry superhero, the character will fight and break things. As I am interested in understanding the relationship between more holistic aspects of children as persons and what was possible within socially defined spaces, I distinguish between characters and activities done by those characters in play.

Characters

The defined characters are:

- Animals: i) Real: Existing animals as characters (Examples: cow, worm, cat, dog, snake, leopard). ii) Imaginary: Non-existing or imagined animals (Giant duck, giant mouse, dinosaur, Pappa Pig, Ninja turtle).
- Humans: i) Existing human characters (Examples: daddy, mommy, football player, bad guy, boys, adult, Nala –the little lioness from the Lion King-, policeman, sister, thief, baby, child). ii) Fictional human character: Characters found in movies, children's books, folk tales (Spiderman, knights, princess, Snow queen, Ninja Go, Batman, Dupont & Dupondt, the Daltons, Jesus).

Activities

The types of activities are:

- Fighting: References to fighting activities (battle, shooting, cutting, defending).
- Caring: References to everyday life caring activities (feeding, napping, cooking, cleaning).
- Construction: References to building and constructing (make a house, construct a bridge).

What I find, in the first place, is that play themes do not necessarily coincide with the tendencies of usage defined for the corners. The children can frequent a construction corner and carry out caring activities within it. Secondly, I find a clear prevailing of human characters and care activities during play.

Let us take a look at the following play sequence:

15/07 – Observation 15 - Kindergarten

Min, Nino et Paul sont au coin construction. Min commence à prendre des blocs par terre pour faire une maison. Paul et Min mettent des blocs en cercle pour faire la décoration.	Nino : Non, non, faut pas faire ca !! C'est pour faire la décoration ca. On joue à papa et maman ?
	Min : Oui, mais moi j'étais le papa.
	Paul : Et alors j'étais qui moi ?
	Min : Le bébé.
	Paul : J'étais plutôt le grand-frère.
	Nino : Et moi le cousin.
	Min : Le papa et la maman ils étaient morts.
	Nino : Moi je vais chez le dentiste, c'est ici (montre la maison en blocs). Non, non Min !! Il faut ca dans la porte, c'est la clef ! (Nino prends le bloc de Min et le remet à sa place).
	Paul : Tu fais les commissions en rentrant ? On a plus de lait.

In this situation, Paul, Min and Nino are playing in the construction corner. They are building a house and making decorations. While building, they decide to play mommy and daddy, brother, cousin and baby. Nino, as the cousin, goes to the dentist, which is somewhere within the house they built and Paul, who is the big brother asks him to do the shopping on his way back. We can see here that the three boys playing in the construction corner add a layer of play to the construction, which is to play mom and dad within the spaces they are building with the blocks. They are doing care activities in the construction corner.

Beyond this particular example, tables 13 and 14 show frequency recording of the characters and activities chosen by each child.

Play themes: Characters	**Nadine**	**Paul**	**Natalie**	**Total**
Animal (fictional or real)	19	16	19	54
Human (fictional or real)	**38**	**48**	**61**	**147 (68.7%)**
Machine	2	10	1	13
Total	59	74	81	214

Table 12: Characters chosen per child

Play themes: Activities	**Nadine**	**Paul**	**Natalie**	**Total**
Fighting	3	7	10	20
Caring	**28**	**21**	**20**	**69 (71%)**
Construction	0	7	1	8
Total	31	35	31	97

Table 13: Activities chosen per child

Specifically, Nadine, who favours mostly neutral corners, equally engages in play of different characters, mostly human, and the activity done is almost exclusively of care. Paul, who favours

construction corners, does not evidence play themes that particularly match such tendencies: he engages regularly in caring activities with various human fictional characters. As for Natalie, who favours care corners such as family or doll corners, she engages in care activities and in playing human fictional characters, not necessarily converging with the mentioned tendencies of usage. In the three cases, there is a clear prevalescence of human characters, whether fictional or real, as well as of caring activities such as cooking, feeding or putting to sleep. Why is caring present across corners in children's activities?

I try to bring forward a common aspect to the characters chosen that might explain the care activities as prevailing themes in the play. The characters the children mostly chose, either for impersonation or personification (Harris, 2002), are human or human-like characters. Whether family roles or super-hero roles (Singer & Singer, 1990), what they have in common is their anthropomorphic structure. Furthermore, the type of activity in which they made human and other characters mostly engage in is that of caring.

Table 14: Characters and activities for the three children

Characters ***Activities***	**Human**	**Animal**	**Machine**	**Total**
Fighting	8	5	0	13
Caring	**28**	**13**	0	**41 (58%)**
Construction	8	5	**3**	16
Total	44	23	3	70

As I have mentioned, in play children elaborate previous experiences (Freud, 1923) and make sense of the world in which they live (Bruner, 1985). The strong presence of care activities may be related to the children's need to elaborate the different situations in which they find themselves: finishing kindergarten, starting school, meeting new classmates, etc. They may thus be less concerned with enforcing gender norms in some cases.

As such, if tendencies of usage, characters and activities do not follow a straight taken-for-granted line of what should go together based on assumed links between spaces, characters and activities, then it is necessary to look closer at the forms in which these elements appear together and how the children come to "mix-and-match" the different possibilities.

Trough this analysis, as there is not a clear-cut distinction in the types of play or the themes of play in order to understand how children did gender in play, it becomes necessary to decompose the activity of playing and study how, if gender gives itself to be seen as a semiotic system, the children engage with it, understand it and come to act in relation to it. I do this by defining three categories that constitute different modes of combination in the semiosis of play: the logical operators, the semiotic modes and the communicative function children make use of. These three aspects characterise the semiosis of play, and

when considered within the gender system, they allow understanding the possibilities and limitations for doing gender.

3.2. Semiosis of play: modes of combination

In this section, I propose a three-fold system to analyse the semiosis of play. This proposition allows looking beyond the types and themes of play to look at the children's modes of interaction and externalization (Valsiner, 1997). As presented in Chapter 4, I define operators, semiotic modes and communicative function, which are later applied to gender-related situations. What I look at, every time, is a three-turn unit, although there can be several three-turn units in each sequence. The children's responses are then seen as "reformulations" (Grossen & Salazar Orvig, 2006), that is, new ways of expressing themselves as a result of the other's intervention.

3.2.1. Operators

In chapter 4, I defined four operators: negation, addition, compromise and integration. These operators cannot be defined in single utterances, but only within a sequence of several turns. The logical abstract forms can be identified in children's actions and speech as follows:

1. There is indication of the negation operator whenever the child refuses, rejects or opposes to a new sign or proposition.
2. The addition operator can be found whenever the children establish links or accept of several propositions at the same time.
3. The compromise operator is indicated by the child's alternate acceptance of both propositions or signs in an incomplete manner, as they remain unchanged.
4. The integration operator appears when the child does a synthesis of propositions or signs and a qualitative transformation of propositions or signs.

There is a total of sixty-nine occurrences of logical operators employed in the children's play, and the most frequent operator is that of addition, of building on each other's propositions to continue playing.

	Negation	Addition	Compromise	Integration	Total
Pretend-play sequences	22	**25**	13	9	69

Table 15: Operators across children

3.2.1.1. Negation: refusal, rejection or opposition to a new sign or proposition

There are different forms of negation. As I will show, negation can be done in different semiotic modes, styles, using different resources and materialities. Negation can be identified anytime a child refuses a proposition, by either openly opposing it or simply ignoring it. In the following example, the children are playing amongst themselves and oppose the proposition by openly stating they do not want that –the two girls explain, "they don't want to", without providing further arguments.

03/10 - Sequence 37

Dans le coin famille : Tina, Eva et Nico jouent au chat et bébé chien qui étaient perdus dans la forêt. Paul vient avec sa machine qu'il a construite dans le coin construction, dans le coin famille.	Tina : On disait que j'étais perdue dans la forêt.
	Paul : Brum brum. Attention ! Puf puff
	Eva : (à Paul) On disait que tu l'avais pas tué mais elle était restée dans la forêt.
	Paul : Attention ! Pff (fait semblant de tirer)
	Eva : Oh, non ! Attention, vite viens ma cherie, cache toi vite ! (à Tina, la cache sous la table)
	Paul : Je peux venir par ici hein ! (sous la table)
	Tina : Non, on a pas envie.
	Eva : Ouais on a pas envie.

In this excerpt, Tina, Eva and Nico are playing they are a cat and a baby dog lost in he forest. Paul arrives with a machine he built in the construction corner and attacks the animals in the forest. They are using for this a table which functions as a cave, and a mattress on which they pretend to speep. Tina and Eva first engage with his attack in play but then tell him they do not want him to come play there with them. They are refusing his proposition through speech by saying "they do not want to".

3.2.1.2. Addition: link or acceptance of several propositions at the same time

The addition operator maintains two or more propositions unchanged, and built on each other. In sequence 13, the different propositions to play with guns, take care of the children and get a dog, follow each other and are kept in the same form as they were initially proposed.

04/07 - Sequence 13 - Kindergarten

Natalie se jette par terre, Luke aussi. Elle l'embrasse.	Natalie : On se marie ?
	Luke : Non
	Natalie : On se marie ? On se marie ? On se marie ?
Ils courent dehors. Luke et Natalie sont sur le bimbam. Noël s'approche pour jouer avec eux.	Natalie : On joue au mariage. Faites attention, pendant que je parts au travail. Vous vous restez ici (à Luke et Noël qui sont dans la petite maison, elle part).
	Luke : Vite ! On va attaquer avec ces pistolets ! (Ils appellent par la fenêtre) Cloé !
	Natalie : Oui, les chéris, j'ai quelque chose pour vous.
	Luke : Mon pistolet.

	Natalie : Les chouchous, venez. Lui c'est encore un bébé (en parlant de Léo).
	Noël : Mais non, là j'ai grandit et j'étais le grand-frère.
	Luke : Mais on peut pas avoir deux grands-frères. (À Natalie) Et c'est pas lui le bébé.
	Noël : Ok, j'étais le bébé.
	Natalie : Les chéris, j'ai enmené un nouveau chien, il s'appelle Richard, mais touchez pas. Il est très bruyant et si vous touchez, il vous griffe les orteils. Vous restez ici parce que moi j'ai encore un bébé. Après, il va grandir et vous vous en occupez.
	Luke : Ca on disait que c'était ton doudou.
	Natalie : Je vais acheter un nouveau doudou.
	Luke : Et moi aussi je vais !
	Natalie : Viens chéri !

Here, Natalie, Luke and Noël are constructing a scenario where they go shopping, get a dog and are attacked with guns, all within the same play sequence. They are playing in a small house and with a stuffed dog animal. The different things brought in by the different players are accepted and built on through another proposition.

3.2.1.3. Compromise: alternate acceptance of both propositions or signs

The compromise operator maintains the two propositions alternatively or in an incomplete integration, which keeps them unchanged, although not simultaneously accepted. In sequence 33, Jeanda wants to play restaurant and Paul wants to play a house in the woods. His proposition is to have a house in the woods, which has a restaurant inside, and that way, both their wishes are included and unchanged in the new play theme.

13/09 - Sequence 33 – Home, forest

On va dans la forêt avec maman, Octave, Paul, Jean (un ami de la maman) et ses deux enfants, Jeanda, qui est à l'école avec Paul mais dans une autre classe et Basile (3 ans).	
On marche jusqu'à une clairière où il y a plein de branches.	Paul : On fait une cabane ? (à Jeanda)
	Jeanda : Là on fait une cuisine, mais une fausse cuisine.
	Paul : Ok, mais allez on prends ça (branches). Faut les mettre comme ca (posés sur l'arbre).
Ils courent plus loin où il y a encore des branches mais déjà mis en forme de petite cabane.	Paul : Là on fait la cabane alors. Jeanda : Moi je veux faire un resto. Paul : Il peut être dans la cabane le resto. Basile : Moi je veux travailler. Jeanda : Tu vas être fatigué. Tu sais, c'est très fatigant de travailler dans un resto, mais si tu veux être fatigué… Basile : Je veux travailler.

3.2.1.4. Integration: synthesis of propositions or signs and qualitative transformation of propositions or signs

The last operator I identified is the integration operator. It allows proposing an alternative solution through a synthetic proposition. Here the child comes up with a new word, a new drawing, something qualitatively different although she considers the different wishes or propositions. In these cases the child draws on a mode of combining things to produce a novel form. In sequence 27, for example, Nadine makes up the name "Sinfa" as a response to the researcher's breaching attempts, so that the researcher can have, not only a boy animal name, although she is a girl, but one that they don't know from movies. She does some variation on the proposition, invents a new name and everyone agrees to continue playing.

Nadine – Sequence 27 - Home

Tina, Nadine et moi jouons aux animaux immaginaires.	Tina : Mais non parce que je suis sauvage et je t'avais griffé. Et tu t'appelles comment ?
	Nadine : Rose… Euh… Arc-en-ciel. Rose ou Arc-en-ciel.
	Chercheuse : Rose Arc-en-ciel ?
	Nadine : Non, Rose ou Arc-en-ciel.
	Tina : Moi je veux choisir mon nom… Lily.
	Nadine (à chercheuse) : Et toi ?
	Chercheuse : (pause, je réfléchis).
	Nadine : Mais de fille.
	Chercheuse : Pour quoi ?
	Nadine : Bein, parce que t'es une fille.
	Chercheuse : Mais on a le droit d'être des animaux.
	Tina : Non, t'es obligée.
	Nadine : Tu peux avoir un nom d'animal garçon.
	Chercheuse : Simba ?
	Tina : Ah, je connais Simba.
	Nadine : Oui... *Sinfa…*
	Chercheuse : Ok, Sinfa.

Tina, Nadine and the researcher are playing imaginary animals. When picking each player's names, Natine chooses Rose or Rainbow, and Tina chooses Lily. When it's the researcher's turn, she is told she has to get a girl's name, to which she asks why, since they are playing imaginary animals. To this, Nadine explains that she has to have a girl name because she is a girl, but she could pick a boy animal name. This is a first move of accepting the researcher's proposition, although they haven't reached an agreement yet. Then, when the researcher proposes the name Simba, the little lion from the Lion King, Nadine comes up with a made-up name "Sinfa", changing the initial proposition of one letter, allowing both the "boy name"

and the researcher's idea to be included in the solution. As such, this is an example of an integration operator.

3.2.1.5. Synthesis

Taken together, these four operators define one aspect of the modes of combination, making up the logic of the externalization process. Children speak and act in the play situation and respond to one another with different propositions. The operators then result from looking at how children react to each other's propositions, by accepting, refusing, or transforming what they or the others said and did. These are the result of their interaction with others, be it children, adults or researcher. Yet, these logical forms can be substantiated across different materials and semiotic modes: children can move, speak or draw. As such, I also defined semiotic modes as an aspect participating in the semiosis of play.

3.2.2. Semiotic modes

The different logical operators can then express themselves in different forms, modes and styles. One of the elements that participate to the externalization process is semiotic modes.

In this study, I have identified children employing three semiotic modes:

1. Drawing
2. Speech
3. Symbolic physical manipulation

	Drawing	Speech	Symbolic psysical manipulation	Total
Pretend-play sequences	6	**44**	19	69

Table 16: Semiotic modes across children

The most commonly employed semiotic mode in interaction is speech, which characterises the primary mode of communication amongst the children of the sample. The reason for this prevailing may be the fact that I analyse situations of interactive play, where children engage with others, thus making oral communication the primary mode.

3.2.2.1. Drawing

Children can also play with a material support of drawing or painting. In sequence 14, Nadine employs pictoric elements to represent a unicorn, thus employing the semiotic mode of drawing, which we will see later allows her to externalize the logical operator of integration in a spoken interaction.

13/09 - Sequence 14 - School

3.2.2.2. Speech

Another common semiotic mode is that of speech. By employing sound elements in the form of utterances, Natalie externalizes the operator of negation.

05/12 - Sequence 39 - School

Ils vont jouer dans les coins. Cia, Natalie et un garçon vont à la dînette. Natalie mets la table et sort un gâteau du four.	Cia: Moi je suis la grande sœur et toi t'es la maman.
	Robin : Moi je pars…
	Natalie : (à moi) lui il veut pas être le grand frère alors il part. Ca c'est mon bébé. Toi t'es le bébé Martina.
	Moi : Je peux être le papa ?
	Natalie : Non. Le bébé. S'il y a que des filles alors il y a un bébé, une maman et une grande sœur.
	Moi : Un bébé garçon si ?
	Natalie : Oui, ok. Moi je bois du vin.
	Cia : Moi aussi.
	Natalie : Non, toi t'es la grande sœur.

	Cia : Les grandes sœurs ca boit du vin.
	Natalie : Oui, ok, je vais te servir. Toi mon chéri tu peux pas. Vous prenez chacun un service. On a mérité un bout de gâteau.

Natalie, Cia and the researcher are playing family. Cia is the big sister, Natalie is the mother and the researcher wants to be the father, but is told she has to be the baby. The exchange takes place through an exchange of words, thus speech as a semiotic mode.

Within speech, children can use direct speech, speaking for themselves, as in the example above, or through ventriloquism. Ventriloquism (Gillespie, 2005; Valsiner, 2002) is a particular sub mode within speech, which consists of employing words or sentences from other situations or other people, to speak not as oneself. In sequence 44, Natalie and the researcher are playing school, and choosing what to play in school. When the researcher asks to play knights, Natalie opposes her proposition by talking to her as if she was a child, making use of what sounds as an adult's saying, "it's the rules my dear". The sayings within this mode may come from many different situations –playing a board game with a parent, being ill, disobeying her parents- and they are, as heard, reproduced to try and get the playmate to do as the child wants.

31/01 - Sequence 44 - Home

Chercheuse : On peut jouer à quoi à l'école ?
Natalie : On peux jouer à tout ce qu'on veut !
Chercheuse : On peut jouer aux chevaliers ?
Natalie : Non parce que c'est le règlement ma chérie.

3.2.2.3. Symbolic physical manipulation

A third semiotic mode largely used by children is symbolic manipulation. By making bodily movements and manipulating objects, Nadine, in sequence 14 externalizes the operator of addition. Here, Nadine, her sister and the researcher are playing with a Barbie doll, a Spiderman doll and dressing them to fight. Instead of talking to each other, they manipulate the toys and the different actions are accepted or refused by other manipulations. Nadine puts boots on the Barbie doll and high heels on Spiderman, and they move to fighting once their characters are ready. This is a physical and symbolic form of expressing the different operators.

14/09 – Sequence 16 - Home

Nadine me donne un petit Spiderman et prends une grande Barbie. Elle met des bottes sur la	Nadine: Bon, allez on se bat.

Barbie, puis des talons roses sur Spiderman.	
On fait semblant de se battre avec les jouets.	Nadine: Pch pch! Je te signale qu'elle est méga forte hein! Gagné!
	Papa: Vous lui avez mis des chaussures roses au Spiderman?

3.2.3. Communicative functions

Operators as expressed in different semiotic modes can serve different functions in communication. For example, gestures can be used to joke or convince, to negotiate or to please. In this sense, I use the term communicative function to consider the function that the use of different modes have. Children can argue, repeat or employ utterances and gestures playfully and they can negotiate with one another. I have identified three different functions of the elements in communication: the argumentative function, the negotiation function and the ludic function.

	Argumentation	Ludic	Negotiation	Total
Pretend-play sequences	14	**28**	27	69

Table 17: Communicative function across children

The more common communicative function is the ludic one. As the sequences analysed were of play, the pleasurable aspect of play has a central role in defining the style and function of the utterances.

3.2.3.1. Argumentative function

The first communicative function is argumentation, that is, a communicative action directed at convincing one's interlocutor of one's point of view by providing arguments or premises to support the proposition. As an example, in sequence 38, Paul links his "wishes" to "rules". He explains that a girl cannot come to play with them, because they don't like to play with girls (preference or wish), and this is in turn because "girls don't like Ninja Go" (a general statement about "girls"). When confronted with the fact that the researcher is a girl and plays with him Ninja Go, Paul changes the "rule" and explains his preference by a relational conflict: "girls sometimes annoy us" as a general statement comes from the fact that Elena pushed his friend and she is friends with a boy they don't like. These are ways to bring together preferences with generalities, and of attempting to convince the other he was right by providing arguments.

24/10 - Sequence 38 - School

Dans le coin construction Paul et Walter veulent pas que Elisa joue avec eux.	Walter : Non, tu peux pas venir Elisa, on fait un truc de mecs. Désolés.
	Paul : Ouais on est désolés.

Elisa part au coin lecture. Je demande pour quoi ils voulaient pas jouer avec Elisa.	Paul : On n'aime pas jouer avec les filles parce qu'on joue aux Ninja Go et les filles ca aime pas les Ninja Go.
	Moi : Moi j'aime bien les Ninja Go, on joue toujours…
	Paul : Et toi, t'es une fille… (rigole) Mais parfois les filles elles nous embêtent… Par exemple, Elena elle a renversé Walter. Et Elisa elle est amie avec Florien et nous on veux pas être amis avec Florien.

3.2.3.2. Ludic function

A second function is the ludic function, defined by the pleasure in the repetition of the words or utterances or by the pleasure in the effect of the action, as in jokes, or playful repetitions. In sequence 1, Paul moves from one word to another, changing some letters, making words rhyme, but also bringing different words into the serie that have surprising effects –such as Bernard chappé or "vache chappé" which don't mean anything. He plays with the fact that different words sound alike and rhymes strange things with one another, playing with what he is saying.

15/04 – Sequence 1 - Home

Description	Conversations
Il me dit qu'il va couper une vache en bois qu'il a.	Paul : Je vais la tuer, la couper comme ca. Ah, je peux la rapper ! Je peux faire de la vache rappée avec du fromage rappé. De la vache rappé avec du Bernard rappé. De vache chappé avec du Berchard Chapé. Cha chach cha. Maintenant je vais te couper toi, voilà je t'ai tuée, t'es plus là.

In sequence 43, in another use of the ludic function, Paul uses humour, makes a joke, through actions, to create an effect on his interlocutor, and laughs at his response. He is playing with the researcher and some Lego small people. When the researcher proposes to have a boy head on her toy, Paul says ok, and then changes the head to a girl head, laughing. He is here using humour through symbolic physical manipulation in interaction.

25/10 – Sequence 39 - Home

Il choisit une nouvelle tête pour mon bonhomme.	Paul : Tu veux être une fille ou un garçon ?
	Chercheuse : Garçon.
	Paul : Ok, donne, je lui mets.
Il me le rends et rigole.	Chercheuse : C'est quoi cette tête ?
	Paul : Une tête de fille (rigole)

3.2.3.3. Negotiation

One last communicative function identified is negotiation. In sequence 14, Paul negotiates with Nino how they will build a machine. To get Nico to make a smaller machine than him, he does not provide reasons as to why he should do that, but negotiates how it would be ok for him to do it, without jeopardizing the game. It is different than the style of argumentation as the aim is not to convince the other of one's point of view but to negotiate the terms under which we can agree. It is less a discussion about the reasons and causes than about the conditions to continue to play.

05/07 – Sequence 14 - Kindergarten

Paul et Nino construisent avec des cubes.	Paul : Si tu dis que tu veux construire une machine, tu peux mais si tu dis que tu veux construire une machine plus grande que moi alors tu peux plus jouer.
	Nino : Je fais comme je veux.
	Paul : Alors je joue plus avec toi. C'est pas grave je vais jouer avec quelqu'un d'autre.
	Nino : Alors je vais tout dire à ton papa.
	Paul : Et alors ? Il va même pas me punir.
	Nino : Si.

3.2.3.4. Synthesis

These communicational functions characterise the use of the different semiotic modes and operators in a more dynamic way. They define, in a way, what is their function. These claims on the function of the interaction are nevertheless partial, as they constitute a particular relational interpretation of the researcher in the situation and a result of the interaction dynamics established.

3.3. Analysis

The operators, semiotic modes and communicative functions constitute the three-fold proposition to characterise modes of combination and define the semiosis of play beyond its content as types and themes of play. Across the children, I find that addition is the more common operator: the children tend to try and build on each other's propositions to continue the play. In turn, the speech mode is the more common, as the interactions are strongly verbalized when engaged with another. Lastly, the more common function is the ludic one, defining a central aspect of play interactions, that is, the pursuit of pleasure. Having defined the semiosis of play, I now present how these elements articulate in gender-related situations, and for each child.

If we come back to the forms in which gender can be done, the previous dimensions show, together, a complex, multi-layered way of doing gender in play. There are spatial and material elements that are present, operators or patterns that children favour in their interactions, and different modes that allow them to express their solutions and possibilities. I now first point out the differences in the way play-sequences are carried out when gender is at stake and then look at examples of each child to show how the different aspects participate together in the definition of the possibilities of doing gender in play. The three tables show the total number of occurrences for each category and subcategory.

Operators	Negation	Addition	Compromise	Integration	Total
Semiotic modes	**Drawing**	**Speech**	**Sensori-motor manipulation**		**Total**
Play sequences	22	**25**	13	9	69
Play sequences	6	**44**	19		69
Gender-related play sequences	2	**15**	2		19

Table 19: Semiotic modes in general and gender-related play sequences

Communicative function	Argumentation	Ludic	Negotiation	Total
Pretend-play sequences	14	**28**	27	69
Gender-related pretend-play sequences	**10**	3	6	19

Table 20: Communicative function in general and gender-related play sequences

These tables show two interesting aspects. First, as mentioned, the more common operator children make use of in these play sequences is the addition operator. That means that they build on each other's propositions, accept and construct something together with the other player. This is mostly done through speech and with a ludic function. But what is interesting within this is that in the cases where the play refers to gender related aspects, whether because a norm is not being respected or gender is the topic of the conversation, the operator more commonly employed is negation. This means that children ignore, oppose or refuse the others' proposition. It is also noteworthy that the second operator more commonly used is compromise, where the children might attempt at maintaining the play by negotiating that which is not easily acceptable to build on. This difference points towards the normative character of the gender system (Butler, 1993), towards the force the norms have in defining interaction, and the difficulty to transform or even play with them.

Secondly, another interesting aspect brought out by the analysis is that although the semiotic mode used in gender-related sequences is always more commonly speech, the more common communicative function becomes argumentation. Speech is not autonomous in its intervention, it is often accompanied by other modes such as drawing or symbolic physical manipulation. The children appear to need to

negotiate and justify in order to continue playing, whenever gender is being negotiated or made relevant. Again, this difference seems to show the necessity for justification and negotiation, another indicator of the difficulty to transform or play with certain gender norms (Butler, 1993).

As I have mentioned, children's employed modes of combination are a result of their reformulating initial propositions as a response to other children, adults or the researcher's reactions to the initial situation. In this way, children may distinguish their reactions depending on who is in front of them and what they have been able to construct as expectations or possible demands from the other (Arcidiacono & Perret-Clermont, 2010). Nevertheless, as I argued in Chapter 5, these modes of combination appear across children and in situations with other people than the researcher and thus, are not specific to their type of relationship. Moreover, these forms of externalization are not "translations" of internal structures, but rather the result of a joint construction with the researcher and others, in which each others' expectations and demands are negotiated and organised.

4. Doing gender in time

With the analytical grid developed in the previous section and in order to understand how the different elements act together in defining the possibilities for externalization in situations where gender becomes relevant, I look chronologically at the play sequences which are gender related in the case of each child.

I show that in the three cases, if we look at the dates in which the gender-related play sequences start to appear, it is only right before or after the summer holidays, before finishing kindergarten or when school is about to start. This may speak to the fact that it is not the school per-se that produces the appearance of gender differences, as stated in the literature (Duveen & Lloyd, 2005; Martin & Ruble, 2010), but the fact that the children have to make sense of a change in their lives –leaving kindergarten and starting school- mobilising other aspects, such as the way in which they do gender.

I also show the way in which the different modes of combination appear in each child. In the first case, that of Paul, there appears to be a move from argumentation to negotiation in terms of the communicative function. This means that there start to appear to be less strongly stated positions by the child, although always justified (through argumentation). It may be that the child allows for more of a negotiation with the other than simply getting the other to do what he proposes. In the second case, Natalie's, I show a constant opposition to propositions gender related and an interesting form of argumentation, through the speech semiotic mode, but employing what I have called ventriloquism to do it. This strategy remains constant over time and it seems as though the child is concerned with other developmental tasks than making sense of the gendered world –such as the separation from her twin brother (although I have not explicitly explored this aspect). The third case, that of Nadine's, evidences the

presence of different semiotic modes –speech and drawing- in a ludic function, and through the integration operator, which seems to speak to the possibilities for playing with norms this child might have developed.

4.1 Paul

In the following sequences, Paul is playing with different partners, such as his school classmates, his brother or the researcher. In all these sequences, an aspect of the gender system becomes relevant in the interaction and is resolved so that the play may continue. Their appearance begins after the start of primary school. As mentioned, a big change in a child's life can mobilize and make normative aspects that weren't so far, in order to maintain some stability in the new situations.

I show here that the ways in which Paul deals with gender related issues is either by imposing his point of view, through argumentation or negotiation, or by trying to find a compromise solution that still preserves his position in the interaction. Across time, the way in which these solutions are reached, slightly move from a systematic argumentation as to why some things ought to be in a certain way, to a more negotiated discussion to try and find a middle ground or a solution.

Date + sequence N°	Operator	Semiotic mode	Communicative function
05/09 – sequence 30	Negation	Speech	Argumentation
06/09 – sequence 31	Negation	Speech	Argumentation
11/09 – sequence 32	Compromise	Speech	Argumentation
13/09 – sequence 33	Compromise	Speech	Negotiation
21/09 – sequence 35	Negation	Speech	Argumentation
03/10 – sequence 37	Negation	Speech	Argumentation
24/10 – sequence 38	Negation	Symbolic manipulation	Ludic
25/10 – sequence 39	Compromise	Speech	Negotiation
26/10 – sequence 40	Compromise	Speech	Negotiation

Table 21: Evolution in time

On the 5th of September, in sequence 30, Paul plays with Ian and Eva in the doll corner. He agrees to let Eva play with them, and that she be the mommy. But when Ian wants to be the dad, Paul explains that if he is the dad then he will not play anymore. After that, Ian picks another toy and lets Paul be the dad for the play to continue. In terms of Paul's actions, he rejected Ian proposition through negation and employed a form of argumentative style where he explains that if this is the case then he will no longer play. The play characters available were here three girls and one boy: a mom, two sisters and a dad. Ian's solution to this was to take a stuffed animal from the next corner and play the monster rat that attacks the house. This is a different way of resolving the situation, as Paul negated the proposition and attempted to impose whom he wanted to play by a form of threatening argument.

05/09 – Sequence 30 - School

Paul part et va à la maison poupée (il ne range pas le coin où il jouait avant).	Paul : Ian, on joue aux poupées (ton de plainte).
	Ian : Non.
	Ian : D'abord il faut ranger avant d'aller ailleurs.
Eva rejoint Paul dans le coin poupée.	Eva : Je peux jouer avec toi ?
	Paul : Oui.
	Eva : Alors moi je veux être la maman.
	Paul : Ok, la maman c'est celle là. Mais attends, tu peux pas encore la prendre parce qu'ils sont en train de dormir. Tu vois.
	Eva : C'est où le papa ?
	Paul : Ca c'est la grande sœur, grande sœur, grande sœur, papa, maman.
	Ian : Moi je peux avoir le papa ?
	Eva : Moi je peux avoir la maman ?
	Paul : Mais alors je joue pas moi.
	Ian : Bon, d'accord, on joue avec celle là.
	Eva : Ok, ok.

On the 6th of September, in sequence 31, Paul is playing in the dollhouse again, with the researcher. He asks her if she wants to be the mom or the dad and the researcher chooses the dad, in attempt to breach the usual choice which she assumes would be to choose the mom. To that, Paul simply answers "no" and then explains that she will be the mom because he would like to be the dad, and if she is the dad, then he cannot be the dad… He uses the negation operator, opposes the researcher's choice, by argumenting, explaining why, and then quickly changing the subject. This allows him to justify his position while maintaining things as he wants them to be and to be played. In this situation, there is no change in the reformulation, simply a statement of how he believes things ought to be played.

06/09 – Sequence 31 - School

Je joue avec Paul dans la maison poupée.	Paul : (à moi) Tu veux jouer avec moi ?
	Chercheuse : Ok.
	Paul : Toi tu veux être la maman papa ?
	Chercheuse : Mm, papa.
	Paul : Non…
	Chercheuse : Maman ?
	Paul : La maman parce que moi je veux être… Le papa. Parce que sinon je peux pas être le papa. Les grandes sœurs elles sont punies ! Tu as pas le droit de sortir ! Tu es grondée !

On the 11th of September, in sequence 32, Paul is playing in the construction corner with Nico and Eva. Nico, a boy, is trying to impose what Eva can play with by arguing the boys decide over girls and teachers. To this, Paul tells Nico to stop fighting and that he will break the construction, ignoring the gender argument. When Eva tells Paul that if he does not want to play with her she can go, he explains that she can be there. Nevertheless, he says that she can play with him, but not to what she wants,

because he wants to test if his train works. He first negates Nico's argument about boys' superiority over girls, and then proposes a compromise to Eva, in which they can play together but not the board games, as he would like to finish his train. Again, through argumentation, but this time finding a compromise, Paul maintains a certain position through the interaction.

11/09 – Sequence 32 - School

Paul va au coin voitures/construction avec Nico et Eva. Nico veut que Eva prenne les blocs qu'il lui dit.	Nico : C'est aussi les garçons qui décident sur les filles ou la maîtresse.
	Paul : (à Nico) Tu vas casser les legos si tu fais comme ca ! Arrête de te bagarrer.
	Eva : (à Paul) Si tu veux pas jouer avec moi…
	Paul : Mais si, tu peux !
	Eva : Mais je veux que tu viennes jouer aux jeux de table…
	Paul : Mais je veux tester si ca marche le train.

On the 13th of September, in sequence 33, Paul and Jeanda are playing in the woods. They talk about what they can draw: Paul can make Ninjas and knights and Jeanda, princesses. Then, they decide what they will be in the play: Paul wants them to be knights and Jeanda, princesses. The researcher proposes they be Ninja princesses, attempting a breaching strategy which would combine more female characters –the princess- and more masculine characters –the Ninjas. Jeanda simply says no and Paul explains that it is not possible. He then proposes that they are Ninja turtles, in a reformulation attempt, eliminating both of their propositions, knights and princesses, but taking one of the things he suggested earlier, Ninjas. He uses the compromise operator by negotiating something that may be suitable for both of them. The addition of turtles to Ninjas makes them more distant from humans and is maybe a way to make his proposition more acceptable for Jeanda, a form of gender modulator through animals.

13/09 – Sequence 33 – Home, forest

Ils reviennent, Paul se met à faire encore des trucs sur une branche.	Jeanda : Ouais, fais la croix.
	Paul : Oui, je fais je fais.
	Jeanda : Ca on dit que c'est les toilettes (derrière des branches).
	Paul : Moi j'arrive à faire des Ninjas et des chevaliers.
	Jeanda : Et moi j'arrive à faire des princesses.
	Paul : Maintenant on était des chevaliers.
	Jeanda : Mais non, on était des princesses.
	Chercheuse : Tu peux être une princesse Ninja.
	Jeanda : Mais non.
	Paul : (rigole) Bein, non ! Ca peut pas… On est des tortues Ninja alors ?
	Jeanda : Ok.

On the 21st of September, in sequence 35, Paul is playing with his mother and Ian. The mom suggests that Ian's gloves are princess gloves because they go up to the elbow. Paul negates this proposition and explains that they are surgeon gloves to touch the dead, not to get sick. He there offers an explanation to why they are not princess gloves. In this way, he maintains the gender distinction, by offering another explanation that does not transgress the norms, making Ian wear "girl's" gloves.

21/09 – Sequence 35 - Home

Ian met des gants bleus clairs pour faire la vaisselle et touche la terre.	Ian : C'est magique ! Elles sont jamais sales…
	Maman : Ah ! T'as des gants de dame… Des gants de princesse ?
	Paul : Mais non !
	Maman : T'sais les princesses elles mettent des gants longs comme ca…
	Paul : Mais non, mais ca c'est des gants de pour toucher les morts, pour pas que t'ai pas la maladie.
	Maman : C'est des gants de chirurgien ? Des gants de dentiste ?
	Paul : Oui…
	Maman : C'est super pratique alors…

On the 3rd of October, in sequence 37, Paul goes to the family corner from the construction corner across the room. He comes into the play of Tina, Eva and Nico, who are playing cats and dogs lost in the forest. Paul brings a machine that attacks them. The children first build on his proposition and continue the play, until Paul's machine breaks. Then, the children tell him they will tell the teacher, which is somewhat surprising as it is Paul's machine that breaks. His solution is to ask them not to, to say no, and explain he will not bother them anymore. To this, the other children explain why he needs to leave the family corner. The attacking machine seems to be a disruptive proposition in the family corner game, and when it causes some form of problem becomes a reason for Paul not to be allowed to play in the family corner anymore.

03/10 – Sequence 37 - School

Ian, Paul et Walter vont au coin construction. Tina, Eva, Uriel et Nico vont au coin famille. Dans le coin famille. Nico marche à 4 pattes et fait miaou.	Tina : Elle a pas envie de rester.
	Nico : C'est moi le chat.
	Tina : Non, c'est moi
	Nico : Non, c'est moi.
	Eva : Bon, alors c'est les deux…
Eva caresse le dos des deux chats.	Eva : Moi, j'étais un bébé chien.
	Tina : On commence. On était perdus dans la forêt.
Dans le coin famille : Paul vient avec la machine qu'il a construite dans le coin construction dans le coin famille.	Tina : On disait que j'étais perdue dans la forêt.
	Paul : Broum broum. Attention ! Puf puff
	Eva : On disait que tu l'avais pas tué mais elle était restée dans la forêt.
	Paul : Attention ! Pouff (fait semblant de tirer).

	Eva : Oh, non ! Attention, vite viens ma cherie, cache toi vite ! (à Tina, la cache sous la table)
	Paul : Je peux venir par ici, hein ! (sous la table)
	Tina : Non, on a pas envie.
	Eva : Ouais on a pas envie.
	Paul : Attention j'arrive !
	Eva : Viens chérie (à Tina)
	Eva : On est là pour toi. (à Tina). Tu la surveilles ? (à Eva)
Tina marche à 4 pattes et Paul la suit avec la machine.	Tina : On allais dans la forêt et tu pouvais plus nous retrouver.
La machine de Paul se casse.	Tina : Elle est cassée.
	Paul : C'est pas grave.
	Eva : On va dire à la maîtresse.
	Paul : Non, dis rien ! Je vous embête plus.
	Eva : Retourne dans ton coin !
	Eva : Regarde, Walter il est tout seul.
	Paul : Mais je vais repartir, je fais demi tour.
	Eva : Il a pas le droit parce qu'il a pas de signe.
	Tina : Il y a plus de place.
	Eva : Si mais c'est que Uriel il a pas enlevé.
	Tina : Tiens, sinon Paul il va revenir après.
	Paul : Eva !
	Eva : Paul !

On the 24th of October, in sequence 38, Paul and Walter are playing in the construction corner and tell Elisa she cannot play with them. When I ask them why she cannot play, Paul links his "wishes" to "rules". He explains that a girl cannot come to play with them, because they don't like to play with girls (preference or wish), and this is in turn because "girls don't like Ninja Go" (a general statement about "girls"). In a breaching attempt closer to a Piagetian counter-suggestion, the researcher confronts Paul with the fact that the research herself is a girl and plays with him Ninja Go. To this, as a reformulation, Paul changes the "rule" and explains his preference by a relational conflict: "girls sometimes annoy us" as a general statement comes from the fact that Elena pushed his friend and she is friends with a boy they don't like. Paul thus employs the negation operator, refuses the possibility that she joins for play, by using the semiotic mode of speech and the argumentative function to justify his position. Here again, he maintains his position by explaining the reasons for it and not changing the initial position.

24/10 – Sequence 38 - School

Dans le coin construction Paul et Walter veulent pas que Elisa joue avec eux.	Walter : Non, tu peux pas venir Elisa, on fait un truc de mecs. Désolés.
	Paul : Ouais on est désolés.
Elisa part au coin lecture. Je demande pour quoi ils voulaient pas jouer avec Elisa.	Paul : On aime pas jouer avec les filles parce qu'on joue aux Ninja Go et les filles ca aime pas les Ninja Go.
	Moi : Moi j'aime bien les Ninja Go, on joue toujours…
	Paul : Et toi, t'es une fille… (rigole) Mais parfois les filles elles nous embêtent… Par exemple, Elena elle a renversé Walter. Et Elisa elle est amie avec Florien et nous on veux pas être amis avec Florien.

In the following sequences, Paul starts to engage either in jokes or negotiation to try and find a more nuanced way to find a solution to gender related situations.

On the 25th of October, in sequence 39, Paul, Octave and the researcher are playing mommy and daddy. Octave wants to be the baby, and Paul asks the researcher who she wants to be. In a breaching strategy, the researcher asks to be the dad. In response to this, Paul first changes the researcher's choice without opposing it, but when she asks if she wasn't the dad, he tells her that she has the choice, she can be both. The researcher chooses the dad and the play continues. Here, Paul finds a compromise in which him and his brother are both children and the researcher is the dad, although he attempts to negotiate by enunciating all the possible options, in case the researcher might prefer to be the mother. Although it seems that Paul is trying to get the researcher to choose the mommy character, he finally accepts through that negotiation, that she be the daddy. This is a different form of engaging in the interaction, as in the last ones, where the other's point of view is not only considered but further tried to be kept and agreed on to continue the play; rather than trying to impose his own wishes or point of view.

25/10 – Sequence 39 - Home

Paul se met debout et va vers la cuisinette dans la chambre.	Paul : On joue à papa et maman ? C'est qui le bébé ? C'est toi ! (à la chercheuse)
	Octave : C'est moi !
	Paul : Comme ca je dois plus aller à l'école. Et puis toi ?
	Chercheuse : Moi je suis le papa.
	Paul : Nous on va sur le gros lit. On faisait la sieste. Dis nous quoi faire parce que t'étais le… la maman.
	Chercheuse : J'étais pas le papa moi ?
	Paul : Mais tu peux être la maman ou le papa. Tu peux choisir ein…
	Chercheuse : Le papa alors.
	Paul : babababa (bruits de bébé). Mais t'as pas besoin que je te dise quoi faire, toi dis.
	Chercheuse : Alors vous faites la sieste et je veux pas vous entendre pendant que je fais à manger.

Finally, on the 26th of October, in sequence 40, there can be several operators found. Paul and the researcher are going to play with the Ninja Go's. Paul tells the researcher she will be the evil character called Noed de Garmadon and then asks the researcher if she wants a girl or a boy head on her Lego. As a breaching strategy, the researcher asks to have a boy head, and Paul does not verbally oppose the researcher's request. Instead, he pretends to accept, but then takes the Ninja, laughs and puts a girl head on it. This continues further as the character the researcher is assigned is one of "the bad ones". Yet, in the story, the "bad one" has to be a boy and at the same time, the researcher has to play with a girl head, as she is a girl. The final solution is to toss the girl head far away and say, "this head is stupid".

Both putting the girl head on and throwing it away are enacted forms of resolving a situation of divergence. He doesn't need to say, "you cannot have that head". Rather, he tries to find a compromise between the boy "bad one" and the girl head, with some difficulty in reconciling them into one character. He finally tosses the girl head, eliminating the problem of "choosing a head", as now there is only one left. He thus first uses the negation operator by movement, while using the addition operator in speech: he accepts the researcher's request in speech but puts the girl head on the toy, using humour as a communicative function. He then uses the compromise operator through negotiation (you can be a bit the girl and then a bit the evil character); to finally employ the negation operator again through movement and tossing the girl head away.

This sequence can be read differently from the previous ones as Paul is actively taking into account the researcher's propositions and trying to find a form suitable to take both positions into account for the continuation of the game, even though some of them may violate the gender norms.

26/10 - Sequence 40 - Home

On va par terre jouer aux Ninjas Go. Paul prépare les bonhommes en silence. Il leur met des armes, un casque, change de tête. Fait une petite maison, cherche des bras, des motos.	Paul : Tu peux écrire encore un peu pendant que je prépare.
	Paul : Tiens, c'est le tien. Moi je suis le blanc. Et ils sont frères. T'sais je connais tous les noms. Toi t'es le méchant, c'est Noed de Garmadon, parce que j'ai vu le film t'sais.
	Chercheuse : Et moi je suis le méchant alors. On est pas dans la même équipe ? C'est son frère ?
	Paul : Lui, non, lui.
Il choisit une nouvelle tête pour mon bonhomme.	Paul : Tu veux être une fille ou un garçon ?
	Chercheuse : Garçon.
	Paul : Ok, donne, je lui mets.
Il me le rends et rigole.	Chercheuse : C'est quoi cette tête ?
	Paul : Une tête de fille (rigole)
	Chercheuse : Je suis quand même le méchant ? Le méchant c'était quoi ?
	Paul : Un garçon.
	Chercheuse : Mais alors…
	Paul : Bein t'es un peu d'abord le méchant et après t'es une fille.
	Chercheuse : Ok.
Paul jette la tête de fille loin.	Paul : Elle est nulle cette tête là-bas.

Although it is true that another element may be relevant as a change in this sequence, notably, the fact that he is here playing with the researcher and not other children, as I have argued in the previous chapter (Chapter 5), the researcher's position can be considered as some other researchers' in child ethnography, as "not a real adult" or a big child. This particular position may nuance the

hierarchical position that could be at stake when interacting with an adult. We do not know the reasons for this consideration of the researcher's request: it may be that Paul now know the researcher does "breaching" and anticipates and reacts, even plays with the resource; but as this form of dealing with others' requests is not specific to the researcher, I would make the hypothesis that it is a form of dealing with divergence in situations that Paul might express.

4.1.1. Synthesis

The analysis of Paul's play sequences around gender shows a tendency to negation and compromise through argumentation, that is, to maintain at least some aspect of his proposition in the interaction by justifying and explaining. However, at the end of the research period, there start appearing some situations in which the compromise is reached through a negotiation, an attempt to consider the other's point of view and integrate it for the continuation of the play. Although this is not an open possibility for transgressing or ignoring gender norms, it provides Paul with somewhat more flexibility in dealing with gender norms and evidences the difficulty in going against them even in playful situations.

4.2. Natalie

In the case of Natalie, gender-related play sequences start to appear close the to the summer holidays, which start on the 15th of July. Here again, the upcoming change in her life may lead to gender-related aspects to become more salient in these situations. Referring to what she knows may be a way to maintain the stability among the changes.

In these play sequences we find a constant opposition to propositions that transgress or do not conform to the dichotomic distinction of genders and activities. She does this in an interesting form of argumentation, through speech, yet employing what I have called ventriloquism to do it. This strategy remains constant over time and seems to accompany other developmental tasks the child might be engaged in, that I have not analysed here.

Date + Sequence N°	Operator	Semiotic mode	Communicative function
04/07 – Sequence 13	Negation	Speech	Argumentation
26/07 – Sequence 20	Negation	Speech	Argumentation
11/09 – Sequence 32	Addition	Speech	Argumentation
05/12 – Sequence 39	Negation	Speech	Argumentation
31/01 – Sequence 43	Negation	Speech	Argumentation
31/01 – Sequence 44	Compromise	Speech	Negotiation

Table 22: Evolution in time

On the 4th of July, in sequence 13, Natalie is playing on the slide and Noël wants to climb on it as well. She refuses and states, as a reason, that he is not even a boy. She argues that if he annoys her, she will not invite him, and then tells him he does not know where her house is. She is here using the negation operator, opposing Noël proposition to climb on the slide. She does so here through arguing different gender related aspects –that he is not even a boy, that he does not know, etc. She is attempting to maintain the gender separation by trying different possible arguments to dissuade him from coming on.

04/07 – Sequence 13 – Kindergarten

Natalie monte sur le tobogan et Noël veut monter aussi.	Natalie : Tu es même pas un garçon.
	Noël : Si, moi je suis un garçon !
	Natalie : Si tu m'embêtes, je t'invites pas !
	Noël : Et puis moi je suis plus fort que toi.
	Natalie : Et toi, tu sais même pas où est ma maison.
	Noël : Elle est dans les toilettes !
	Natalie : Et toi, tu sais même pas !

On the 26th of July, in sequence 20, Natalie is playing dress-up with the researcher and other children at her birthday. The researcher takes a Batman mask but Natalie opposes herself to this by saying that it is for boys. She employs the negation operator through argumentation, proposing it is a mask for boys and gives a witch mask, which would be for girls, instead. In so doing, she maintains the gender separation.

26/07 – Sequence 20 - Home

Eva se déguise avec un masque de Loup. La chercheuse prend un masque de Batman.	Natalie : Mais non, ça c'est pour les garçons. Tiens.
Elle me donne un nez de sorcière.	Natalie : Tu vas te déguiser en sorcière !

On the 11th of September, in sequence 32, Natalie is playing in the family corner with Cia and the researcher. When discussing who will play whom, the researcher tries to breach and chooses the dad. Natalie thus opposes the researcher's proposition to be the dad, by argumentation, explaining that if there are only girls, then the characters are a baby, a mommy and a big sister. Then, the researcher asks if she can be a baby boy, and Natalie accepts. She thus first uses the negation operator to maintain the gender separation, but then finds a compromise, that allows the researcher to have a character that breaches such a dichotomy, by reformulating into being a baby boy.

Later on in the same sequence, the family becomes a magical family: Natalie is a princess, and the researcher proposes she is a baby knight –breaching again and choosing a knight (more masculine

coloured character)- and Natalie a mommy knight. This is at first accepted by Natalie, but then refused when she reformulates and decides that it is better that no one is magical and returns to the previous agreement on the family roles. Inversely, she here first attempts a compromise and an addition on the researcher's proposition to then employ the negation operator and maintain a dichotomic gender distinction in terms of characters.

11/09 – Sequence 32 - School

Ils vont jouer dans les coins. Cia, Natalie et un garçon vont à la dînette. Natalie mets la table et sort un gâteau du four.	Cia : Moi je suis la grande sœur et toi t'es la maman.
	Garçon : Moi je part…
	Natalie : (à moi) lui il veut pas être le grand frère alors il part. Ca c'est mon bébé. Toi t'es le bébé Martina.
	Chercheuse : Je peux être le papa ?
	Natalie : Non. Le bébé. S'il y a que des filles alors il y a un bébé, une maman et une grande sœur.
	Chercheuse : Un bébé garçon si ?
	Natalie : Oui, ok. Moi je bois du vin.
	Cia : Moi aussi.
	Natalie : Non, toi t'es la grande sœur.
	Cia : Les grandes sœurs ca boit du vin.
	Natalie : Oui, ok, je vais te servir. Toi mon chéri tu peux pas. Vous prenez chacun un service. On a mérité un bout de gâteau.
Natalie nous sert du gâteau.	Natalie : (à moi) Toi tu vas à la crèche, toi tu vas à l'école (Cia) et moi je vais au travail. Je travaille à l'aéroport où il y a des avions.
On sort les déguisements. Cia prends une baguette magique, moi un casque.	Cia : Moi j'étais magique. J'étais une princesse.
	Natalie : T'étais magique ?
	Chercheuse : Moi j'étais un bébé chevalier.
	Natalie : Non…
	Chercheuse : Et toi t'étais la maman chevalier, et moi le bébé chevalier.
	Natalie : Ok, alors toi t'étais la grande sœur chevalier, moi la maman chevalier, et toi le bébé chevalier (pause). Non, alors personne n'étais magique, ni princesse ni chevalier. On va s'asseoir manger. Allez mes chéris.

On the 5th of December, in sequence 39, Natalie is playing mommy and baby with the researcher. When the researcher asks if she is the baby, Natalie explains that she is a baby girl because "daddy had a baby boy when he was little but now he said we would have a baby girl", thus arguing for her proposition. In this situation, Natalie clarifies that the researcher needs to be a baby girl, anticipating the researcher's potential breaching and expressing she does not accept it. But when the researcher asks for clarification "so I am a baby what?" Natalie responds "you are my darling baby", speaking as a loving mom, deflecting in this reformulation. She thus employs the negation operator,

first by arguing and then by diverging the conversation using ventriloquism. This is yet another way to maintain the dichotomic gender distinctions in the interaction.

05/12 – Sequence 39 - Home

Natalie : Moi je suis la maman et toi le bébé
Chercheuse : Le bébé ?
Natalie : Oui mais pas bébé garçon, bébé fille parce que papa il avait un bébé garçon quand il était petit mais maintenant il a dit qu'on aurait un bébé fille…
Chercheuse : Alors moi je suis un bébé quoi ?
Natalie : T'es mon bébé d'amour… Papa il t'a mis un crochet parce qu'il veut pas que tu t'éloignes. Je vais travailler ma chérie. Au revoir.

On the 31st of January, in sequence 43, Natalie is playing going to school with the researcher. She is trying to convince the researcher to do what she wants, while the researcher is breaching by proposing to take a sword and a magic wand to school, and for this, Natalie makes use of ventriloquism, that is, many different "adult sayings", such as "it's the rules my dear", "stay here my darling, this will be good for you" and "it's not the children's choice! It's the parents who decide". Here again Natalie employs the negation operator through argumentation, but by using the ventriloquism resource, in her responses to the researcher's breaching attempts.

31/01 - Sequence 43 - Home

Natalie : Maintenant on va à l'école. Tu prends ton sac. On met quoi dans ton sac d'école ?
Chercheuse : Moi je veux avoir une épée dans mon sac d'école
Natalie : non c'est interdit à l'école.
Chercheuse : Et une baguette magique?
Natalie : Non, non, c'est interdit à l'école
Chercheuse : On peut jouer à quoi à l'école maman ?
Natalie : On peux jouer à tout ce qu'on veut !
Chercheuse : On peut jouer aux chevaliers ?
Natalie : Non, parce que c'est le règlement ma chérie.
Chercheuse : Est-ce que je peux jouer a la princesse ?
Natalie : Oui. Parce que la maîtresse elle a pas envie- Elle a décidé qu'on est tous des princesses.
Chercheuse : Même les garçons ?
Natalie : Oui, même les garçons.
Chercheuse : Je prends la moto alors.
Natalie : Non parce que c'est trop grand on peut pas mètre des trucs grands et la princesse est trop petite alors ça va.
Chercheuse : La princesse ?
Natalie : Oui, prends la, tiens, reste là ma chérie, ca va te faire du bien. Tu sais, c'est bon pour toi.
Chercheuse : Tu m'as mis de la poudre de fée ?
Natalie : On va à l'école et tu prends la princesse. C'est pas le choix des enfants ! C'est les parents qui décident… (elle me pointe du doigt).

On the 31st of January again, in sequence 44, Natalie is organizing books and DVD's according to a girl and a boy pile. Placing the Beauty and the Beast DVD raises a discussion because it has girls and

boys in it. Here, the researcher is not breaching, but asking for justification and showing a possible conflict in the choice. To this Natalie thus proposes that the Beauty and the Beast, as there is a boy and a girl in it, go in both piles, but since she likes it, she still puts it in her pile. She here finds a compromise through negotiation, which again maintains the dichotomic gender separation.

31/01 - Sequence 44 - Home

Ils me montrent des livres avec des dvd qu'on leur a offert. Il y en a 6 sur la pile.	Natalie : On fait une queue de filles ?
Natalie met Mary Poppins et le Petit Chaperon Rouge dans la queue de filles. Elle donne Guillaume Tell et Robin des bois à Luke pour qu'il fasse une queue aussi.	Natalie : Et Luke tu fais ta queue…
	Luke : Mais d'abbord c'est ma histoire.
	Chercheuse : Ali Baba ca va où ?
	Natalie : Luke viens chercher ton histoire.
Natalie met la Bête et la Belle dans la queue filles.	Chercheuse : Mais la bête elle va dans la queue fille ?
	Natalie : Non, c'est un garçon. C'est un prince en bête.
	Chercheuse : Comment ca se fait qu'il est là alors ?
	Natalie : Bein parce que la belle c'est une fille et puis c'est dans la queue de moi mais aussi de Luke.

4.2.1. Synthesis

The more salient aspect of Natalie's form of play is that, when gender becomes relevant, she opposes the other's propositions, through argumentation and by employing ventriloquism. In a few cases, she attempts a compromise that nevertheless always maintains the dichotomic gender separation of characters and activities. It is interesting that in the last sequence observed she proposes a compromise solution through negotiation, taking into consideration the researchers propositions and trying to find a suitable solution. This move may speak to some possibility to deal with the gender norms in a less rigid way than until then.

Here again, the researcher's breaching attempts may have an impact in the child's way of doing gender, although these strategies are also present in interactions with other children. Moreover, it is an interesting joint interaction that is constructed in this anticipation and responding to each other's expectations and demands.

4.3. Nadine

In the case of Nadine, I witnessed few pretend-play situations where gender became a relevant aspect. She used different semiotic modes, in a ludic function, and often proposes integrative solutions, as in other play situations, using the integration operation, which transforms the given propositions into new wholes.

Date + Sequence N°	Operator	Semiotic mode	Communicative function
13/09 – Sequence 14	Integration	Symbolic physical manipulation	Ludic
14/09 – Sequence 16	Integration	Drawing	Ludic
22/10 – Sequence 23	Compromise	Drawing	Negotiation
30/11 – Sequence 27	Integration	Speech	Ludic

Table 23

On the 14th of November, in sequence 16, Nadine is playing with her sister, her dad and the researcher. They are playing with a Barbie, a Spiderman, a rabbit, a baby and some plastic shoes. Nadine puts books on Barbie and pink high heels on Spiderman. Something that may have been potentially a breach from the researcher is here not at all considered as such by Nadine. She uses the integration operator through symbolic manipulation in order to choose who each will play in the play situation: Spiderman here wears high heels. There appears to be no need to maintain the dichotomic distinction between genders, and playful integrative propositions can be advanced.

14/09 - Sequence 16 - Home

Nadine me donne un petit Spiderman et prends une grande Barbie. Elle met des bottes sur la Barbie, puis des talons roses sur Spiderman.	Nadine: Bon, allez on se bat.
On fait semblant de se battre avec les jouets.	Nadine: Pch pch! Je te signale qu'elle est méga forte hein! Gagné!
	Papa: Vous lui avez mis des chaussures roses au Spiderman?
Vaila veut le Spiderman. Je lui donne, elle me l'échange pour un bébé. Nadine me donne un plus grand Spiderman et prends un lapin pour elle. Maintenant elle en a deux pour se battre. Je mets alors le bébé dans les bras de Spiderman.	Chercheuse: Il peut pas se battre là, il doit garder le bébé…
	Nadine: Tu le donne à nous alors. On le garde. Attends, elle elle le garde, et nous on se bat, ok?
	Chercheuse: Il a les pieds trop grands celui là pour lui mettre des chaussures.
	Nadine: Moi je lui met des chaussures de se battre (à Barbie) et toi tu fais semblant ok?
	Chercheuse: Et ca c'était quoi? (les chaussures que Barbie avait avant)
	Nadine: Des botinettes…
Le papa s'assoit avec nous par terre et prends la moto de Spiderman. Il met le petit Spiderman sur la moto. On va skier derrière le petit Spiderman à talons roses (Vaila et papa ont ce personnage, Nadine a la Barbie et chercheuse le grand Spiderman). On suit un petit chemin. Spiderman à talons perd ses chaussures, papa les remet.	Nadine: Allez, on retourne au chalet, on va prendre un chocolat chaud.
Nadine assoit Spiderman et Barbie sur la cabane. Vaila veut jouer avec la moto du petit Spiderman. Nadine prends d'autres petits jouets.	Nadine: Ca c'est leurs enfants. Ils étaient méga forts.

On the 13th of September, in sequence 14, Nadine is drawing unicorns with Elena and Giselle. While drawing, they talk about different things. Nadine starts by saying she made a baby unicorn and that her mom protects her; she then says she will draw her a "jacket that's all warm". Talking about other things in the middle, she picks up on her friend speaking of butts and says she will draw a "butt-protector", but immediately says that it was a joke, responding to herself and reformulating, that she actually made a "warm-protector". This word does not exist, and it contains the protection of which she was talking about, a reference to the jacket, and the warmth of it. At the same time, it is distant enough from the butt reference she didn't want to keep. As such, it is a qualitatively new proposition from which the drawing activity can continue. She here uses the integration operator through the semiotic mode of drawing and speech. Nadine here does not need to keep the separation between the elements and can rather play with them and make up new combinations, regardless of the gender dichotomy.

13/09 - Sequence 14 - School

	Nadine : *Elle protège son bébé*, ok ?
	Elena : Oui, elle protège son bébé ce papa, eu… cette fille. Moi aussi je protège.
	Nadine (rigole) : Bein oui, elle est dans son ventre… Moi je fais la grande sœur.
	Elena : *Ca c'est sa queue ?*
	Nadine : Regarde comme elle est belle la mienne.
	Elena : Je vais faire une plus belle que toi. J'ai besoin de ton bleu.
	Nadine : Bon, je prends un autre bleu à la place. Ce c'est un petit tatouage. Et t'sais ce que je vais faire à la petite fille ? Un manteau tout chaud.
Giselle viens.	Giselle : Bein moi je vais pas faire une licorne. Vous savez ce que c'est ? (montre ce qu'elle a dessiné) Une reine.
	Elena : Ca c'est la jupe de la reine. C'est toi la reine c'est ca ?
	Giselle : Non, c'est ma maman la reine.
	Elena : Moi je vais faire un bébé violet. Mais c'est un bébé licorne (elles rigolent). Vous savez il y a des bébés qui ont des cheveux aussi.
	Nadine : T'sais moi il y a Léa qui vient chez moi.
	Elena : C'est qui ?
	Nadine : T'étais pas au pyjama party de Zoe ?
	Elena : Si
	Nadine : C'était la fille qui dormait pas et nous on arrivait pas à dormir.
	Elena : Et t'sais on disait qu'elle était vraiment embêtante… Moi Hugo il vient chez moi
	Giselle : Moi je connais un Hugo de mon ancienne crèche. Il est gentil… Ah, non il est pas gentil, il nous embête.
	Elena (en parlant de la licorne) : Je l'ai pas fait très belle t'sais… Son popotin il est de toutes les couleurs.
	Nadine : C'est juste un protège fesse. Mais non, c'est une blague. J'ai pas encore fini son protège chaud.

Nadine drawing a unicorn

On the 22nd of October, in sequence 23 Nadine is drawing with her sister, her father and the researcher. She is making a gift for her grandparents' anniversary. She first easily draws grand-mother, but when she has to draw her grand-father, she says she cannot do him. This, in a way, is a spontaneous breach, as she does not "know" how to draw a male figure. His dad proposes she do "almost as a grand-ma, a little different" and she accepts to do it. But she does not make much effort and does not want to choose the colours herself. She here uses the compromise operator through drawing, and accepts reluctantly to make a person of a gender she says she does not know how to make. The separation is somehow maintained, although she accepts to make the drawing of a person of another gender.

22/10 – Sequence 23 - Home

Nadine et Vaila font des dessins pour l'anniversaire de mariage des grands parents. Nadine passe beaucoup de temps à dessiner	Uziel : Il te manque grand-pou ! (grand-papa)
	Nadine : J'arrive pas
	Uziel : Comment ca t'arrives pas ?
	Nadine : Bein comment faire un garçon. J'arrive pas.

grand maman et me demande de lui écrire sur une feuille son prénom pour le copier sur la feuille.	Uziel : Bein c'est presque comme grand maman, un petit peu différent.
Nadine commence à dessiner grand papa aussi. Elle passe beaucoup moins de temps et ne choisit pas les couleurs elle même. Elle me demande de choisir des couleurs pour chaque habit (rose, lila, orange, vert).	

On the 30th of November, in sequence 27, that I have already presented, Nadine is playing imaginary animals with Tina and the researcher. When choosing the names to play, she tells the researcher she needs to pick a girl name. When the researcher asks why, asking for a justification, since they are playing imaginary animals, which are already not real, Nadine explains that it's because she's a girl. The researcher then proposes a counter suggestion: if we consider the fact that if we can be animals, we may be other things too. To this Nadine proposes that the researcher be a boy animal, taking into consideration the researcher's argument and her repeated tendency to breach. To this, the researcher proposes she be called Simba, the name of a little boy lion from the movie the Lion King. Although, as Nadine knows this name, she proposes the researcher be called "Sinfa", in this reformulation, making up a name, so she can have, not only a boy animal name, although she is a girl, but one that they don't know from movies. She does some variation on the proposition, invents a new name and everyone agrees to continue playing. Here, Nadine employs the integration operator in the speech mode to arrive at a proposition that suits the players involved. This is a way to to with the gender norms that allows transforming and transgressing them in an integrative form.

30/11 – Sequence 27 - Home

Tina, Nadine et moi jouons aux animaux immaginaires.	Tina : Mais non parce que je suis sauvage et je t'avais griffé. Et tu t'appelles comment ?
	Nadine : Rose… Euh… Arc-en-ciel. Rose ou Arc-en-ciel.
	Chercheuse : Rose Arc-en-ciel ?
	Nadine : Non, Rose ou Arc-en-ciel.
	Tina : Moi je veux choisir mon nom… Lily.
	Nadine (à chercheuse) : Et toi ?
	Chercheuse : (pause, je réfléchis).
	Nadine : Mais de fille.
	Chercheuse : Pour quoi ?
	Nadine : Bein, parce que t'es une fille.
	Chercheuse : Mais on a le droit d'être des animaux.
	Tina : Non, t'es obligée.
	Nadine : Tu peux avoir un nom d'animal garçon.
	Chercheuse : Simba ?

	Tina : Ah, je connais Simba.
	Nadine : Oui... *Sinfa…*
	Chercheuse : Ok, Sinfa.

4.3.1. Synthesis

The more striking element in Nadine's mode of combination is the use of the integration operator, as well as the ludic function in interaction. She appears to play with gender norms as they come, with some flexibility to adapt and transform them depending on the situation and the people involved. And she does this with the researcher, but also alone and with other children and adults. It may be interesting to further explore other conditions in which norms are proposed to be transgressed to understand the specificity of such manipulation of norms through integration.

4.4. The semiosis of gendered play

What these analyses show is, first, that gender-related play sequences start to appear at the end of kindergarten or at the beginning of primary school. If we look at the dates in which the gender-related play sequences start to appear, it is only right before or after the summer holidays, before finishing kindergarten or when school is about to start. As mentioned, this may speak to the fact that children have to make sense of a change in their lives –leaving kindergarten and starting school- and this mobilises other aspects, such as the way in which they do gender. Thus, it is not the school per-se that produces the appearance of gender differences, as stated in the literature (Duveen & Lloyd, 2005; Martin & Ruble, 2010), but the fact that when going through a strong change in their lives, the children may turn to what was known –the gender system- and make its normative aspects relevant. That may explain why these gender-related sequences appear at that time, as well as why they suddenly become normative.

Secondly, this analysis shows a difference in the preferred operator when dealing with gender. It is less the ludic function and less the addition operator that prevails, as in the general analysis of modes of combination in play situations, but rather more need to negotiate and argue, compromise and oppose. In addition, each child has a preferred mode. Paul negates or finds compromises through argumentation and negotiation, while Natalie mostly opposes propositions by arguing using ventriloquism. Yet, in the case of Nadine, the difference is not valid. She uses the integration operator in a ludic function no matter the play situation. This might mean that, when it comes to gender, the three children tend to re-edit an abstracted version of the material spaces in which they live. Paul and Nadine evidence a need to separate and Nadine maintains integration. It may be the case that the spatial organization of the homes seem to have been differentiated, abstracted and invested, and that they have developed a unique mode of combination –a psychological pattern.

Empirically, what we see when looking at these modes of combination in time is that in Paul's case, there starts being a change in the way in which gender norms are dealt with. The possibility for more flexibility in their transgression may be related to the researcher's interventions or to the child's margin of freedom in reconstructing the guiding system he encountered at home. But in any case, the possibility of a less rigid form of dealing with gender norms may allow for more possibilities to engage with the other's point of view, while remaining constant in our own relationship to gender.

I claim that the peripheral construction of the gender system, through differentiation and abstraction makes it a guiding system in play. It is in this sense, a materialized system with a psychological counterpart –the modes of combination and psychological patterns- guiding the possible paths of play and thought. Yet, spatial organizations are not invested in themselves. Our relationship to spaces and objects is mediated by our relations to others. I now present some clues as to parents and teachers' explicit discourses on norms and on spaces and play. I present some parallels between the children's modes of combination and the parents' discourses.

5. Social dimension

After looking at the children's ways of doing gender and playing, I looked at parents' and teachers' few explicit statements on gender, norms, and play. I tried to find the categories defined for analysing the children's play in the parents' actions and discourse to see if there were any that could be found at both levels. In the case of the teachers, I only had information pertaining to their point of view on norms, gender and rules in school. The limits of the interpretations in this section is that the data collection process was mostly centred in the children's actions and thus, I had fewer elements to support the interpretations. As such, the findings of this sections should be first, taken as a possible first step for further research into these comparisons; and second, considered in relation to the other dimensions of the analysis, as it is their triangulation that leads to their interpretations.

5.1. Paul's mother

Paul's mother employs what I define as the compromise operator in her conversations with her two sons. In sequences 24, 26 and 27, she employs a conditional form to find a compromise solution to the issue at hand and come to an agreement.

26/07 - Sequence 24 - Home

J'arrive et leur papa est dans le jardin, il peint une fenêtre. La maman va faire les bagages pour partir	Maman : je te lis 4 pages et après tu me dis ce que tu veux prendre en vacances
	Paul : 6 pages

en vacances le lendemain. Il veut que sa maman lui lise une histoire. Ils négocient.	Maman : 5 pages et on fait les bagages, d'acc ?
Octave arrive avec un livre. Lui aussi il veut qu'elle lui lise une histoire. Elle lit. anniversaire (fiches à	Maman : Alors je fais 2 pages de Octave et 5 pages de Paul et on fait les bagages.
	Paul : D'acc.

In the first example, Paul's mother in trying to convince her son to pack for the holidays. She thus negotiates reading first four, then five pages of a book Paul wants her to read and that he will then go pack. She finds a compromise between reading him the book and him packing.

In sequence 26, Paul's mother is playing babyfoot with Paul, but he is trying to play with several balls at the same time, thus not following the rules. The mother proposes they respect the rules at the beginning and that Paul can put several balls in the game at the same time for the last goal. This is again, a use of the compromise operator in the interaction.

30/08 - Sequence 26 - Home

Quand j'arrive, Paul, Octave et leur maman jouent au babyfoot. Je les rejoins, on joue pendant une demi-heure environ. Paul veut mettre plusieurs balles à la fois.	Maman : Arrête Paul, c'est pas comme ca qu'on fait, une à la fois ! (Paul recommence). Alors, on fait une à la fois et tu peux faire plusieurs pour le dernier but ok ? (à moi) Le problème c'est que moi j'adore jouer au babyfoot et je ne sais pas laisser les gens gagner… Même les enfants.

In sequence 27, Paul, his mother and little brother are playing a board game. Paul is stating some rules for it he says they follow in kindergarten. His mother first says those are not the rules and then tells him that if he wants to play with his little brother, then the rule cannot be that the fastest wins, they have to be more gentle. She again uses the compromise operator, as if he wants to play with his brother they have to find a way to do it so that he can play too.

31/08 - Sequence 27 - Home

On joue à un jeu de table. La maman de Paul lui rappelle les règles, lui dit de ne pas tricher. Paul veut changer les règles et lui dit que à la crèche ils jouaient comme ca. Sa maman ne veut pas changer les règles.	Paul : Mais à la crèche fallait que tu fasses le plus vite possible pour le prendre.
	Maman : C'est chacun son tour Paul, pas celui qui le prend plus vite. Si on fait comme ca, il faut que tu fasses plus doucement avec Octave.
Elle reviens sur les règles originales du jeu. On tire les dés et on prends l'animal de la couleur qu'on voit jusqu'à remplir la carte.	
Paul tombe et se fait mal. Il pleure, il est fatigué, je pars.	

5.2. Paul's schoolteacher

Paul's schoolteacher, quite differently, does not necessarily respect the rules or norms of the school and allows for the children a larger margin of freedom in solving and dealing with the situations.

Transcript sequence 25

La musique pour commencer à ranger commence. Les enfants rangent et s'assoient pour sortir à la recrée.	Maitresse : (à moi) Quand c'est comme ca, je m'en fiche des règles du collège et on sort avant… Parce que je priorise d'autres choses. Ils ont faim, ils sont fatigués.

She openly tells the researcher that she sometimes does not respect the rules of the school, and base her decisions on how children are feeling that day. This may be a case in which Paul witnesses another way of dealing with norms than his parents' and that, as we have seen, is not found in the way in which he deals with norms in play.

5.3. Natalie's parents

Broadly, what Natalie's parents emphasise is the separation between their twin son and daughter in terms of gender. As we have seen in the spatial analysis, such separation is found in the house's distribution of spaces and toys. It is interesting that such spatial organization can sometimes be heard in the parents' position towards gender differences. On one occasion, in sequence 6, Natalie's mother explicitly speaks about the differentiation she observed in her children:

27/06 – Sequence 6

Maman : Quand ils sont nés on s'est dit, on va faire attention à ces trucs filles garçons, 'fin à pas rajouter des trucs quoi. Mais avant ils avaient pas trop de différences, c'est que depuis 6 mois à peu près qu'ils ont commencé vraiment à genre Luke faisait pas attention aux cuillères, roses ou bleu, maintenant il en veut pas. Mais hier par contre, Natalie elle avait un haut (jeans avec paillettes) et Luke pleurait parce qu'il voulait le même. C'est difficile de partager pour eux. Déjà leur anniversaire, les invitations aux anniversaires, ils reçoivent qu'une. Même mon mari il a du mal à comprendre… Il veux emmener un seul cadeau quand on les invite à un anniversaire, mais même si c'est un tout petit, ils veulent avoir chacun.

She here says that since six months ago, the children started paying attention to gender differences, such as colours. She appears to say that the differentiation is necessary for them as they are twins: in the same way they should bring each one their present to a birthday party, they should find markers to separate them in everyday life, and gender may provide a ready-made distinction system they can make use of.

The separation between the children becomes more evident in the teachers' strategies in school. In sequence 37, a teacher tells me teachers intentionally separate them, which reedits the separation found in the house:

03/10 – Sequence 37

Maitresse : Nous on les sépare intentionnellement (Luke et Natalie) parce que sinon, ils sont ensemble ils vont pas avec les autres. Bon, on a beaucoup d'enfant qui ne viennent pas de la crèche, mais c'est après les vacances d'automne qu'on voit le changement, c'est quand ils deviennent plus un groupe… Même après Noël. C'est pendant toute l'année progressivement. Mais ce que je fais, bon maintenant ils avaient tous les deux quelque chose à finir mais sinon, j'en prends un sans l'autre quoi.

5.4. Nadine's mother

Nadine's mother claims her son and two daughters "mix everything", there is nothing that is mandatory other than the basic rules of the house. In this sense, her discourse re-edits the spatial organization of the house spaces.

22/03 - Sequence 1

Cadi (maman) porte un T-shirt qui dit « mama bear ». Elle me montre la chambre des enfants.	Cadi: Moi je porte beaucoup de rose mais pas parce que c'est de fille. Ils dorment ensemble et jouent ensemble. Ils mélangent tout. Mais à la crèche c'est là qu'ils les influencent. Mon fils il aimait Cars et ma fille Elsa. Ca vient d'ou ca ? C'est terrible. Surtout Elsa, c'est vraiment très fort. À part ca, on fils il joue avec des filles aussi. Il faisait du yoga mais après un moment on a senti qu'il avait vraiment besoin de courrir quoi, alors la il a arêté, il fait du tennis. Nadine elle fait de la danse classique (roule les yeux). Mais ils mélangent tout. Tout est mélangé. Il y a déguisements de pirate, unicorne, princesse ; bateau, thé.

While saying that "everything can be mixed", Nadine's mother sends her to ballet classes, although she is not so happy that her daughter wants to do that, and wears pink herself. It is interesting that she uses quite stereotypical gendered elements for herself but attempts to promote an explicit "mixing" strategy with her children.

In sequence 27, as Nadine is arguing with a friend, her mother explains, "nothing is mandatory", only a few things such as taking a shower and brushing your teeth, but "in play, nothing is mandatory". This conveys that norms do not need to be strictly respected, but that there is some room for accepting, refusing or changing some of them.

30/11 - Sequence 27

	Tina : Arrête Nadine, c'est moi qui l'avait.
	Nadine : Bein non, c'est moi. T'es obligée.
	Maman : Mais attendez, il y a rien qui est obligatoire ! Bon, aller à l'école c'est obligatoire. Et se doucher et se brosser les dents peut-être, mais dans le jeu il y a rien qui est obligatoire.
	Nadine : Bein si tu ne me le donnes pas alors je te tue.
	Maman : Oh, mais tu dis pas ca. Bon, vous voulez faire des bricolages là ?

5.5. Nadine's teacher

Nadine's teacher, in turn, explained that rules were very important and that stereotypes were there "for a reason" and that they allowed the children to have order in their lives.

Maîtresse: Je vous dit, moi je leur fais faire le loup aux garçons et le petit chaperon rouge aux filles. C'est pas pour rien qu'ils sont là. Ils apprennent les règles et les stéréotypes de genre bein ça aide à le faire.

5.6. Synthesis

These results show, empirically, that the parents re-edit, in their discourses, a verbalized form of the structure they have given to the spaces they organized. They also show the discrepancy between the teacher and the parent's positions on norms and gender, in the cases of Paul and Nadine. For Paul's parents, rules are important and can be negotiated although respected and maintained, while his teacher is more inclined to break the rules when necessary. In the case of Nadine, her parents do not care much for the respect of rules, while her teacher feels it is necessary for the children at that age. I will show now that there appears to be, beyond the specificity of gender-situations, in other play situations, preferred modes of combination in interactions, which coincide with the parental views and home organizations. I present the relationship between such personal aspects, the parental roots and gender-specific dimensions.

6. Psychological patterns

If I take the previous sections together and compare what of the spaces and the parent's discourses can be found in children's semiosis of play, I can see that each child favours one of the aspects defining it which I call psychological patterns. Particularly, there is one logical operator that each of them employs in a privileged form across the observations.

As his mother, Paul employs the compromise operator in dealing with oppositions. He maintains the norms while attempting to consider the other's propositions and point of view to reach an agreement. As her mother and teacher insist on separation, Natalie uses the negation operator, to maintain the gender distinction, usually with the ventriloquism mode accompanying it. Again, as her mother, Nadine, employs the integration operator, in a ludic function, re-editing in a way the integrative proposition of the mother to play or transform norms.

Paul	Negation	Addition	Compromise	Integration	Total
Play sequences	10	10	**13**	1	34

Gender-related play sequences	**5**	0	4	0	9

Table 24: Operators in general and play sequences

Natalie	Negation	Addition	Compromise	Integration	Total
Play sequences	**10**	8	1	2	21
Gender-related play sequences	**4**	1	1	0	6

Table 25: Operators in general and play sequences

Nadine	Negation	Addition	Compromise	Integration	Total
Play sequences	1	5	1	**7**	14
Gender-related play sequences	**0**	0	1	**3**	4

Table 26: Operators in general and play sequences

Although this prevailing of a certain operator re-edits the spatial form in which the children's homes are organized, as well as the parent's statements regarding gender, play or norms, its use through different semiotic modes and with particular functions characterises the active role of the child in their reconstruction. In the three cases, the preferred semiotic mode is speech. A possible reason for this is that, as I analysed situations of play where the child plays with others, oral communication is privileged.

Semiotic mode per child

Paul	Drawing	Speech	Sensori-motor manipulation	Total
Pretend-play sequences	1	**20**	12	33
Gender-related pretend-play sequences	0	**8**	1	9

Table 27: Semiotic modes in general and play sequences

Natalie	Drawing	Speech	Sensori-motor manipulation	Total
Pretend-play sequences	0	**17**	3	21
Gender-related pretend-play sequences	0	**6**	0	19

Table 28: Semiotic modes in general and play sequences

Nadine	Drawing	Speech	Sensori-motor manipulation	Total
Pretend-play sequences	3	**7**	4	14
Gender-related pretend-play sequences	1	**2**	1	4

Table 29: Semiotic modes in general and play sequences

As for the communicative function, Paul and Natalie mostly negotiate, whereas Nadine engages in a ludic form of communication, playing with words, colors and sounds. Here again, we see some traces of the parental styles, as Paul and Natalie's parents attempt to separate and negotiate, while Nadine's parents, through their relationship to art, engage in a more playful relationship to norms.

Communicative function per child

Paul	Argumentation	Ludic function	Negotiation	Total
Pretend-play sequences	6	9	**18**	33
Gender-related pretend-play sequences	**4**	1	4	9

Table 30: Communicative function in general and play sequences

Natalie	Argumentation	Ludic function	Negotiation	Total
Pretend-play sequences	6	7	**8**	21
Gender-related pretend-play sequences	**5**	0	1	6

Table 31: Communicative function in general and play sequences

Nadine	Argumentation	Ludic function	Negotiation	Total
Pretend-play sequences	2	**12**	1	15
Gender-related pretend-play sequences	**1**	2	1	4

Table 32: Communicative function in general and play sequences

These findings suggest two things. First, there are personal privileged forms of dealing with the gender system but that go beyond it. These forms have parallels with the way in which parent's organized the spaces and spoke of norms. I call these privileged modes of combination psychological patterns. As for their origin, patterns may initially emerge from the spatial and parental mode of combination. Natalie's preference for negation, Paul's for compromise and Nadine's for integration constitute a re-edition of the spatial analysis of bedrooms as well as of the parental positions regarding gender and norms.

Secondly, if we follow the idea according to which the gender system was normatively materialized in spaces (Butler, 1990) but also that it is reconstructed in interaction, internalized and synthetized in different ways psychologically (Valsiner, 2018a), we may understand why argumentation and negotiation prevail as communicative functions, and negation prevails as an operator, in gender related situations. The

normativity of the system makes its transformation more difficult, and so the children may refuse or try to convince the other to maintain the normative system as is. These normative aspects limit what children will accept to build on. Yet, beyond that, there are other elements that participate to the form of externalization. The children do not internalize the system in an empty space, they have a history, significant relations to others and preferences, which also shape how the system is reconstructed. That is what I referred to here as psychological patterns, which are privileged modes of engaging with the world, that have some relation to the way in which the gender system is given to be seen for each child, but that are also personal forms of re-constructing and engaging with the semiotic world.

The weight of parental discourses at this moment of their life may relate to the fact that the children are going through the beginning of the diversification of their emotional relations and social spheres; something that may change in the years to come (Lloyd & Duveen, 1992; Winther-Lindqvist, 2009). Yet, it is interesting to trace some of the roots of these patterns, as they may evolve in time. Even in the data presented here, we can start to witness some of these changes, as the children move to more situations of negotiation or compromise solutions to engage with each other.

7. Synthesis

Throughout this chapter, I have shown four main points to explain the process of gender differentiation in children's play.

First, I showed how the gender system was materialized at the social level in spaces and object organisation around two attractors. This materialisation re-edits the classic dichotomy found in gender research (Børve & Børve, 2017).

Second, I showed that children's use of spaces and engagement in play did not directly follow the dichotomic organisation. We may think that if the child visits the construction corner, he may play construction more than family. Yet, the children I observed engaged in care-play more often then in other forms. This showed the need for a more precise grid to analyse gender in play.

Thus, third, I proposed an analytical grid to analyse the semiosis of play –through modes of combination, composed of operators, semiotic modes and communicative functions- and traced them in children's forms of doing gender in time.

This analysis evidences two empirical findings: first, that the children used different operators depending on whether gender was a relevant aspect of the interaction or not –more use of addition, compromise and integration when gender was not relevant, while more negation when it was. This speaks to the normative character of the gender system and to the way in which it limits children's margin of freedom in dealing with norms in play. Secondly, it showed how children changed or did not change their modes of combination in time, and I presented some hypotheses as to why. The evolution of the ways in

which gender is dealt with needs to be considered in relation to the different actors with which the child interacts, as it can change based on recurrent interventions from the researcher, but also used instrumentally to support another point of the child. As I have mentioned, the development of gender needs to be considered in relation to the development of other aspects in the person's life, as children may be engaged in other developmental tasks that more or less affect the development of gender-related aspects.

And finally, fourth, I proposed to compare the space analysis, the parental and teacher's discourses and children's modes of combination, to empirically find parallels in their modes of dealing with the gender system. As Table 33Table 34Table 35 show, there is a parallel in the parents' modes of combination and the children's which appears opposite to the supposed form in which teachers dealt with gender norms. Although this is only the beginning of a reflection, it may point towards the form of appropriation the children may have in relation to the different guidance the institutions provide.

Paul	Teacher/school	Parents/Home	Children
Spatial organisation	Dichotomic distribution	Dichotomic distribution	Frequenting of gender concordant corner
Treatment of norms	Contextual interpretation	Compromise	Compromise

Table 33

Nadine	Teacher/school	Parents/Home	Children
Spatial organisation	Dichotomic distribution	Mix and match	Frequenting of gender concordant corner
Treatment of norms	Respect of rules	Integration	Integration

Table 34

Natalie	Teacher/school	Parents/Home	Children
Spatial organisation	Dichotomic distribution	Dichotomic distribution	Frequenting of gender concordant corner
Treatment of norms	Respect of rules	Negation	Negation

Table 35

The previous parallels and frequency allowed me to propose the idea of psychological patterns, that go beyond gender, and that characterise personal preferred logical operators, which organize the interaction in a certain way. This enriches our understanding of the possibilities for doing gender in play, and of the participation of the gender system in the development of the child as a person.

These findings provide some answers to the questions presented at the beginning of this monograph, as well as open new ones that ought to be explored further in future research. In the following chapter I move to present the core propositions and questions that this study presents within the field of gender studies and sociocultural psychology.

Chapter 7 - Conclusions

In the previous chapter, I presented the analysis of the empirical material collected to support the hypotheses presented in Chapter 4. Although this has proven to be a complex endeavor, I now summarize the core propositions of this thesis, the way in which the research questions of this study were answered, propose several contributions to the field and open questions for future research. What is discussed here goes beyond what was proposed in the previous chapter and locates this research within the wider field of gender and sociocultural studies. It is important to note that some interpretations are only indicated, and their demonstration would require new empirical studies. I now present three theoretical contributions, two empirical findings, three methodological claims and a meta-theoretical reflection.

1. Theoretical contributions

The main thesis of this work is that gender is a dynamic semiotic system children encounter, act within and internalize in different ways. The gender system can be organized around attractors, providing certain forms of social guidance with normative weight. Within the system, the child evidences a certain margin of freedom in its reconstruction. The development of the forms of doing gender, although it includes the form of social guidance the system provides, cannot be separated from the development of other modes of engaging with the social world in general. The modes of combination the children develop to interact with the gender system are not specific to gender and may speak to broader relational dynamics, as I have suggested based on the parallel between different settings, families, school and children. Furthermore, I proposed children may develop privileged modes of combination called psychological patterns which result from the internalization of traces of engagement with different semiotic systems. In all, the development of gender may not be separated from the child's development in general, as it appears sometimes as a subcase of the way in which the child constructs her relationship to norms, to play and to others, in different situations. I now move to expand on each of these claims in turn.

1.1. Defining gender as a dynamic semiotic system

Firstly, to answer the question about *how does the social and material environment guide children's ways of doing gender in play?* I proposed a certain definition of gender as a dynamic semiotic

system with a particular normative weight that materializes in everyday life arrangements, organized around two attractors, and that children encounter in their daily lives and react to differently.

As reviewed in chapter 2, many scholars propose different definitions of gender. Within those discussions, I take and expand some of Judith Butler's (1990) ideas, as they constitute an anti-essentialist view on gender leaving room for considering people's margins of freedom in doing gender in a non-deterministic way in relation to the social world and the body.

1.2. A typology of externalization: Modes of combination

Secondly, this way of understanding gender also transforms its status when analysing interactions.

As I have argued, within the scholarship on gender, the interest in studying it in the educational system and in institutions largely emerged from an interest to understand the social construction of inequalities (Jordan, 1995). Based on this, many studies have addressed a socialization process based on material and symbolic practices that divide children into "boys" and "girls". Many analyses thus focus on the power dynamics behind such distinction and the consequences in terms of access to different forms of activities (Jordan, 1995). Different authors within psychology define gender as a variable that modulates the form the interaction adopts (Adams et al, 1995; Bussey & Bandura, 1999). In sociocultural psychology, Gerard Duveen and Charis Psaltis (Psaltis, 2011; Psaltis & Duveen, 2006; Zapiti & Psaltis, 2012) analyse the form of argumentation that dyads of children deploy depending on the gender composition of the dyad. As such, they find that in a dyad of a boy and a girl, it tends to be the boy's point of view that carries more weight and ends up being adopted, more often than that of the girl.

These comparisons are all made in terms of the assumed gender, without considering the different elements that may be participating in defining a "gender". The category is here unquestioned and adopted as unitary, analysing it as a modulating variable. Similarly, but from a different point of view, Ochs (1992) and Rainio (2009) analyse power dynamics in relation to gender. In these cases, the assumed gender dichotomy is considered to unequally distribute the possibilities for action and thus analyse it as a modulating variable for interactions.

In my results, the association between people, actions and objects is not straightforward. The strongest example of this was the fact that although there is a differential choice of corners in the children –the boys play more often in the construction corner, whereas the girls play more often in the family or doll corner- the activities carried out within the corners are almost generally of care, whether it is done by boys or girls. This calls us to question the assumed links between masculine characters,

fighting or construction activities and the objects associated to this. It lead me to define gender in a more dynamic way as a changing system with attractors, that make certain links more likely although not determining. The consideration of the person within that system further requires understanding the system in relation to people who encounter, interpret and construct it in time, thus opening up the space for people's margin of freedom within the social world.

I proposed to define an analytical grid to look at children doing gender in play. This constitutes a conceptual middle step, in order to problematize the category of gender and power. As there is little literature on the way in which gender participates to the development of the child as a person beyond power dynamics, I was concerned here with looking at gender not in terms of its power dynamics, but in terms of its participation to larger personal dynamics in children's lives.

Thus, to answer the question of *when children appropriate elements of the gender system, is there some logic, typology or recurrent form of externalization?* I proposed people interact with the gender system and the institutions in regular forms of externalization called modes of combination defined by an operator, a semiotic mode and a communicative function. Modes of combination expands conflict resolution strategies to situations where a conflict cannot be defined, and accounts for the structure of children's actions, the material of which it is made and the relational aspect that emerges from acting in interaction. This constitutes a conceptual proposition but also an analytical grid to look at children's play.

1.3. Problematizing identity: psychological patters

Third, to answer the question of *what do children internalize of the gender system?* I proposed children develop unique and privileged combinatory modes called psychological patterns. This proposition is an attempt to problematize the notion of gender identity and social identity when it comes to doing gender.

Many terms in the literature attempt to refer to that which can be recognized across time and that defines a person as herself, recognizable and identifiable. As I have shown, some authors speak of "gender identity" (Stoller, 1968), "subjectivity" (Valsiner, 2019) or "subject position" (Stenner, 1993). All of these terms refer to something ontogenetic, constructed at the level of a person's life-course, and which has some form of prevalence and recurrence.

Because of the enacted way in which something such as "identity" appears, beyond its definition in linguistic terms, I proposed the notion of psychological patterns to characterise children's privileged modes of engaging with the social world. Patterns are recurrent combinatory modes. They are semiotic and relational ways of engaging with the world. They constitute recurrent ways in which the semiotic

elements in the world are combined. Patterns are thus forms that produce ways of organizing the world and which can be recognized in a person's actions across various situations and at different levels.

2. Empirical findings

Fourth, there are two empirical findings of this research. First, I found certain parallels between the institutional and parental arrangement of spaces, adults' discourses on gender and children's ways of doing gender. The children appeared to privilege the parental modes of combination and relationship to norms, which was opposite to some of the children's teachers view on norms. This led me to the idea that there was some differential form of internalization process in which the children engaged, and to the idea of psychological patterns, based on the preferred mode of externalisation subsequently. This beginning of analysis would require a more systematic study of institutional forms of dealing with norms, separating the institutions with their specific characteristics in a more in-depth way.

Second, by looking at children doing gender in time, I saw certain certain transformations of their ways of engaging with the social world and doing gender. In particular, a movement to a more flexible treatment of norms may be related to the form of interaction I chose to have with the children, but it still speaks to a form of transformation of the children's relationship to norms, in time. It would be interesting to look further at what is the value in the flexibilisation of norms.

3. Methodological contributions

3.1. Studying play

A fifth contribution of this thesis is methodological. I showed and now claim that play and pretend-play can be used as a methodological resource to study psychological processes not specific to play. In particular, I showed that play has the double characteristic of providing the child with a space of relative freedom and pleasure to define the themes and actions, and of social constraining through the materialization of norms in objects and practices. As such, the main methodological implication of this use is that play can be considered a methodological resource to study psychological processes, by taking into consideration the operation of social norms and the child's margin of freedom.

3.2. Ethnographic research

Sixth, there is another methodological contribution this study brings forward. I argue that, in a time in which the use of technology for research is at a high point (Flick, 2009), I opted for an ethnographic approach and recording through pen and paper observations. Of course, ethnographic studies have existed for centuries (Atkinson, 2015; Geertz, 1973; Levi-Strauss, 1949; Malinowski, 1926), but I tried here to show the value it can still have for the study of psychological dynamics in children. In particular, it is a fruitful approach for the analysis of data: it allows for an immediate treatment and reflection, because of the way in which note-taking is done; secondly, in terms of the relation with the children, the direct relation to them allows for an easier move into a non-authoritative position from the researcher, and, although the hierarchical distinction is not completely absent, it gives the child sufficient security to define and express her own position.

3.3. The role of the researcher: breaching

Seventh, the type of relationship established the participants showed the value of employing breaching strategies, not "assess" the children's level of competency but to problematize the researcher and the participant's categories; to make explicit some of the implicits that could lead to misunderstandings, and to see the process of adjusting to one another in the making of gender.

4. Epistemological reflections

Lastly, I propose a two-fold meta-theoretical reflection: between theory and data, and between fields of study.

In this work, I have tried to put a complex model for development to work and to demonstrate its different parts in relation to the data. This speaks more broadly to the importance of moving from theoretical speculation to empirical demonstration, and to the limits of such demonstrations. In-depth qualitative research requires time and demonstrating conceptual claims appears sometimes very difficult. In a work such as this one, it may be the case that I have indicated some first steps to follow in future research for the study of gender.

A second aspect that ought to be discussed is the fact that I proposed to integrate two different fields of study in the study of gender in its psychological but also social and normative character: gender studies and sociocultural psychology. Each time, I discussed the epistemological assumptions and conceptual propositions to analyse their complementarity –such as when discussing the

performative approach or the ethnographic method. In this way, I would say this study invites further reflection for the possibility of integrating different fields in developmental psychology.

5. Open questions

As a result of these propositions, there are several open questions that could be studied in future research.

Firstly, the development of gender in children would require taking a look at earlier moments in life, to trace some of the roots of what has been found here in earlier interactions.

Secondly, the development of gender would also require longer-term study in order to grasp the ways in which the modes of doing gender here defined may change and transform across time. This would also allow specifying other processes involved and the relationship between doing gender, and acting within other semiotic systems in people's lives.

Third, in order to understand the role of institutions and others in the development of gender, it would be fruitful to develop a more systematic analysis of institutional dynamics and adults' discourses on gender in time. This might shed light on the proposed parallel here between children's modes of combination, school organisation and parental discourses.

Finally, fourth, in order to further explore the idea of psychological patterns, it would be necessary to study longer periods of time, older adults, other spheres of life than gender, as well as define the affective dynamics that may be in play for defining such privileged modes of combination.

Who we are, how we feel and define ourselves is a complex and changing process. Cortázar claimed that it is "only in dreams, in poetry, in play (that) we sometimes arrive at what we were before we were this thing that we don't even know if we are" (Cortázar, 2016, p. 508). Throughout this monograph I have tried to chase some of this evanescence in children's lives, and I believe that there is much left to explore and learn from in the future.

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Annex I

Neuchâtel, le 7 février 2018

Madame
XX
Service de l'accueil de l'enfance
Faubourg de l'Hôpital 2
CH-2000 Neuchâtel

Concerne : demande d'autorisation de recherche

Madame,

Je m'appelle Martina Cabra et je suis psychologue et doctorante à l'Institut de psychologie et éducation de l'Université de Neuchâtel. Ma recherche est menée dans le cadre d'une thèse en cours sous la direction de la Professeure Tania Zittoun et avec le financement de la Confédération Suisse.

Je m'adresse à vous à fin de demander l'autorisation de contacter une crèche communale dans le Canton de Neuchâtel, a fin de réaliser une observation d'enfants de 3 ans, pour contribuer à ma recherche doctorale portant sur le développement du genre chez l'enfant. Si vous deviez accepter cette demande, je souhaite aussi vous demander si vous préférez m'indiquer une ou des crèches qui pourraient m'accueillir, ou si je peux au contraire identifier moi-même une crèche et en approcher la direction. Pour que vous puissiez évaluer ma demande, je décris ci-dessous le projet de recherche et la nature de la participation souhaitée.

Le projet de recherche

Il est bien connu que les enfants montrent très tôt des comportements différents selon le genre - « fille » et « garçon » - attribué ou auto-perçu. Les travaux montrent que les interactions avec les adultes et leur participation dans la vie quotidienne leur apprennent ces différences, qui organisent les pratiques et les positions des personnes qui les entourent.

Mais comment ces différences se manifestent-elles dans l'environnement quotidien des enfants, et comment ceux-ci se les approprient-elles ? Je me propose donc d'étudier la manière dont ces différences de genre apparaissent chez les enfants, et dont elles sont définies par les contextes dans lesquels ils vivent.

L'observation

Cette recherche portera sur l'apparition de différences de genre dans les activités des enfants en suivant la transition des enfants de la crèche et l'école primaire. Je cherche ainsi à identifier les éléments qui participent à donner forme aux activités genrées des enfants. Pour cela, je souhaite mener des observations dans des classes d'école enfantine et école primaire, avec des enfants d'entre 3 et 7 ans, en prenant des notes (papier-crayon) de ce qui sera observé.

Dans un premier temps, je demande donc l'autorisation de mener une observation préalable dans une crèche. L'observation serait menée par moi-même et consisterait en des visites de 1 heure, tous les jours, pendant deux semaines consécutives. Je voudrais observer les activités des enfants sans interrompre les planifications de l'institution, en participant au minimum avec eux. Je voudrais aussi avoir l'opportunité de parler avec la ou les éducatrices et éducateurs responsables du groupe observé pour approfondir sur ce qu'ils font et mieux comprendre le contexte de la crèche.

Dans un deuxième temps la recherche sera définie en fonction de cette première phase, des observations et des discussions qui auront pu avoir lieu avec le corps enseignant.

Le but de la recherche est de comprendre le contexte dans lequel apparaissent les différences de genre dans les activités des enfants. La recherche suivra les normes éthiques de la recherche scientifique et en particulier de la Société suisse des psychologues (SSP). Il va de soi que seuls les enfants et adultes qui donneraient leur consentement préalable seraient observés (voir demande

d’autorisation d’observation annexée). Enfin, l’identité des enfants et adultes sera rendue complétement anonyme.

Je vous remercie à l’avance pour votre temps et votre attention, et reste à votre disposition pour toute autre information que vous jugiez nécessaire. Dans l’attente de la suite que vous donnerez à la présente, je vous prie de bien vouloir accepter, Madame, l’expression de mes sentiments distingués,

Martina Cabra
Doctorante/Boursière de la Confédération

Annex II

Aux parents des enfants de la Crèche X
Rue des X
2000 Neuchâtel
Suisse

Je m'appelle Martina Cabra et je suis psychologue et doctorante en Psychologie à l'Université de Neuchâtel. Je mène actuellement une recherche doctorale sur les différences de genre dans les activités des enfants : que font les « filles » et que font les « garçons » ? sous la direction de la prof. Tania Zittoun. Dans le cadre d'un travail exploratoire, je voudrais observer les enfants de 3 et 4 ans à la crèche, pendant 1 heure, tous les jours et pendant deux semaines, en prenant note de ce que font les enfants et en parlant au minimum avec eux. À cet égard, je vous demande votre autorisation écrite pour me permettre ces observations. Les informations obtenues seront complétement anonymes, mais nous restons à votre disposition pour répondre aux questions sur le sujet. Je vous remercie de renvoyer ce papier à la Crèche XX avant le mercredi 21 mars. Je vous remercie d'avance pour votre collaboration sans laquelle cette recherche ne serait pas possible.

Avec mes meilleures salutations,

Martina Cabra
Doctorante/Boursière de la Confédération

Autorisation d'observation

Par la présente,
□ j'autorise Mme Martina Cabra à observer les activités de mon enfant à la crèche et à utiliser ces données pour les besoins de sa recherche.
□ je n'autorise pas Mme Martina Cabra à observer les activités de mon enfant à la crèche.
Ces données seront traitées de manière anonyme et confidentielle.

Nom, prénom : .....

Nom, prénom de l'enfant:.....

Lieu, date : .....

Signature : .....