How Can We Understand Children’s Literature through Children’s Psychology?
—An Analysis of *Pippi Longstocking* and *The Little Girl at the Window* according to Jean Piaget’s pedagogy.

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Language and Culture in Europe
September, 2012
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Abstract

Nowadays, an increasing amount of psychologists and educators find that literature designed for children plays a very important role in a child’s upbringing. A good children’s book not only influences a child’s psychological development, but is also a useful tool for scholars to research children’s psychology, which reflects children’s thinking regarding certain aspects. Astrid Lindgren’s *Pippi Longstocking* (1957) and Tetsuke Kuroyanagi’s *The Little Girl at the Window* (1984) undoubtedly are two representative children’s literatures, which were written during a time where the child's perspective in children's literature was not yet an attitude commonly adopted by narrators in novels. The novels illustrate and highlight children's thinking and reasoning abilities, and the characterization appears to draw on children's developmental cognitive theories, describing a child whose cognition ability recalls Jean Piaget's work and ideas. This thesis attempts to analyze Pippi’s and Totto’s thinking and reasoning and how it can illustrate some of Piaget’s theories about children’s drawing and children’s cognitive development. And a further discussion will be going on in this thesis about how Piaget's work might inform and enrich educational practices in accordance with children’s specific needs at different ages and from different cultural backgrounds.

**Key words:** Children’s psychology, Piaget, children’s drawing, children’s thinking and educational method.
**Acknowledgement**

Firstly, I would like to thank my supervisor Francoise Monnoyeur-Broitman, who gave me the opportunity to learn more about child literature and encouraged me to do such interesting research in this field. During my research, she assisted me in challenging times and gave useful academic suggestions regarding my thesis.

Secondly, I would like to thank my parents and family for giving me unselfish love and support during my study in Sweden for two years.

Finally, I would like to thank all of the teaching staff in Linköping Universitet, who work conscientious and do their best to ensure a good study environment and plenty study resources for all students.
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Introduction

Most people remember childhood as a naïve, happy and free period of their lives. During childhood, children develop mentally and they begin to recall those unforgettable experiences of their youth by the time that they reach maturity. A happy childhood is often imagined as a time full of dreams and sweet naivety. Childhood leaves us not only with happy memories, but also with feelings of contempt. A healthy and happy childhood not only benefits a person’s physicality and improves his or her ability to cope with life, but it also puts a mark on a child’s character and can even influence one’s destiny. By contrast, a dark and melancholic childhood can negatively affect a person’s growth and development, leaving shadows in their mind. It is important, in contemporary culture, to investigate how to help children to create a healthy and happy childhood that will go hand in hand with a good psychological development. Beyond the education accessed through school, there are also several other ways positively to develop one’s personal psychology. Children’s literature is one of the best means of helping children to start appreciating society and nature with the aid of visual materials; this can also to build healthy values and a healthy world view.

The purpose of this paper is to study and analyze two novels, *Pippi Longstocking* by Astrid Lindgren and *The Little Girl at the Window* by Tetsuke Kuroyanagi, which not only reflect children’s inner worlds from the perspective of children’s thinking and reasoning, but also recall Jean Piaget’s theories of child psychology regarding children’s drawings and children’s cognitive development. Through the novels, we learn about children’s thinking and what their wants and needs are, thus we are able to satisfy children’s demands; we can also understand what happiness means to them and so help children to lead a happier childhood. Both Astrid Lindgren's *Pippi Longstocking* (1957) and Tetsuke Kuroyanagi's *The Little Girl at the Window* (1984) were written at times in which the child's perspective in children's literature was not a stance commonly adopted by narrators. However, the novels illustrate children's needs and reasoning abilities, and the characterization seemingly draws on children's developmental cognitive theories, portraying children whose cognition recalls Jean Piaget's work. In this paper, I will, on
the one hand, show how closely Pippi and Totto’s thinking and reasoning in the novels *Pippi Longstocking* and *The Little Girl at the Window*, recall Piaget’s theory of cognitive development. On the other hand, I will discuss how Piaget's work might inform educational practices in accordance with children’s specific needs at different developmental stages.

I would like to divide this thesis into five parts. The first chapter is an introduction to the general background of *Pippi Longstocking* and *The Little Girl at the Window* and the authors of these two literary works, which I will use as primary sources in my thesis. Moreover, I will give a short introduction about children’s psychology theories of Jean Piaget, which shows a correlation with these two novels that will then be drawn upon throughout the paper.

The second chapter is one of the main parts of this paper. I will focus on three aspects of children’s drawings that can reflect children’s psychological development through analysis of Pippi and Totto. At the beginning, I will aim to consider exactly what drawing is and how the images facilitate communication between children, which will be important to establish before the subsequent analysis. Next, I will start my analysis of children’s drawings. I will analyze *Pippi Longstocking* and *The Little Girl at the Window* from the different perspectives of realism and visual realism, using Jean Piaget’s theories to support this analysis. It will be helpful better to understand why children’s drawings play an important role in their psychological development.

In the third chapter, I will analyze children’s thinking and reasoning based on these two novels, which might reflect what children understand. I will draw a comparison with Piaget’s works on children’s cognitive development. I will analyze the stories happening on *Pippi* and *Totto*, with two works of literature that come from different parts of world. These novels are suitable for a comparative discussion regarding the differences that occur in the field of children’s psychology and they complement each other on future research in children’s psychology. In this part of the analysis, I will refer to Pippi and Totto, the protagonists of the two novels that I am studying. I prepare to analyze the
thinking and reasoning abilities of Pippi and Totto from six categories of cognitive development, which are representative of Piaget’s theory about children’s cognitive development. For Pippi, I will try to proceed from the feathers of assimilation, accommodation, equilibration, concrete operational and formal operational functions, which could be a typical theory formulation of Jean Piaget for explaining what is Pippi’s personality and reasoning. Moreover, egocentric communication is at common features of both Pippi and Totto.

In chapter four, I will try to determine some special features of Totto, who is the protagonist of *The Little Girl at the Window*; this character recalled children’s animism in the psychological world of children, according to Jean Piaget. Animism is a typical feature of children at a certain ages. In addition, Jean Piaget’s pedagogy theory will also help us better to understand Totto’s psychological world.

In the last chapter, I would like to move on to consider children’s cognitive development in teaching practices, combining analysis of both Pippi’s and Totto’s stories. Furthermore, with Pippi and Totto’s stories in the novels as supporting material, I will explain some problems with contemporary teaching methods, and offer suggestions for improvement through the integration of Piaget’s theories regarding children’s education. The purpose of these suggestions is to improve teaching methodology in primary education and to let children enjoy themselves in school so that they might embrace the accumulation of knowledge. Moreover, I will try to analyze in greater depth the differences in education between the oriental and the western world in order to see how improvements could be made to address the shortage in practical education.

**Chapter I Children’s literatures and Jean Piaget’s theories**

The main readers of children’s literatures are children and the individuals close to them. In other words, most children’s literatures are written for children, and aimed at specific age groups. Children’s books are meant to have suitable characteristics, aesthetics and reading appreciation levels for the specific age group of their target audience. From East to West, children’s books are created by adults and some of them are adapted from adult
literary works. A variety of literary works intended for children are conducive to children’s psychological development. Their lessons can educate children and put an important mark on their childhood. In this paper, I will use two famous children’s literary works as primary sources: one is *Pippi Longstocking* a well-known children’s book, and the other is *The Little Girl at the Window*, an autobiographical book, representing the author’s childhood.

### 1.1 Astrid Lindgren and *Pippi Longstocking*

*Pippi Longstocking* is one of the most popular children’s novels in Sweden. It was created by author Astrid Lindgren who is a Swedish female writer of children’s literature. She was born on November 14th, 1907 and died in 2002. One of the most prestigious awards received by Astrid Lindgren during her lifetime was the Hans Christian Andersen Award, which she won in 1958. It is well known that Lindgren had a special talent for understanding children’s behavior and their way of thinking. No matter how prosperous one’s material life might be and how enticing the real world is, when reading Lindgren’s books one realizes that people never stops chasing their long lost childhood. In Lindgren’s novels, she always describes her subjects in a humorous way and surrounds her characters with a warm atmosphere. More importantly, most of the protagonists of Lindgren’s novels grow up healthy and happy.

*Pippi Longstocking* was a gift from Lindgren to her daughter on her 10th birthday. It is a series of stories collected into three books about a nine years old girl named Pippi, and her friends Tommy and Annika. Though she is only a little girl, she has a beautiful cottage that she calls Villekulla. She lives there alone but for the company of a horse and a monkey named Mr Nelson. Pippi is a special girl who is different from her peers. She has red hair and wears it in pigtails. She always wears a pair of big boots, which are almost twice the size of her feet. She also wears a pair of long socks in different colors, one is brown, and the other is black. Pippi has many characteristics that are different from other children her age, making her extraordinary and special. She prefers to go on adventures around the world instead of going to school. She always comes up with mischievous and fun ideas, making her a leader of the other children. Many strange
things happen around Pippi and her friends. She looks like a normal girl but she has extraordinary strength. For example, she can lift a horse over her head easily; she is also brave enough to subdue the stubborn bull and the man-eating shark. Though Pippi is quite badly behaved sometimes, she is a warm hearted girl. She likes to help her friends and has the prowess to help police catch thieves and robbers.

1.2 Tetsuke Kuroyanagi and The Little Girl at the Window

Another piece of literature that I use as primary source is The Little Girl at the Window, written by Japanese author Kuroyanagi. The novel not only entertains a lot of readers across the world, but also brings up a new model for the development of modern education. Kuroyanagi is a famous actress and TV host in Japan, as well as an author. In 1984, she was named as International Good-will Ambassador for the United Nations Children’s Fund. She is the first Good-will Ambassador in history to originate from Asia. She has visited many countries in Africa and Asia in order to manage donations and using the power of media she introduces the status of these areas to the outside world.

*The Little Girl at the Window* is an autobiographical account of the memories and experiences of the author’s childhood during the period of time she spent at primary school. Totto-chans, the heroine of this book, has the same name that Tetsuke’s parents gave to her when she was young. After Totto’s teacher expels her from school because of her misbehavior, she goes to study at Tomoe Gakuen. With the love and guidance of her teachers and the headmaster of Tomoe Gakuen, Totto gradually turns herself into a remarkable character. She is quickly accepted by everyone, which lays the foundations for her personality and plays an important role in her future development.

In Totto’s eyes, Tomoe Gakuen is a unique school and it has many special differences that distinguishes it from others. It has special school gates composed of two small trees with green leaves, which makes Totto believe that the school-gates grow naturally from the ground and “probably go on growing taller till it’s taller than the telephone poles”. (Kuroyanagi, 1984:6) Totto is suprised and glad that Tomoe Gakuen has a unique classroom made of “abandoned railroad cars, which made the school look like a train”
Tomoe Gakuen even has its own special approach towards food. The headmaster names vegetables ‘taste of the mountain’ and seafood ‘taste of the sea’ in order to avoid students becoming fussy about food. Tomoe Gakuen also has a unique method of education. At the beginning of every day, teachers write the timetable and key points of study on the blackboard, and then the students start to study by themselves from their favorite subjects. As time goes by, teachers get to know each student’s interests, the method that they are interested in and each student’s way of thinking.

1.3 Jean Piaget’s children’s psychology theories

The reasons why Pippi Longstocking and The Little Girl at the Window are popular in worldwide depend not only upon the interesting plots that attract people’s attention, but also upon of the main characters in the two novels, whose personal dispositions are really close to those of children in reality in terms of their thoughts and actions. Furthermore, all of the psychological characteristics of Totto and Pippi reflect Jean Piaget’s drawing theory and his cognition development theory, which can help readers to understand and gain access to children’s real inner worlds more easily.

First of all, a brief introduce Jean Piaget’s children’s drawing theory is needed before further discussion, which will be used in Chapter II. Research into the drawing psychology of children began in the late nineteen century and it experienced three evolutions in its historical development. The first evolution happened in the early 1930s, when scholars focused on researching and describing the changes of probabilities in drawings. In other words, scholars focused mainly upon researching how children drew what they saw and knew. The second evolution began in the late 1930s and this period saw changes in the research of children’s painting skills and analytical methods. At this time, people began to pay more attention to education. In the 1950s, the third period began, when the theory-based methods of psychological research combined with experimental methods. This pointed out a connection between children’s drawing ability and their level of intelligence and mental development. Some researchers believed that drawing was a reflection of the intelligence level, a clear indicator of a child’s psychological stage.
Luquet as a pioneer in the field of children’s psychology, started his research by analyzing children’s drawings, which he believed to be the signature of a child’s inner world. In his research, Luquet divided children’s drawing processes into four stages. He titled them: ‘scribbling’, ‘preschematic’, ‘schematic’ and ‘visually unrealistic’. Most of Luquet’s theoretical basis was attributed to his long-term study of children’s paintings. One of his favorite subjects was to study the drawings of his little daughter. His theory of the psychological model provided inspiration for Piaget’s research and played an important role in the future development of children’s psychological research. Jean Piaget is one of the most famous researchers to have agreed with Luquet’s stage theory and he developed it into his research on children’s cognitive development. As Jolley asserts, “The popularization and incorporation of Luquet’s ‘stage’ account by Jean Piaget into his own stage account of children’s thinking” (Jolley, 2009:19) was what led to the development of Luquet’s drawing theory. Jean Piaget mainly focused on the development of children’s psychology. His theory of ‘Cognitive Development’ has become popular in the field of children’s developmental psychology. Piaget has studied many fields of psychology and early development, such as pathological psychology and Sigmund Freud and Carl Gustav Jung’s Psychoanalysis. From 1929 to 1975, Piaget served as a professor of psychology at the University of Geneva. His most important contributions to the discipline were his scientific and systematic observations, which contributed to great progress being made in the field of clinical psychology. Piaget not only created some famous terminologies in children’s psychology, such as ‘scheme’ and ‘cognitive development’, but he also divided children’s drawing into three stages based on Luquet’s theory of children’s drawing. The three stages developed by Piaget and Inhelder are “synthetic incapacity” (0-4 years) “intellectual realism” (4-8 years), and “visual realism” (around 8-9 years). Due to the protagonists’ ages in The Little Girl at the Window and Pippi Longstocking (they are aged 6 and 9 respectively), I will pay more attention to analyzing Pippi and Totto from the point of view of the second and third stages in the following chapter.

2 G.H. Luquet as a forerunner started researching by analysing children’s drawings, he divided children’s drawing processes into four stages: ‘scribbling’, ‘preschematic’, ‘schematic’ and ‘visually unrealistic’.
Another theory will be applied here to analyze Pippi and Totto in Chapter III is Jean Piaget’s theory of children’s cognitive development. Jean Piaget divided the process of children’s cognitive development into “three steps” and “four stages”, which include: the assimilation, accommodation, equilibration and sensorimotor stage (0-2 years); the preoperational stage (2-7 years); the concrete operational stage (7-11 years); and the formal operational stage (11-16 years).

However, there are some similarities and differences between the “three steps” and “four stages”. On one hand, the research aims for both the “steps” and the “stages” are identical. All of Piaget’s cognitive development theories are used to analyze children’s thinking and reasoning, which can help educators and parents to know more about children and reduce the chances of misunderstanding. Secondly, the research groups of “steps” and “stages” are the same. The main age groups of cognitive development theories are also children. On the other hand, the objectives of the research are different. The study object of the “three steps” approach is focused on the individual and, tries to explain the cognitive process of a child. It is an explanation of how a child accepts a new scheme from beginning to the end. However, the study object of the “four stages” approach is not for an individual, but instead focuses on a big group of people. It aims to offer broad explanations for a group of children. Piaget tried to analyze different features of children’s cognition, which vary according to age. Now I will analyze children’s thinking and reasoning abilities using Jean Piaget’s cognitive development theories.

The last of Jean Piaget’s theories will be applied here to support my reading of the two novels in Chapter IV regards children’s animism. Animism originated and was popularized in the 17th century in the field of philosophy, and was classified as a system of religious belief later on. Generally speaking, animists believe that everything in the world has a soul or spirit and has an impact on other natural phenomenon. It is a

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3 ‘Scheme’ is a key concept and plays an important role in Piaget’s ‘Whole Theory System’. It is the fundamental way in which people, and especially children, familiarize themselves with the surrounding world.
philosophical doctrine which advocated that all objects in the world have life and possesses the ability to think and feel. According to animism, every living thing in the world is equal and has the same value and rights. Advocates of animism believe that natural phenomenon and the spirit of everything in the world deeply affect human behavior in society. However, as we know every theory has two sides, and this also applies to animism. Though advocates affirmed that consciousness is the property of an object, they did not establish clear boundaries between objects and consciousness. Firstly, they didn’t understand that consciousness is the result of the material world. Secondly, advocates ignored the function of the human brain, which is very complex and plays an important role in consciousness. In their opinion, everything in the world has its own consciousness, even rocks and leaves. Thus, animism plays many different roles during the development process in the field of philosophy. In the ancient materialism period, animists believed that everything in the world had life. Life was the property of objects and it could not exist on its own. In the philosophical period of metaphysical materialism, animism expressed that life and spirituality existed in all objects. Then, in the Renaissance period, materialists used animist theory to criticize the superstitious views that embrace the theory of the soul’s immortality. As one of the most famous child psychologists, Piaget used and developed the theory of animism during his study of children’s thinking and children’s conceptions of the world. He theorized that there are some characteristics of animism shown in certain stages of children’s psychology. They always have the cognitive tendencies to treat inanimate objects as if they possessed life and consciousness. With advancing age, the scope of children’s concept of animism becomes increasingly narrow. Piaget has divided children’s animism into three stages, which are separated into different characteristics for different ages. I will later analyze The Little Girl at the Window, which has connections with Piaget’s theory of children’s animism.

1.4 Why do Pippi and Totto work in the thesis?
Nowadays, children’s literature occupies an important place in the book market, not only in Asia, but also in Europe. Children’s literary works have different kinds of content and tell different stories, showing optimism, joy and positive traits to children. All of these moral characters contribute to children’s happy childhood and have a positive influence on their future. However, *Pippi Longstocking* and *The Little Girl at the Window* are two representative and popular books whose distinguishing features inspired me to use them as primary sources in this thesis.

The author of *Pippi Longstocking*, Astrid Lindgren has a deep understanding of children’s psychology, which is one of the reasons that she is one of the most famous children’s literature writers. She understands children’s thinking and reasoning in various ways, such as through aesthetics and psychology. There are several reasons why *Pippi Longstocking* is my first choice of text in this thesis. Firstly, Astrid Lindgren shapes an image of childhood that most children yearn for, and through her works she brings a sense of joy to childhood. Secondly, there is no didacticism in any of Lindgren’s books, which is something that makes children feel free of the oppression of their parents and school. Every country and nation has its own history, culture and social system. However, children, even if they come from different countries, still have a common nature. They like games and fantasy. Most children would like to live in a world full of games and fantasy without the figurative shackles imposed by adults. They want understanding and respect from the adult world. Pippi is this kind of girl, the strongest and most kind-hearted girl in the world. She lives in a big house, accompanied only by Mr. Nelsson and a horse instead of parents. Pippi takes care of herself in her daily life. She has superpowers and can lift a horse with her great strength; she can also catch vicious robbers by herself. All of the characters in *Pippi Longstocking* show characteristics, such as optimism and confidence. They are individuals standing on their own, separated from the adults’ world. Pippi is a symbol of freedom without the shackles of tradition. Though she is an imaginary character, she is born out of children’s own desires. From this point of view, Lindgren not only creates an ideal child, but also captures the heart and the way of thinking of children.
Totto is the main character created by Kuroyanagi, and she participates in different stories in *The Little Girl at the Window*. In contrast to Pippi, Totto is not imaginary, but a real child who goes to school. However, she is also a special student who was discarded by her teacher because of her behavior, which was different from the other students. The cultural background in Totto’s story is different from that in *Pippi Longstocking*, and I will analyze this later on in this thesis. Due to the different cultural backgrounds, the educational values are also different. Most students in Asia study hard in their youth in order to enroll in a famous university and obtain a good job after graduating. An important factor in this process is also the fact that this achievement will make their parents and relatives proud. So, the majority of parents make their children take extra classes after school, a factor that can kill the dreams and creativity of a child. As time goes by, most students in Asia lose their creative abilities and do whatever their teachers and their parents want them to, according to their rules. Totto is a bright example of a child who misbehaves in school, who cannot be tolerated by teachers, and who is expelled from the local school. However, she is also lucky and gains the opportunity to study in Tomoe Gakuen. This is a special school where the headmaster knows child’s psychology very well and understands what the children need. It is a big change in Totto’s life and contributes to her happy childhood, which lays a good foundation for her future.

To summarize, although both *Pippi Longstocking* and *The Little Girl at the Window* are similar in that they are books for children, they come from different cultural backgrounds. Comparing details of the two books, there are common points that can be analyzed through Jean Piaget’s theories of child’s psychology, including children’s drawings and children’s thinking methods. Moreover, there are additional points of difference in the two books that support my reasons for choosing them as primary sources with which I can analyze and research the different educational practices according to different cultural backgrounds.

**Chapter II. Pippi and Totto’s drawing world**
Children’s drawing as a form of symbolic representation is an important achievement in human psychological development. It can be used to help adults understand children and communicate with them in order to enter their inner world. Children’s drawings have their own internal logic. They express a child’s way of thinking and behaving, and they represent what the world around a child looks like. It is may not an exaggeration to say that without research in children’s drawing, it would be difficult for adults to understand children. Additionally, drawings are an access gate into children’s innocence and their colorful inner world.

2.1. Images facilitate communication between children

Before analyzing the main question here, it is important to address two questions: What does drawing exactly and why do children like to draw? As Anning asserted in the book *Making Sense of Children’s Drawing*, “[…] they want to use drawing as one of the modes available to them for exploring ideas […]” (Angela, 2004:16) Children grow up quickly, physically and emotionally. As time goes by, they are always curious about everything around them, from the sun to the trees, and everything else around. Firstly, their perception of the world around them comes through curiosity and senses. Before they can express themselves clearly through language, drawing is one of the best means through which they can express their ideas and perceptions. There is an example about Totto from *The Little Girl at the Window*, who doesn’t understand words in the text. Instead of reading textbooks with her friends, Totto chooses a drawing book which interests her. For Totto, there are no troubles to communicate with other children in school; even though she read a picture book, children can still happily share their own opinions with each other. Totto “chose a book with a picture in it that looked most entertaining” (Kuroyannagi, 1984:61) when she tries to have fun with other peers. It is clear that books with pictures are more interesting to Totto because, as a primary school pupil, she cannot read too many Japanese characters. This, however, does not influence the communication between Totto and her friends. With the pictures, children can still communicate and play together which is also a good method for their intellectual development. Adults may have some difficulties in realizing what children want to
express through their drawings as a result of abstractness. However, it is still a good way in which children practice and develop some language skills. Drawing is also a way for children to communicate. According to Anning, drawing is just one of the ways that children use to communicate. From this point of view, drawing is a really important part in children’s daily life. They have many other ways to express what they want to say and what they think, which includes “[…] facial expression, gestures, body language, speech, social-dramatic play, dancing, singing, manipulating objects […]” (Angela, 2004:1) In other words, children draw pictures in order to express themselves instead of using verbal languages to satisfy their curiosity and to fill in the needs of language expressions.

2.2 How Pippi and Totto’s drawing recall Jean Piaget’s drawing theory

Although drawing is an important skill during childhood, most children do not really possess the skills to draw. This, in consequence, makes it harder for adults to understand them and what they want to express. However, it is thanks to psychology that we as adults have more possibility to understand children.

2.2.1 Intellectual realism and Totto’s drawing

According to the introduction of Jean Piaget’s drawing theory given earlier, Totto and her friends are children who are at the age of around four to eight. It means that they belong to the intellectual realism stage from the angel of Jean Piaget’s cognitive development. This refers to a stage in which “children draw everything they know even if it is not actually visible from a certain vantage point” (Krampen, 1991:39) As Piaget describes, the topological concepts have moved into children’s consciousness and are reflected in their drawings in this period. Most children begin to use geometrical figures in order to paint. They are no longer limited to straight lines and are capable of using basic geometrical angels to express what they want to paint. In other words, children can use more complex geometrical shapes to fill in their pictures, not only straight lines but also circles, spots, triangles, etc. There is a good example of Totto and her friends at school, which proves that topological concepts in intellectual realism stage can already be implanted into children’s mind. Here is an interesting excerpt from a book called Singing Pictures in which children read the novel of The Little Girl at the Window. The lyrics
shown below is a simple guide telling children how to draw “the face of a plump woman with an old-fashioned Japanese hairdo” (Kuroyannagi, 1984:61) step by step with fun, so that children can “over enjoy”. (Kuroyannagi, 1984:61) For children, Singing Pictures is a good and popular book which shows children how to draw and brings them joy at the same time. Moreover, it is also a good example to prove how Piaget’s children’s drawing theory works among children.

“A circle and a spot; a circle and a spot;
Criss-crosses for the nose; another round and dot.
Three hairs, three hairs, three hairs—and wow!
Quick as a wink, there’s a fat hausfrau.” (Kuroyannagi, 1984:61)

By analyzing the drawing lyrics from the point of view of intellectual realism stage of Piaget’s children’s drawing theory, we can see that children who are at the stage of intellectual realism understand how to use simple geometrical figures when painting. In other words, children like Totto at this age are able to discern the way to create pictures with several kinds of geometrical shapes. For example, they use straight lines to present the woman’s hairs; use circles instead of woman’s face, ears and eyes; draw spots to show the woman’s eyeballs. (See Figure 1 given below) It is a significant progress made in both children’s intellectual development and drawing abilities; children who are in this stage can use more complicate geometrical shapes to express their drawing than before.

Figure 1. Hausfrau according to Singing Pictures

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There is also another scene in *The Little Girl at the Window* that can be used as an example to verify Piaget’s drawing theory of intellectual realism stage. When Totto-chan’s teacher complained to her mother about Totto’s bad behavior at school, she intentionally described how Totto drew differently from her peers in the drawing class. The teacher asked the students to paint the Japanese flag on a piece of paper. All of the students in the class followed the teacher’s instructions except Totto. She drew a navy flag on three sides with her fringes, with yellow paint that “went right off the edge of the paper and onto her desk” (Kuroyannagi, 1984:7).

At this moment Totto, as a primary school student in grade one, had already shaped the geometrical concept in her mind and has the drawing ability to use a geometrical way to express what she wanted to show on her picture. In other words, Totto’s cognitive and intelligence level have developed into a higher stage. Totto, as a first grade student, has her drawing skills categorized in the intellectual realism stage, which is full of imagination and separated from reality. Moreover, children who are in intellectual realism stage always create a “failed realism” (Angela, 2004:17). It may be frustrating for children, especially when they cannot draw out what they really want to or when there is a big difference between their paintings and the real items. For example, they want to draw the sun but not with a circle. When they fail, they usually regress to meaningless graffiti. Now, it is clearer to understand why after several minutes of drawing in class, Totto’s picture of the national flag gets blurry as she cannot remember it clearly. At this moment, it is difficult for her to draw all of the flag’s details correctly, so Totto begins to draw from her imagination and adds meaningless details which are totally different from the real national flag that the teacher asked for.

### 2.2.2 Visual realism and Pippi’s drawing

Visual realism stage as the last period of children’s drawing described by Piaget can also be reflected in *Pippi Longstocking*. In this stage, children become more skillful than in the last two stages. They develop more drawing skills and feel free to express themselves fluently. It is also a visible signal that certifies children’s intelligence and cognitive level which has made much progress. According to Piaget’s experiment, “the projective and
metrical concepts of space develop interdependently” (Krampen, 1991: 40), children from 8 to 9 years old have already increased their ability and have a clear definition of space in their mind, like in the story of *Pippi*, who as a nine-year-old girl is a typical example of this stage. In chapter four of *Pippi Longstocking*, her teacher believes she is “an unruly and troublesome child” (Lindgren, 1957:29) When the teacher asks the students to draw whatever they want on paper, all of them follow the teacher’s instructions and try to paint and remain seated at their desks except for Pippi. Pippi lies on the floor and draws her horse without using a paper. She believes that her horse is much bigger than a piece of paper and therefore will not fit. When she starts drawing its tail, she then wants to climb on the roof. All of the students and her teacher recognize and understand what Pippi is drawing on the floor, since she draws out most of the general characters of a horse. If we use Piaget’s visual realism stage to analyze why Pippi wants to draw on the floor instead of on a piece of paper, it is clear that as a nine years old girl, in the visual realism stage, she wants to express to her audience what the real horse looks like. She wants to draw as many details as possible. In her mind, one piece of paper is not enough for her to draw the whole horse. On one hand, according to visual realism’s features of Piaget’s theory, Pippi’s drawing is more skilful and mature than the children who are in the age group of intellectual realism, because everyone understand that what Pippi wants to show on her paper is a horse; on the other hand, it is a typical feature of visual realism in Piaget’s drawing theory, which happens in the same age group of Pippi’s. Clearly, Pippi already has the concepts of space in her mind, that’s why she wants to show the whole horse as the same size as the real horse in her picture. However, she only notices that the horse is much bigger than the size of the paper but ignores the special details that constitute it.

To summarize, drawing pictures is a good way for children to communicate with others. It is an important function and is available for children in all age groups. Children of Totto’s age group, who are in intellectual realism stage, are good at painting by using geometrical figures combined with their imaginations, not in Pippi’s age group at visual realism stage, who have already formed space concept in their mind and feel free to express themselves by drawing fluently. Children’s drawings give adults a good
opportunity to know more about their inner world. On one hand, people can communicate with children thanks to their drawings, which allows people to understand more about the psyche of the child; on the other hand, children can communicate very well among their peers, which help them to feel happy in their childhood through creative self-expressions.

Chapter III Understanding Children’s Thinking through Jean Piaget’s Cognitive Development Theory

Children’s intellectual development is a fascinating research area that attracts the interest of many scholars and educators. As we all know, everyone has their own happy childhood memories, and some of us remember how we saw the world as children. However, after we say farewell to our childhood and step into adulthood, we realize the reasoning behind a child’s way of thinking and come to understand that children have an insight that adults can’t grasp.

It is difficult to define what children’s thinking is since it is hard to separate thinking activities from non-thinking activities. In my opinion, children’s thinking is an individual activity that starts from the moment of one’s birth and continues until the end of his adolescence. Different children at different ages have their own individual characteristics in relation to thinking and reasoning. However, a particularly important feature of children’s thinking is that it keeps developing and changing day by day; for example, Totto always thinks about her ideal future job that she will do when she grows up, but she changes her mind very often. Sometimes Totto would like to “sell railroad tickets”, but then she tells her mother she wants to be “a spy”. Finally she wonders whether she could “be a ticket seller who’s really a spy” (Kuroyannagi 1984:1). There is no doubt that Jean Piaget has made unparalleled contributions to the field of child psychology, which helps educators to understand children’s thinking. He has made a considerable number of observations regarding children at different ages and put forward some famous intellectual development theories. Jean Piaget believes that all changes made in childhood must submit to the processes of assimilation, accommodation and equilibration. These are
the three factors that play an important role during an individual child’s process of psychological development.

3.1 Assimilation and Pippi’s thinking mode

In Piaget’s mind, assimilation is a process of “reality to the self, without coercions or sanctions” (Piaget &Inhelder, 1969: 58). To put it more plainly, assimilation is a biological concept that Piaget refers to in the process of cognitive development and describes as people who learn something new based on their existing understanding or knowledge. It refers to a process in which an organism integrates external elements into its own structure. In other words, assimilation refers to the process of individual changes brought on by external stimulants. The following example comes from Chapter Seven of *Pippi Longstocking*. Pippi and Tommy go to the circus and it is the first time that she has paid money to watch a performance. Pippi cannot understand why it is necessary to buy a ticket in order to watch a performance. In other words, buying a ticket to watch a performance is a new scheme that Pippi is introduced to, and it changes the old scheme that is already present in her mind.

“Oh, don’t be so silly,” said Tommy, “you don’t buy a circus. It costs money to go and look at it—see?”

“Preserve us!” cried Pippi and shut her eyes tightly. “It costs money to look? And here I go around goggling all day long. Goodness knows how much money I’ve goggled up already!” (Lindgren, 1957: 50)

Pippi undergoes a process of assimilation when she “buys a ticket to watch” and, like an organism, has to integrate this new concept into her cognitive structure. In Pippi’s individual scheme, one only spends money when one wants to buy something. Watching a performance is a different practice to shopping in Pippi’s point of view, because she doesn’t get to own any of the animals in the circus. She just sits there in the audience. From this moment, processes of assimilation function to change Pippi’s original scheme. This is Pippi’s first trip to the circus, which is a new experience for her, as she has never been there before. It is different from her experiences of shopping in a market where
money is paid and she receives something in exchange. The circus functions as a new scheme and changes Pippi’s previous perspective. That is why she feels so strange and disbelieve when she finds out that she has to buy ticket.

When individuals feel the presence of new stimulants interacting with their original scheme, they will let these outside stimulants become integrated into their own consciousness. It is similar to the process in which the digestive system absorbs nutrients into the body and transforms them into energy. Assimilation not only happens to Pippi, but it also happens to other children in *Pippi Longstocking*. In Chapter Two, the color of Pippi’s hair surprises Bengt, who has not previously seen this color of hair. He even believes that Pippi’s hair is not her real hair, and that it is responsible for hurting his finger:

“*Have you ever seen hair like hers? Red as fire! And such shoes,*” Bengt continued. *He took hold of one of Pippi’s braids but dropped it instantly and cried, “Ouch, I burned myself.”* (Lindgren, 1957: 15)

The color of Pippi’s hair is beyond the scope of Bengt’s cognitive level and it therefore serves to change his old scheme regarding the understanding of hair color. According to Piaget’s explanation of assimilation, when individuals feel the presence of new stimulants interacting with their original scheme, they will let these outside stimulants be integrated into their own consciousness. It is similar to the process in which the digestive system absorbs nutrients into the body and transforms them into energy. Pippi’s outward appearance looks different with others’ in her peers’ eyes. The color of Pippi’s hair acts as a new external element that is entering Bengt’s mind for the first time and works to change his own cognitive scheme. The normal colors of hair that Bengt was previously familiar with were brown, black, blond or gray. That’s why Bengt describes Pippi’s hair as resembling fire.
Bengt is not only surprised by Pippi’s red hair, but also feels strange about her shoes. According to Bengt’s opinion, they are not real shoes, and based upon his previous experience, he compares them to a boat:

“Can’t I borrow one? I’d like to go out rowing and I haven’t any boat.” (Lindgren, 1957: 15)

According to Piaget’s theory of assimilation, the shape of Pippi’s shoes is beyond the scope of Bengt’s cognition and works to change his old scheme of understanding about the shape of shoes. The shape of Pippi’s shoes becomes a new external element that is entering Bengt’s mind for the first time and serves to change his own cognitive scheme. Actually, it is an assimilation process that is happening to Bengt. At the beginning, Pippi’s shoes act as new stimulants that interact with the original scheme in Bengt’s mind. Finally, Bengt realizes that these are shoes for people to wear, even though they appear at first more like boats in his eyes. However, he accepts the truth, and allows the new shape of Pippi’s shoes, which function as an outside stimulant, to be integrated into his own consciousness.

3.2 Accommodation and Pippi’s mode of reasoning

Another factor discussed by Piaget is the development process named ‘accommodation’, which is contrary to the practice of assimilation. It refers to a process in which the organism regulates its own internal structure, in order to adapt itself to a particular process of stimulus situation. In Chapter Two of Pippi Longstocking, there is a scene that shows Pippi and Tommy as ‘thing-finders’. They believe that there must be some “valuable” things in the holes of trees, which few people pay attention to: “Old trees are usually about the best places of all for Thing-Finders” (Lindgren, 1957:16). Accommodation has already shaped Pippi and Tommy’s minds when they are on their way back home as thing-finders. It is clear that during this process of accommodation, children’s understanding of specific things will be replaced by new knowledge assimilated from the outside world. Their understanding will already have been altered due to previous experiences coming from the outside world. As their prior experiences of being thing-finders show, they always find interesting things in places to which people
rarely go. From this point of view, Pippi and Tommy’s consciousnesses have been changed by their new cognition gained through processes of accommodation.

Moreover, accommodation will always be accompanied by assimilation and the two processes work together towards the acquisition of new knowledge. In other words, when an individual cannot use the original schema to assimilate the new stimulus, it means that it is necessary to modify or rebuild the original schema in order to adjust to the new environment. This process is known as accommodation. There is a particularly useful example of children’s accommodation in *Pippi Longstocking*. Pippi does not want to go to school like other children, not only because she doesn’t like the atmosphere at school, but also because she feels un-adaptive at school. Actually, it is because of children’s character as accommodation which happens to Pippi. She has already adjusted to her former lifestyle in which she does not go to school every day. Now her original schema has begun to change in order to adapt to accommodate the new environment of school, which she had never experienced before.

From the above analysis of assimilation and accommodation, we can summarize that assimilation refers mainly to the effect that the individual has on the outside environment. In contrast, accommodation refers to the role that the outside environment plays in an individual’s life. From this point of view, we can better understand why Pippi and Tommy want to find valuable things in hollow trees and why, in Bengt’s eyes, Pippi’s appearance is strange.

### 3.3 Equilibration and Pippi’s friends

Besides the processes of assimilation and accommodation in *Pippi Longstocking* analyzed above, there is also a small detail about Annika one of Pippi’s friends that helps to explain another factor in children’s cognitive development: equilibration.

Because Annika is, at the beginning, afraid of riding a horse, she refuses to. However, when she sees Pippi having fun with the horse, she decides to have a try. Finally, “she let Pippi lift her up on the horse’s back” (Lindgren, 1957: 23). This psychological change in
Annika is a typical example of the “three step” process of children’s cognitive development explained by Jean Piaget. The assimilation and accommodation processes happen when Annika realizes that riding a horse is a way of having fun instead of her previous feelings of fear and timidity. When she wishes to achieve balance from her old scheme, Annika creates a new schema through which she can accept and eliminate her fear of riding a horse. She asks Pippi to help her which is a new scheme for Annika to ride a horse; in other words, there is a process of equilibration that helps Annika to resolve and balance a problem. Equilibrium functions to achieve a balance between assimilation and accommodation, and through it children unify the whole process of knowledge acquisition. This is the last of three steps in children’s processes of cognitive thinking. In the beginning, most children are satisfied with their established models of thinking. However, as time progresses, children interact with new and different things that interest them; this is when a shortage of knowledge begins to show and they start to feel frustrated. In the end, children use a new, more stable and balanced schema, to make up for shortages in the old one. This is evident in the example of Annika, who insists that she cannot ride a horse. When she sees Pippi and Tommy have fun with the horse, she is intrigued, even though she believes that she does not know how to ride one. However, at the same time she already has a balanced mental process which allows Pippi to lift her on to the horse.

3.4 The concrete operational stage and Pippi Longstocking

Alongside assimilation, accommodation and equilibration, which are witnessed in Pippi Longstocking as described above, Pippi also belongs to what Jean Piaget has described as concrete operational stage, an understanding of which can help to shed light upon Pippi’s unique personality at particular ages.

The concrete operational stage is the third stage in the cognitive development theory of Jean Piaget. Different from the three factors analyzed above, children in the concrete operational stage have a concept of the abstract in their cognitive structure. They start to undertake some simple logical reasoning in this period. In Pippi Longstocking, Pippi as a 9 years old girl begins to use experimental ways to test the quality of china. In Pippi’s
mind if the china that she and her friends use to hold coffee is of a good quality, then it will not crush into small pieces. However, if the china breaks, it means that it is not of a high quality.

 [...] ...Pippi threw the cups down on the grass. “I want to see how strong the china they make these days is,” she said. Strangely enough, one cup and three saucers held together, and only the spout of the coffee pot broke off. [...] (Lindgren, 1957:37)

The quotation given above illustrates Pippi’s logical process of thinking. Pippi, a 9 years old girl, would belong to Piaget’s concrete operational stage. Because of Pippi’s cognitive development she can do some logical thinking, as she breaks the cups in order to see their quality. This is indicates that Pippi steps into the concrete operational stage and has the ability to think logically.

Moreover, children aged 7 to 11, such as Pippi, have already begun to form conservative concepts in their mind, which is an important sign that they have entered the concrete operational stage. Children begin to realize that even if there are some changes in the appearance of objects, the nature of the objects remains unchanged. Piaget, through a series of experiments and interviews with children aged 7 to 11, studied many different kinds of development processes of conservation concepts.

However, one of the most popular experiments in Piaget’s conservation theory is about conservation of number, which clearly shows children’s capacity for conservation. In the number conservation experiment, Piaget presents candies to children and positions them in two rows each with the exact same number of candies. He then tells the children to count them and see if the numbers are the same in each row. (Figure 1.2) When doing so, children answer correctly. However, if he changes the appearance of the candies, by expanding or shortening the space between them, children less than 7 years old tend to give a wrong answer, while the ones between 7 and 11 years old can answer correctly. The aim of Piaget’s conservation experiments is to observe whether children have established and mastered the ideas of conservation in their minds. Piaget also established three steps during the development process of conservation. In the first step, the
individual can pay attention only to the characteristic of one particular aspect. Therefore, a child judges things using only this criterion. In the second step, the individual can pay more attention to the different characteristics of one thing and can therefore judge according to one or more standard. In the last step, the individual can consider the characteristics of all aspects, and then they integrate and react according to these standards. From then, it is clear that children have already established the idea of conservation in their minds.

![Conservation experiment of number by Piaget](image)

**Figure 1.2 Conservation experiment of number by Piaget**

Although Pippi is a clever girl, her conservative concepts still develop imperfectly at this stage, especially as regards number conservation. The following example from *Pippi Longstocking*, reflects children’s conservation abilities. When Tommy and Annika tell Pippi that there are students at school who have “Christmas vacation and Easter vacation and summer vacation” (Lindgren, 1957: 25), Pippi feels that this is unfair because she has not had any vacations at all, and she then decides go to school with Tommy and Annika even though she doesn’t want to. However, according to the concept of number conservation, Pippi forgets the most important fact, which is that she has more holidays than students at school, because she doesn’t go to school and can therefore feel free every day:

“In four months it will be Christmas, and then you’ll have Christmas vacation. But I, what’ll I get?” Pippi’s voice sounded sad. “No Christmas vacation, not even the tiniest bit of a Christmas vacation,” she complained. “Something will have to be done about that. Tomorrow morning I’ll begin school.” (Lindgren, 1957: 26)
Apart from the immaturity in Pippi’s words, they reflect the shortcomings of Pippi’s cognitive development. All she wants is the same amount of vacation days and the conservative concept doesn’t shape very well in Pippi’s mind. Despite being in the Piaget’s concrete operational stage, Pippi still has difficulty with transforming the number concept. She only notices that Tommy and Annika have a lot of vacations, but she ignores the fact that she has the same number of days of vacation as other children, as she doesn’t need to go to school. Pippi, in fact, has even more holidays than her peers.

3.5 How Pippi’s ability reaches beyond her physical age

Though Pippi shows her inability adequately to process numbers, she nevertheless has other characteristics that are beyond her age ability. In other words, Pippi has many personal characteristics that are only normally expected in the formal operational stage (11-16 years), according to Jean Piaget. The formal operational stage is the last stage in Piaget’s theory of cognitive development. Children’s logical thinking ability has considerably improved by this stage. They can do some simple abstract thinking activities and draw conclusions from the information that they learn from others. Piaget believes that when children enter into adolescence, many of them use deductive logic and make skillful assumptions. Moreover, their thinking ability has surpassed the reliance on simple perceptions, and has taken a step into the formal operational stage. Generally speaking, children at this stage begin to solve problems based on logical reasoning, both inductive and deductive. Their thinking ability is no longer limited to the actual experience, but they are also capable of handling some abstract concepts and pure hypothesis. Children at this stage begin to reason and use logical thinking to explain things that they haven’t previously experienced before. During this stage, children’s thinking and reasoning abilities is close to the logical level at which adults think, and they become more mature as time goes by.

In Chapter Two of *Pippi Longstocking*, Pippi uses an old fashioned can to put cookies in, which makes it “a delightful Jar with Cookies” (Lindgren, 1957: 14); meanwhile, she can also “put it over your head and pretend that it is midnight” (Lindgren, 1957: 14). This demonstrates that Pippi already has the ability to undertake some simple logical thinking.
Secondly, deductive reasoning becomes possible in this period. Children are able to infer the consequences of their actions according to a general premise. This means that some children in the formal operational stage are able rapidly to improve in the area of scientific understanding. Because the majority of information offered by science is palpable and full of meaning, many specific observations are deduced from general theories. In this way, children can begin to understand that some abilities presented in science are possible, and they become aware that they might acquire them in the future.

Through my analysis of how Piaget’s theories of child psychology can be applied to *Pippi Longstocking*, I have shown how readers might better understand Pippi and her stories. Piaget’s three factors apply only in specific and short-term cognitive changes that are not only suitable for assimilation, but also for accommodation and equilibrium. All of the three factors involved in the cognitive development process interact and are mutually interdependent. It is necessary that people come to realize that their understanding of things is based in original schemas that they have formed previously. Piaget believes that intelligence is a kind of adaptation. Moreover, it can be understood as an equilibrium caused by assimilation and accommodation. Piaget uses the relationship between organisms and the environment to illustrate the relationship between intellectual development, assimilation and accommodation. It is also a way to explain and research how intelligence is able constantly to evolve. This theory has had a profound impact and lays the foundation for future studies in child psychology.

3.6 Egocentric communication affects on Pippi and Totto

There is another important feature that very often occurs during children’s cognitive development and is also reflected by Pippi and Totto. Generally speaking, children in the preoperational stage have begun to show their characteristics of egocentric communication in their daily life. By using the term ‘egocentric communication’, Piaget does not intend to blame children who do not take others into consideration. However, he uses this terminology to describe the situation in children in the preoperational stage think about the outside world from their own perspective. There is an example in *The Little Girl at the Window*, in which Totto displays the characteristic of egocentric
communication. Totto always “goes snip snip-snip with the scissors inside her mouth at kindergarten and the teacher said she mustn't do that because she might cut her tongue off, but she did it anyway” (Kuroyannagi 1984: 7). Totto, showing typically egocentric behavior, always ignores others’ words and insists on her own. Moreover, if we read this according to Piaget’s egocentric communication theory, the main reason that Totto quits the former school is because of her characteristic use of egocentric communication at that tender age. Totto always follows her own feelings and disregards what the teacher say in the classroom, which sometimes makes the teacher angry. The teacher believes that Totto is a special girl who is not suitably educated in a normal school.

Children’s egocentric communication not only happens to Asian children, but also appears in western children. In *Pippi Longstocking*, there is a scene in which Pippi enjoys playing with policemen, who come to suggest that she go to school like normal children. But the only thing that Pippi wants to do is to “have a little fun with the policemen, but they didn’t think it was funny at all and believed Pippi shouldn’t be such a smarty” (Lindgren, 1957: 19). Pippi is a rebellious girl, to some extent. She does everything that she is interested in and insists upon her unique lifestyle without care for about others. Pippi displays characteristics of egocentric communication typical for her age. Because of the nature of egocentric communication, Pippi ignores the feelings of the police and instead tries to have fun with them. However, this does not mean that Pippi doesn’t respect policemen: all that she wants is to play with them. Actually, most children reflect an egocentric character through their use of language; this is mainly because some of their behavior is meaningless to others. Sometimes children of similar age to Totto and Pippi would like to believe their own ideas. They don’t accept others’ points of view or external criticism. Children often believe that only their own experiences are correct. In Chapter Six of *Pippi Longstocking*, Pippi judges the mushroom that she finds in the forest to be edible, based only upon her previous life experience and her logic, without asking the opinions of her friends:

“I wonder if it’s possible to eat it?” she continued.
“At any rate, it isn’t possible to drink it—that much I know; so there is no choice except to eat it. Maybe it’s possible.”

She took a big bite and swallowed it. “It was possible,” she announced... (Lindgren, 1957: 43)

It is easy to see that Pippi arrives at the answer by herself. She doesn’t really know whether the rosy mushroom can be eaten or not, but she makes some logical decisions based upon her previous experience. She determines the answer by herself without asking her peers’ opinions. According to Piaget’s egocentric theory, Pippi acts this way not because she does not respect others or is dogmatic. However, the characteristic of egocentric communication is like an underlying consciousness that causes Pippi to follow her own opinions and therefore make the decision on her own.

Children will develop new features and overcome egocentrism in the operational stage. This is a big advancement for children, who start to learn how to deal with things and solve problems in different ways. In other words, children begin to accept others’ opinions and gradually to follow them. They become aware that others hold different ideas and they accept other’s views, even by amending their own. Below, is an extract in which Tommy and Annika try their best to persuade Pippi to go to school with them:

“You can’t imagine what a nice teacher we have,” said Tommy

“If you only knew what fun it is in school!” Annika added. “I’d die if I couldn’t go to school.”

“You don’t have to stay so very long,” continued Tommy. “Just until two o’clock.”

(Lindgren, 1957: 25)

As a child who is in what Piaget terms the operational stage, Pippi has the awareness to adopt others’ recommendations and to try to balance them with her own views. Finally, she announces that “Tomorrow morning I’ll begin school” (Lindgren, 1957: 26). This developmental stage helps children to socialize and make friends. The reason behind the reduction of egocentrism in children is not only due to social factors, but also because
children have already changed their own ideas. This change does not mean that children give up their original opinions, but they combine their own views with other points of view. Pippi still doesn’t want to go to school but she follows her friends’ suggestions and agrees to give it a try. An evolution occurs that makes children pay more attention to others when they are trying to know the outside world more in depth. Piaget summarized that there are two necessary conditions that help children to overcome the egocentric communication stage. In the first place, children in the concrete operational stage have already begun to recognize themselves as subjects: they can separate themselves from other objects. Secondly, children begin to believe that their views are not the only possible ideas. Meanwhile, children in this period also start to learn from others’ points of view and to reconcile them with their own. From this point forth, children begin to learn to cooperate, coordinate and adapt to others’ opinions. Finally they overcome egocentrism completely in the concrete operational stage.

In summary, studying Piaget's theories of children's thinking can inform readers about children's thinking. By combining readings of Piaget’s theories with the primary sources of Pippi Longstocking and The Little Girl at the Window, we can see that misunderstandings about children’s thinking are very common the world over. In the literature, Pippi and Totto are normal children, though some of their personal characteristics seem different from their other peers, such as Pippi’s self-centeredness and whimsical ideas or Totto’s combination of naughtiness and innocence. However, because of the children’s unique characters, both Pippi and Totto are treated as “troubled children” at school to some extent. If educators know more about children’s psychology and children’s thinking, there will be less misunderstanding of them. Meanwhile, educators should try to accept and tolerate children’s unique characters, which would help them to lead happy childhoods without being misunderstood.

Chapter IV Children’s animism and The Little Girl at the Window
The world, in children’s eyes, is colorful and imaginative. For adults, sometimes it is difficult to completely understand how children see the world. However, in Jean Piaget’s research of children’s psychology, there are other important characters which exist during
the process of children’s growth which called animism, for example, children’s animism. In this chapter, an analysis will be conducted concerning how Totto and her peers at school recognize the world from the point of view of the animism.

4.1 Children’s animism from 4 to 6 years old

The first stage of children’s animism, according to Piaget, is evident in children aged 4 to 6 years old. In this period, children tend to treat everything around them as living beings, with a soul and consciousness. They use toys as living partners and often play and talk to them. The conversation below is a famous experiment done on a 6 year old child and used by Jean Piaget in order to prove his theory regarding children’s animism:

“Does the sun move?
—Yes, when one walks, it follows. When one turns round it turns round too. Doesn’t it ever follow you too?

Why does it move?
—Because when one walks, it goes too.

Why does it go?
—To hear what we say.

It is alive?
—Of course, otherwise it couldn’t follow us, it couldn’t shine.” (Piaget, 1929:215)

This is a typical conversation with a 6 year old child named Jac. It is clear that, in Jac’s mind, the sun is alive. It can walk and turns around. Jac even believes that the sun can understand what she talks about and takes part in her conversation inadvertently. It is obvious that during this stage children believe that everything around them is active and has a consciousness. Jac thinks that the sun follows her around because it wants to participate in her conversation and hear what she is saying, and this is the reason that the sun moves.

Totto, who is a primary school student, displays many animist characteristics. She always talks and plays with Rocky, who is her lovely little dog. There are a lot of examples in
The Little Girl at the Window showing how Totto treats Rocky as a real human and tries to communicate with it:

"You see? This pass doesn't fit you at all." "The classroom train doesn't move, so I don't think you'll need a ticket to get on that one, but today you'll just have to stay home and wait for me." (Kuroyannagi, 1984:10)

Above is dialogue between Totto and Rocky. Following to Piaget’s animism theory, we can interpret that Totto sees Rocky as her close and important friend in her daily life. She would like to share emotions and exchange ideas with Rocky, because Totto believes that he can understand her words. In other words, Rocky seems like a real man, with a soul and consciousness, in Totto’s mind. They can communicate without any trouble. Rocky is not only a household pet in her family, but he is also a very important soul mate of hers in every day life.

4.2 Children’s animism from 8 to 10 years old

Children aged 8 to 10 belong to the second stage of children’s concepts of the world. Piaget believes that animism still plays an important role in children’s cognitive development process. Generally speaking, children in this age group still believe that natural objects and phenomenon are caused by people’s behavior and are living things equal to human beings. However, there is also a big improvement in the field of knowledge that increases with age and with children’s experiences in their daily life. In Piaget’s opinion, this stage is also a transitional period. It is a stage in which “the child continues to believe in artificialism and animism, but less blatantly than before” (Ginsburg &Opp, 1987: 95).

In Tomoe Gakuen, all of the students and teachers refer to the meal as “something from the ocean and something from the hills” (Kuroyannagi, 1984: 9), a concept that is popularized among the children to make them more interested in a balanced diet and less picky with food. But why are the children interested in this special name of “taste of sea and mountain”, and why is it effective? It must be attributed to the headmaster of Tomoe
Gakuen, who is familiar with children’s thinking and psychology. Tomoe Gakuen is a primary school and the students range in age from 7 to 10 years old. According to Piaget’s theory regarding children’s animism, children in this period entertain the illusion that every object in the world is somehow animated. Totto and her friends already have the capacity to distinguish objects from subjects; however, they are in the transitional period. This is a period when children cannot precisely differentiate between objects and themselves. Most of the time, they confuse natural objects with themselves and believe that they are part of their lives, even though they already know the rules of nature. So, when the headmaster describes food as “the taste of sea and mountain”, most of the children express more excitement than usual, because they believe that the mountain and sea will be tasty and ready for them. From this point of view, children in the transitional period cannot distinguish between themselves and objects. The power of magic still has an important place in their hearts and makes them believe in animism.

Chapter V How do Piaget’s theories work in educational practices?
Having analyzed child psychology through Piaget and Luquet’s theories regarding their drawing, thinking and reasoning, I will now illustrate how child psychologists, can use their theories to influence the future of education. Meanwhile, an illustration is also necessary about how Piaget’s theory of constructivism can be implemented in teaching and learning.

5.1 Jean Piaget’s contribution to education
As I have shown in the analysis above, Piaget is undoubtedly one of the world’s most influential psychologists. His theories on children’s cognitive development have become the core of the discipline of child psychology. He is not only a psychologist who focuses his research on children’s thinking and behavior, but also a great pioneer who makes big changes in children’s education. However, the greatest contribution made by Piaget is that he always believed that children’s intellectual and moral structure is totally different from that of adults. This is why it is necessary for educators and teachers in schools to use alternative methods of education, in accordance with children’s psychological structures and their different developmental stages.
The headmaster of Tomoe Gakuen decides to practice “Eurhythms” as a teaching method in music classes, which he believes to be "a sport that refines the body's mechanism; a sport that teaches the mind how to use and control the body; a sport that enables the body and mind to understand rhythm” (Kuroyannagi 1984: 37), The headmaster’s understanding suggests that eurhythmics is a totally different way of learning music, which contrasts with the ordinary means of studying music as an adult. He thinks that this kind of educational method is good for children, as it encourages children to try to feel and understand the music. Because of the participation of body languages, eurhythmics is more like a game, and it makes more interesting way to learn new things than boring, basic musical theories learnt in the classroom. “Eurhythms” as a teaching method is closer to Piaget’s educational theory, as he believed that teaching institutions should make teaching materials that suit different age groups of students. Eurhythmics is not only a way of learning, but it is also a method that uses the format of a game. This method is entirely suited to children’s psychology and it provides an easy way for them to learn something new. In other words, eurhythmics is useful in children’s age group.

5.2 Four principles in Piaget’s educational theories
There are four principles in Piaget’s educational theory. The first goal of education is to promote children’s intellectual development, by cultivating children’s thinking ability and creativity. According to Jean Piaget, the ideal aim of cognitive development is to cultivate children’s ability for logical and abstract thinking, which is also the highest goal of education. The aim of this intelligence training is not only to model children into brilliant students, but also to cultivate explorers of wisdom. However, as a girl who is not educated in school, Pippi gains intelligence through the accumulated experiences gained from sailing with her father. This serves to increase Pippi’s intelligence and to enrich her life experience, so that she can live by herself without parents. It is also a way to become smart. Moreover, it is a process through which she accumulates wisdom. Therefore, Piaget opposes traditional teaching methods in which teachers impart knowledge to students in the classroom unilaterally and the students absorb knowledge passively without digestion. In Piaget’s view, teaching is not only the process of passing on
knowledge, but also the process through which a child is able to develop mentally. In other words, children should not be passive recipients of knowledge, but should learn how to think and analyze on their own. This is something that teaching materials, such as textbooks and homework, cannot give. Piaget also believed that the focus of nurturing children’s thinking ability should be to develop creative and critical capacities. He pointed out that the primary goal of education is to cultivate a talented person who can create, innovate, discover and invent, rather than simply repeat what predecessors have already done. The second objective is to form a mind that has a critical spirit and is able to test the truth, not simply accepting everything. Piaget placed the goal of developing children’s creativity and critical ability as the most important function of education.

Secondly, learning is an active and spontaneous process. The greatest achievements of children are not taught by teachers but the results of initiative and spontaneous learning; for example, Pippi can make ginger bread by herself without anyone teaching her how. Jean Piaget emphasized that teachers must play the role of promoters of children’s learning. He also thought that teachers should respect children’s learning desires and shouldn’t attempt to impose unwanted knowledge. The students in Tomoe Gakuen don’t have a fixed schedule everyday; however, they always begin with their study “with their favorite subject” (Kuroyannagi 1984: 12): children can choose whatever they interested in and start to study. This is a significant difference from ordinary schools. On the one hand, this kind of teaching schedule could promote children’s interest in study; on the other hand, it shows respect for children’s learning desires and is convenient means by which teachers can find out what topics students are interested in. It is good to let students have the learning initiative. In terms of real teaching practices, teachers can also choose teaching materials that stimulate children’s interest in learning, in order to promote initiative and spontaneous learning. Jean Piaget proposed a modest new principle and pointed out that children’s learning materials must have a certain degree of relation to their previous experiences. At the same time, these kinds of teaching materials must bring sufficient novelty, so as to stimulate children’s interest and encourage them to foster initiative and spontaneity in their studies.
Thirdly, children must learn through actions and activities. Jean Piaget emphasized that teachers and parents should encourage children to use their brains and hands to explore the outside world. This should be done in order to help them to construct their own basis of knowledge and experience. If the teaching environment is the school and classroom, he suggests that teachers arrange and imitate situations, providing materials and allowing children to figure out the answers by themselves, rather than giving them the solution. Children should be allowed to operate experiments, observe, think and question. There is an interesting scene regarding a school camping trip in Totto’s story that reflects Piaget’s third educational principle. On the eve of the camping trip, the headmaster gathers all of students into the Assembly Hall and shows them how to make a tent by themselves step by step (Kuroyannagi, 1984: 29). This is a very useful educational technique and it follows Piaget’s principles of education by letting students do something for themselves in order that they learn actively. Moreover, as a child’s psychologist, Piaget also suggests that it is better for teachers to provide negative examples to students during the teaching process, especially when dealing with completely new knowledge. According to Piaget, this is a good way of prompting students to think.

Last but not least, educators should pay attention to children’s social interactions during the education process, especially in school and in the classroom. The interaction that Jean Piaget refers to is based on the term “cooperation”. “Cooperation”, in Piaget’s educational theories, has two sides and meanings. On the one hand, he mentioned that interaction in learning should focus on the cooperation between children rather than on competition. This is because cooperation in learning with their peers will help children to learn from each other. This also improves the effect of brainstorming, which can make learning better. On the other hand, Piaget’s use of “cooperation” also includes the communication between teachers and students. But overall, he places the emphasis upon cooperation between children. Piaget points out that, from a rational point of view, this kind of cooperation is the most productive way of encouraging children to exchange their ideas and to discuss. This means that it is also a method of promoting and developing critical behavior, objective attitudes and rational thinking. Children will then feel a relationship of fundamental equality with their peers, no matter the situation. Although
Yasuaki-chan has had polio since childhood, Totto still wants to play with him. She makes an appointment with Yasuaki and helps him how to climb a tree without any discrimination (Kuroyannagi, 1984: 29). Throughout the process of learning to climb trees, they always cooperate with each other and try to solve problems together. Using this example from The Little Girl at the Window, it is apparent that the concept of cooperation has already shaped Totto and Yasuaki’s minds. In other words, the reason why students in Tomoe Gakuen know how to work as a team is due to the education at school. Cooperation will help children to avoid self-centered situations and enable them to learn from others. This is the reason why children like to play with other children and why they communicate with them better than with their parents or other adults. Jean Piaget encourages children to teach and influence each other in order to promote children’s learning and psychological development.

5.3 Different education in different cultural backgrounds

Different geographic regions and different cultural backgrounds create different forms of education. Piaget’s educational beliefs are mainly used in Europe; however, there are different concepts and methods of education that are commonly used in Eastern countries. Generally speaking, there are three main differences in educational situations between western and eastern areas to be analyzed and compared below.

The first difference regards classroom discipline. In schools from East Asian countries, including China, Korea and Japan, students in the classroom must be disciplined in order to ensure the teaching activities go smoothly. Of course, it is very common for every school to have its own rules and principles, in order to maintain a good environment for studying. However, we must rethink how we look at disciplinary methods, the kinds of rules that are good and those that are not suitable for children. In almost every primary school in China, children cannot speak or discuss things with other class mates during class. All students must follow the teacher step by step into the classroom, remain quiet and keep their hands behind their back. This is very common in Japanese classrooms as well. In Totto-chan’s story, Totto is asked to be quiet because her teacher believes that she isn’t following the lesson and is therefore disrupting the other students. Most parents
advice their children to listen to what the teacher says in class. That is the reason why Totto’s mother agrees with the teacher’s advice and lets Totto transfer to another school. Teachers tend to neglect children’s development of a personal character. It is very common that disciplines of classrooms in Asian’s schools, all students keep their bodies straight and behave themselves. In most traditional views, the most important tasks that students have are listening and trying their best to remember what the teachers say. If students sometimes have unique perspectives, teachers tend to dismiss them, because they do not follow the books and teaching materials. Students must submit to rules and regulations. As time goes by, this method of teaching inhibits the motivation for creativity and makes students lose their originality of thought.

Secondly, the teaching method in the classroom is different from western countries. In most Asian primary schools, every child is assigned to a collective and classroom which is fixed and hard to change. During the teaching process, most teachers choose to concentrate a lot of material into a limited period of time. This leads to a monotonous atmosphere in the classroom and suppresses children’s active personalities. If we turn back and review Piaget’s cognitive theory, it is easy to see that the Asian teaching method is totally opposed to the educational theory of Piaget, which focuses on how to pay more attention to the development of children’s personal characteristics and to model education accordingly. A kind of spoon-feeding method of education is widespread in eastern countries, and this is also known as exam-oriented education. N. A. Kaiipob, who was a famous educationist in the former Union of Soviet Socialist Republics, created the term “spoon-feeding”. His educational theory was popularized in China and it still has a big influence on Chinese education. “Spoon-feeding education” means that teachers impart knowledge to students blindly. Through many years of teaching experience, some educators and child psychologists summarized that the “spoon-feeding” method is the way to fully indoctrinate knowledge from books and teachers to students. It is easier to obstruct the creative ability of students and thereby make them into examination machines, lacking original ideas and character. This goes completely against Piaget’s educational theory.
Thirdly, the entry requirements of schools in western and eastern countries are different, which leads to differences in educational modes. It is well known that Asian countries are the home of the system of education examination, and the entrance exam is very famous in China, Japan and South Korea. The entrance examination is still used in these three countries. In fact, the modern entrance examination system is inherited from the imperial examination, which was popular in ancient China, and played an important role in electing representatives of virtue and talent. However, since the Ming and Qing dynasties, the Chinese examination system gradually ossified, and began to enslave talent in favor of traditional education. Nowadays, the Chinese entrance examination is a screening tool that functions to give students the opportunity to enroll in a better secondary school, then into a famous university, in order to become successful citizens in society. If their scores do not meet the admission requirements then they are, to some extent, excluded from the education system. Children are punished through this examination system; the process puts a lot of psychological stress on them and has a negative impact on their development. Actually, this is not the real intention of the educational examination. The evaluation standard of an examination is determined by educational philosophy, which is a form of scale built around ways of improving students’ abilities in order to help them to be come qualified and learn good professional skills that will help them in the future.

To summarize, by examining the differences between eastern and western educational systems, we should have a clearer understanding of the best method to apply to teaching practice. It is true that both systems have errors, and this is why it’s important for teachers to try and combine the good aspects into a perfect system. They should be able to combine and create a more adaptable educational method, suitable for the modern world.

**Conclusion**

In contemporary society, many people pay more attention to the research done on child’s psychology. It not only has practical meaning for modern education, but it also helps
educators and researchers to understand the process of child’s psychology in the correct way during children’s growth. Therefore, the more that people know about how children think, the more they will be able to help children to have the right kind of childhood.

Drawing and children’s literatures are not only two of the main mediums used to analyze children’s psychology, but also two entry points that help people to gain a better understanding of the field. On the one hand, drawing is one of the most important accomplishments made during human growth, and it is a means by which children begin to understand the world. Generally speaking, children’s paintings express not only their internal logic, but also the way they think and reason about things. People are always fascinated by children’s drawings, especially when they try to interpret the pictures with a childlike innocence. It is no exaggeration to say that without the study of children’s drawings, people could not understand children’s colorful inner world. On the other hand, children’s literature and children psychology are closely related to one another. Children’s literature promotes the healthy development of a child’s psychology. It generally has a positive attitude, which contributes to good development in children’s behavior and also has an important influence on their future development. However, child psychology will bring new knowledge and innovation in the creation of children’s literature. Because of its positive features, many people believe that children’s literature can be the right tool for teaching children about the world and helping children to have a happy childhood. Today’s children’s literature should be enriched and bring a fresh vision to the readers, as well as appealing to children. This is because children’s literature is one of the best ways through which one can study children’s psychology and help them to live a happy life.

No matter what subject is being studied, whether it is children’s literature or children’s drawings, the purpose is for adults to be able to understand them and to help them in their development.

I have attempted an analysis of this method of approaching children’s psychology through literary examples such as Pippi Longstocking and The Little Girl at the Window.
By using a popular Japanese children’s book in comparison with a Swedish one, I’ve made a distinction between the eastern and western world and their different methods of approaching children’s psychology.

Due to the fact that most children don’t develop perfect language skills at an early age, painting and drawing have become one of the best ways in which they can express themselves and perceive the world around them. Drawing is itself a form of artistic expression. However, when talking about children, drawing has a much more important purpose. On the one hand it helps children to develop better from a psychological point of view; on the other hand, drawing also cultivates a child’s abilities and skills in general.

Jean Piaget, considered the development of children’s drawing in the psychological field, and researched how this aspect would contribute to the future development of child psychology. Piaget developed upon Luquet’s theories concerning children’s drawings, and believed that this kind of artistic game is very important in a child’s development. He also believed that drawing could, in general, help children to develop their learning skills and access a better understanding of the outside world. Piaget went on to make his own division of children’s drawing practices, and came up with three stages according to the children’s ages. His three stages were as follows: “synthetic incapacity” (0-4 years), “intellectual realism” (4-8 years) and “visual realism” (8-9 years).

Beside the age division already mentioned, Piaget also used three steps in his study of children’s cognitive development: assimilation, accommodation and equilibration. Moreover, when talking about the cognitive development of children, Piaget divided it into four stages: “sensorimotor stage”, “preoperational stage”, “concrete operational stage” and “formal operational stage”.

Moving forward, I have tried to analyze children’s psychologies through analysis of their perception of the outside world. Here, animism plays an important part in children’s development. According to Jean Piaget’s theories, children before the age of 6 cannot distinguish animate form inanimate objects. Their consciousness lacks the necessary
abilities to perceive what is animate and what is not. Around the ages of 6 to 8, children begin to become familiarized with the concept of animation. But even then, their concept of a “living thing” pertains to any objects that are capable of movement like, for example, birds, bicycles and clouds. Children at this age still can’t perceive the true meaning of a living, or animated, thing – they associate life strictly with movement. Things that are not capable of moving, like flowers or trees, aren’t alive according to children aged 6 to 8, in Piaget’s theory. Piaget emphasizes the essence of animism because children don’t possess the ability clearly to separate objects from living things. This inability makes them confuse the material universe with their inner subjective world, and it also poses a barrier to their clear perception of the real world.

Overall, my purpose was to try and put Piaget’s educational theories intro practice. Because of differences in background between eastern and western culture, it is best for educators to use different teaching techniques to suit the different cultures. Even so, Piaget’s educational theories have been recognized worldwide. They have been proven to be very efficient, mostly because Piaget’s materials don’t go beyond children’s understanding. According to his theories, every child develops at his or her own pace, and there is no use in trying to accelerate the process of development. His techniques also encourage students to participate in the learning process in a more active way. There are four principles of Piaget’s educational theories are mentioned in the last chapter. Piaget believes that the best means of educational is to promote children’s intellectual development and to cultivate children’s thinking ability and creativity. He doesn’t agree with the traditional method of teaching, which allocates an active role for to teachers and a passive one to the students. Instead, in Piaget’s opinions, children should learn through actions and activities in an active way. Moreover, Piaget believes that educators should pay attention to children’s social interactions during the education process, especially when children are at school. Last but not least, according to Piaget, we should be aware of the differences in the cognitive development process of every child. Teachers should try to determine the differences in the levels of cognitive development of their students, in order to ensure that the level at which the teaching is being done matches the students’
cognitive abilities. The secret to healthy psychological development and a happy childhood seems to lie in this subtle match.

To conclude, the study of child’s psychology is the best means of understanding children’s way of thinking. The more one knows about children’s psychology, the easier it is to be aware of their interests, which differ according to their age group. Psychology helps people to understand children’s inner world and contributes to a harmonious relationship that will, in consequence, help children have a happy childhood and grow up without difficulties. Jean Piaget’s theory about child’s cognitive development has great potential for influencing children’s future educational and practical techniques. Much research on children’s psychological development has been based upon Piaget’s theories. This has constituted a big improvement in children’s educational strategies and has helped to better their development. Though there are many differences between eastern and western cultures, the aims of children’s education should be one and the same. The educational system should know no national borders and its main purpose should be that of helping children to grow up happy and without difficulties. However, how educators can develop suitable educational methods according to different cultural backgrounds is a question to be solved in the future. In other words, Piaget’s child psychology theories are not only useful for educators better to understand children, but they also help children to show their real inner worlds to others. This is why Piaget’s theories are so valuable and are applicable to teaching techniques in both eastern and western cultures.
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