

# COLLECTION OF THEORETICAL CONCEPTS

EXQUISITELY  
MARIA



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This document includes the main theoretical concepts addressed in the book "Exquisitely Maria". For each of the concepts, an outline is followed that includes definition, characteristics, how it is reflected in the story and bibliography.

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## CONCEPT 1: COGNITIVE INFLEXIBILITY

### Concept

One frequently observed behaviour of children is inflexibility in thought and behaviour. Inflexibility is mostly a result of and symptom of anxiety. 'Cognitive flexibility' can be broadly defined as the mental capacity to adapt our behaviour and thoughts to different and novel situations and contexts. Cognitive inflexibility occurs when the child is unable to consider alternatives to the current situation, alternative viewpoints, or innovative solutions to a problem. For example, they will have difficulty in flexibly adapting to changes in routines. This is because a child tends to view things in "either-or" terms (e.g., things are either right or wrong, good or bad). They want concrete, black and white answers to a query/problem/issue. "Grey areas" of life are very uncomfortable and novel situations may often produce anxiety.

Children may be averse to change in general, resulting in behaviour that may be considered as 'oppositional' and can manifest in frustration and/or emotional meltdowns.

Hence, facts and rules are points of guidance for children with intellectual/developmental disabilities. They help to frame a situation and give them answers to changing circumstances.

### How to observe in the story

Maria was used to eating her food in a specific form (puree or mash), in a specific setting (watching cartoons and with her favourite plate), at times she would eat other types of things but rarely would not dare to try something different and in a different setting. In this sense, her mother with the support of her teacher and healthcare professionals tried to help Maria overcome her inflexibility by progressively changing habits and introducing new ones.

### Bibliography

[Cognitive and behavioural flexibility: neural mechanisms and clinical considerations | Nature Reviews Neuroscience](#)

[My ASD Child: Cognitive and Behavioral Inflexibility in Kids on the Spectrum \(myaspergerschild.com\)](#)

## CONCEPT 2: DEVELOPMENT OF AUTONOMY IN FEEDING

### Concept

Toddlerhood, the period from 12 to 36 months, represents striking changes in children's development. Along with mastery of skills such as walking, talking, self-feeding, sleeping through the night, and bowel and bladder control, toddlers strive for autonomy as they learn to regulate their emotions. Toddlers' increasing autonomy impacts feeding behaviour and may increase or restrict their food exposures. Baby-led weaning, allowing infants to participate in the family meal by selecting food and feeding themselves, exposes children to the family diet. Food neophobia, a normal developmental phase whereby children reject novel foods, may limit children's exposure to high-quality foods. Food preferences formed during toddler and preschool years often persist into adulthood, making toddlerhood an ideal time to help children build healthy habits. Toddlerhood can be both joyful and challenging as children acquire new skills and assert their autonomy. Effective parenting practices include providing age-appropriate structure and opportunities for toddlers, reading toddler's signals, and responding promptly, appropriately, and with nurturance. Responsive parenting ensures that toddlers receive the guidance and nurturant care needed to develop healthy feeding behaviours and emotional well-being.

Development of Autonomy	
Topic: Eating	
Age (Months)	Behaviour
0-5	<ul style="list-style-type: none"> <li>• Reacts early to food</li> <li>• Eats porridge with spoon</li> </ul>
6-11	<ul style="list-style-type: none"> <li>• Eats semi-solid food</li> <li>• Holds his bottle</li> <li>• Eats small pieces of food</li> <li>• Drinks from cup with assistance</li> </ul>
12-17	<ul style="list-style-type: none"> <li>• Begins to use spoon or fork to eat</li> <li>• Asks for food or drink with words or gestures</li> </ul>
18-23	<ul style="list-style-type: none"> <li>• Drinks from a cup or glass without help</li> <li>• Uses a spoon or fork</li> <li>• Distinguishes the edible from the inedible</li> </ul>
24-35	<ul style="list-style-type: none"> <li>• Obtains water from the tap</li> </ul>
36-47	<ul style="list-style-type: none"> <li>• Serves themselves food</li> </ul>
72-83	<ul style="list-style-type: none"> <li>• Uses the knife</li> </ul>

Source: Batelle - Inventario de Desarrollo.

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## [How to observe in the story](#)

Maria had determined her favourite type of food, based on preferences on texture and tastes, and although it was not bad per se, she was not keen on trying or eating other types of food.

## [Bibliography](#)

Toddler Development and Autonomy: Baby-Led Weaning, Neophobia, and Responsive Parenting: <https://pubmed.ncbi.nlm.nih.gov/33161408/>



## CONCEPT 3: AMOUNT OF FOOD ACCORDING TO AGE

### Concept

The serving size on a Nutrition Facts label is a specific measured amount. Calories and nutrient information is based on the serving size and a 2,000 calories diet. A portion is the amount of food you choose to serve your children at each snack or meal. Parents need to be aware that a serving size on a Nutrition Facts label may not be the right portion for their child. For example, 15 crackers may be the serving size listed on a label; however, the number of crackers you serve your child will vary based on different calorie needs. Parents also need to be aware that servings at restaurants can vary. For example, kid-sized hamburgers and kid-sized drinks can vary in ounces, and small fries at one restaurant could be the same size as medium fries at another restaurant. Parents should feel free to ask about serving sizes and if nutritional information is available.

The portion sizes for children can vary based on their age, activity level, and individual needs. Here's a general guideline:

#### 1. **Toddlers 6 Month to 3 years old):**

- Offer small portions, typically about a quarter to half of an adult serving size.
- Focus on nutrient-dense foods like fruits, vegetables, whole grains, lean proteins, and dairy.
- Offer meals and snacks at regular intervals throughout the day to meet their energy needs.

In terms of actual measures, for children between these ages: 1. a portion of legumes of 30 g raw (60-70 cooked); 2. chicken or turkey 30-35 g; 3. hake, sea bream, monkfish 30-35 g; 4. eggs 1 small or medium (between 53-63 g).

Food	Recommended daily allowances for children 6-12 months old	Recommended daily allowances for children 12 months to 3 years old
Legumes	30 g raw (60-70 cooked)	30 g raw (60-70 cooked)
Meat (Boneless)	30-35 g	30-35 g
Fish	30-35 g	30-35 g
Eggs	1 small or medium unit (S or M: less than 53-63 g)	1 small or medium unit (S or M: less than 53-63 g)

**Source:** Generalitat de Catalunya, Agència de Salut Pública de Catalunya, “La Alimentación Saludable en la Primera Infancia”

## 2. Preschoolers (4-6 years old):

- Portion sizes can increase slightly, approaching about half to three-quarters of an adult serving size.
- Continue to prioritize nutrient-rich foods and encourage them to try a variety of foods from different food groups.
- Pay attention to hunger and fullness cues and avoid pressuring them to clean their plate

Food	Recommended daily allowances for children 3-6 years old
Legumes	35 g
Meat (boneless)	80 g
Fish	80 g
Eggs	1 small or medium unit
Vegetables	More than two portions per day. Around 100 + 80 g a day.
Pasta	40 g
Rice	35 g
Bread (slice)	20 g

It is essential to monitor your child's growth, appetite, and energy levels to adjust portion sizes accordingly. Consulting with a pediatrician or a registered dietitian can also provide personalised guidance based on your child's specific needs.

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### [How to observe in the story](#)

Maria was used to eating mainly a specific type of food (puree or mash), and sometimes cookies, fries and toasts; not a very diversified and appropriate diet.

### [Bibliography](#)

[https://drive.google.com/file/d/1erUdd53kObXbYIZEwWJLfH2X-cIL8HX1/view?usp=drive\\_link](https://drive.google.com/file/d/1erUdd53kObXbYIZEwWJLfH2X-cIL8HX1/view?usp=drive_link)

[CACFP: Child Meal Pattern \(sdsu.edu\)](#)

[How Much Should My Baby Eat? An Age-by-Age Guide \(parents.com\)](#)



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## CONCEPT 4: NORMOTYPICAL DEVELOPMENT OF FEEDING AND WARNING SIGNS

### Concept

In the initial weeks to months of life, feeding starts in an instinctual mode and changes as a learned skill. According to the Royal Children's Hospital Melbourne, this shift from reflexive to deliberate feeding unfolds through a developmental journey influenced by the dynamics of the child's motor skills, sensory perceptions, cognitive abilities, social interactions, emotional development, and the environment during mealtime or feeding sessions.

Newborns are initially capable only of sucking and swallowing liquids due to their early stage of development. Their proficiency in feeding shortly after birth relies on a blend of reflexive reactions.

From rooting reflex, to suck, tongue and gag reflex, feed abilities become ordinary at 6 months when the addition of complementary foods (beyond breastfeeding if possible) coincides with the decrease of involuntary reflexes.

According to the WHO, the introduction of solid foods in the range of 6 months up to 2 years of age should be completed.

Also, some children present troubles eating and drinking during their development.

Typically, common challenges tend to resolve over time, yet persistent feeding issues during infancy and early childhood could indicate an underlying problem hindering the child's intake of nourishment. According to the Centre for Paediatric Gastroenterology and Nutrition, here are some prevalent indicators to watch for in children's feeding:

- Demonstrates reluctance to eat.
- Experiences frequent vomiting.
- Exhibits gas during feeding.
- Cries while being fed.
- Takes an unusually long time to eat.
- Struggles to retain food or liquid in the mouth.
- Displays evident difficulty chewing or swallowing.
- Encounters frequent distractions and struggles to eat.

### How to observe in the story

Maria shows some feeding difficulties across the story.

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Firstly, it would seem she has some rejection only at school during the mealtime, but after some conversations between the teacher and her mothers we understand that her refusal of eating and some restrictions and different way of feeding (like she doesn't eat food that needs to be chewed at all) are part of her habits.

Habitually Maria is helped by her mums during mealtime, maybe in a not optimal way: she often eats puree in her unicorn plate, even if the family is having lunch outside home, they bring her thermos for food and they let her watch cartoons while finishing her meal.

The way she eats seems to be a little problematic so her mothers understands how important it is to learn good new habits.

Gradually, with the help of the teacher and an occupational therapist, Maria learnt to adjust her feeding routines, to have fun playing with food and also differentiate the meals that were all the same before. Most importantly, her mothers can now improvise when cooking meals and doesn't need to show her cartoons when she eats both at home and outside.

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<https://www.sciencedirect.com/science/article/abs/pii/S0031395516382293>

<https://www.centerforpedsgi.com/blog/how-to-tell-if-your-baby-has-a-feeding-problem>

<https://www.rch.org.au/feedingdifficulties/development/>

<https://www.epicentro.iss.it/allattamento/alimentazione-complementare-infantile-linea-guida-oms-2023>



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## CONCEPT 5: SENSORY HYPERSENSITIVITY

### Concept

Senses provide humans with a way to view, perceive and understand life and the world around us. What we see, taste, feel, taste and smell, moulds our physical understanding of life – essentially forming our conscious experience. Hypersensitivity refers to having heightened sensitivity to stimulation of the senses. This can apply to any of the five senses – touch, sight, hearing, smell and taste – and may even affect multiple senses for some sufferers.

The difficulty with sensations can make everyday activities overwhelming and unbearable. It causes children to over or under respond to food, noise, light, sounds or textures. It can manifest in children's daily life, for example:

- Hearing – Meltdown in response to loud bangs, fireworks or even loud chewing noises at the dinner table.
- Touch – Problems dealing with fabric textures, clothes labels and tight clothing or sand and grass on bare feet, for example.
- Food – The taste and textures of certain foods, such as mushy banana, can be difficult to deal with.
- Bad reaction to overstimulation from bright lights, in classrooms for instance.

### How to observe in the story

Maria was sensitive to food textures and therefore was not keen on eating hard food, but was used to eating mostly soft food in the form of puree or similar, besides some specific type snacks that she would eat occasionally.

### Bibliography

[Hypersensitivity: Could It Be Sensory Processing Disorder? - The Child Development Centre \(thechilddevelopmentcentre.com\)](https://www.thechilddevelopmentcentre.com/2017/05/10/hypersensitivity-could-it-be-sensory-processing-disorder/)

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## CONCEPT 6: WARNING SIGNS OF DYSPHAGIA

### Concept

Dysphagia is a medical term for difficulty swallowing and can represent a very painful condition.

According to Boston Children's Hospital, dysphagia is the inability of food or liquids to pass easily from the child's mouth, into the throat, and through the esophagus to the stomach during the process of swallowing. Sometimes the difficulty to swallowing can derive from the incapacity to chew the food enough.

What are the red flags of dysphagia?

According to Standford Medicine, symptoms in children could be very different, but the most common are traceable during the mealtime:

- Body arching or stiffness during feedings.
- Chest congestion occurring after eating or drinking.
- Coughing or choking while consuming food or liquids, or immediately afterward
- Excessive drooling.
- Slow eating pace.
- Sensation of food or liquids sticking in the throat or esophagus or feeling a lump in the throat.
- Gagging while being fed.
- Frequent respiratory infections.
- Regurgitation of food or liquids through the nose during or after feeding.
- Repeated attempts to swallow the same mouthful of food.
- Difficulty with sucking and swallowing.
- Frequent spitting up or vomiting.
- Irritability or lack of alertness during feedings.
- Voice sounding wet or raspy during or after eating.
- Weight loss.

### How to observe in the story

In Maria's story, there is strong evidence of a complex feeding difficulty that includes some signs of dysphagia.

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In the first part of the description the refusal of mealtimes is attributed by the reader to the exclusive situation of feeding in a new place with new people (away from her mums), that is the school.

Also, Maria seems to be not comfortable when provided with food and looks like to be very sick at school since she left all the courses.

So, her teachers decide to have a chat with Maria's mum and let them know about the situation to also understand what is happening and how widespread the problem is.

The day of the meeting they did, Maria was actually feeling very well, however, they discovered Maria was not actually a good eater as they taught: through the meeting they realised Maria did not like at all to chew food having an issue with textures and always prefers puree or smashed food.

Due to this reason mainly, her mother decided to ask for support from an occupational therapist since Maria needs to be helped to increase her confidence with food, especially with different textures and her ability to swallow them.

#### Bibliography

<https://www.cedars-sinai.org/health-library/diseases-and-conditions---pediatrics/d/dysphagia.html>

<https://www.childrenshospital.org/conditions/dysphagia#:~:text=Dysphagia%20is%20a%20term%20that,during%20the%20process%20of%20swallowing>

<https://www.stanfordchildrens.org/en/topic/default?id=dysphagia-90-P01991>



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## CONCEPT 7: IMPORTANCE OF FOOD AS A MOMENT OF SOCIALIZATION

### Concept

Adults and children can use food and mealtimes as a way of communication and socialisation. Not only is good nutrition the key to staying healthy and strong but also mealtimes represent an important occasion for sharing emotions, maintaining ties, and developing children above all.

Since the dawn of social development, the act of gathering, preparing, and sharing food has served as a cornerstone for building communities.

It is crucial to recognise the significance of food in our social interactions, as it is intricately rooted in our personal identities and customs.

According to Eisenberg et. al<sup>1</sup> (2004), family meals provide an excellent chance to impart lessons to children about social etiquette, nutrition, and fostering healthy eating habits.

Shared meals, for example at school, provide time and space for socialisation and community building for children and teenagers too. This “socialising aspect” enables comparison with peers and establishes closest connections between children.

Understanding culture, values and rules through food is also another indirect effect of sharing the important moment of the mealtime with others.

Furthermore, according to the University of Oxford, sharing meals fosters stronger social connections and enhances feelings of happiness and fulfilment, promoting a sense of belonging within both the family unit and the broader community.

### How to observe in the story

Considering what has been said in the concept above we can understand how not inefficient some distractors during mealtime as tablets, cartoons or video games could be.

Unfortunately, our protagonist Maria spends almost all mealtimes watching cartoons that distract her. This external stimulus makes the meal a moment of closure, individualism, and loneliness rather than a moment of socialisation.

When her mothers understood how this behaviour could compromise Maria’s feeding, started avoiding cartoons and encouraged (under the teacher’s advice) her to talk with them, having an interesting moment of socialisation and sharing.

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<sup>1</sup> Eisenberg ME, Olson RE, Neumark-Sztainer D, Story M, Bearinger LH. Correlations between family meals and psychosocial well-being among adolescents. *Arch Pediatr Adolesc Med.* 2004 Aug;158(8):792-6. doi: 10.1001/archpedi.158.8.792. PMID: 15289253.

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This first important step of change represents a push to a new way of experiencing the mealtime for Maria!

### Bibliography

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<https://pubmed.ncbi.nlm.nih.gov/15289253/>



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## CONCEPT 8: INTRODUCTION OF FOODS (BABY LED WEANING)

### Concept

Weaning is commonly categorised into two primary methods: traditional weaning and baby-led weaning. There isn't a single right method to introduce solids to your baby. However, understanding the pros and cons of each approach can assist parents in determining the most suitable option for both parents and the baby.

In the traditional weaning approach, food is initially introduced in pureed form, with the texture gradually advancing over time. During the initial stages of feeding, parents or caregivers typically spoon-feed the baby pureed foods.

In this traditional feeding method, the introduction of solid foods is done gradually, emphasising the importance of starting the baby with fruits, vegetables, meats, and iron-fortified grains right from the outset.

When a classical weaning is started, this requires a time when caregiver and baby are both relaxed and can enjoy the experience. Also, it is recommended to start with one feed a day before gradually increasing in three – four and so on.

Traditional feeding allows parents to carefully monitor the baby's food intake, making it easier to introduce specific nutrients and manage any dietary restrictions or allergies. This method also ensures that babies receive a smooth and consistent texture.

On the other hand, according to Bialek-Drawta et al.<sup>2</sup>, Baby-led weaning (BLW) is an increasingly popular and well-known method of expanding a baby's diet.

This approach is based on the baby reaching a stage of physical readiness to self-feed, thereby complementing their diet, which has primarily consisted of breast milk or formula. It entails introducing solid foods in a manner that empowers the baby to make choices and select their own food.

According to Arslan et al.<sup>3</sup>, feeding with the BLW method promotes self-feeding and early transition to solid foods and doesn't lead to the risk of choking.

The core philosophy of BLW is to promote independence, develop fine motor skills, and establish a positive relationship with food from the beginning of a baby's solid food experience.

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<sup>2</sup> Białek-Drawta A, Soczewka M, Grajek M, Szczepańska E, Kowalski O. Use of the Baby-Led Weaning (BLW) Method in Complementary Feeding of the Infant-A Cross-Sectional Study of Mothers Using and Not Using the BLW Method. *Nutrients*. 2022 Jun 8;14(12):2372. doi: 10.3390/nu14122372. PMID: 35745102; PMCID: PMC9227137.

<sup>3</sup> Arslan N, Kurtuncu M, Turhan PM. The effect of baby-led weaning and traditional complementary feeding trainings on baby development. *J Pediatr Nurs*. 2023 Nov-Dec;73:196-203. doi: 10.1016/j.pedn.2023.09.006. Epub 2023 Sep 13. PMID: 37714048.

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To decide which method is most suitable it is important to remember that every baby is different, and it is essential to be flexible and responsive introducing solids to the baby day by day, as they feel ready.

### [How to observe in the story](#)

In Maria's story, the reader doesn't know exactly which kind of weaning methods the mothers chose to practise, however we can assume that she's not really confident with self-spoon feeding and solid texture.

This can lead us to think that:

- Either a Baby-Led Weaning method was applied with evident failure; or
- The mothers chose to opt for a traditional feeding method, introducing mainly puree and only a limited selection of solid food that Maria accepts like cookies, toast, french fries and something breaded.

Indeed, Maria feels more confident with some kinds of purees and broccoli is her favourite one, since she does not like to chew different textures too much.

Maybe her curiosity to explore food is a little bit limited or compromised by the difficulty of chewing and swallowing. Now, being aware of the issue, her mother's together with the help of caregivers and the professional support of her therapist (who suggested she start playing with food), she will probably make important progress enjoying the feeding journey.

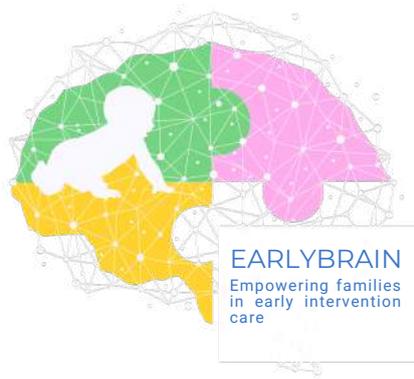
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