

## TRAUMA AND RESILIENCE IN THE FILM *THE GLASS CASTLE*: A LOOK FROM THE PERSPECTIVE OF NEUROSCIENCE



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### ABSTRACT

In this article, we analyze the film *The Glass Castle* (2017), based on Jeannette Walls' autobiography, from the perspective of Neuroscience, seeking to explore the impacts of early stress on neurodevelopment, since exposure to neglect and dysfunctional interactions can affect learning, emotional regulation, and social bonds, increasing the risk of neuropsychiatric disorders. The study, of a qualitative and documentary nature, is structured in three central sections: initially, the synopsis of the film is presented and, then, the methods of analysis, according to the *Arc of Maguerez* (1970) and the Content Analysis, according to Bardin (2016); then, six selected scenes are examined and, in the last section, inferences are proposed for each stage of the Arc, evidencing the influence of the family environment on psychological-emotional development.

**Keywords:** Neurodevelopment. Family relationships. Brain plasticity.

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## INTRODUCTION

This article presents an analysis of the film *The Glass Castle* (2017), based on the autobiography of Jeannette Walls, focusing on the impacts of emotional stress during childhood and adolescence and risk indicators for neurodevelopment from the perspective of Neuroscience. The film portrays family dynamics marked by neglect and dysfunctional interactions that show how early stress can negatively impact learning processes, emotional regulation, and child behavior.

Neuroscience is the study of the brain and nervous system and is concerned with recovering how these structures process information and control human behavior, according to Eagleman (2015), who explains how the brain builds the perception of reality, interprets environmental stimuli, and coordinates actions, emotions, and decisions. Although complex, the brain can be understood through the study of neural connections, offering a deeper insight into how humans are shaped by biology and experience.

The scientific literature, from this perspective, points out that exposure to stress in childhood is a crucial factor in the development of neuropsychiatric disorders. Studies developed by Shonkoff and Garner (2012) extensively discuss how adverse childhood experiences can impact children's emotional and behavioral development. Toxic stress, a result of these experiences, directly affects the functioning of the developing brain and compromises emotional regulation, learning, and the formation of healthy bonds, impairing not only the capacity for learning and resilience, but also the brain's plasticity regarding emotional regulation and the formation of social bonds.

In a complementary way, Shonkoff et al. (2012) explore the effects of toxic stress, a type of early adversity, characterized by experiences, such as abuse and neglect, that impact the brain structure and compromise physical, psychological and neurobiological development, resulting in behavioral changes and health problems throughout life, which leads to an urgent need for effective interventions. In the study conducted by Lima Camargo et al. (2017), the authors investigated how children and adolescents who have experienced maltreatment can develop resilience. The analysis presented in this study reveals that early stress triggers physiological and emotional responses aimed at adapting to situations involving fear and anxiety. In addition, the authors consider that, despite the harm, factors such as social support and coping strategies are crucial for the development of resilience.

Therefore, findings of this nature reinforce the urgency of early interventions, especially in contexts of toxic stress, caused by continuous exposure and the lack of adequate affective and social support, which causes high cortisol levels, inflammation, and permanent alteration of brain structure, impairing areas responsible for emotional regulation, memory, and learning. Thus, promoting a supportive environment is essential to mitigate these effects and ensure the healthy development of children and adolescents. The World Health Organization (WHO, 2019) defines child maltreatment as any form of abuse or neglect suffered by minors under the age of 18, which includes physical or emotional abuse, abandonment, neglect, and exploitation.

It is understood that this form of violence can cause immediate or long-term damage to the health and development of the individual, resulting in serious impacts on the nervous and immune system. Studies show that adults with a history of childhood maltreatment are more likely to develop mental disorders, such as depression and anxiety, and to consume substances, which trigger risky behaviors. The increase in this variable, in the impairment of health in adult life, can be explained by changes in the response to stress, usually caused by adversities in childhood, making individuals more vulnerable to psychological disorders and diseases.

Although the relationship between early stress and pathologies is well established, factors such as genetic predisposition, psychological support, and social conditions can influence the way each individual reacts to trauma, determining or not the development of pathologies (McEwen, 2007; Van der Kolk, 2014). Based on this evidence, the motivation for conducting the present study lies in the importance of understanding how dysfunctional family experiences and early traumas impact the psychological, emotional, and neurobiological development of human beings. The film *The Glass Castle* (2017) clearly illustrates how family behaviors and complex relational dynamics directly influence the process of identity formation and emotional regulation, highlighting the relevance of these factors in the field of Neuroscience and mental health.

Thus, the analysis of these dynamics, from a neuroscientific perspective, allows a deeper understanding of neuroplasticity, resilience and the effects of toxic stress on brain development during childhood and adolescence. In addition, it highlights the importance of the family environment in the formation of the human mind, providing *valuable insights* to health professionals, educators and caregivers, also offering tools to understand the impacts, due to adverse experiences, on the integral development of the individual. From

this perspective, the objective is to analyze the consequences of dysfunctional family relationships, portrayed in the film *The Glass Castle*, from the perspective of Neuroscience. The work not only illustrates how trauma and complex family interactions influence the psychological and emotional development of individuals, but also addresses topics such as resilience, brain plasticity, and the effects of adverse experiences on identity formation and the ability to adapt socially.

As for the organization, in addition to the initial and final considerations, the text comprises three central and interrelated sections. Initially, the methodological design of the research is described, of a qualitative and documentary nature, in which the synopsis of the film, the detailing of the scenes that make up the *corpus* and the description of the methods of analysis are presented, according to the principles of the Arc, by Maguerez (1970), and the technique of Content Analysis, proposed by Bardin (2016). Next, the six selected scenes are presented, followed by the analysis. In the last section, called discussion of the study, inferences are proposed for each stage of the Arc, according to the respective author.

## **METHODOLOGY**

Film analysis is characterized as documentary research with a qualitative approach. According to Hernández Sampieri, Fernández Collado and Baptista Lucio (2013), qualitative documentary analysis is a research strategy in which documents are used, as data sources, to investigate and interpret social, cultural and historical phenomena. This approach allows you to analyze non-quantifiable content, such as films, texts, and other materials, to extract meanings, nuances, and specific contexts related to the object of study.

Qualitative document analysis highlights the importance of interpretation and deep understanding of the content, which is fundamental for studying phenomena, such as attitudes, emotions, and complex human relationships, that cannot be completely explained by quantitative methods. In this sense, documents are not only sources of data, but objects that reflect the behavior and experiences of individuals or groups in a given context, allowing for a richer and more detailed understanding of social reality (Hernández Sampieri, Fernández Collado; Baptista Lucio, 2013).

From this perspective, the qualitative methodology is centered on meaning and context, allowing the interpretation of symbolic elements, which are fundamental to understanding complex phenomena in their subjective and social dimensions (Flick, 2009).

Therefore, documentary analysis with a qualitative approach is an essential tool for the study of complex and subjective contexts, such as, for example, the interpretation of films or other forms of art, which reflect the psychological and social reality of individuals or groups.

## SYNOPSIS OF *THE FILM THE GLASS CASTLE*

*The Glass Castle*, according to the website *papodecinema* (2017), is a drama, based on the memoir by Jeannette Walls. The plot follows the story of Jeannette and her siblings, children of extremely dysfunctional parents who constantly move to another city in search of financial stability, but never achieve a fully secure emotional life. The mother, a talented artist, is absent in matters of parental care, while the father, a brilliant but alcoholic and irresponsible man, promises a better future for the family, but constantly puts them in situations of extreme deprivation. The film illustrates the effects of emotional abandonment, neglect, and family instability in childhood, addressing themes such as resilience and the struggle for survival in a toxic environment. Throughout the story, Jeannette seeks to overcome the traumas of the past, reflecting on the marks left by dysfunctional upbringing and the impact of her parents' choices on her adult life.

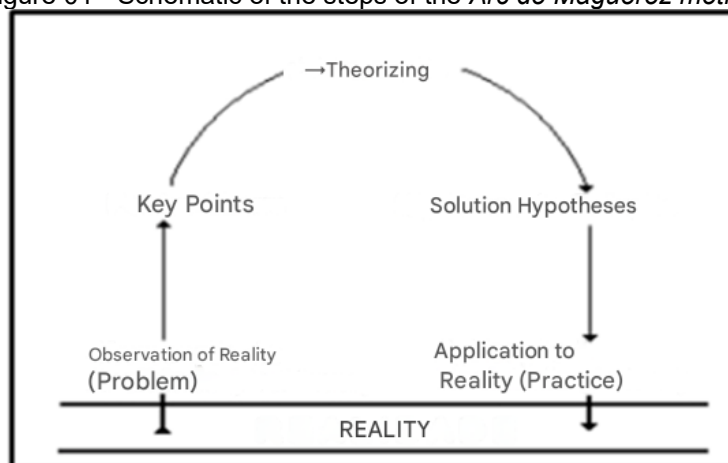
## METHOD FOR FILM ANALYSIS

The theory of problematization, associated with the French educator Charles Maguerez (1970), presents a pedagogical approach that encourages active learning through the identification and analysis of real problems. Although Maguerez did not publish directly on this theory, his method was disseminated and adapted by several authors, as mentioned by Berbel (2014). The analysis of the film *The Glass Castle* (2017) can be carried out in the light of the theory of problematization, proposed by Maguerez (1970), which encourages a critical-reflective approach. By applying the theory, it is possible to explore the social, psychological, and cultural issues underlying the characters and the narrative, promoting a deeper understanding of the dynamics present in the plot.

The theory of problematization comprises the method known as *the Arco de Maguerez*, organized in five stages, which facilitate reflective analysis and promote the solution of problems based on the observed reality. Initially developed by Charles Maguerez, the method was later adapted and expanded by other authors, such as Colombo and Berbel (1998), presented as an essential tool in educational and professional training contexts. The method guides the pedagogical practice of the educator, concerned with

promoting the intellectual autonomy of his students, encouraging critical-creative thinking. The method of *the Arc of Maguerez* starts from the analysis of a reality or a respective cut, comprising the following stages: (i) observation of reality (problematization of reality); (ii) identification of key points; (iii) theorizing; (iv) formulation of solution hypotheses; and (v) practical application to reality, as illustrated in Figure 01.

Figure 01 - Schematic of the steps of the *Arc de Maguerez method*



Source: Berbel, 2014

The proposed methodology begins with the *observation of the reality* where a problem is critically identified for the study, aiming to contribute to its transformation. In the *key points* stage, an in-depth analysis is carried out to identify the factors related to the problem and establish fundamental questions for the investigation. The third stage, *theorizing*, is the moment of research and analysis, in which the researcher seeks relevant information to understand the problem in depth. Based on this understanding, the *solution hypotheses are elaborated*, which reflect possible referrals, based on the study carried out. Finally, in the stage of *application to reality (practice)*, these hypotheses are implemented in the reality from which the problem was taken, with the objective of promoting concrete transformations, even if small, in the analyzed situation.

According to Bebel (2014), Maguerez's methodology follows a general orientation and develops through distinct and interconnected stages, starting from a problem identified in reality. It is a comprehensive approach, composed of methods, techniques, procedures and activities, intentionally organized at each stage, taking into account the nature of the problem and the general conditions of the participants. Its main objective is to enable the individual to understand their world and act consciously to transform it, promoting continuous improvement that contributes to a fairer society and a more dignified life.

In this perspective, complementing the *Maguerez Arc Method*, used for data collection, the Content Analysis technique, proposed by Bardin (2016), was applied, structured to interpret qualitative data and organize information into categories and meanings with a view to a deeper understanding. Content Analysis, according to Bardin, follows an organized path, divided into three main stages, highlighting the relevance of well-structured processes in favor of more comprehensive solutions and interpretations.

For the first stage of Content Analysis, the pre-analysis, which involves the organization and preparation of the material, after watching the film, in a paused way to record notes, a general analysis was carried out with the objective of identifying the aspects that could be analyzed in the light of Neuroscience. In the second stage, called exploration of the material, six scenes from the film were selected that make up the *corpus* of analysis. For each scene, the central idea or key point was identified, converging with the methodology of *the Arco de Maguerez*, as shown in Chart 1.

Table 1: Demonstration of the selected scenes, location of the film and key points

Scenes	Location in the film	Key points
1	4': 53"	Child neglect
2	20':48" & 21':54"	Instability of Jeannette's childhood
3	24':12"	Recklessness of the father in trying to teach his daughter to swim.
4	42': 12"	Parental negligence
5	"1:04:37"	Facing the brothers in a hostile environment
6	"1: 08:54"	Family tension and unstable environment

Source: Prepared by the authors

The final stage of the content analysis technique corresponds to the treatment of the results, inference and interpretation, which aims to organize and interpret the data in a clear and understandable way. Thus, the selected scenes portray vulnerabilities and risks for the neurodevelopment of the character Jeannette, in two important periods of development, childhood and pre-adolescence, interpreted in the light of neuroscientific knowledge.

## DESCRIPTION OF THE SCENES AND ANALYSIS

For the analysis, six scenes from the film were selected, based on traumatic and stressful events, experienced by Jeannette, the central character, which may have influenced her emotional and cognitive development. Next, the description of each scene is presented, followed by the respective interpretation, carried out in the light of neuroscientific knowledge.



### **Scene 1: Neglect of the child**

Scene 1 takes place in Jeannette's early childhood when she, when she feels hungry, asks her mother for food. In response, the mother suggests that the girl prepare her own lunch. During the attempt, Jeannette suffers an accident with fire on the stove. After hospitalization and a huge scar on his abdomen, the scene can be analyzed in the light of the attachment theory, explained mainly by Psychology, but also with foundations in Neuroscience. Developed by John Bowlby, the theory suggests that the early relationships between children and their caregivers profoundly influence their emotional and social development. According to the author (1988), the quality of attachment, established in childhood, can affect the way the individual builds and maintains interpersonal relationships throughout life, resulting in secure or unsafe bonding patterns. In Jeannette's case, maternal neglect may have contributed to the development of an insecure attachment, impacting her ability to trust others and regulate her own emotions.

### **Scene 2: Instability in Jeannette's childhood**

In Jeannette's childhood, her father, at one point, woke the children up in the middle of the night to escape creditors. The scene appears at 20:48 minutes of the film. Then, the film presents a time jump, showing the older children and complaining about the constant changes of city, which occurs at 21:54. According to Neuroscience, experiences of instability in childhood, as observed in the scenes in which the family made frequent changes to escape creditors and the respective insecurity due to this behavior, present potential risk indicators for Jeanette's neurodevelopment.

Studies indicate that unpredictable situations chronically activate the hypothalamic-pituitary-adrenal (HPA) axis and increase cortisol levels, possibly leading to difficulties in emotional regulation and greater vulnerability to stress (Shaffer; Kipp, 2013). In addition, Bowlby (1988) argues that the lack of a secure environment can compromise the establishment of attachment, negatively influencing the ability to trust others and the development of stable relationships in adult life. These adversities can also impact the prefrontal cortex, which is essential for future decision-making and planning (Siegel, 2012).

### **Scene 3: The father's recklessness in trying to teach his daughter to swim.**

The scene takes place in Jeannette's pre-adolescence, when her father insists that she learn to swim, throwing her into the deep part of the pool, at which point she almost



loses her life. This experience may have had a significant impact on their emotional development. According to Neuroscience, situations of extreme stress activate the amygdala, which can result in hypersensitivity to fear and consequent development of phobias or post-traumatic stress disorders (Ledoux, 1996). In addition, the lack of emotional support during the event can affect the formation of secure bonds, according to Bowlby's Attachment Theory (1988). However, depending on the context and the support received, this experience can also contribute to strengthening resilience and the ability to deal with adversity, as pointed out by Siegel (2012).

#### **Scene 4: Parental neglect**

Parental neglect occurs in Jeannette's pre-adolescence, when she and her older sister complain of hunger for having been without food and cooking gas for three days, while their father slept drunk on the sofa (42min12s). This situation probably has negative impacts on their emotional development, given that the lack of basic resources and negligence activate the stress system, increase cortisol levels, impairing emotional regulation, which can result in disorders such as anxiety and depression (Siegel, 2012; Shaffer; Kipp, 2013). In addition, the absence of emotional security can lead to the development of insecure attachment patterns, as described by Bowlby (1988).

#### **Scene 5: Facing the brothers in a hostile environment**

Still in her pre-adolescence, Jeannette and her siblings were forced to spend a weekend at their grandmother's house, an authoritarian and unpleasant figure. During this period, Jeannette caught her grandmother trying to abuse her brother, a traumatic experience that highlights potential risk indicators for her socio-emotional development.

According to Neuroscience, trauma alters the amygdala and hippocampus, areas of the brain associated with fear and memory, which can result in emotional difficulties and greater vulnerability to post-traumatic stress disorder (PTSD) (Ledoux, 1996; Siegel, 2012). In addition, the lack of support and protection can generate insecure attachment patterns, affecting the ability to form healthy relationships (Bowlby, 1988).

#### **2.3.6 Scene 6: Family tension and unstable environment**

In scene number six, the children witness, at a certain point, an aggressive argument between their parents, highlighting family problems and the troubled environment due to

financial and emotional difficulties (1h8min54s). The stress caused by these conflicts increases cortisol levels, impacting areas of the brain responsible for emotional regulation and decision-making (Siegel, 2012). This type of hostile environment can impair the formation of secure attachment patterns, in the case of Jeannette's reality, increasing vulnerability to emotional disorders, such as anxiety and depression (Bowlby, 1988; Scheffer; Kipp, 2013).

## STUDY DISCUSSION

Initially, it should be emphasized that Neuroscience explains that lived experiences activate brain areas, such as the amygdala and prefrontal cortex, affecting stress regulation and the formation of secure bonds, in addition to increasing vulnerability to disorders such as anxiety, depression, and post-traumatic stress disorder (PTSD). The analysis of the scenes reveals how experiences may have contributed to the development of the individual's personality and biopsychosocial functioning, directly reflecting on the construction of essential skills in adult life, such as the ability to face challenges and, especially, on the quality of affective relationships, favoring, in many cases, the establishment of insecure attachment patterns throughout life.

With this, Neuroscience makes it possible to understand how early adversities, related to neglect and abuse, interfere in the child's neurodevelopment. The toxic stress resulting from these situations causes a prolonged activation of the stress response, with elevated cortisol levels, affecting brain areas that are fundamental for emotional regulation and behavior control. This alteration of brain plasticity can lead to deficiencies in emotion regulation, compromising the formation of healthy bonds and the development of effective coping strategies (Shonkoff *et al.*, 2012).

The film also highlights how the absence of a stable and loving family environment can impair the formation of identity, make it difficult to adapt to the social environment and compromise mental health. The scientific literature indicates that children and adolescents who experience these types of adversities are more likely to develop disorders, such as depression, anxiety, and misconduct (Lima Camargo *et al.*, 2017). On the other hand, resilience, understood as the ability to overcome difficulties, is an important factor that can be observed not only in the main character, but also in her siblings. Neuroscience, on the other hand, suggests that certain aspects, such as social support and coping mechanisms,

can help restore or strengthen the human mind, promoting a healthy adaptation (Lima Camargo, *et al.*, 2017), although early trauma has significant impacts.

The negligent, abusive, and unstable family environment experienced by Jeannette certainly had an impact on her physical, emotional, and cognitive development. However, it is important to note that, despite the adversities faced throughout childhood and adolescence, the character demonstrates remarkable emotional resilience. Far from developing a mental disorder in an evident way, the film shows his ability to face difficulties with strength and autonomy, rebuilding his life and seeking paths different from those traced by his family.

Thus, the analysis must consider not only the negative aspects of the environment in which they grew up, but also their ability to overcome and personal growth in the face of adversity. Still, it is undeniable that the context in which it was raised exerted a strong influence on its trajectory. Their parents, disconnected from social norms, did not meet their children's basic needs, such as food, security, and education, generating a context of toxic stress. According to Perry and Szalavitz (2007), these conditions alter brain architecture, impairing skills such as emotional regulation, learning, and bonding. Therefore, the absence of educational and social stimuli, combined with intense stress, can compromise the development of the prefrontal cortex, an area linked to planning, problem solving, and emotional regulation (Shonkoff; Phillips, 2000).

In addition, chronic hyperactivation of the HPA (hypothalamic-pituitary-adrenal) axis, triggered by the absence of parental support, may possibly have elevated cortisol levels, predisposing Jeannette to frequent fight-or-flight responses (McEwen, 2007). This scenario may also have intensified the activation of the amygdala, linked to the processing of fear, especially in traumatic events, such as the episode in which her father threw her into the water to learn to swim. The inconsistency between her father's motivational speeches and the inability to provide emotional stability may have triggered a cognitive dissonance in Jeannette. According to Festinger (1957), this incoherence hinders the integration between emotion and reason, compromising the development of a healthy self-esteem and a solid identity. As a result, the lack of social interaction with people outside the family reinforced Jeannette's emotional dependence, making it difficult for her to perceive the possibility of breaking this cycle.

In this wake of different negligences, the risk indicators present in Jeannette's childhood and adolescence are clear: parental carelessness, family instability, poverty, and

food insecurity. These conditions, according to Sapolsky (2004), are associated with chronic activation of the HPA axis and the development of psychological disorders throughout life. The environment of constant conflict and exposure to dysfunctional behaviors negatively affects executive functions and emotion regulation (Pasian, *et al.*, 2013). There is no doubt that poverty and lack of educational stimuli amplified Jeannette's vulnerabilities, affecting important aspects such as learning, socialization, and emotional well-being during childhood. However, it is essential to highlight that these difficulties did not completely define it. Throughout the film, it is observed that, despite the limitations and adversities, the character develops internal resources that allow her to resist and transform her reality.

In this context, studies on resilience, such as those by Rutter (2013), highlight the importance of support networks in coping with adversity, a factor absent in Jeannette's life during much of her childhood. Even so, her trajectory reveals that, even without this support, she developed internal mechanisms that worked as strategies for overcoming. These personal resources, although rare in such extreme contexts, demonstrate the complexity of individual paths in the face of adversity.

In addition, scientific evidence indicates that highly adverse environments can compromise neurodevelopment. According to Perry (2007), continuous exposure to toxic stress impairs the formation of neural connections, affecting functions such as memory, emotional control, and the ability to deal with challenges.

In this way, the scenario portrayed in the film exemplifies, in a striking way, the effects of a dysfunctional family and social environment, highlighting how the combination of neglect, deprivation, and lack of support can generate significant vulnerabilities to mental health and well-being throughout life. On the other hand, new knowledge, coming from Neuroscience, offers promising ways to minimize the impacts of these adverse experiences and promote healthy development, especially when applied in contexts of vulnerability, such as the one experienced by Jeannette.

The creation of a positive and welcoming environment is essential to favor emotional and cognitive development, according to Shonkoff and Phillips (2000), considering that emotionally safe environments stimulate learning and the formation of healthy neural connections. In addition, Kolb and Whishaw (1998) highlight that scenarios that encourage curiosity and exploration strengthen brain plasticity and cognitive abilities.

The implementation of socio-emotional education programs, according to Greenberg et al. (2003), are effective strategies to teach skills such as empathy, conflict resolution and

emotional regulation, contributing to mental health and social behavior. In Jeannette's case, participation in group activities, such as sports or community projects, could provide a support network, strengthening positive social interactions and essential emotional skills (Rutter, 2013).

In this context, according to Nesi, Ferreira, Dias, Bernardo and Andrade (2024), the presence of a qualified professional in Neuroscience in schools, capable of intervening in child mental health issues, is fundamental. The combination of neuroscientific and pedagogical knowledge allows for the identification of early signs of emotional disorders and the implementation of effective interventions in the school environment. This performance is essential to ensure not only academic success, but also the emotional balance of children. Thus, the integration between Neuroscience and Education is a promising strategy to deal with the challenges of contemporary teaching, making the advancement of knowledge about the functioning of the central nervous system enable the creation of more effective pedagogical approaches, whether related to cognitive or emotional aspects.

Another relevant intervention is cognitive-behavioral therapy (CBT) which, according to Beck (2011), helps in the restructuring of negative thoughts and the development of coping skills. In addition, art therapies, such as art and music, are effective in emotional expression and trauma treatment, stimulating brain areas linked to creativity and emotional self-regulation (Stuckey & Nobel, 2010). In addition to these aspects, parental education also plays a crucial role in the creation of a healthy environment, such as programs for parents, as indicated by Siegel and Bryson (2011), as they promote interactions that strengthen healthy neural connections in children. Perry (2002) reinforces that the active involvement of parents can mitigate the effects of neglect and environmental stressors, providing a solid foundation for healthy development.

Finally, family support groups and community initiatives can reduce the social isolation of families and offer essential emotional support. These networks promote the exchange of strategies and resources among community members, strengthening children's social connections and resilience (Perry, 2002). These interventions, based on Neuroscience, demonstrate great potential to transform challenging realities, such as that of Jeannette and other children, in similar contexts, offering opportunities for overcoming and healthy emotional and cognitive development.

Still, taking as a reference the *Arco de Maguerez*, used as a basic methodology, the following considerations are made:

Regarding the first stage of the methodology, called observation of reality, the analyzed film shows that it is possible to question parental neglect in all phases of the development of the central character. In the social context, it is observed that this reality often occurs due to multiple causes, not specified in this study.

Regarding the second stage, the key points, identified in the analyzed scenes, were listed in each of the six episodes mentioned. It is considered that the third stage of *the Arco de Maguerez*, called theorization, is contemplated in the dialogue established between the authors, which underlie the analyses related to the way Jeannette was educated and its consequences in adult life.

The fourth methodological stage concerns the solution hypotheses that, at first, were not established for this study. However, referring to Jeannette's life story, it is identified as a possible hypothesis for a solution: "If the character's parents had undergone a process of psychotherapeutic analysis, with adequate professional monitoring, they could have become healthy and self-realized people, providing an adequate education to their children". Following this same line of reasoning, for a healthy neurodevelopment, Jeannette would also need psychotherapeutic support, thus characterizing the application to reality, the last step proposed by Maguerez's methodology.

## **FINAL CONSIDERATIONS**

In summary, Jeannette's trajectory reflects the profound impacts that a dysfunctional environment can have on a child's neurodevelopment and mental health. However, her story also highlights the crucial role of resilience and neuronal plasticity in overcoming adversity, highlighting the brain's ability to reorganize itself and form new connections that can mitigate the effects of traumatic experiences. The search for a purpose and the bonds maintained with her siblings were determining factors in the character's trajectory, allowing her to overcome the challenges imposed by her initial context and achieve academic and professional prominence. These examples demonstrate that, although adversities can compromise development, adequate interventions, support networks and an enabling environment can transform realities. Thus, it is possible to promote well-being and integral development, even in scenarios marked by extreme vulnerability.

Therefore, to close this analytical reasoning, it is mentioned that, in this article, the film was contextualized to, based on the narrative, discuss broader and more current issues about the influence of family structure on development and mental health, emphasizing the importance of early interventions in order to reduce the effects of toxic stress and promote emotional development that is not only healthier, but also more valuable for the sake of a fuller and happier life.



## REFERENCES

1. Bardin, L. (2016). *Análise de conteúdo* (L. A. Reto & A. Pinheiro, Trans.). Edição 70. (Original work published 1977)
2. Beck, A. T. (2011). *Cognitive therapy: Basics and beyond*. Guilford Press.
3. Berbel, N. A. N. (Org.). (2014). *Metodologia da problematização: Fundamentos e aplicações*. UEL/INEP.
4. Bordenave, J. D., & Pereira, A. M. (1982). *Estratégias de ensino-aprendizagem* (4th ed.). Vozes.
5. Bowlby, J. (1988). *A secure base: Parent-child attachment and healthy human development*. Basic Books.
6. Colombo, A. C., & Berbel, N. A. N. (1998). O Método do Arco de Maguerez como ferramenta didática no processo de ensino-aprendizagem. *Revista de Educação Continuada*, 10(2), 25–40.
7. Eagleman, D. (2015). *O cérebro: A história de você* (L. S. D. & C. Pinto, Trans.). Objetiva.
8. Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford University Press.
9. Flick, U. (2009). *Desenho da pesquisa qualitativa*. Artmed.
10. Gerald, L., Smith, J., & Brown, T. (2017). Mindfulness-based interventions for mental health: A review. *Journal of Cognitive Therapy*, 45, 123–135.
11. Greenberg, M. T., Domitrovich, C. E., & Barton, H. (2003). The role of school-based social and emotional learning programs in promoting positive outcomes for children and adolescents. *American Psychologist*, 58(6), 467–474. <https://doi.org/10.1037/0003-066X.58.6-7.466>
12. Hernandez Sampieri, R., Fernández Collado, C., & Batista Lucio, M. P. (2013). *Metodologia da pesquisa* (5th ed.). Penso.
13. Kolb, B., & Whishaw, I. Q. (1998). *An introduction to brain and behavior*. Worth Publishers.
14. LeDoux, J. (1996). *The emotional brain: The mysterious underpinnings of emotional life*. Simon & Schuster.
15. Lima Camargo, I. M. J. A., Silva, M. R., Costa, L. H., & Carvalho, R. B. (2017). Resilience in children and adolescents exposed to abuse. *Journal of Child and Adolescent Psychiatry*. [Note: Missing volume/issue/page details; formatted with available information]

16. McEwen, B. S. (1998). Protective and damaging effects of stress mediators. *New England Journal of Medicine*, 338(3), 171–179. <https://doi.org/10.1056/NEJM199801153380307>
17. Nesi, E. P. B., Ferreira, S. B., Dias, M. A. D., Bernardo, A. P. M., & Andrade, K. R. S. (2024). Ansiedade e depressão na escola: O impacto na aprendizagem e bem-estar. *Revista Aracê*, 6(4), Article 287. <https://doi.org/10.56238/arev6n4-287>
18. Organisation of the United Nations. (2019). WHO guidelines for the health sector response to child maltreatment. United Nations in Brazil. <https://www.who.int/publications/m/item/who-guidelines-for-the-health-sector-response-to-child-maltreatment>
19. Pasian, M. S., Faleiros, J. M., Bazon, M. R., & Lacharité, C. (2013). Negligência infantil: A modalidade mais recorrente de maus-tratos. *Revista Brasileira de Terapias Cognitivas e Comportamentais*, 7(3), 33–47.
20. Perry, B. D. (2002a). Child maltreatment: A neurodevelopmental perspective. *American Journal of Psychiatry*, 159(8), 1234–1245. <https://doi.org/10.1176/appi.ajp.159.8.1234>
21. Perry, B. D. (2002b). Neurodevelopmental trauma and the developing brain. *Child and Adolescent Psychiatric Clinics of North America*, 11(2), 299–317. [https://doi.org/10.1016/S1056-4993\(01\)00009-3](https://doi.org/10.1016/S1056-4993(01)00009-3)
22. Perry, B. D., & Szalavitz, M. (2007). *The boy who was raised as a dog: And other stories from a child psychiatrist's notebook*. Basic Books.
23. PodeCinema. (2017). *O castelo de vidro - Sinopse*. <https://www.podecinema.com.br/filmes/o-castelo-de-vidro/>
24. Rutter, M. (2013). Resilience: Some conceptual considerations. *Journal of Adolescent Health*, 33(3), 1–10.
25. Sapolsky, R. M. (2004). *Why zebras don't get ulcers* (3rd ed.). Holt Paperbacks.
26. Shaffer, D. R., & Kipp, K. (2013). *Developmental psychology: Childhood and adolescence* (9th ed.). Wadsworth.
27. Shonkoff, J. P., & Garner, A. S. (2012). The lifelong effects of early childhood adversity and toxic stress. *Pediatrics*, 129(1), e232–e246. <https://doi.org/10.1542/peds.2011-2663>
28. Shonkoff, J. P., & Phillips, D. A. (2000). *From neurons to neighborhoods: The science of early childhood development*. National Academy Press.
29. Siegel, D. J. (2012). *The developing mind: How relationships and the brain interact to shape who we are* (2nd ed.). Guilford Press.

30. Siegel, D. J., & Bryson, T. P. (2011). The whole-brain child: 12 revolutionary strategies to nurture your child's developing mind. Delacorte Press.
31. Stuckey, H. L., & Nobel, J. H. (2010). The connection between art, healing, and public health: A review of the literature. American Journal of Public Health, 100(2), 254–263. <https://doi.org/10.2105/AJPH.2008.144881>
32. van der Kolk, B. (2014). The body keeps the score: Brain, mind, and body in the healing of trauma. Viking.