

**UNIVERSITY OF TARTU
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**NEUROSCIENTIFIC DISCOURSE IN MADELEINE
THIEN'S *DOGS AT THE PERIMETER***

BA thesis

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ABSTRACT

The present thesis analyses the function of neuroscientific discourse in Madeleine Thien's novel *Dogs at the Perimeter*. The aim of the thesis is to explore the role and importance of neuroscientific descriptions and medical stories in the novel with regard to diasporic historical trauma and its workings, and diasporic historical trauma attending and coping mechanisms. The analysis is done through the examination of the similarities between diasporic historical trauma and structural trauma, meaning brain damage or brain lesions, on the example of the neuroscientific discourse presented in the novel.

The present thesis consists of four parts: the introduction, two core chapters and the conclusion. The introduction highlights the general importance of the literary work in the light of the European migration crisis and waves of Syrian migration to Canada in addition to context-specific trauma attending. Furthermore, it gives an overview of Thien's novel and discusses some of its aspects that are necessary for the analysis of the main character's trauma.

The first core chapter gives an overview of the past scholarship on Thien's novel as well as divides the reception into four different categories of critical approach: how trauma is narrated in the novel in a new way and what is the importance of such narration, what is the social, cultural and (geo)political impact of the novel, how the novel calls into question the Western trauma frameworks, and what is the purpose of the scientific knowledge found in the novel.

The second core chapter is the empirical part of the thesis. The chapter analyses the function of neuroscientific discourse in the novel on the example of neuroscientific descriptions and medical stories. In this part the similarities between diasporic historical trauma and structural trauma are analysed through the relationship between neuroscience and the main character Janie's trauma. By doing so, the chapter firstly, aims to explore the importance of neuroscience as a complementary epistemology in understanding, processing and attending to diasporic historical trauma. Secondly, by creating the connection between historical diasporic trauma and structural trauma, the chapter seeks to evaluate both the contemporary Western trauma attending frameworks and self-developed trauma coping mechanisms through the novel by illustrating their possible limitations.

The conclusion summarises the main findings of the thesis.

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INTRODUCTION

Today, more and more countries are affected by the continuing influx of refugees and immigrants, including Canada (#WelcomeRefugees: Canada Resettled 2017: para. 1, 8). Only three years ago Europe witnessed one of the biggest migration crises since the Second World War, and Canada itself helped more than 25 000 Syrian refugees to settle within the time period of approximately four months between late 2015 and early 2016 (Europe's 2017: para 1–2; #WelcomeRefugees: Key Figures 2017: para. 1). In Europe, there were numerous debates on how to respond as fears arose that the vast inflow of refugees or asylum seekers would contribute to the collapse the social order. Upon accepting foreign incomers, it is thus important to establish certain rules to make the transition for both parties as smooth as possible. Helping the refugees, asylum seekers or emigrants is not only a question of humanity, but it is also a question of social order, including public and national security and economy. This can be particularly true of the refugees and asylum seekers who have undergone a (manifold) traumatic experience. If the accepting country does not provide adequate professional tools on the example of trauma frameworks to attend to their trauma, it is possible that the unprocessed and -attended emotions may eventually unfold in a different manner. The built-up sorrow, frustration, fear or grief may result in violence or elevated introversion or depression, both of which are dire threats to public security and economic growth. Such threats, however, can undermine the prosperity of both the community and country.

The unprocessed emotions that may have arisen from unattended trauma are also highlighted in Madeleine Thien's second novel *Dogs at The Perimeter* which was published in 2011 (Lorre-Johnston and Baird 2016: para. 5). The novel focuses on a variety of themes, most notably trauma and loss, which have received critical attention from several scholars (e.g., Troeung 2013, Beauregard 2014, Morris 2014, Aguila-Way 2014).

The storyline of *Dogs at The Perimeter* which moves between the past and present follows a character named Janie from being an eleven-year-old Cambodian girl who fled to Canada because of the Cambodian genocide to her living as an apparently successful first-generation immigrant who works as a neuroscientist in the Montreal Brain Research Centre.

The present setting of the novel focuses on Janie as an adult who has established herself as an electrophysiology expert in Montreal and lives a seemingly rewarding life. She has also a family, a husband and son, despite them not living together anymore. However, the nonlinear narrative of the novel as well as Janie's flashbacks and behavioural changes contradict the notion of this fulfilling life. *Dogs at the Perimeter* reflects the grim reality of Janie's psychological breakdown after the disappearance of her friend and colleague Hiroji. Janie's suppressed emotions and the re-collection of past memories introduce the reader to the past setting of the novel which takes place a little prior and during the violent Khmer Rouge¹ regime under which the people were forced to subdue to the authority and adopt new identities. The genocide which was carried out under the Khmer Rouge causes Janie to have multiple identities or self-fragmentation, meaning that her identity has been broken into several "fragments" or individuals because of the traumatic event – young Janie before the genocide with her actual name left unknown to the reader, Janie during the genocide as a girl named Mei and Janie as she is renamed shortly after her arrival in Canada where she is a brain researcher in the narrative present of the novel. In other words, Janie has multiple selves that are marked by different personas. The haunting memories of the genocide, which was carried out by the Angkar², continue to haunt Janie thirty years later after escaping Cambodia as she is unable to reconcile her

¹ The Khmer Rouge regime or the Democratic Kampuchea DK was in power in Cambodia between 1975 and 1979. (Beauregard 2014: 169; Morris 2014: 310)

² 'The Ankar' or 'the Organisation' was the collective term used for the administration or the leaders of the Khmer Rouge regime (the Democratic Kampuchea DK). (Morris 2014: 310; Thien 2017: 72; Chhim 2013: 168)

many selves. Janie tries to suppress her trauma which, however, has its consequences, such as having difficulties with expressing emotions or conveying thoughts.

As it was not mentioned in the novel, we can only assume that when Janie arrived in Canada as a young refugee, she was not provided professional trauma attending, either on the example of a trauma psychologist or posttraumatic stress disorder (PTSD) therapist, which would have helped her to process her traumatic emotions already in early stages. It is also possible that at the time the contemporary coping tools or medical care were not very efficient. In any event, Janie seems to have been left without professional help which has a profound impact. The confusion, helplessness and loss of control that arises from the unprocessed trauma triggers alcohol consumption, anger which turns into a mindless act of violence, isolation, and silence as a mode of protection. It appears that these reasons were also the cause why Janie needed to live separately from her family and adopt self-developed coping mechanisms.

The present BA thesis studies the function of scientific discourse, or more specifically, neuroscience on the example of neuroscientific descriptions or medical stories in Madeleine Thien's novel *Dogs at the Perimeter*. This work aims to explore the importance of neuroscience as a complementary means in understanding, processing and attending to diasporic historical trauma. In order to achieve this goal, firstly, the relationship between the main character Janie's trauma and neuroscience is explained, i.e. how Janie uses neuroscientific descriptions and patient stories to allow her to decipher her trauma. Secondly, following from that approach, the similarities between structural trauma, meaning brain lesions or brain damage, and embodied trauma, meaning diasporic historical trauma are identified and explicated.

Through the examination of the connections between brain damage and diasporic trauma, the present thesis also evaluates both the contemporary Western trauma attending

frameworks and self-developed trauma coping mechanisms by casting light on their possible limitations. By doing so, this study additionally shows how Madeleine Thien's novel suggests challenging the universal applicability of contemporary Euro-Western trauma frameworks of diagnosis and attending in the context of diasporic historical trauma.

1. SCHOLARSHIP ON *DOGS AT THE PERIMETER*: A LITERATURE REVIEW

1.1 Introduction

Madeleine Thien's *Dogs at the Perimeter* is a novel within a growing number of texts which addresses the atrocities of the 1970s Cambodia and their aftermath (Beauregard 2014: 176). This literary piece has received special attention from various scholars as it encompasses a variety of telling thematics. Early scholarship is concerned with the theme of the limitations of language (e.g., Brand 2011). Later criticism of *Dogs at the Perimeter* mostly directs its attention to responsibility (most notably, perhaps, Troeung 2013, but also Morris 2014), individual and collective memory (e.g., Morris 2014, Aguila-Way 2014), geopolitics (e.g., Troeung 2013), transculturality (e.g., Morris 2014) and types of witnessing (e.g., Morris 2014, Troeung 2013). Yet, the focus on loss and trauma prevails in later analyses (e.g., Troeung 2013, Morris 2014, Aguila-Way 2014). In this literature review I will summarise and evaluate the articles that have highlighted the importance of this novel on a literary (e.g., Beauregard 2014, Kabesh 2011, Brand 2011, Aguila-Way 2014), social (e.g., Brand 2011, Morris 2014, Troeung 2013, Aguila-Way 2014), cultural (e.g., Troeung 2013), political (e.g., Morris 2014, Troeung 2013, Aguila-Way 2014), and neuroscientific (Aguila-Way 2014) level.

I have chosen the following articles because they have highlighted the importance of the novel on a social scale by addressing the issues of immigration and trauma as well as the role of scientific discourse in understanding and processing trauma which is the topic that I proceed to further explore in the empirical part of my thesis.

1.2 Novel Approach to Narrating Trauma

Dogs at the Perimeter has not always received constructive criticism or approval as various reviews seem to have emphasised the complexity and incoherency of the narrative, therefore considering it as a perplexing read (Beauregard 2014: 169, 170). It is true that Thien uses a somewhat complex, non-sequential narrative which intertwines contrasting times, namely the past and the present, as well as locations and overlapping stories (Beauregard 2014: 172; Morris 2014: 310). She has used a similar technique in her other novel *Certainty* where the narrative operates within various periods of time using different devices, for example images, flashbacks and constant recalling of events (Kabesh 2011: 220). I agree that this may cause confusion among the readers, however, the peculiarity of the narrative plays a crucial role in supporting the social and cultural ideas which pervade the novel. As Dionne Brand (2011: para. 1, 3) suggests, Madeleine Thien's fragmentary narration recognizes the limitations of language and acknowledges that such essentially tragic stories as those of the main characters require *new* [emphasis added - Ö.P.] outlets to evoke uneasy feelings. Brand (2011: para. 3) explains how contemporary language (e.g., journalistic language) which is used to describe human despair and atrocities has become so commonplace that it has no significant effect upon an individual. Hence, Thien's literary narrative might serve as an alternative "means of transport" to awaken the readers' emotions (Brand 2011: para. 3).

Another scholar Guy Beauregard believes that such complex structure of the novel that blends different stories and times may enable the readers to understand the "distinct yet shared forms of loss that cut across received forms of identity" (2014: 178). This quote implies that the characters of *Dogs at the Perimeter* experience similar losses which manifest through one another, for example the disappearance of Hiroji's brother causes or educes in a way a self-fragmentation or disappearance of Janie herself (Beauregard 2014:

178; Brand as cited in Beauregard 2014: 178). However, Beauregard is not the only scholar who believes that Thien's inherently fragmentary narrative is a device which is designed to convey certain notions of loss. Based on the analysis of Thien's other novel *Certainty*, Lisa Kabesh (2011: 220–221, 234) argues that the temporality or structure of the author's narrative portrays the characteristic temporality of the feeling of losing something or someone. Kabesh (2011: 220) adds that *Certainty* presents an alternative viewpoint on the conceptualisation of loss (via constant engagement with it) and therefore trauma in time. It offers an idea of different forms of loss, such as individual and communal loss (Kabesh 2011: 220–221). I believe that the idea of multiple types of loss is also evident in *Dogs at the Perimeter* as it showcases communal loss, such as not being able to bury the loved ones properly, and individual loss, such as “spiritual rupture” or broken identities (Troeng 2013: 162–163).

Tania Aguila-Way (2014) discusses how Madeleine Thien uses her non-linear narrative as an instrument to implicitly convey the neurobiology of trauma. Namely, the fragmented structure of *Dogs at the Perimeter* has the shared characteristics with the synaptic links of the brain. The way the novel is composed portrays the synaptic connections and how they are created or strengthened by different experiences, although Thien shifts a greater focus towards “malconnections” that participate in the creation of identity through the various sections of the novel. As each section is titled by a different character and Janie has two separate sections, Janie and Mei, in her name, *Dogs at The Perimeter* illustrates how trauma can alter or destroy the neural networks that participate in the memory processes which form the basis for “a person's sense of self.” (Aguila-Way 2014: 22)

1.3 Social, Cultural and (Geo)Political Impact of the Novel

Despite the critics arguing (Beauregard 2014: 170) that such complex and tragic stories as that represented in *Dogs at the Perimeter* should be told candidly, the novel with its characteristic narrative still proceeds to address vital social, cultural and political questions regarding the issues of refugees, human rights, justice and responsibility.

As mentioned above, *Dogs at the Perimeter* or any other analogous literary work on trauma can evoke certain feelings, such as empathy, recognition, action, and understanding as the readers' imagination is stimulated through text (Brand 2011: para. 3; Echlin as cited in Troeung 2013: 152; Troeung 2013: 152, 153). Robyn Morris (2014: 310–312, 318–319, 321) and Y-Dang Troeung (2013: 150–152, 164) note that by triggering the imagination via combining fiction and historical reality, Thien's novel can stimulate emphatic responses in individuals, communities and nations to make them more aware of injustices, unjust legislation, human rights, and "immigrant otherness". Such literary pieces provide a way to relate to the refugees, more specifically to their problems or memories (Morris 2014: 312; Bennett as cited in Morris 2014: 312; Mirzoeff as cited in Morris 2014: 316; Kaplan as cited in Morris 2014: 319).

Moreover, the aforementioned reactions enable the readers to assume shared responsibility (Troeung 2013: 152). *Dogs at the Perimeter* underlines such collective responsibility by illustrating how the story of Cambodia and the Cambodian genocide is in fact an international and topical story which various countries, including Canada and the United States, are involved in (Troeung 2013: 152, 153, 164). This means that the Cambodian genocide also affects or has been affected by these countries because they are either directly or indirectly linked to it (Troeung 2013: 153). According to Troeung (2013: 150–152, 155–156), Thien draws attention to the West's apparent complicity in Cambodia's past and the idea of collective responsibility by using such methods as the

overlapping temporalities and similar strong emphasis on the different stories of different characters. Hence, *Dogs at the Perimeter* shows how literature may serve as an initiatory tool to prompt mutual parties to become accountable for or aware of human-induced atrocities on a global scale, thus also contributing to our understanding of the workings of global networks and macrohistories (Troeng 2013: 150, 152, 156; Thien as cited in Leighton as cited in Troeng 2013: 156; Aguila-Way 2014: 18, 23).

On the one hand, Thien's novel explores the impact of the genocide on its survivors, especially on children, as her novel may prompt the readership to re-evaluate the ways genocide has both strong psychological and physical effect on an individual (Morris 2014: 318). An example of this would be the gap between what a person has seen or witnessed and what they actually know (Berger as cited in Morris 2014: 313; Morris 2014: 314). On the other hand, *Dogs at the Perimeter* demonstrates how the experience of trauma is not only entirely subjective, nor does it only have subjective repercussions, but that it also has "familial, communal, national and international repercussions" (Morris 2014: 311). Madeleine Thien shows how such atrocities can have reverberations within international communities by linking the lives of the characters through shared experiences that were shaped by interrelated outside forces such as the United States bombings of Tokyo and Cambodia and the post-war Japanese migration to Canada (Beauregard 2014: 178–179). This, however, poses a question – how can genocide survivors cope with trauma, particularly children who are not adequately equipped to do so, and do the modern Western trauma frameworks take into consideration the manifold nature of transcultural trauma in their workings (Morris 2014: 318)?

1.4 Inadequacy of Western Trauma Frameworks

Trauma and healing require us to keep in mind that people from distinct cultural and historical backgrounds are different in terms of upbringing, social status and norms, beliefs and traditions. Thus, for example a typical Western framework or model of trauma, healing and therapy which operates on “the closed interiority of a trauma” may fail in bringing the desired results (Troeng 2013: 152, 157; Schaffer and Smith as cited in Troeng 2013: 156–157). The ‘closed interiority’ here implies that the framework is based on psychic subjectivity and does not consider the impact of social, cultural and political factors that are constantly influencing each other (Schaffer and Smith as cited in Troeng 2013: 158). What is more, it ignores the fact that trauma may also have a physical impact (Aguila-Way 2014: 21, 22). Therefore, the efficiency (and limitations) of such framework(s) in terms of their applicability should be called into question. *Dogs at the Perimeter* with its novel approach to narrating trauma poses critical questions about the alternative ways of processing trauma by challenging the ideas of different frameworks for dealing with traumatic subjects (Troeng 2013: 156–157).

In 1980s and 1990s’ Canada the mental health services failed to deal with the trauma of the Cambodian refugees, most of whom had spiritual beliefs, because the health practitioners had no prior knowledge of Khmer Buddhist oriented culture in general, let alone its key cultural concepts or faiths (Troeng 2013: 157). Therefore, the trauma or uncertainties which were precipitated by communal traditions, such as the impossibility of proper burial³, were not duly attended to (Troeng 2013: 157). Furthermore, the talking cure method, i.e., talking about past experiences, used in Western mental health practice, in

³ Not being able to locate, bury their family or perform burial rituals caused Cambodians mental suffering because the dead members of the family were believed to haunt if they were not given a proper burial. Improper burial meant that the souls of the dead would not pass into a different body after death. The need for proper burials and mourning might in fact have been more important for the survivors than convicting criminals responsible for the genocide. (Troeng 2013: 157, 160; Um as cited in Troeng 2013: 160; Derrida as cited In Troeng 2013: 160)

fact worsened the situation (Troeung 2013: 158). Discussing one's trauma with a complete stranger ran essentially counter to Khmer beliefs and was thus seen as something culturally inappropriate (McLellan as cited in Troeung 2013: 158). Apart from cultural proprieties, silence was also simply a mode of survival during the years of the genocide (Ong as cited in Troeung 2013: 158; Troeung 2013: 158). This signals once again the importance of the socio- and political-historical context that needs to be kept in mind when working on diasporic trauma. To understand the Cambodian genocide and its aftermath or to begin to take responsibility, one should either turn to Khmer Buddhist spiritual framework or reassess the generic framework of trauma and healing, including the principle of the talking cure, as the psychoanalytic Western model tends to be one-sided due to disregarding the socio-historical context and distinct institutional, political, and cultural practises of Buddhist Asia (Troeung 2013: 156–157, 161; Schaffer and Smith as cited in Troeung 2013: 158; Aguila-Way 2014: 21).

Dogs at the Perimeter challenges the notions of Western psychiatric and biomedical modes in attending to trauma by making use of the figures of disappearance and ghost haunting, the latter of which is especially characteristic of the beliefs of Buddhist Asia (Troeung 2013: 152, 157). Hence, it can be said that Thien's novel challenges the ideas of two different epistemologies - the Khmer Buddhist understanding of trauma and healing and the generic Western ideas of trauma narration and recovery (Troeung 2013: 152, 157). The Western psychoanalytic model can be limiting when applied to historical trauma⁴ (e.g., the Cambodian genocide) experienced by diverse cultures which are suffused with different patterns (Troeung 2013: 156; Schaffer and Smith as cited in Troeung 2013: 156–157; Ong as cited in Troeung 2013: 161). Yet the presence of cultural diversity in the novel

⁴ The concept of historical trauma as used in this thesis is based on Dominick LaCapra's notion of it as a specific traumatic experience related to particular historical limit-events, such as the Holocaust, slavery, apartheid, and Hiroshima and Nagasaki bombings (1999: 722–724). Academic literature on historical trauma also includes the Khmer Rouge violence in Cambodia (Danieli 1998).

highlights another important facet of trauma understanding. As the Buddhist Asian comprehension of surroundings and life is largely based on religion or philosophy, the traditions or beliefs of Buddhism should not be neglected during the healing of trauma as a failure to consider these may possibly cause unintentional yet additional suffering (Troeng 2013: 156–157). This, however, indicates that diasporic trauma demands different means of attending (Troeng 2013: 150, 157).

I believe that the novel exemplifies the possibility of cross-cultural discussions of trauma and processes of healing as it fosters a relationship between Eastern Buddhist spirituality and Western biomedicine, more specifically neuroscience, and therefore generates the idea of how the Western neuroscientific discourse can serve as a complementary epistemology in understanding diasporic trauma. What is more, *Dogs at the Perimeter* possibly fields the direct question whether the Western frameworks are universally applicable, irrespective of culture and traditions. (Troeng 2013: 157, 161–162)

1.5 Scientific Knowledge in the Novel

As Madeleine Thien's *Dogs at the Perimeter* suggests that the adequacy of universal trauma frameworks should be called into question, I believe it is beneficial to probe the possibility of scientific discourse for understanding as well as processing historical trauma and its aftermath within diasporic communities more effectively. Aguila-Way (2014: 18, 19, 20, 22, 23) argues that despite the author's treatment of scientific knowledge as a completely inadequate tool to process uncertainties or traumatic experiences, Thien still offers an understanding of how life sciences could allow individuals or diasporic communities to formulate alternative and additional epistemologies to engage with their

context-specific trauma to understand, mitigate or recover from it. However, Aguila-Way (2014) also draws special attention to exploring the role of neuroscientific knowledge from the perspective of the globality which allows in turn to discuss the place of the diasporic communities within these intricated global networks.

In the current “global risk society⁵” sciences can help to comprehend risks stemming from health hazards (Beck as cited in Aguila-Way 2014: 18, 19). Due to its constituent nature regarding the globality, science has also become present in literature as a way to imagine the globalized structures, for instance, by following the example of scientific tropes or knowledge (Heise and Alaimo as cited in Aguila-Way 2014: 18; Aguila-Way 2014: 18, 23). Madeleine Thien herself has used scientific knowledge or references by mentioning various neuroscientists (e.g., Heisenberg) who have each established a conceptual framework that tries to grasp the multi-levelled interactions of the world that take place simultaneously (Aguila-Way 2014: 23). Aguila-Way (2014: 23) suggests that in this manner, Thien demonstrates how science can be a useful tool in constructing and depicting the global functionally during the times of uncertainty. Since mapping “the [dynamic] global” poses a challenge in itself as “resolution gaps⁶” are common in human brain, Thien uses *Dogs at the Perimeter* with its narrative and other components, such as historical facts and scientific knowledge, to portray⁷ this globality better and allow individuals to comprehend the different aspects of this totality at the same time (Jameson

⁵ According to Beck (as cited in Aguila-Way 2014: 18), contemporary global society is exposed to constant public health risks which makes it thus additionally a global risk society.

⁶ Aguila-Way draws attention to the relationship between the globality and individual sense of self by highlighting the term ‘resolution gaps’ which is connected with the inability of humans to relate both spatially and socially to everything that is happening around them. Fundamentally, the gaps represent the process of exposing and differentiating between smaller components within a complex structure that get lost in the process of comprehending the totality by using any preferable yet available means, such as science or literature. (Jameson as cited in Aguila-Way 2014: 18; Aguila-Way 2014: 23–24) In optics, resolution gaps are the gaps that appear in optical instruments due to the diffraction of light which influences/undermines the general resolution, and therefore also the ability to differentiate the small components of the objects (Paris 1988: 53; Aro 2006: 504).

⁷ As Aguila-Way (2014: 23–24) notes, both narrative fiction and science are fundamentally concerned with trying to imagine and represent the complex processes that occur simultaneously at multiple levels as a whole.

as cited in Aguila-Way 2014: 18; Aguila-Way 2014: 23, 24). Thus, she encourages to reframe science as a possible instrument to capture these gaps and subsequently contributes to rethinking the “collaborative modes of knowledge making” that are crucial in comprehending the different aspects of the totality (Aguila-Way 2014: 19, 24).

However, not only does Thien use science to explore the globality, but she also draws on it to analyse the diasporic societies and their place within these global networks (Aguila-Way 2014: 19). By using both the literal language of neuroscience and its imagery, Thien specifically demonstrates how historical trauma and modern risk society converge within a global narrative with respect to diasporic communities (Aguila-Way 2014: 19). Thus, by doing this, the novel shows how (neuro)science, interwoven with fiction, can be used as an effective tool to unify the different complex interactions of the world that take place simultaneously in order to make sense of the global system in general and the aftermath of historical trauma in particular (Aguila-Way 2014: 19, 23, 24).

Tania Aguila-Way (2014: 20) notes that according to various neuroscientists, neurobiology itself could be largely seen as the basis of human’s individual self. This speculation is based on the fact that memories and feelings which are an essential part of human identity are preserved in small junctions between nerve cells within the brain (Aguila-Way 2014: 20). However, these neural networks are resilient, meaning that they can both break down or malfunction due to traumatic or unsettling experiences and establish new connections that are created by new experiences (LeDoux as cited in Aguila-Way 2014: 20; Aguila-Way 2014: 23). Thien addresses such “neuroscientifically informed conception of selfhood” by exploring this somewhat fragile yet resilient nature of synaptic connections with the help of scientific discourse, traumatic events and memories (Aguila-Way 2014: 20–21, 23). Namely, *Dogs at the Perimeter* poses a question whether there is an essential self which is maintained even if the neurologic connections cease to function,

for example, due to trauma (Aguila-Way 2014: 20). What is more, Thien shows how trauma-induced effects are no less profound upon the human brain than physical damage, sometimes causing self-fragmentation or learned fear responses, and therefore offers an insight into the parallels between structural and historical trauma-driven damage, such as trauma influencing the region of the brain where emotional responses and implicit memory (cf. explicit memory) are produced (Aguila-Way 2014: 21, 22, 23). Implicit memory in itself is a type of memory that allows a person to perform tasks without conscious awareness or effort (Aguila-Way 2014: 22; Kandel as cited in Aguila-Way 2014: 22). For example, memory for skills is a part of implicit memory (Sutton et al 2010: 216).

In the following chapter, I continue to analyse the role of Western neuroscientific discourse in Madeleine Thien's *Dogs at the Perimeter* as a device to visualise and understand diasporic historical trauma better in terms of self-fragmentation and language loss. Subsequently, I am going to explore the topic of self-developed trauma coping mechanisms within the novel and cast light on the issue that without proper medical trauma attending, self-developed mechanisms for living with trauma may eventually prove unproductive. All things considered, I am hoping to open a broader dialogue about the ways in which *Dogs at the Perimeter* shows how diasporic historical trauma necessitates complementary ways of trauma attending.

2. THE FUNCTION OF NEUROSCIENTIFIC DISCOURSE IN *DOGS AT THE PERIMETER*

2.1 Introduction

In *Dogs at the Perimeter*, Madeleine Thien draws a parallel between diasporic historical trauma and brain lesions, also discussed by Aguila-Way (2014), by probing the different connections of the brain and how their function changes the person who has undergone a traumatic experience. Thien uses the various stories and descriptions of the brain diseases (e.g. Alzheimer's) of the Brain Research Centre's patients in *Dogs at the Perimeter* to show how synaptic connections participate in the creation of the self and how the neural networks of the brain areas are easily influenced by different traumatic events, either daily or sudden, such as brain damage or genocide. Such experiences may in turn cause brain connectivity malfunctions which, for example, have a significant impact on selfhood. I believe that not only has the author of the novel interwoven the various medical stories of the patients with the stories of the novel's characters for the sake of creating a daily environment for the main characters who work as neuroscientists, but such neuroscientific discourse, which manifests, for instance, in the diminishing of the linguistic abilities or the centre of the self, also allows the reader to grasp the workings of historical trauma submerged in diverse traditions, practises, social and political factors, and therefore, exposes the limitations of both Western trauma frameworks and the introduction of self-developed trauma coping mechanisms or behaviours.

The novel is a broader demonstration of the need for additional ways of attending to diasporic historical trauma in the context of mental health services since the Western trauma frameworks do not seem to fully take into consideration the manifold nature of the diasporic historical trauma (cf. literature review; Schaffer and Smith as cited in Troeung 2013: 158). The neuroscientific discourse of the novel allows to visualize the effects of

historical trauma better such as the multitude of identities or “spiritual rupture” (cf. Troeung 2013: 163), and thus, the novel examines the ways in which neuroscientific discourse may enable to create further dimensionality in trauma dialogue surrounding the ways of medically attending to diasporic historical trauma. I would like to emphasize once again that diasporic historical trauma entails a much deeper analysis in the Western societies, if not elsewhere, as the workings of this trauma require physicians to delve into cultural, societal, political, spiritual and behavioural differences of the patients, as well as recognize the possibility of the patient having multiple traumas simultaneously, such as spiritual rupture (self-fragmentation) and “spiritual disruption” which marks “the relationship between the living and the dead” (Agger 2015: 546).

2.2 Self-fragmentation and Synaptic Connections: The Effects of Diasporic Historical Trauma

As previously explained in the literature review, there is a possibility that brain synapses may store the self or identity due to their ability to encode and store feelings, memories and thoughts (Aguila-Way 2014: 20). If neuroscientists believe (Aguila-Way 2014: 20) that memories form a basis or a component of selfhood, then there is a possibility that memories also possess the quality of altering one’s identity. In a trauma-related scenario that is based on either direct or latent (cf. Cathy Caruth 1995) experiences, recollections of the past that are directly influenced by the workings of the neural networks can possibly cause self-fragmentation, and therefore, in turn, also confusion and a sense of loss. Thien alludes implicitly to the probing question of whether there is a self that remains permanently intact within our brain or ourselves or how our identity is subject to change⁸ after a traumatic event by composing an impassioned letter of one of the many patients that

⁸ See also Aguila-Way (cf. 2014: 20, 21).

suffer from brain lesion in the novel. Namely, a passage of the novel describes a man diagnosed with Alzheimer's disease, which is a memory disorder, sending Hiroji a letter where he asks the same aforementioned crucial question regarding his illness: "I would like to know which part of the mind remains untouched, barricaded, if there is any part of me that lasts, that is incorruptible, the absolute centre of who I am" (Thien 2017: 16; What Is Alzheimer's 2018: para. 1–2).

Jaan Aru explores in *Ajust ja arust* (2018: 16–20) the idea that each person is believed to have *at least* [emphasis added - Ö.P.] two selves at all times which are the "products" of the processes that take place within the brain, i.e. for instance of the relationship between the prefrontal cortex and other regions of the human brain. The prefrontal cortex is the primary area that serves executive functions, meaning that it controls reflexive behaviour by allowing to make conscious decisions, such as planning, and therefore it requires conscious thought and performance (Aru 2018: 16–17; Know Your Brain 2014: para. 3–4). However, sometimes such (rational) decisions are overruled by other parts of the brain that function without full awareness (Aru 2018: 16–19). This type of overriding may happen due to varying reasons such as fatigue or pleasure, which interfere with the work of the cortex (Aru 2018: 17–20). As a result, a person can become aware of behavioural changes because of the temporal incompetence of the prefrontal cortex which can be regarded as changes in personality or self (Aru 2018: 18–19). *Dogs at the Perimeter* conjures up this image of impulsive and automatic behaviour that occurs on automatic pilot by including a scene where Janie inflicts violence on her son Kiri (Thien 2018: 151–152). Unable to fathom what she has done, Janie describes herself as being overwhelmed with memories, images and thoughts that did not fit together in this moment "that seemed so large and inescapable" (Thien 2017: 151–152). This description indicates that Janie's prefrontal cortex had already been given an excessive amount of information to

process and subsequently, she was unable to consciously control her actions which resulted in her resorting to a sudden outburst of physical violence (Aru 2018: 19–20). Despite Aru (2018: 20) seemingly describing such incidents as commonly human, it is impossible to deny that Janie inhabits not only her rational and sometimes irrational self, but her selves, and therefore her modes of behaviour are also highly influenced by her upbringing, beliefs, experiences and traumatic realities which lay a foundation for a much deeper analysis of self-fragmentation in terms of neural circuits and the idea of more than two identities in the context of diasporic historical trauma.

Aru reveals that our self and behaviour are thus influenced by the simple, albeit paradoxically complex, synaptic connections of the brain and how strong these connections are on a daily basis (2018: 22). However, what if these neurologic connections that can already be considerably affected by such common states of mental or emotional restraint as stress or tiredness sever or break down as a result of structural damage that is far more serious by nature? Brain atrophies, or brain diseases such as Alzheimer's, typically cause a change in the networked interactions of the brain by destroying "the connections that help the cells communicate" (Watson 2018: para. 1; What Is Alzheimer's 2018: para. 12–13, 19). In other words, the brain cells simply cease to be (Alzheimer's Disease 2018: para. 1). The withering of such communication systems in one area causes changes also in the other regions of the brain (What Is Alzheimer's 2018: para. 13, 17). Sometimes these shifts can be irreversible, and therefore the questions of the Alzheimer's patient become eminently reasonable (What is Alzheimer's 2018: para. 13). How many cells have to become damaged in the process of physical injury before a person goes through a change in personality (Thien 2017: 16)?

I would like to suggest that Thien uses the concerns of the Alzheimer's patient as a device to create a juxtaposition between Janie's trauma and the impact of structural brain

injury (e.g. changes in behaviour) in order to allow the reader to comprehend the possibly shifting concept of selfhood in the context of diasporic historical trauma, and therefore creates a possible backdrop scenario to give political and social critique of the current cooperation between Western biomedicine and historical trauma attending for achieving optimal outcomes when it comes to facilitating healing or coping. Thien explores whether there are any similarities between actual brain damage and “emotional damage” through the experiences of several characters, one of them being the feeling of loss that accompanies the manifestation of multiple identities or self-fragmentation.

Janie’s childhood trauma has left her with many selves which prompts her to find a solution to navigate a way through an inner chaos. *Dogs at the Perimeter* shows how Janie, being a Buddhist Cambodian by upbringing and descent (Thien 2017: 73), is immediately forced to reimagine and create herself anew as the Khmer Rouge comes into power. Janie states: “Belongings were slid away /.../ and then finally our loyalties and *ourselves* [emphasis added - Ö.P.]” (Thien 2017: 39). The reader comes to learn that during the Khmer Rouge regime Janie was actually a girl named Mei (Thien 2017: 92–93), and before the Cambodian genocide Janie’s identity and name remains unknown. This fact can be regarded as significant for several reasons: it bespeaks about the embodied experiences that characterise (diasporic) historical traumas and their impact on the human psyche, and it allows the reader to realise that the issues, or more specifically the trauma that arises from such historical events is experience-specific and profound, and it has a long-lasting impact on the individual. Hence, it could be yet emphasized that such historical or diasporic historical trauma cannot solely be discussed in terms of psychic subjectivity.

The Khmer Rouge regime which opposed the maintaining of “old” selves because of state control reasons forced people to adopt new identities as a manipulative and psychological tactic. For a child who only begins to grasp their being and position in the

world, an undertaking that is sometimes elusive even for adults, such task of reinventing oneself promptly under a command can have grave repercussions. This also manifests in the novel. For instance, this type of situation can lead to the person not being able to define themselves later as a whole but as a sum of non-integrated experiences. These individuals, such as Janie, begin to visualise themselves according to the traumatic events or occurrences, either prolonged or short, which have left a lasting impression on them. This means that they either have several identities that seem to exist separately because of the experiences that are not viewed as interrelated due to their abrupt beginnings or they begin to describe themselves according to the traumatic event, albeit sometimes destructively. In the novel Janie claims: “I want to tell Meng that I know too much, I have *too many selves* [emphasis added - Ö. P.] and they no longer fit together. I need to know how it is possible to be strong enough” (Thien 2017: 139–140). By such revelation Janie indicates that she is unable to reconcile her multiple selves which in turn causes great confusion and a sense of being lost on her behalf. She needs to find consolidation among her various identities in order to process or heal her trauma. As Aru explains, the human brain with its connections, and therefore each person’s individuality and identity are influenced by these different unique experiences and the surrounding environment (Aru 2018: 23, 25). The unsettling yet unique “experience” that occupies the centre ground for Janie in *Dogs at the Perimeter* is undeniably the Cambodian genocide.

In order to stress the effect of such experiences and the concept of possibly shifting selfhood from a culture- and beliefs-oriented perspective, it is important to note that the Khmer Rouge regime also opposed the spiritual practises of the Buddhist community (Agger 2015: 544). There is an instance in the novel which describes how a man who represented Angkar instructs the repressed to abandon their old “diseased” identities and their former ways of life as he calls the latter “forms of betrayal” (Thien 2017: 79).

However, praying, as the man continues, was also seen as an exhibition of disloyalty (Thien 2017: 79). According to Agger (2015: 544, 546), the population of Cambodia who suffered the genocide could be “diagnosed”⁹ with spiritual disruption which was partly caused by the systematic prohibition of spiritual practises, such as proper burials. This concept is explored in the novel through Janie’s retrospection on her dreams as she explains how her father still visits her in her sleep and asks why his family had “never answered his calling” (Thien 2017: 71). According to the Khmer Buddhist beliefs, those who are condemned to a violent (or possibly untimely) death and the ones who are improperly buried may not be able to find peace afterwards (Agger 2015: 546, 550). As the Khmer rouge regime carried out mass executions, the trauma survivors were also unable to find peace because the spirits visit their loved ones in their sleep (Agger 2015: 543, 546). Janie mentions the hauntings in connection with Hiroji’s disappearance as she states: “Hiroji knew what it was to have the missing live on, unending, within us. They grow so large, and we so empty /.../” (Thien 2017: 9).

The spiritual disruption which characterises “the relationship between the living and the dead” contributes to the importance of understanding the variety of elements that characterise diasporic historical trauma. Banning the Khmer Buddhist beliefs, customs and traditions was a strategic move of the Khmer Rouge to subdue or gain and maintain full control of the people. By repressing the freedom of maintaining their religion, the Angkar also repressed the freedom of maintaining a former identity. Such forced creation of self, or the loss of self is often bound to have serious consequences, such as having difficulties with expressing emotions and feelings that are related to the traumatic event.

⁹ I have chosen to put ‘diagnosed’ in double quotation marks since I believe that this term has a predominantly Western characteristic to it. When narrating diasporic historical trauma, ‘diagnosis’, although well favourable among the readers who are familiar with Euro-Western medical discourse, may not be the most adequate term to use in the Khmer Cambodian context. As Agger (2015: 543) points out, Western methods for attending trauma “cannot be transposed wholesale from one cultural setting to another”.

2.3 Champagne in the Brain and *Baksbat*: Language Loss as an Effect of the Cambodian Genocide and a Culture-Specific Trauma Peculiarity

Another neuroscientific description that appears in the novel is concerned with a woman named Elie who suffers from brain atrophy¹⁰ which has actively shaped the quality of her life (Thien 2017: 10–15). The symptoms of brain atrophy vary depending on the region or regions of the brain, however, it is possible to witness cases of dementia, seizures and aphasias (Watson 2018: para. 8–10). Elie shows the signs of the latter, namely the inability to converse or grasp the meaning of words through Thien’s considerable emphasis on cognitive markers such as being unable to understand more semantically complex words (Thien 2017: 12– 13). I would like to suggest that the trouble of speaking that characterises Elie’s direct contact with her brain disease creates once again a space for both the reader and Janie herself to analyse historical trauma within diverse populations and additionally lays the foundation for further discussion about the self-developed means to cope with such haunting experiences of the past.

Dogs at the Perimeter highlights aphasia, or partial language loss, which is a communication disorder that affects the language parts of the brain, largely the left hemisphere, and results in having difficulties with conversing or comprehending what the other person is saying (An Overview 2018: para. 1–2; Mandal 2018: para. 1–3). In essence, it could be said that aphasia is “caused by a central nervous system dysfunction” that is associated with a focal brain lesion (Papathanasiou and Coppens 2016 :4). The symptoms of this condition are also visible in the case of Elie. An extract of the book states: “[Elie] felt sometimes as if the words themselves had vanished, in her thoughts, her speech, and even her handwriting. There was a stopper in her throat and a black hole in her mind” (Thien 2017: 12). There is also an instance in the novel where Elie is described to find

¹⁰ The loss of brain cells or neurons. (Watson 2018: para. 1)

speaking 'effortful' (Thien 2017: 12–13). What has happened and is also metaphorically described in the novel is that this patient's left brain or the left hemisphere is disintegrating, hence the difficulties with language (Thien 2017: 13).

Thien shows through the episode of Elie and recollection of Janie's past experiences that many traumatic encounters are sometimes problematic to address or talk about. An article (Osher et al as cited in Durham and Webb 2014: 5) points out that for example in addition to substance use and anger (Thien 2017: 7–10; 151–152), having difficulties with expressing emotions or perceiving emotions is also a valid response to historical trauma. There are several instances in the novel where Janie shows frustration with expressing emotions or speaking her mind as she is unable to confront her past (Thien 2017: 37, 53). However, with Janie the inability to convey her thoughts is not merely an outcome of trauma in its most common sense, an emotional response to a stressful and uncommon event, but it also has to do with the standards of behaviour that the Angkar prescribed and the cultural specificities.

Similarly to Elie (Thien 2017: 10–11), Janie describes an occasion where she was unable to grasp the meaning of words. Namely, *Dogs at the Perimeter* depicts how one of the soldiers used to explain the importance of the Angkar to a man who refused to be brought under control (Thien 2017: 72). The explanation in the form of praise and admiration, however, strikes Janie as strange as she explains that it seemed as if "another vocabulary /.../ had distorted the language [she] knew" (Thien 2017: 72). One of the tools that the Khmer Rouge harnessed to serve the goal of submission was precisely language which was used as a power instrument to pressure people into conforming to the ideals of the regime (Thien 2017: 79). Hence, the difficulties with language or the absence of it in Janie's situation cannot be solely discussed in terms of the likely consequences that arise from self-fragmentation.

Being “mute” should herein be examined with reference to a particular Cambodian cultural idiom. The lack of strength that Janie refers to in the end of the previously mentioned citation “I want to tell Meng that I know too much, I have too many selves and they no longer fit together. I need to know how it is possible to be *strong enough* [emphasis added - Ö.P.]” (Thien 2017: 139–140) has most likely to do with the Khmer form of expression ‘baksbat’, meaning ‘broken courage’ or simply distress, which in essence is a psychological fear response (Chhim 2013: 160–162). As Chhim (2013: 160–163, 169) notes, the Cambodians who survived the genocide experienced *baksbat* (the literal translation being ‘broken body’ or ‘broken form’) or traumatic distress in a variety of forms, such as lacking trust in others, submissiveness, fear, and refraining from speech or being “mute”. The latter here means that the Khmer Rouge survivors were, for instance, afraid to discuss the traumatic experiences of the past (Chhim 2013: 165). The Khmer author Kong Bunchhoeun (as cited in Chhim 2013: 163–164) also refers to *baksbat* and of being afraid to speak in his epic poem by describing how the ordinary people who were influenced by the terrors of Khmer Rouge are afraid to speak their mind in the presence of more powerful people due to their fear of possible disappearance, blame, hatred, and retribution. Such term, thus, signals the importance of interweaving the cultural meaning of and knowledge on trauma and its aftermath with the Western models of trauma treatment (cf. Chhim 2013).

As Eisenbruch (as cited in Agger 2015: 545) argues, the Western trauma frameworks of trauma diagnosis may be limiting in terms of cultural, as well as individual applicability. In other words, it could be said that such Euro-Western universalised frameworks of trauma attending may not lay enough emphasis on culture- or tradition-specific elements of understanding that are used to characterise the traumatic event through the eyes of the survivors and hence, transferring this framework wholly from one cultural setting to

another, e.g., in terms of the Cambodian genocide, can be limiting (Eisenbruch as cited in Agger 2015: 545; Agger 2015: 543–545). The understanding of how people address trauma, or the mental effects of trauma (e.g., *baksbat*) and the types of coping methods they adopt can allow for a more complete and versatile trauma attending framework that is necessary when working with historical diasporic trauma (Eisenbruch as cited in Agger 2015: 545). As Cchim notes (2013: 160, 162–163, 169), despite *baksbat* being a condition that is similar to PTSD in several ways, PTSD framework may not be able to fully explain or attend to this Khmer phenomenon due to the lack of understanding of the Khmer cultural and traditional peculiarity in terms of trauma. I would like to further elaborate on the idea of being culturally sensitive by suggesting that being aware of cultural and historical markers, for example, in terms of coping strategies does not only lay a foundation for a more insightful and enriched discussion about trauma in general (cf. Agger 2015: 544, 546, 555), but it also allows to particularly discuss trauma from the socio-politico-historical and cultural perspective.

2.4 The Talking Cure Method and Coping Mechanisms for Diasporic Historical Trauma

Caruth notes (1995: 4–5; Freud as cited in Caruth 1995: 5) how the traumatic experience or trauma is constantly present meaning that trauma takes *possession* of the experiencer in real time through insistent dreams and flashbacks that remain true to the event itself. This can be seen in the case of Janie who has also flashbacks and hallucinations, for instance, on the example of her and her brother in the midst of fire explosions (Thien 2017: 61–62). However, Caruth adds (1995: 5) that such traumatic images are in fact literal which means that they cannot be characterised by unconscious meaning or wish. This may in turn cause confusion in both the traumatized and listener as

the literality and return of the dreams or thoughts calls into question or complicates the basic understanding of the reality of the traumatic event: how is it possible to access traumatic experiences and history since the possessive nature of the traumatic dreams and hallucinations may give rise to feelings of uncertainty (Caruth 1995: 5–6, 10)?

The overarching idea that appears to be promoted or highly welcomed within the Western trauma frameworks for trauma attending is that language is the key to accessing, processing and healing trauma. However, it is not safe to assume that the talking cure method (mentioned in the literature review) has obtained its highest potential in trauma attending even among the trauma survivors of the Western tradition, let alone amongst people whose traditions, beliefs and upbringing drastically differ from those of the Western society. Thus, in addition to the general differences of the trauma survivors which require different analyzation or aiding methods, types of trauma and their overlapping layers which have to do with, for example socio-political and socio-historical factors, should also be carefully (re)considered in institutionalised trauma practises. As Hillary McBride argues in the Liturgist Podcast (Gungor and McHargue 2017), there can be times when trauma attending, or treatment may prove counterproductive since the different aspects that are closely associated with trauma and the person that undergoes it, such as sensory information¹¹, can be overlooked.

Coming back to the talking cure method, it could be firstly said that language is a multifaceted phenomenon. Madeleine Thien herself reflects in an interview how she had ambivalent feelings about language after the publication of *Dogs at the Perimeter*:

/.../ I had begun to think that language itself was in conflict with the very things we need it for: to listen, to speak, to understand. Language is fragile. Words can erase and distort so many things. Justice, reason, democracy, freedom, goodness, truth – we have used these words in the service of widely different intentions. (Chariandy 2017: para. 5)

¹¹ Sensory information, such as smells, tastes and sounds, is the information that the brain collects through cranial nerves. (Gungor and McHargue 2017; Seladi-Schulman 2018: para. 1–2)

In other words, Thien exemplifies how words and their expressing can possibly be damaging and beneficial at the same time depending on the context in which they are used and the way they are used. The contradictory nature of language is also discussed by Noam Shpancer (2017: para. 5) who points out that language in itself is a dynamic system in which words can either allow people to connect, communicate and maintain relationships or create a way to cause someone to have a wrong impression or lead to conflict. Talk therapy that prioritizes language and verbal analyzation of oneself as the means to mental or spiritual healing may thus prove to be either productive or counterproductive. This depends not only on the patient, but also on their experiences. Although Shpancer contends based on the Freudian perspective (2017: para. 13) that words possess the power to “see hidden wounds, and to treat them”, I would like to suggest that the trauma which manifests through Janie in *Dogs at the Perimeter* cannot solely be “treated” by having a guiding and reflective conversation to make sense of her underlying fears or perceptions, since language itself is part of Janie’s trauma on multiple levels.

In terms of neurobiology or neuroscience, a trauma or traumatic event activates different parts of the brain, such as amygdala, which store the information related to the happening implicitly when it occurs (Gungor and McHargue 2017; Aguila-Way 2014: 22; van der Kolk and van der Hart 1995: 168). This means that trauma is stored in a much more complex way within the brain than regular information since the human brain stores the information that is related to the harmful scenario at hand to protect the individual from any similar events that may happen in the future (Gungor and McHargue 2017; Aguila-Way 2014: 22). This happens due to the automatic connections that the brain forms between the neutral stimuli and trauma itself (Aguila-Way 2014: 22). Thus, the “traumatic memory” occurs by itself in situations which share the similar characteristics with the original traumatic situation (van der Kolk and van der Hart 1995: 163). Thien has included

several illustrations of this phenomenon on the example of flashbacks (Thien 2017: 61;138–139). *Dogs at the Perimeter* shows how Janie’s trauma-related flashbacks are sometimes triggered by the information, or past memories, that her brain stored subconsciously during the genocide. Thus, similarly to other traumatic instances, the traumatic event made Janie’s brain store the information as it occurred. As talking and conveying ideas was seen as bad during the regime, later the brain could consider talking or language as a trigger. Hence, language can act as a possible trauma trigger in the case of Janie.

Thien calls implicitly into question the efficiency of Western talk therapy in *Dogs at the Perimeter* by creating a suggestive comparison between the patient named Elie and Janie herself. As discussed above, both of the characters struggle with language loss which is characterised by the inability to converse or convey ideas. Janie’s situation is similar to Elie’s whose linguistic abilities are progressively limited to sentences that are constructed in a simpler and less descriptive manner due to her medical condition (Thien 2017: 13). However, silence or refusal of speech in Janie’s case is not simply caused by the difficulty to articulate the past events but it also emerges from the direct effects of state control during the years of the genocide. Once again, as Troeung argues (2013: 158), silence was a mode of survival during the rule of Angkar. Such state of partly self-induced silence and numbness is noted by Janie who describes how as a child under the oppressive rule “[her] hands, [her] body, remained in the world, but slowly [she] released [herself] into the quiet grief of [her] thoughts.” and how “/.../ [she] tried to climb away into [her] mind /.../” (Thien 2017: 125, 114). A type of numbness is also evident 30 years later in Janie’s adulthood since the beginning of the novel describes her response at the news of her husband and her son going away to another city to spend time away from the partly destructive family matters (Thien 2017: 7). This news and possibly the interactions that

took place prior to the phone call cause Janie to go into a state of “numb grief” (Thien 2017: 7).

Thus, the diminished language feature of the novel and the author’s revelation indicate that historical diasporic trauma necessitates new ways of processing or healing as the talking cure method is not always successful in producing a desired result. This in turn raises important questions - how can certain trauma victims put their thoughts into words, or generally speaking how can they cope with or heal trauma if it is (seemingly) impossible due to the sociohistorical circumstances that partly facilitated the trauma or if it ran counter to their beliefs and traditions, and whether such self-developed methods are wholly and permanently reliable?

2.5 Critique of Western Medical Trauma Attending: Self-developed Coping Methods and Their Efficiency

Traumatic events, and thus trauma may often entail trauma coping mechanisms or strategies which can be marked, for example, by individual or circumstance-specific factors. One of the most common coping strategies might be the avoidance of the traumatic event, but I would like to argue that in order to cope with and overcome or heal any type of trauma, it needs to be understood and properly accessed in the first place. The reader can only assume that in *Dogs at the Perimeter* Janie did not receive proper or any medical diagnosis and trauma attending when she arrived in Canada as a child refugee. Thus, the avoidance as a coping mechanism or as a neglect of medical attending and triggers can prove counterproductive, and therefore, some self-guided approaches, especially those determined by multifaceted traumas, can be limiting. Thien’s novel shows how Janie has found a preferable means of coping with her trauma which are neurobiology and order since the self-guided talking cure method, as mentioned above, is not successful in

producing the intended result. However, on the other hand, the novel also illustrates how these coping or defence mechanisms can eventually break down with consequences, possibly due to the lack or complete absence of proper prior medical attention.

The novel describes how Elie who suffers from aphasia has found a suitable strategy to cope with her disease, or more specifically, language loss. Namely, painting becomes her main means of expressing thoughts and ideas (Thien 2017: 12). This type of creativity serves in her case as a substitute or an alternative system for making the inner world accessible, since her natural outlet for verbal speech is flawed because of her brain damage. There is an instance in the novel where Elie states that “the image could say everything that she could not” (Thien 2017: 12). Such example of visual outlet can be contrasted with Janie’s ‘memory theatre’, a term that was coined by an Italian philosopher Giulio Camillo but was initially introduced to Janie by his colleague and friend Hiroji (Thien 2017: 147). Janie uses this concept which utilises ornaments and images to express her wish to find a coping strategy which would help her to intertwine her past and present in order to contain her many selves peacefully (Thien 2017: 147). In other words, Janie seeks a personal visual system which would allow her to simultaneously hold together the contradictory aspects of her life that have been influenced by different events and experiences. Janie states: “If such /.../ a memory theatre, existed, I could be both who I was and who I had come to be. I could be a mother and a daughter, a separated child, an adult with dreams of my own” (Thien 2017: 147). Despite not having such specific means to cope with her trauma and its impact, Janie has either consciously or subconsciously turned to other ways of managing her trauma.

Trauma survivors are often unable to control what happens to them during the distressing occurrence as the traumatic events are most likely unexpected by nature. Due to the initial lack of control, the urge or necessity to manage the situation can manifest later

as trauma coping mechanism since a part of trauma can possibly be the feeling of not being in absolute control. There are several episodes in the novel which allude to Janie's need for order (e.g., 37). One of the episodes describes Janie sharpening pens: "At the desk, I sharpen pencils ferociously, lining them up in a row" (Thien 2017: 18). What is more, it appears that Janie finds solace in control and order not only because of having been unable to maintain full control over the traumatic event, but because she is essentially incapable of controlling the flood of thoughts about her past (Thien 2017: 38). When Janie was younger, she also helped her foster mother to organize her papers or "thoughts", as she preferred to call them (Thien 2017: 22). Janie states how "work [gave her] a feeling of order, of cheer" (Thien 2017: 28).

In addition to physical work, such as arranging papers, Janie's real work or her choice of profession manifests also as a self-induced coping strategy. Although Janie was probably influenced by her foster mother and her collection of books which mesmerised her in an early age to become a neuroscientist (Thien 2017: 22), she seems to have chosen neuroscience as her area of expertise to partly allow her to make sense of her trauma in the present. In other words, it could be said that Janie uses neurobiology and the conditions or diseases of the patients of Montreal's Brain Research Centre as a tool to study her own trauma, and thus, create parallels between structural trauma and non-structural trauma, the latter of which is based on deeply distressing or disturbing experiences. There is an instance in *Dogs at the Perimeter* which describes how Janie meets Hiroji for the first time as a graduate student and how she is "transfixed" by the lecture that he gives (Thien 2017: 143–144). I would like to suggest that Janie relates herself and her trauma to the several neurobiological stories and descriptions of the different medical incidents that Hiroji describes in class and thus, initiates a greater spark in her of being able to make sense of her situation through scientific means (Thien 2017: 144–145). This, and her apparent

empathy towards a sea slug may be an indication of her more intimate relationship with neuroscience (Thien 2017: 149–150). I believe that as an electrophysiologist, Janie hopes that she may be able to explain her trauma both scientifically and rationally (Thien 2017: 34).

Today, people, including medical care-givers, can be dismissive of trauma triggers (Gungor and McHargue 2017). However, recognizing trauma triggers help to examine the efficiency of self-developed trauma coping mechanisms or strategies. As discussed previously, the socio-politico-historical factors that contributed to Janie's trauma caused Janie to possibly neglect language as a universal means of coping both due to what Gungor and McHargue (2017) point out as the ability of the brain to store information at hand for future protection in similar instances and Buddhist beliefs (Gungor and McHargue 2017). Thus, talk therapy or language in general as an instrument to convey ideas and thoughts can act as a trauma trigger for Janie. However, another and more prominent trigger that is foregrounded in *Dogs at the Perimeter* is the disappearance of Janie's mentor, colleague and friend Hiroji (Thien 2017: 1). The disappearing causes Janie's self-developed mechanisms to partly break down (Thien 2017). It could be said that the relationship with Hiroji served partly as a coping strategy for Janie as there are instances in the novel which describe Hiroji providing Janie with useful information on how to understand or process trauma. For instance, in addition to the aforementioned introduction of the term 'memory theatre', Hiroji mentions in his lecture the possibility of how the self can remain complete and not damaged even though everything outside can "fragment" and "splinter" (Thien 2017: 145). The disappearance of Janie's friend can also be a sign of losing control. For this reason, control as a self-induced trauma coping mechanism is not a wholly reliable method as Hiroji's disappearance was an external trigger, an incident that Janie could not possibly control.

Casting light on and exploring the possible triggers as well as taking into consideration the globality of historical diasporic or any other similar trauma can provide a new language for dealing with (diasporic historical) trauma, meaning that it can give a new means to tackle it. As the analysis of the multi-dimensional nature of Janie's trauma has demonstrated, it is apparent that there is no single way to approach diasporic historical trauma attending. Although self-induced coping mechanisms can relieve the trauma, they may not be entirely reliable and effective.

CONCLUSION

Diasporic historical trauma is a multifaceted phenomenon which requires the trauma physicians to take into consideration the different aspects of the trauma at the same time, such as religion or beliefs, traditions, socio-historical background, communal practises, culture, and political factors. As Troeung (2013: 157) argues, based on the study of McLellan, Canadian mental health services failed to accommodate and attend to the needs of the Khmer Buddhist Cambodian refugees in the late 20th century stemming from their trauma as they did not have any prior knowledge on their spiritual and cultural practises. Hence, by creating a broader dialogue surrounding diasporic historical trauma and the workings of such trauma in the light of the current issues of migration and through the work of Thien's narrative fiction, it may be possible to reveal the limitations of the Western frameworks of trauma attending. This, in turn, can contribute more significantly to the need to provide complementary ways of attending to diasporic historical trauma in the context of Western mental health services and institutionalised trauma practises, and self-developed trauma coping mechanisms.

Madeleine Thien's *Dogs at the Perimeter* portrays the manifold characteristic of diasporic historical trauma. The novel narrates the grim reality of the Cambodian genocide under the Khmer Rouge regime and its lasting effect on one of the main characters named Janie who works as a brain researcher in Canada. However, the neuroscientific discourse that forms an important part of the lives of the main characters has an important function within the novel. This study reveals that the neuroscientific discourse of the novel acts as a means to create a space to open a multi-dimensional dialogue surrounding diasporic historical trauma in general, and as a complementary epistemology to attend to (diasporic historical) trauma in particular. *Dogs at the Perimeter* calls attention to the idea that albeit structural trauma, i.e. brain damage or brain lesions, is in a way very similar to a trauma

which occurs due to an extremely distressing experience that can destroy the synaptic links of the brain, diasporic historical trauma as a non-structural embodied trauma is also influenced, for instance, by the contemporary socio-politico-historical circumstances, and cultural practises and elements.

In the novel, Thien draws a parallel between brain damage and diasporic historical trauma. She does that by exploring the synaptic connections of the brain through the intimate relationship between the main character Janie's trauma and neuroscience, meaning that Janie uses neuroscience as a tool to decipher her trauma. The various descriptions of the brain diseases or medical stories that are represented in the novel, such as the Alzheimer's disease and aphasia, serve as an instrument to visualise these possible similarities. The analysis reveals that similarly to structural damage, diasporic historical trauma can cause self-fragmentation or language loss due to the malfunctioning or breaking down of the neural networks. Yet, the novel also demonstrates that the multiple identities or "spiritual rupture" in the context of diasporic trauma can be caused not only because of the severity of the experience or distress that destroys the communicating cells, but also due to state control reasons. Namely, *Dogs at the Perimeter* illustrates, based on the similarities between the structural and embodied trauma, how the Khmer Rouge regime used different techniques to subdue people. For example, people were forced to adopt new identities as a control device. Consequently, Janie comes to inhabit three different selves which she is unable to reconcile as an adult. As a result, Janie experiences self-fragmentation which makes her leave her family and find different ways to cope with her trauma. Moreover, Janie's self-fragmentation is also partly caused because of the banning of the spiritual practises of the Buddhist community during the genocide. As the Angkar prohibited the Buddhist burial practises, Janie has a condition called "spiritual disruption". The spiritual disruption which marks the relationship between the living and the dead

means in the Cambodian cultural setting that the “ghosts” of the loved ones who were not properly buried or were condemned to a violent death visited their family members in their sleep. Nonetheless, the response to such trauma is the same – the inability to convey thoughts or express emotions.

Once again, the portrayal of language loss in this novel has to do with the standards or behaviour that were prescribed during the regime, but also with cultural specificities. The former means that the Khmer Rouge pressured people into conforming to the ideals of the regime by using language, e.g., in the form of praise. Language was also used as a survival device during the years of the genocide. However, being “mute” could also be discussed in terms of *baksbat* which is a Cambodian cultural idiom of distress that in essence is a fear response to a traumatic event through the eyes of the Cambodian genocide survivors themselves. This idiom, literally meaning ‘broken courage’, indicates the need of being culturally sensitive in trauma attending.

In addition to Thien using neuroscience to demonstrate the workings of diasporic historical trauma, the novel’s neuroscientific discourse suggests evaluating the efficiency of both the contemporary Euro-Western trauma attending frameworks and self-developed trauma coping mechanisms in the context of such trauma. The socio-politico-historical circumstances from which Janie’s trauma arose stress the idea that these trauma attending frameworks and coping methods may be limited, for example, in terms of cultural applicability. The analysis demonstrates that, for instance, the talking cure method may not be successful in trauma attending on the example of Janie, as her traumatic memories could be triggered by language due to language itself being a part of her traumatic experience and genocide memory on multiple levels. Since language possibly proved counterproductive in the case of Janie as a tool to process or heal her trauma, she adopted other trauma coping methods, such as neurobiology and focusing on order. However, it

becomes apparent for the reader that these self-developed mechanisms are not wholly reliable and effective, at least without proper prior medical trauma attending, if the possible trauma triggers have been previously left unattended.

The present thesis demonstrates that diasporic historical trauma is not only psychic in nature, a trauma that is of a 'closed interiority' but is an embodied trauma which is influenced by a variety of factors. Thus, it could be said that diasporic historical trauma and the global interaction of the world are similar as both operate on multiple levels at the same time. The overlapping layers of diasporic historical trauma of Thien's novel demonstrate the phenomenon to be a worthy object of study in the context of fiction as well as in the context of the workings of trauma, institutionalised trauma practises and Western trauma attending frameworks.

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RESÜMEE

TARTU ÜLIKOOL
ANGLISTIKA OSAKOND

Õie Pärn

**Neuroscientific Discourse in Madeleine Thien's *Dogs at The Perimeter*
[Neuroteaduslik diskursus Madeleine Thieni romaanis „Armastatud ja kardetud“]**

Bakalaureusetöö

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Annotatsioon:

Käesolev bakalaureusetöö analüüsib neuroteadusliku diskursuse funktsiooni Madeleine Thieni romaanis „Armastatud ja kardetud“. Töö peamiseks eesmärgiks on välja selgitada, mis on neuroteaduslike kirjelduste ja meditsiiniliste lugude roll ja tähtsus romaanis seoses diasporaalse ajaloolise trauma ning selle toimemehhanismidega. Lisaks uuritakse teoses leiduva teadusliku diskursuse põhjal läänemaaailma traumakäsitluse piiranguid ning traumaga toimetuleku mehhanisme ja nende tõhusust. Läbiviidud analüüs põhineb diasporaalse ajaloolise trauma ja ajutrauma ehk ajukahjustuste või -vigastuste omavahelisel võrdlusel.

Bakalaureusetöö koosneb neljast osast: sissejuhatuses, kahest peatükist ja kokkuvõttest. Sissejuhatuses tuuakse esile kirjandusteose üldine tähtsus Euroopa migratsioonikriisi ja Kanadasse saabunud Süürlaste migratsioonilainete taustal, võttes samas arvesse ka kontekstipõhise traumakäsitluse. Lisaks sellele annab töö sissejuhatus ülevaate Thieni romaanist ning rõhutab aspekte, mis on olulised peategelase trauma analüüsimiseks.

Esimene peatükk on rajatud Thieni teose retseptioonile ning jaotab selle nelja kategooriasse: kuidas romaan pakub uudse lähenemise traumast jutustamisele ja mis on taolise jutustamisviisi olulisus, milline on teose sotsiaalne, kultuuriline ja (geo)poliitiline mõju, kuidas romaan seab kahtluse alla läänemaaailma traumaraamistikud ja mis otstarve on teaduslikel teadmistel romaanis.

Teine peatükk on käesoleva bakalaureusetöö empiiriline osa, milles analüüsitakse neuroteadusliku diskursuse funktsiooni romaanis, kasutades selleks neuroteaduslikke kirjeldusi ja lugusid haigusjuhtumitest. Selles peatükis kõrvutatakse diasporaalse ajaloolise trauma ja ajutrauma vahelisi sarnasusi, tuginedes neuroteaduse ja peategelase Janie trauma omavahelistele seostele. Empiiriline osa püüab seeläbi esmalt uurida neuroteaduse kui täiendava epistemoloogia tähtsust diasporaalse ajaloolise trauma mõistmisel ja käsitlemisel. Diasporaalse ajaloolise trauma ja ajutrauma seoste põhjal hinnatakse lisaks eelmaintule samuti nii kaasaegsete lääne traumaraamistike kui ka peategelase enda poolt kujundatud traumaga toimetuleku mehhanismide tõhusust.

Kokkuvõtteks võib öelda, et Madeleine Thien kasutab romaanis neuroteaduslikku diskursust, et näidata diasporaalse ajaloolise trauma mitmetahulisust ning sellise diskursuse võimalusi täiendava epistemoloogiana. Thien loob Janie tegelaskuju abil seoseid diasporaalse ajaloolise trauma ja ajutrauma vahel ning näitlikustab, et kuigi ajukahjustused ning diasporaalne trauma on mõlemad mõjutatud erinevatest traumaatilistest kogemustest,

mis omakorda avaldavad mõju aju sünaptilisele tegevusele ja ühendustele, siis diasporaalset ajaloolist traumat mõjutavad ka muud tegurid, nagu ajalooline ja ühiskondlik taust, poliitilised asjaolud, kultuur, uskumused, religioon ning kogukondlikud traditsioonid. Bakalaureusetöö näitab, et peategelase Janie trauma, mis väljendub tema identiteedi killustumises mitmeks isikuks ja seeläbi suutmatuses oma emotsioone ning tundeid sõnadesse panna, on otseselt mõjutatud punaste khmeeride poolt peale surutud kontrollirežiimist aastatel 1975–1979 ja kultuuriruumi eripäradest. Näiteks kästi punaste khmeeride võimu ajal inimestel oma varasemast identiteedist loobuda ning uus nimi ja identiteet võtta. Selle tulemusena tekib Janiel kolm erinevat mina või identiteeti. Samuti kasutati Kambodža genotsiidi ajal inimeste alistamiseks keelt (režiimist ning selle eestvedajatest ülistavalt rääkimine) ning keelustati budism ja budistliku kogukonna rituaalid, nagu kultuuritraditsioonide kohane matmine. Romaani analüüs näitab, et Janiel tekib nendel põhjustel keeleline tõkestus ja “vaimne katkestus”, mis võib olla eraldi trauma vorm. Samuti võib öelda, et budistliku maailmavaate keelustamine ajendas Janie mitmikidentiteedi teket, sest religioon võib olla üks osa minapildist.

Teisalt pöörab Thieni romaan tähelepanu sellele, et sisutihedam dialoog diasporaalse ajaloolise trauma ning selle toimetulekumehhanismide kohta aitab avastada läänemaailma traumaraamistikute ja inimeste enda poolt kujundatud trauma toimetulekumehhanismide võimalikke puudusi. See võib omakorda oluliselt kaasa aidata vajadusele pakkuda täiendavaid viise või epistemoloogiaid, kuidas diasporaalse ajaloolise traumaga tegeleda nii läänepäraste vaimse tervise alaste teenuste kui ka institutsionaliseeritud traumapraktika kontekstis. Romaan näitlikustab, et oma traumast rääkimine ei pruugi Janie näitel olla edukas, sest keel või kõne võib esile kutsuda traumaatilisi mälestusi, kuna keel on ise mitmel moel osa Janie traumaatilisest läbielamisest. Keele kui ebapädeva vahendi tõttu trauma käsitlemisel loob Janie ise endale traumaga toimetulekuks sobivad mehhanismid, milleks on neurobioloogia ja korraloomisele keskendumine. Ometi selgub, et taolised iseseisvalt kujundatud traumaga toimetuleku mehhanismid ei ole piisavalt efektiivsed ega usaldusväärsed, seda vähemalt ilma eelneva piisava meditsiinilise abita.

Märksõnad: Madeleine Thien, Kambodža, neuroteadus, diasporaalne ajalooline trauma, identiteet, mitmikidentiteet, trauma toimetulekumehhanismid, lääne traumaraamistikud, keeleline tõkestus

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