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Liberal Paternalistic Self-Administration

Behavioural Design and the possibilities of nudging refugee communities towards collective trauma treatment and improved mental health by reducing dependency on external management

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Master Thesis in International Development

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Abstract: English

This thesis explores the possibilities of a behavioural design approach and its applications in collective trauma treatment. Literature suggests that the brain regions associated with trauma (e.g. the role of the amygdala in posttraumatic stress disorder and depression), when triggered, cause tremendous individual and social harm, while activation of the brain regions associated with logical thinking (i.e. the frontal cortex) show reduction in the negative symptoms caused by anxiety that affects similar brain regions. A behavioural design that addresses the frontal cortex as well as other important factors in trauma treatment, such as social connections, could reduce negative psychological symptoms and help individuals towards successful migration and inclusion. This thesis develops the concept of liberal paternalistic self-administration, which aims to support a vulnerable group through behavioural design in self-management and collective trauma treatment to reduce the existing treatment gap. Synthesising the gathered data and knowledge, the paper argues for a new method to ensure that men, women and children have enhanced opportunities for successful lives.

Abstrakt: Deutsch

In dieser Arbeit werden die Möglichkeiten eines verhaltensorientierten Designansatzes und seine Anwendungen in der kollektiven Traumabehandlung untersucht. Die Literatur legt nahe, dass die mit Trauma assoziierten Hirnregionen (z. B. die Rolle der Amygdala bei posttraumatischer Belastungsstörung und Depression), wenn sie ausgelöst werden, enormen individuellen und sozialen Schaden anrichten, während die Aktivierung der mit logischem Denken assoziierten Hirnregionen (d. h. des frontalen Kortex) eine Verringerung der negativen Symptome zeigt, die durch Angst verursacht werden, die ähnliche Hirnregionen betrifft. Ein verhaltenstherapeutisches Konzept, das sowohl den frontalen Kortex als auch andere wichtige Faktoren bei der Traumabehandlung, wie z. B. soziale Bindungen, anspricht, könnte negative psychologische Symptome verringern und den Menschen zu einer erfolgreichen Migration und Integration verhelfen. In dieser Arbeit wird das Konzept der liberalen paternalistischen Selbstverwaltung entwickelt, das darauf abzielt, eine gefährdete Gruppe durch ein Verhaltensdesign beim Selbstmanagement und der kollektiven Traumabehandlung zu unterstützen, um die bestehende Behandlungslücke zu verringern. Durch die Synthese der gesammelten Daten und Erkenntnisse plädiert das Papier für eine neue Methode, die Männern, Frauen und Kindern bessere Chancen auf ein erfolgreiches Leben bietet.

1. Introduction: Migration

Goedel Escher Bach by Hofstadter (2006) introduced Hofstadter's theory about universal endless regressions and loops in various fields. The theory is reflected in Bach's music and his endless chord transgressions, Escher's paradox paintings and endless staircases (such as his famous depictions of stairs in his painting *Relativity*), and Goedel's view of mathematics, in which formulas and their meanings are defined by the definition one gives them. The book addresses the isomorphy that exists, in which theories and analogies could be applied in various (not necessarily related) fields (see also *Range* by Epstein, 2019). In addition, it introduced Zeno's (mathematical) paradox, in which one

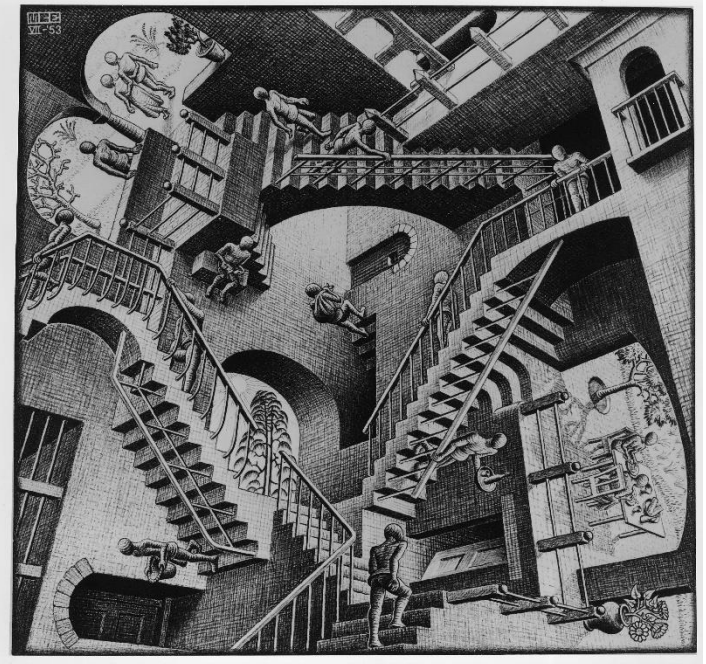


Figure 2: Escher Relativity (1953)

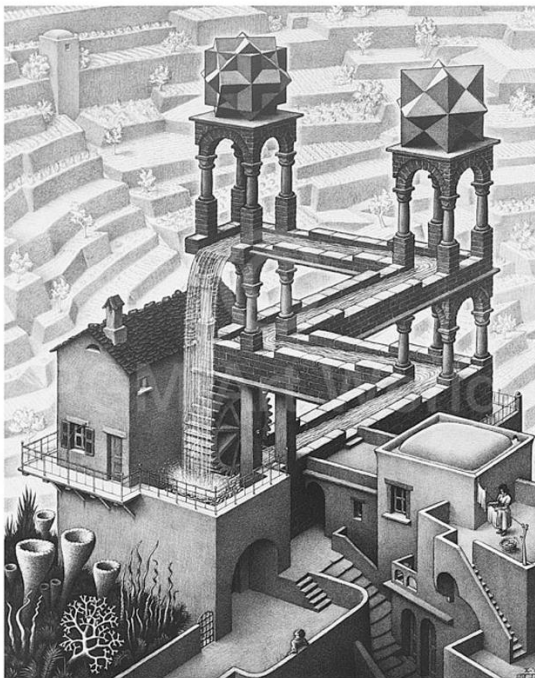


Figure 1: Escher Waterfall (1961)

attempting to progress from A to B always moves closer to B while overcoming half of the distance; however, steps become increasingly smaller (always crossing the half) and culminate in an endless regression, and B is never fully reached (Hofstadter, 1979).

The global approach to historical refugee crises such as the one in 2015 has led to a common praxis toward refugee camps. Throughout an individual's journey from a potentially dangerous country of origin to full inclusion in a new society, numerous steps are required, and full inclusion might never be reached (much like in Zeno's paradox). Can a person who fled their country ever be fully

(although perhaps never reached)? And how can the negative impacts of the potentially traumatic experiences of the journey be reduced to protect future generations from experiencing contagious trauma?

The topic of migration has historical significance and has perpetually been a part of populations' experiences, especially in times such as the current one, in which a sovereign European state (Ukraine) has been attacked by Russia, the war in Syria and conflicts in Afghanistan continue, and increasing global temperatures make parts of countries uninhabitable and dangerous. Therefore, the topic of migration requires a different approach. This thesis argues for the implementation of a new concept: liberal paternalistic self-administration.

Former migrants, even those who speak the host country's language perfectly, might still suffer from political, sociological and economic restrictions that prevent them from achieving an individually managed and defined successful life. People who were forced to flee need the opportunity to work and learn in order to fully integrate into society and become independent from the host's remittances. Indeed, a refugee's needs are similar to the needs of individuals who were fortunate enough not to be forced to flee. This thesis asserts that the individual and social damage, loss of human potential, and costs can be tremendous due to the current process's inefficiency in providing opportunities and sustainable perspectives. Refugees' needs are simply average humans' needs, to which, at most, have been added the unique needs of a refugee.

The aim of the thesis is to develop a new approach toward sustainably integrating refugees into society who may suffer from mental health symptoms due to migration, conflict, and other factors such as persecution, while taking into account their individual and human needs for autonomy. In addition, an intermediate therapeutic step is desirable that can prepare them for challenges inherent in building a new life in a new country. The work is based on the concept of liberal paternalistic self-administration, which is explained and defined using practical approaches. The concept involves an independent community administration that is created and guided by environmental and behavioural design approaches. Through an implemented choice architecture that promotes individual possibilities within a healing community, a reduction in symptoms of psychological distress can be achieved.

The Questions this thesis aims to answer are as follows:

Do cognitive tasks reduce symptoms of distress, and could a population of refugees benefit from an environment that promotes cognitive stimulation?

How can a behavioural design approach and choice architecture be implemented to steer a community of refugees that has proven to be dependent on hosts towards self-management, while reducing the risks arising from psychological symptoms caused by potentially traumatic experiences? How could such a design be defined, and what measures could be undertaken?

Managing a heterogenous group is often a difficult task to undertake, but a useful tactic is to guide the heterogenous group towards managing itself, since internals (the people within a community for instance) might have greater knowledge about the needs and potential of the group. This thesis posits that host states are often too proactive in managing groups of refugees and can lack an understanding of the population's religious or cultural beliefs and internal human resources; internalization could reduce the information asymmetry between refugees and the host. Camps could be transformed into self-administered communities, in which hosts provide an environment and guidance for the community to freely develop through a liberal paternalistic approach, as defined by Thaler and Sunstein (2009), which fulfils the host's responsibility for protecting the refugees by taking care of necessities while the community develops and progresses toward internalisation.

This thesis comprises a literature analysis in the fields of neuropsychology, trauma psychology (particularly in refugees) and behavioural design. From this analysis, a new concept is developed. The existing literature regarding psychological symptoms among refugees emphasizes the urgent need for a different approach in integrating refugees into new environments and society. While the retrieved findings from the field of neuropsychology are used to explain the basic neuropsychological factors and brain functions that play a key factor in trauma and distress, this thesis will explain the brain's role in actions and emotions which could cause physical reactions that might be harmful for individuals within the migrant community. It will proceed from a discussion of the emotional brain to an analysis of the logical brain regions. Next, the thesis will provide a description of the function and role of the logical part of the brain (the frontal cortex) and emphasize the frontal cortex's role in individual wellbeing. In addressing individual needs, the paper next explores goals such as achieving a sense of coherence to emphasize what is important for refugees in coping with a new environment. After section 2, which deals with the field of psychology, the thesis explains the behavioural design approach and some of the choice

architects' tools that can be used to positively change the environment in which individuals make choices within section 3.

Sections 4 and 5 develop the concept of liberal paternalistic self-administration based on the literature analysis. These sections establish possible approaches and elaborate on how those approaches function by addressing individual, community and cognitive needs.

Men, women and children are all impacted in their individual development through traumatic experiences, and this thesis aims to achieve a general approach that is applicable not just to a specific group. Instead, it aims to define, scrutinize and create a new approach that is applicable to various groups suffering from traumatic experiences or psychological distress.

1.1 Migration and its implications for continuity

This introductory chapter aims to highlight the current developments in the field of migration studies, noting key findings relevant to comprehending the urgency of assessing the sustainability of the global debates regarding migration and the refugee crisis. The chapter presents essential data regarding global migration development. Figure 3 provides a brief overview of some of the latest data on migration, as found in the World Migration Report (International Organization for Migration [IOM], 2019).

	2000 report	2020 report
Estimated number of international migrants	150 million	272 million
Estimated proportion of world population who are migrants	2.8%	3.5%
Estimated proportion of female international migrants	47.5%	47.9%
Estimated proportion of international migrants who are children	16.0%	13.9%
Region with the highest proportion of international migrants	Oceania	Oceania
Country with the highest proportion of international migrants	United Arab Emirates	United Arab Emirates
Number of migrant workers	-	164 million
Global international remittances (USD)	126 billion	689 billion
Number of refugees	14 million	25.9 million
Number of internally displaced persons	21 million	41.3 million
Number of stateless persons	-	3.9 million
Number of IOM Member States*	76	173
Number of IOM field offices*	120	436+

Figure 3: Key facts and figures from the World Migration Report, 2000 and 2020 (IOM, 2019)

The 2020 World Migration Report discusses various topics in global development in the field of migration. Migration has increased over the past two decades in regard to the global

population. As the report's statistics show, the number of estimated refugees in the two decades between 2000 and 2020 increased from 150 million to 272 million. In 2020, 3.5% of the world's population were migrants, an increase of 0.7% compared to 2000. Aside from an increase in the global migrant population, the report underlines that global international remittances increased from USD126 billion in 2000 to USD689 billion in 2020 – an increase of almost 5.5 times the 2000 amount (IOM, 2019, p. 10). In addition, the general migrant population consists of 52% male migrants and 48% female migrants, among whom 74% are of working age (between 20 and 64 years). The report states that if one takes 30 people out of the current world population, there will be one migrant among the group (IOM, 2019, p. 22f.). In addition, the United Nations High Commissioner for Refugees (UNHCR) publishes continuous reports on the global development regarding forcibly displaced people. According to the 2020 Global Trends report of Forced Displacement, 82.4 million forcibly displaced people existed worldwide at the end of 2020 due to conflict, persecution, disturbed public order, violence or human rights violations. The report emphasizes that most refugees (86%) are hosted in developing countries, while 73% are hosted in neighbouring countries. Turkey currently hosts the largest number of refugees, with an estimated 3.7 million forcibly displaced individuals. The next largest host is Columbia, with an estimated 1.7 million individuals (UNHCR, 2021, p.2).

In addition to conflicts and economic crises, global warming can dramatically impact migration and cause drastic increases in the number of refugees. For example, due to rising temperatures, Africa will become increasingly uninhabitable in the coming decades. Climate and the natural environment play an important role regarding “push factors,” which drive people from their home countries (see Herbling, 2021). Global migration has changed dramatically within the past decades, and this thesis argues that a new approach to migration management is needed. This thesis aims to develop a concept that reframes the discussion of how countries manage current and future crises and masses of refugees, utilising a liberal paternalistic perspective that will be introduced in detail in the following chapters.

The following chapters outline the basic concepts of behavioural design and offer a foundation for understanding how the concept is defined and how some of its tools can be applied to develop a design to improve refugees' individual circumstances. The paper next presents basic concepts of the field of neuropsychology, illustrating important parts of the human brain and how they impact daily life. Next, the thesis details how these brain structures impact someone who suffers from posttraumatic stress syndrome and trauma. The

thesis further discusses the importance and applicability in trauma treatment for larger populations within the field of socioterapy as well as the individual psychological impacts trauma can have on refugees.

1.2 A declinatory definition

The more one works on this topic using sources from the field of refugees, the more difficult it seems to settle on clear definitions. Reading and hearing the word “refugee” over time becomes the main terminus to define people that have fled a country, but eventually, the word inherits a changing meaning that can drive readers and listeners towards uncertain perspectives. This may impact heuristics, and to clarify the line of argumentation, one should define the non-homogenous group of individuals on whom this work aims to focus. According to the UNHCR,

“Refugees are people who have fled war, violence, conflict or persecution and have crossed an international border to find safety in another country.” (UNHCR, 2022).

Refugees have often fled with little more than the clothes on their backs, leaving behind homes, possessions, jobs and loved ones. Refugees are defined and protected in international law. The 1951 Refugee Convention is a key legal document that defines a “refugee” as *“someone who is unable or unwilling to return to their country of origin owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group, or political opinion.”* By the end of 2017, there were 25.4 million refugee men, women and children registered across the world.” (UNHCR, 2022b). The term “refugee” is defined within the 1951 Refugee Convention: *“A refugee, according to the Convention, is someone who is unable or unwilling to return to their country of origin owing to a well-founded fear of being persecuted for reasons of race, religion, nationality, membership of a particular social group, or political opinion.”* (UNHCR, 1951). The definition itself is declaratory, which indicates that people should be regarded as refugees (for instance, in emergency situations) until declared otherwise. This further aims to secure their protection until the determination of their refugee status (UNHCR, 2022a). However, if the term “refugee” is used frequently in the media, it could promote false uses of the terminology that range from misunderstandings to insults. The definition may apply in a bureaucratic, political or sociological context, but in the context of a community of refugees, a different terminology is needed because individuals have additional needs aside from basic refugee needs. Living a life might consist of more than what refugee camps offer after basic

needs are fulfilled. Human needs are far greater than food, water and security, as this thesis will demonstrate, and there are additional needs beyond simple survival; indeed, the fulfilment of these other needs might be blocked through external management.

This thesis aims to address the isomorphism¹ between neuropsychology, the treatment of psychological symptoms of trauma (for instance, the relevance in the field of refugee studies) and behavioural design. The thesis develops and presents a concept and behavioural design approach to treat collective trauma in a refugee population, while keeping the topic open for various applications of behavioural design in treatment. The concept is not limited to communities; one might find applications in various means of refugee integration and beyond.

The main goal of the approach is to give people who require protection and aid some liberty to manage their lives independently, reducing their psychological and physiological dependency in a step-by-step fashion.

1.3 Trauma evokes great challenges for an individual's development and wellbeing

In the following section, the thesis aims to assess the role of posttraumatic stress disorder (PTSD) in people fleeing their countries due to war. It then introduces definitions and assumptions of the neuropsychology of people who have suffered traumatic experiences, followed by an analysis of behavioural design and choice architecture. Finally, the paper presents a practical approach explaining how choice architecture can positively impact community creation and the reduction of psychological symptoms. The American Psychiatric Association gives a comprehensive definition of PTSD:

“Posttraumatic stress disorder (PTSD) is a psychiatric disorder that may occur in people who have experienced or witnessed a traumatic event such as a natural disaster, a serious accident, a terrorist act, war/combat, or rape or who have been threatened with death, sexual violence or serious injury.” In the United States, one in 11 persons will develop PTSD during their lifetime, whereas women are twice as likely to develop PTSD compared to men.

¹Biology: Similarity of form, as in different generations of the same life cycle;

Chemistry: The existence of two or more substances of different composition in a similar crystalline form;

Mathematics: A one-to-one correspondence between the elements of two or more sets, such as those of Arabic and Roman numerals, and between the sums or products of the elements of one of these sets and those of the equivalent elements of the other set or sets.

(Collins dictionary, n.d.)

Further, “People with PTSD have intense, disturbing thoughts and feelings related to their experience that last long after the traumatic event has ended. They may relive the event through flashbacks or nightmares; they may feel sadness, fear or anger; and they may feel detached or estranged from other people. People with PTSD may avoid situations or people that remind them of the traumatic event, and they may have strong negative reactions to something as ordinary as a loud noise or an accidental touch.” (Torres, 2020).

Thus, a diagnosis of PTSD requires exposure to an upsetting event, and that exposure can also be indirect in nature. The symptoms of PTSD are categorized into four categories, with variations in symptom severity: (1) **Intrusion** is defined by thoughts and memories; for instance, intrusive thoughts may make individuals involuntarily relive their traumatic experiences. (2) **Avoidance** refers to the tendency to avoid people, places, objects, activities and situations that can trigger memories associated with the traumatic experience and, therefore, cause distress. Avoidance is often accompanied by attempts not to think or talk about the distressing situation. (3) **Alterations in cognition and mood** include an inability to recall important aspects of the traumatic experience. Negative feelings and thoughts that lead to ongoing and “distorted beliefs about oneself or others” result in fear, horror or anger as well as guilt or shame, and they come with reduced interest in activities, a feeling of estrangement from others and an inability to experience positive emotions. (4) **Alteration in arousal and reactivity** is characterized by “arousal and reactive symptoms” that can be manifested through angry outbursts or irritability. It comes with an alertness or watchfulness regarding the individual’s surroundings while expecting something to happen, and it can also come with sleeping or concentration problems.

PTSD is related to other psychological conditions, such as **acute stress disorder** (distress as a reaction to a traumatic event, with similar symptoms to PTSD; about half of the people suffering from it develop PTSD); **adjustment disorder** (response to stressful events in life; more intense emotional or behavioural symptoms compared to reasonable reactions); **disinhibited social engagement disorder** (child neglect prior to the age of 2; lack of emotional needs for comfort, such as affection, can negatively impact a child’s social development); and **reactive attachment disorder** (child suffers from social neglect during their first years of life, including unfulfilled needs for comfort and affection; child can become emotionally withdrawn, and problems in development occur before the age of 5) (Torres, 2020).

In summary, PTSD can have devastating impacts on an individual's perspective on life and negatively impact future development and perspectives. Thus, therapeutic environments should be developed to protect individuals who are prone to developing PTSD or who have already developed the symptoms.

1.4 Trauma in refugee populations – a group with significant psychological vulnerability

This chapter elaborates on the role of trauma within refugee populations by examining various studies within the field of trauma research.

Braun-Lewensohn and Al-Sayed (2018) examined the question of how adolescent refugees from Syria coped with their stay in refugee camps – a topic on which limited research has been conducted. The researchers gathered data from 110 adolescents between 13 and 18 years old, 50.9% of whom were males. The participants were asked to submit self-report questionnaires regarding “*demographics, exposure to war, appraisal of danger, receiving aid, SOC, wishes, and expectations,*” (Braun-Lewensohn & Al-Sayed, 2018, p. 1). The abbreviation **SOC** stands for “sense of coherence” and is defined as “*The sense of coherence is a global **orientation** that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that (1) the stimuli deriving from one's internal and external environments in the course of living are structured, predictable, and explicable; (2) the resources are available to one to meet the demands posed by these stimuli; and (3) these demands are challenges, worthy of investment and engagement.*” (Antonovsky, 1987, p. 19).

Having a strong sense of coherence helps individuals cope with stressors (things or situations that arouse stress within a person) and deal with tension successfully (Mittelmark et al., 2022, p. 11). In the study, girls showed overall higher internalization, externalization and posttraumatic stress symptoms, and they perceived their situation as more dangerous. Boys, on the other hand, showed higher exposure to war experiences and a stronger sense of coherence. Psychological problems were found more often in older adolescents, and younger children had a stronger sense of coherence. Children who had arrived in the camp more recently had fewer psychological problems than children who had spent more time in the camp, with a variance that could be explained by the adolescent's gender, exposure to war and perception of danger (Braun-Lewensohn & Al-Sayed, 2018, p. 1). The authors stressed that adolescents in particular are prone to developing psychological problems from exposure to war due to their developmental stage (Bean et al., 2007 cited in Braun-Lewensohn & Al-

Sayed, 2018, p. 2). Nonetheless, **adolescents can demonstrate a great amount of psychological strength, especially if there is a strong parental or social support element** within the community (Braun-Lewensohn, 2015 cited in Braun-Lewensohn & Al-Sayed, 2018, p. 2) and a strong adaptability, which helps them cope with stressors (Weine et al., 1995 cited in, Braun-Lewensohn & Al-Sayed, 2018, p. 2).

Braun-Lewensohn and Al-Sayed (2018) found practical information through their studies, from which they concluded that adolescents face risks for psychological symptoms due to their time spent in a refugee camp. A sense of coherence can play an important role in helping children cope with stressful situations. In addition, it is important to **integrate adolescents into societal processes to establish decision-making in their lives. For example, schools could offer support as a natural environment for human development**, thereby helping students develop coping procedures for a variety of stressful situations. In addition, parents and caretakers should be introduced to the topic of their adolescents' coping needs in order to raise awareness. Moreover, children need a **perspective for the future** in order to establish hope within the adolescent population, and policymakers should consider **placing children in permanent residences** (Braun-Lewensohn & Al-Sayed, 2018, pp. 5-8). The research concludes that *“resources of SOC, wishes and expectations (emotional and cognitive components of **hope for better future**)”* can reduce psychological problems among adolescents who were forced to flee from their homes in Syria due to the war. Vulnerability, psychological or emotional, is greater among girls, older adolescents and adolescents who have spent more time in camps. The study revealed that psychological problems are more likely to occur among these groups. Sense of coherence also plays a significant role in explaining psychological problems, and it works as a mediator between relationships, socio-demographic aspects and war exposure while also helping with the assessment of danger (Braun-Lewensohn & Al-Sayed, 2018, p. 8f).

In summary, camps should strengthen adults' and children's sense of coherence to help them cope with the trauma they experienced and reduce stress reactions. Children and adults need social support; therefore, to reduce negative psychological symptoms among adults and children who have experienced war, communities should develop options for social interactions. Strategies for decision-making should also be provided. This could occur in the school setting to develop coping processes since it fosters feelings of being able to interact with the environment. In addition to encouraging social contact, communities should give children further opportunities to make their own decisions, and they should teach coping

practices within the educational system. Children could especially benefit from permanent and stable accommodations, and perspectives for the future should be introduced within the community, such as through teachings about various countries and professions, which might also be valuable for the hosts. Fostering expectations of a better future should be a regular part of children's lives to strengthen their SOC.

1.5. Trauma in children – living in a camp and active healing in youthspaces

This chapter aims to point out the relevance of trauma in children and discuss approaches to reduce its negative impact. In her research, Goessling (2019) has investigated the topic of trauma in relation to youth participation and noted that trauma is generally understood as an individual's reaction to a stressful experience or event. It also relates to the individual's coping abilities regarding those situations. As schools and youth facilities become increasingly aware of the importance of children's trauma, this awareness leads to the provision of coping support by non-professionals and, therefore, fosters social-emotional development such as problem-solving skills. According to the author, gaining insight into the field of trauma to understand it as an affective and deeply embodied experience can help with the design of youthspace practices to strengthen the sensorial mind and body intelligence of young people. For example, children who have grown up in an environment in which they learned to see police as a threat might react unconsciously to school officers in school facilities (Goessling, 2019, pp. 14-15). For children in refugee camps, this could mean that they might unknowingly react to occurrences in a negative way due to a lack of awareness that they might have faced traumatic experiences that could be associated with this situation.

Goessling (2019) has stressed that trauma can impact whole societies and can even be passed on through generations. Examples of such cases include World War 2, the Holocaust, the Rwandan genocide, the United States' measures regarding prison management and the treatment of migrant children. Goessling further notes that the dehumanization of colonialism can play an important role in establishing trauma across generations and illustrates the intersection between colonialism, racism and capitalism. With this background, schools can become controlling environments in which pupils have to abandon their language, cultures and customs (Goessling, 2019, p. 16). Goessling further emphasizes that *“trauma is always individually and collectively experienced is an intentional shift away from the traditional psychological and medical paradigm that reflects an individualistic and pathologizing framework.”* Indeed, the *“youthspace framework embraces a politicized*

approach to trauma that attends to the daily experiences of urban youth living in an oppressive western white supremacist patriarchal capitalist society. The youthspace theory of trauma is local and place-based, grounded in the specific meanings, traditions, customs, and social relations that constitute the contemporary context.” (Goessling, 2019, p. 16f.). Goessling stressed that youths are particularly prone to stress and trauma that emerge through manifestations of historical and cultural factors.

Youthspaces support young people in establishing an understanding of themselves as individuals of a collective and developing responsibility for their lives as well as learning the skills to cope with various manifestations of trauma in their lives (Goessling, 2019, p. 17). Various arts, from music to film, are catalysts for social changes and can help to make human experiences visual; thus, support groups develop understanding, empathy and solidarity. Heath (as cited by Goessling, 2019, p. 17) identified factors that are relevant for successful participation in arts and described the interconnection between mentoring, learning and individual development. These factors include sustained co-learning with professionals as mentors over a longer period; meaningful referenced knowledge from sources and models; expectations of risk for exhibitions, productions or performance; and opportunities to increase skill levels (from beginner to intermediate and beyond) (Goessling, 2019, p. 17). Goessling has noted the difficulties that emerge when community-based programs are implemented to work with youth. This is considered time-intensive work that usually does not follow a linear path; moreover, young people have difficult and complex lives, which makes the implementation even more complicated. This calls for adults to maintain an open mind when working with youths from difficult backgrounds. Ultimately, the youthwork will be an additional program, which will be intertwined with other programs that run parallel to it, such as those depicted in material realities, housing or security. With the additional provision of material needs, the realities of young people can be further acknowledged by the programs (Goessling, 2019, p. 19f).

Goessling has further distinguished the general principles of youthspaces and provided examples of possible approaches. One example is an activity called “Safe Space”:

1. *“Write about and draw a place that you go to feel safe/comforted*

Past or present

As much detail as possible: what does the place look and feel like? Explore the emotional experience you have when there and now when thinking about it. Where do you hold this in your body?

2. *Pair up with someone you don't know & share about your special place*
3. *Share-back with group: Partners will tell the class about their partner's safe place*

Process questions:

What did it feel like to share about this place?

What did it feel like talking about someone else's story/telling the story of something very important to someone else?

Why do you think we did this activity?" (Goessling, 2019, p. 26).

Goessling (2019) concluded that in the youthspace approach, young people can become creative co-researchers, through which they address "multiple layers of oppression that are experienced and transmitted across generations as a result of intergenerational, transgenerational and historical trauma." Further, Goessling (2019) stated that he argued that power is key for healing, resistance, wellness and liberation. She concluded that, while the youthspace approach may present risks and potential for youth development, it could provide a liberating force for youth trauma treatment (Goessling, 2019, 27f).

Goessling (2019) developed a concept which aims to give children an active role in their trauma treatment through artistic means. In refugee communities, these practices can help children (and perhaps adults) actively cope with their trauma and distress, and the methods parallel the activation approach through sporting activities, cognitive tasks, and arts; in this way, the practices address the frontal cortex to reduce negative psychological symptoms associated with trauma.

1.6. Post-Migration Stress and Psychological Disorders in Refugees and Asylum Seekers

Staying in a refugee camp can cause distress, and post-migration challenges emphasize the urgent need for early intervention in populations that are vulnerable for developing negative psychological symptoms such as PTSD or depression due to having experienced war and migration. Mental disorders not only affect a person's mental well-being before and during the stay in a refugee camp but also can impact the post-camp life to which a person aspires. Untreated, unaddressed mental disorders can present many post-camp risks. The journey itself and the impacts from the past can cause stress, and the new environment can also create tensions. These risks highlight the need to teach individuals how to deal with stressful situations.

Li, Liddell, and Nickerson (2016) assessed the topic of post-migration distress in refugees. Li et al. (2016) assessed this topic due to the great increase in forcibly displaced persons and their high rates of psychological disorders and PTSD cases. Their research has focused on post-migration stressors after settlement. The authors reviewed *“the research evidence linking post-migration factors and mental health outcomes in refugees and asylum seekers [and found] that socioeconomic, social, and interpersonal factors, as well as factors relating to the asylum process and immigration policy affect the psychological functioning of refugees.”* In addition, the authors discussed the limits of the existing literature, future directions, and implications for treatment and policy. In 2015, great masses of refugees fled from violence, war, and persecution – factors that can have long-lasting, negative impacts on mental well-being; indeed, individuals’ mental health can suffer under the migration process itself. The authors found evidence that high rates of PTSD, depression, and anxiety were reported among refugees, and studies found symptoms of PTSD and depression among 30.6% and 30.8% of the forcibly displaced (Li et al., 2016, p. 1). Moreover, the authors found that higher incidences of traumatic experiences were associated with greater psychiatric symptoms and that post-migration factors greatly impacted trauma. In addition, *“Socioeconomic factors, such as financial and housing security, are associated with the psychological well-being of resettled refugees.”* Financial insecurities, such as obtaining employment, are issues that many refugees must face after settlement, and barriers to employment are found in *“visa restrictions, poor language skills, qualifications from their home countries not being recognized in the resettlement country, discrimination, lack of vocational skills, and psychological or physical barriers.”* Underemployment (employment that does not suit a person’s qualifications) often results from the existing barriers, and refugees with fewer economic opportunities have poorer mental health compared with refugees who have better economic opportunities. Unemployment is a significant risk factor for depression or anxiety among refugees. The authors stated that sustainable employment can be a key factor with a positive impact on mental health. For example, economic possibilities for financial independence are required for stable housing in the settlement state, and housing issues can further cause distress. Based on the literature, the authors showed that refugees with stable and private housing had better mental health than those who required institutional or temporary housing support (which can further increase problems within the community and social environment in the settlement region).

Resettlement brings great challenges for refugees due to isolation, the loss of community, and discrimination in the host country, and separation from family causes additional distress (Li et al., 2016, p. 2). The authors concluded that *“social and interpersonal difficulties experienced by refugees in the post-migration environment are important factors contributing to mental health outcomes.”* Social detachment has been emphasized as a particularly salient risk factor that decreases mental health. Furthermore, the authors stated that the asylum processes are becoming increasingly difficult, with longer processing times, complicated procedures, and temporary visas. Restrictive asylum policies have been increasing, and they cause uncertainty in individuals seeking asylum – a factor that can enhance psychological problems. **Mandatory detention is a common interception policy** in the face of irregular entries of migrants and asylum seekers. Risk factors for mental health regarding detention include uncertainty about the duration of the detention, insufficient access to legal services, proximity to others, great distress, and lack of agency. Depression and PTSD are common among detainees, as the psychological distress increases over time, while previous experiences in detention decrease the amount of stress felt by individuals after their detention. The negative effects of detention can last for years after resettlement, as some studies have suggested. As Li et al. (2016) stated, *“Research suggests that mental health outcomes deteriorate the longer the asylum-seeking process takes.”* (Li et al., 2016, p. 3). In addition, Li et al. (2016) found that when applications for asylum were accepted, symptoms of PTSD, depression, and anxiety substantially improved; as applications were rejected, diagnoses of PTSD increased among asylum seekers. Furthermore, temporary visas (compared with unlimited visas) seemed to increase the risks to mental well-being. The authors highlighted the stressors and intertwined nature of various factors; for instance, temporary visas can lead to financial problems due to limited employment opportunities, which in turn results in additional stressors. In discussing their literature review, the authors addressed the limitations of the data, especially regarding the difficulty in conducting long-term observations due to the group’s mobility. Long-term studies, however, could provide important insights into refugees’ abilities to cope with stressors (Li et al., 2016, p. 4). Moreover, the research has mainly focused on what factors are causing mental health issues rather than how they impact mental health. Self-efficacy has also been found to positively impact refugees’ education, employment, and coping, while decreased self-efficacy was associated with poor mental health and socioeconomically weak positions. Moreover, while the research has uncovered some important aspects of post-migration stressors, problems in assigning evidence-based treatments persist. However, it was shown that achieving legal

status as a refugee or asylum seeker could greatly reduce symptoms. The authors acknowledged that the stressors can be individually defined, and the reasons people seek refuge or asylum, such as conflicts, can be unique; likewise, host countries have their own unique stressors that the individuals will have to face (Li et al., 2016, p. 5). Refugees who live in camps might face stressors associated with the fulfillment of basic needs such as food, water, and sanitation. The authors presented existing therapeutic methods for treating PTSD; however, research is scarce regarding the treatment of refugees with PTSD. According to the authors, policies should aim to support employment options, social capital, and connections for refugees and asylum seekers, while implementations that harm refugees' mental health, such as longer detention in camps, should be eradicated. As Li, Liddell, and Nickerson (2016) concluded, *"Post-migration factors are important predictors of refugee mental health and must be considered alongside premigration trauma to understand the psychological effects of the refugee experience. Stress relating to socioeconomic difficulties, social and interpersonal challenges, and the asylum process and immigration policies in the settlement environment affects mental health outcomes in refugees. Closer examination of the underlying mechanisms that influence the relationship between post-migration stressors and refugee mental health, as well as longitudinal research to discern causality, would be useful to inform policy and interventions that promote better psychological functioning among resettled refugees."* (Li et al., 2016, p. 6)

These findings highlight the need for establishing integrated methods and community skills that support integration. Communities should provide opportunities for work to reduce distress within refugees caused by financial challenges. In essence, communities should provide opportunities and support employment. For this to occur, interception policies must change; for instance, creating faster asylum acceptances and decreasing temporary solutions can reduce distress. Communities should also promote increased self-efficacy to reduce negative symptoms while reducing internal stressors, such as inadequate fulfillment of basic needs. Finally, duration within camps should be reduced; since communities operate differently, they might have a chance to reduce psychological symptoms and provide a better future for refugees in a shorter period of time while reducing the negative stressors and increasing self-efficacy.

2. Psychology – Understanding the underlining Neuropsychological aspects of trauma

This section aims to summarize some significant findings in the field of neuropsychology and trauma treatment. The thesis will introduce basic knowledge in the field of neuropsychology and then further illustrate the concepts using research and adaptations to real-life situations. Special attention is paid to the field of trauma treatment and to linking certain parts of the brain to their neuropsychological functions while emphasizing their relevance for people suffering from psychological symptoms caused from trauma.

2.1 Neuropsychology and trauma – Amygdala vs Frontal Cortex

This chapter aims to assess and define some of the brain regions that are relevant in the field of neuropsychology, especially in the field of trauma research.

The brain has developed throughout history and evolution, and the latest developments have been in the outer brain regions; the most basic brain functions are found in the centre. For example, the centre of the brain is responsible for heart rate and blood pressure, while the layers toward the outside are, for instance, associated with abstract and concrete thought (Perry & Szalavitz, 2006).

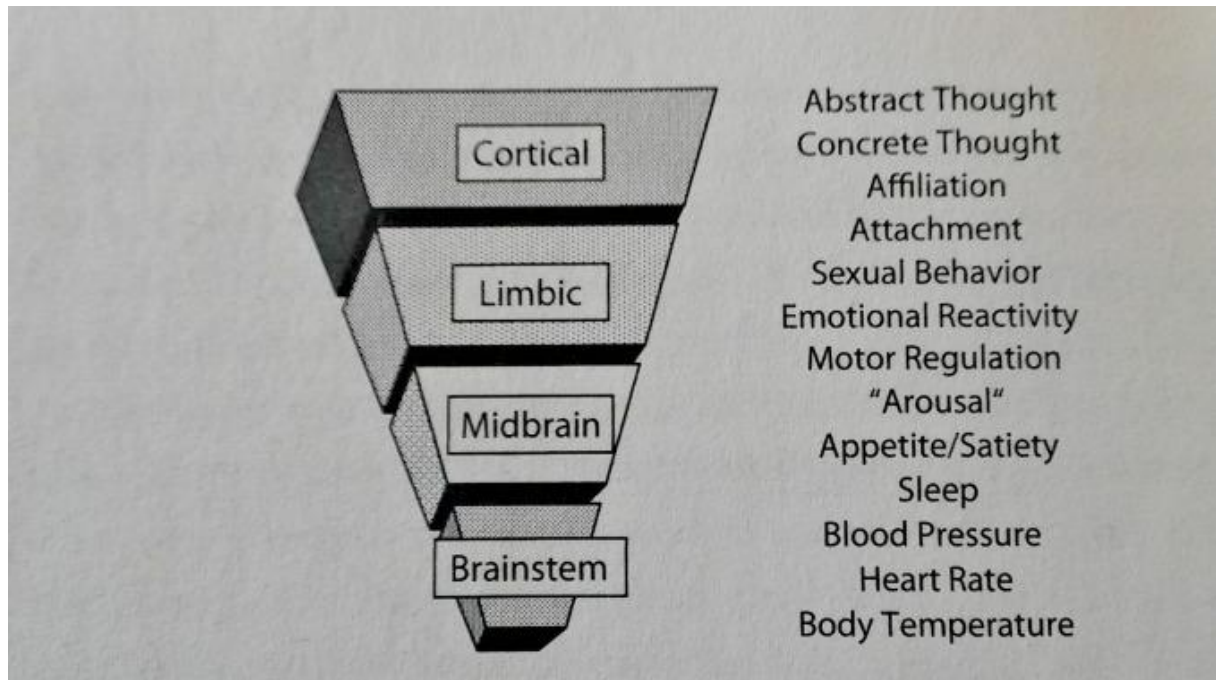


Figure 4: Hierarchy of brain functions, (Perry and & Szalavitz, 2006).

Posttraumatic stress and depression symptoms have been found through clinical research with self-rated scales and structured diagnostic interviews with refugees, and they show a wide range (between 4% and 86%) of symptoms of posttraumatic stress and 5% to 31% for

depression within populations (Hollifield et al., 2002). The World Health Organization has estimated that 5% of the global adult population suffers from depression (World Health Organization [WHO], 2021), while the National Institute of Mental Health has estimated that around 3.6% of the United States population suffers from PTSD (National Institute of Mental Health [NIH], n.d.). In this chapter, the thesis will explain some of the important brain regions, what their functions are, and how they impact behaviour and emotion in people who are free from psychological symptoms and in people who have lived through traumatic experiences.

In the book *The Body Keeps the Score*, Van der Kolk (2015) detailed his experiences in the field of trauma treatment for his patients and the emergence of new psychological methods to help people overcome – or reduce the impact of – traumatic experiences. The book

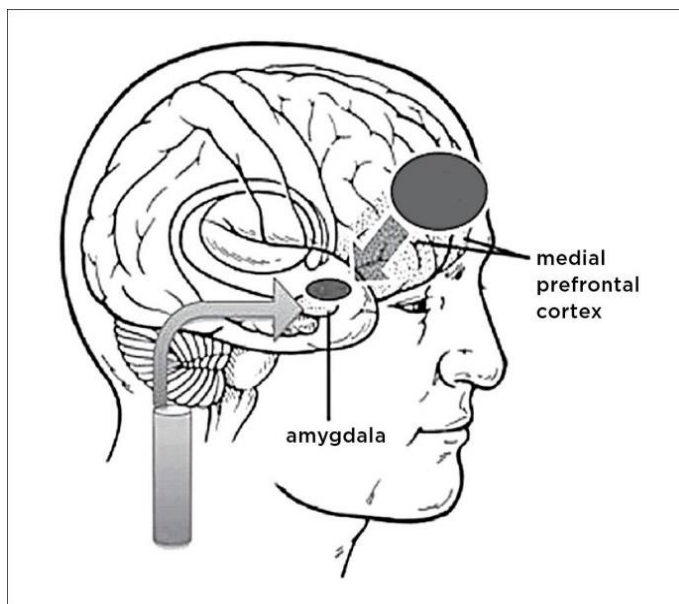


Figure 5: Running for your life: The anatomy of survival, psychological response system (Van der Kolk, 2015, p. 73)

assessed the relationship between the prefrontal cortex, the amygdala, and the partially uncontrollable body reactions when danger is perceived. Moreover, it stated the risks for trauma in society and the costs that emerge due to inefficient treatment methods (Van der Kolk, 2015). Figure 5 illustrates these two relevant brain structures.

The thesis will introduce the functioning of some of the most important brain regions due to their

significance in trauma treatment and their stimulation through choice architecture (further discussed in section 4). To introduce some of the basic brain functions, Figure 5 briefly explains the functions of the prefrontal cortex, the limbic brain, and the brainstem. Trauma not only can cause psychological problems but can also, as Van der Kolk (2015) emphasized, lead to physical pain which has no obvious physical cause (Van der Kolk, 2015, p. 28.). He

stated that people who suffer through traumatic experiences tend to become stuck in their familiar fears instead of experimenting with alternative options. Van der Kolk (2015) used an experiment on dogs that showed there is a need to present other options of physical experiences to make a human being understand that a path out of the painful situation exists. To emphasize the impacts trauma can have on a mammal's functioning, Van der Kolk (2015)

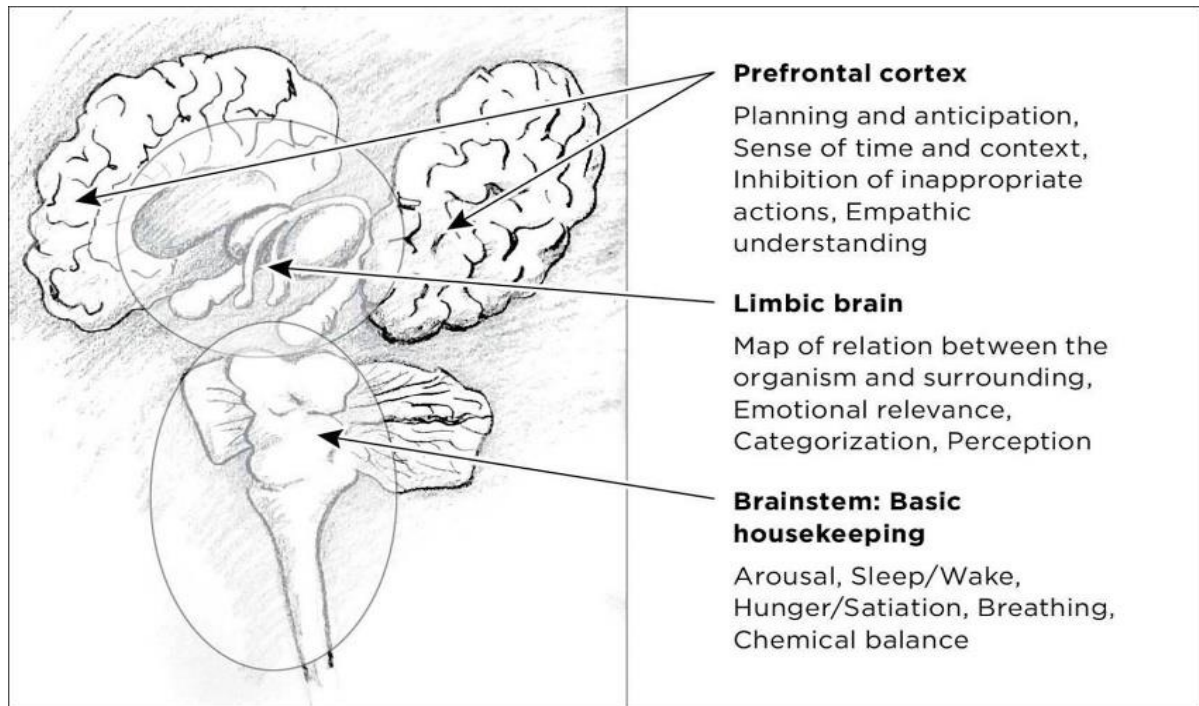


Figure 6: Running for your life: The anatomy of survival, psychological response system (Van der Kolk, 2015, p. 69)

conducted an experiment in which dogs were electrocuted while they were in a closed cage. Eventually, the dogs gave up and even stayed in the cage after the researcher opened the cage's doors. Teaching the dog that it could leave the cage was crucial; otherwise, it would have stayed in the cage. A control group of dogs that were electrocuted for the first time with an open cage door fled immediately (Van der Kolk, 2015, p. 34). This experiment can only hint towards the tremendous effect trauma can have on human behaviour. Van der Kolk (2015) stressed that the brains of individuals who have suffered trauma respond with their whole body to potential threats. Therefore, the brain's alarm system is triggered for escape plans that emerge through physical action, and the system is triggered by the oldest part of the brain. Fight, flight, or freeze are actions that the body conducts without the individual being fully aware of them (additionally see Goleman, 1995), and the individual gradually returns to their senses after the natural reaction took over. When people are held down, trapped, or prevented from taking effective action in some way, as can happen with

accidents, war zones, or violence, the brain continues to infuse stress chemicals into the body, whereas the electrical circuits are sending signals in vain, which means that the signals are sent to the body long after the individual escaped the actual threat. *“Being able to move and do something to protect oneself is a critical factor in determining whether or not a horrible experience will leave long-lasting scars”* (Van der Kolk, 2015, p. 62ff).

Figure 6 illustrates the brain’s functioning and reaction to things that are seen and experienced as a potential threat. It shows how the flow of information passes through the brain.

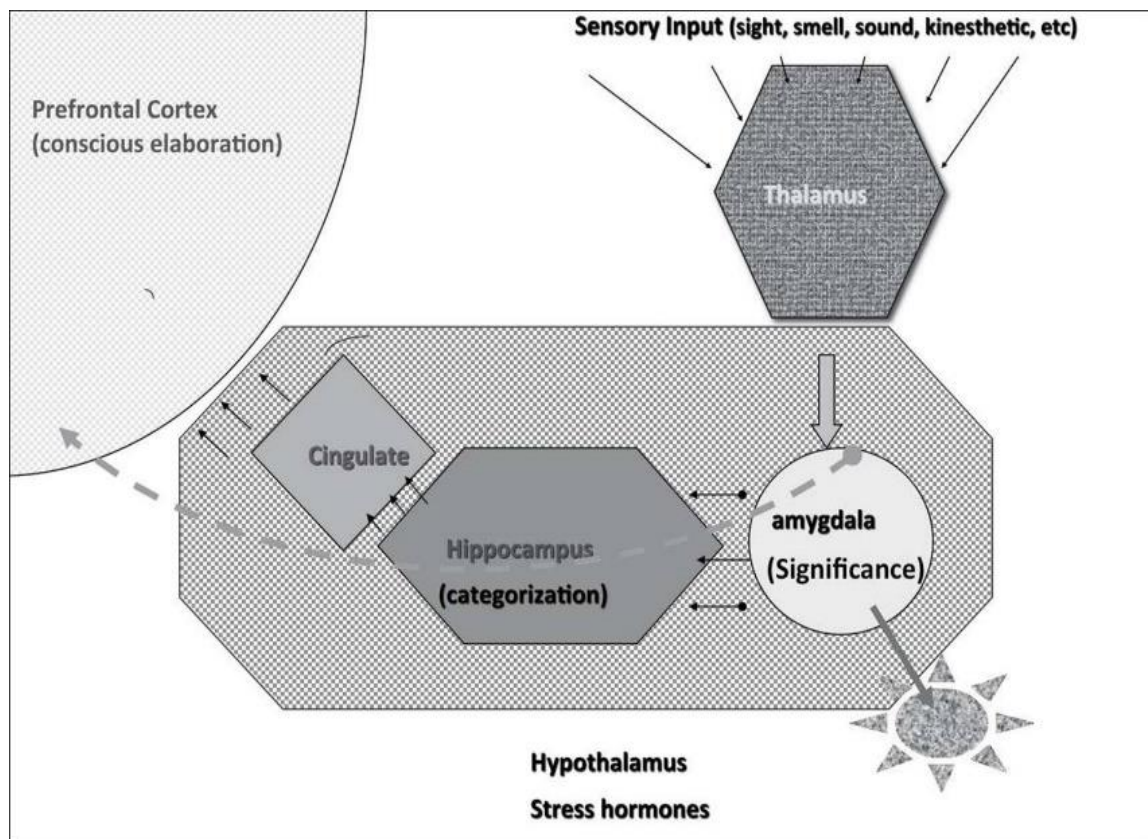


Figure 7: Running for your life: The anatomy of survival, psychological response system (Van der Kolk, 2015, p. 71)

For instance, when a person sees a gun, the brain functions can be defined as the following: (1) Thalamus: The thalamus stirs the sensational input such as sounds, smells, or sights (Van der Kolk, 2015, p. 70). The person visually sees a gun or something that reminds them of a gun due to its colour, form, or other point of reference that the person uses without being aware of it. (2) Amygdala (significance): The amygdala is responsible for a quick evaluation of whether the incoming input is relevant for survival (Van der Kolk, 2015, p. 70).

“If the amygdala senses a threat – a potential collision with an oncoming vehicle, a person on the street who looks threatening – it sends an instant message down to the hypothalamus and the brain stem, recruiting the stress-hormone system and the autonomic nervous system (ANS) to orchestrate a whole-body response.” (Van der Kolk, 2015, p. 70)

The amygdala signals the body that there is a danger (for instance, the danger of being shot). The person jumps back or starts to run even before they realize that the body has reacted. It is like rapidly pulling back a finger from a hot stove before realizing that it is hot. (3) Hippocampus (categorization): The hippocampus relates the new input to previous experiences (Van der Kolk, 2015, p. 70). The amygdala sends the message “there is a gun, there is danger” to the hippocampus, which then activates a bodily response without the individual being aware of it. (4) Cingulate:

“As seen from the extensive neural pathways it shares with other brain regions, the cingulate cortex can be considered, in a sense, a connecting hub of emotions, sensation, and action. Some of these pathways are those involved in motivational processing, which is apparent through the connections with the orbitofrontal cortex, basal ganglia, and insula, which together make up the reward centers of the brain.” (Jumah & Dossani, 2022).

(5) Prefrontal Cortex (conscious elaboration): The prefrontal cortex is also described as the rational brain. The medial prefrontal cortex (MPFC) is centred around a human’s eye and can rationally assess a situation as long as the individual is not too upset. This part of the brain helps to observe and analyse situations for conscious choices and decisions. As van der Kolk stated, the MPFC is also responsible for being able to calmly observe one’s own emotions – an ability he calls mindfulness (Van der Kolk, 2015, p. 70f).

“Because the amygdala processes the information it receives from the thalamus faster than the frontal lobes do, it decides whether incoming information is a threat to our survival even before we are consciously aware of the danger. By the time we realize what is happening, our body may already be on the move.” (Van der Kolk, 2015, p. 70).

In relation to the bodily responses of the amygdala processing the information from the thalamus, van der Kolk stated that when the amygdala is triggered through danger, powerful stress hormones such as cortisol and adrenaline are released that impact heart rate, breathing, and blood pressure for a fight or flight reaction by the body. When the danger has passed, the body stabilizes and returns to its normal functioning. Once the recovery from danger is

blocked, the body maintains its heightened arousal, which results in individuals feeling aroused, nervous, and agitated (Van der Kolk, 2015, p. 70).

“Trauma robs you from the feeling that you are in charge of yourself (...).” (Van der Kolk, 2015, p. 243). As noted, people who have suffered from trauma often develop a state of continuous arousal. To recover from trauma, van der Kolk emphasized the need for people to regain ownership of mind and body and, ultimately, ownership of themselves. In other words, people need to feel free about their knowledge and feelings without becoming enraged, ashamed, collapsed, or overwhelmed. Furthermore, van der Kolk stated that for many people this achievement comes through

“(1) finding a way to become calm and focused, (2) learning to maintain that calm in response to images, thoughts, sounds, or physical sensations that remind you of the past, (3) finding a way to be fully alive in the present and engaged with the people around you, (4) not having to keep secrets from yourself, including secrets about the way that you have managed to survive.” (Van der Kolk, 2015, p. 243f).

To summarize the key findings, in order to heal from trauma people should (1) find ways to be calm and focused, (2) learn to remain calm through triggers, (3) be alive in the present, and (4) not have to keep secrets from themselves. Communities can foster such experiences to reduce the negative impacts of psychological symptoms that are associated with trauma. These steps, however, do not follow a specific order or sequence, and while some might be easier to achieve, others will only come with difficulties depending on each individual (Van der Kolk, 2015, p. 243f).

To heal, people should have a chance to face their traumatic experiences when they feel safe and cannot be traumatized again. People learn to deal with the sensations and emotions that are associated with certain events. Posttraumatic reactions are associated with the emotional region of the brain which manifests physical reactions such as fast breathing and feelings of heartbreak, rage, or defensiveness. Emotions overtake rationality, and when emotions take over control of the body, having understanding and knowledge about inner feelings can prevent people from having intense reactions that could do further harm. In order to resolve traumatic stress, the balance between the emotional (amygdala) and rational (frontal cortex) brain should be restored to allow the brain to regain control of the individual's responding actions (see Goleman, 1995; Kahneman, 2011; Van der Kolk, 2015). Triggers can push individuals to states of high arousal, making filters fall apart and undermining an individual's

cognitive abilities and functioning by making them reactive and disorganized. Triggers such as lights, sounds, or images can become bothersome and intrude on the mind, resulting in panic or rage. Such overwhelming experiences can numb the body and its functioning. In times of hyperarousal or shutting down, although they perhaps stay in control, individuals' ability to learn from experiences is reduced. The limbic system (the emotional brain) needs a chance to restore false alarm systems (hypersensitivity to sounds or smells) to bring the emotional brain back on track (Van der Kolk, 2015, p. 244ff.) (see also Goleman, 1995; Kahneman, 2011; Van der Kolk, 2015).

Van der Kolk has emphasized that certain triggers – something the person sees or smells – can take them back to traumatic events. In such moments, the body is highly aroused, and the emotional brain (amygdala) takes over control of the body (with, for instance, certain reactions) while rational thinking is out of reach. An example is when a person slams a door and the noise triggers someone who had fled from war and experienced exploding bombs or shots. Without being aware of it, the person could react by contracting his or her body while the heart rate accelerates until logical thinking (the frontal cortex) clarifies the situation – that it was not a shot but the door that produced the noise.

Another example of how emotions can take over our bodies was emphasized in Daniel Goleman's book *Emotional Intelligence*. Goleman retold the story of a friend who was walking along a lake when he suddenly saw a woman who was filled with anxiety and staring at the water. Before Goleman's friend knew what was happening, he jumped into the water with his clothing on, and when in the water, he realized that the woman was searching for an infant that had fallen into the river. The friend was able to save the child. Goleman stated that the amygdala was probably the reason his friend jumped into the water without actually knowing why he did so. Through the eyes and ears, information first passes the thalamus, which leads information through one synapsis further to the amygdala. Further information is sent from the thalamus to the neocortex, which then can lead to more thoughtful reactions. As a result, the amygdala receives information earlier than the neocortex, and the body can react before being fully aware of its reaction (Goleman, 1995, pp. 35-38).

Throughout human evolution, this has proven quite important. For instance, if a person sees a snake, the body (through the amygdala) reacts before they can think about it and, therefore, can save a critical amount of time. In other words, the amygdala made Goleman's friend jump into the water, and the neocortex told him why he did so. However, in modern societies,

such reactions might do more harm than good, since modern threats have changed while the response systems may not have.

Van der Kolk (2015) stated that self-awareness, achieved by activating the prefrontal cortex through noticing what is happening inside of the body, is the only way to reach out for the emotional brain (interception). Neuroscience emphasizes that a person can change feelings only by being aware of those feelings (Van der Kolk, 2015, p. 247), something that is further defined by Goleman through the term “emotional intelligence” (Goleman, 1995). To re-establish a healthy relationship with the emotional brain (amygdala), individuals have to learn how they can deal with hyperarousal (Van der Kolk, 2015, p. 247). The vagus nerve, which connects the body and brain, serves an important function in regulating the body’s stress response. People can access and train their body’s arousal system through breathing, chanting, and movement. There are various ways to develop the arousal system, and as the author was able to show within studies, yoga classes, for instance, have been shown to reduce PTSD symptoms in patients for which medication had no effect. For example, exhaling activates the parasympathetic nervous system, which reduces emotional arousal (by triggering acetylcholine) by slowing the heart rate or enhancing muscle relaxation. In contrast to the parasympathetic nervous system stands the sympathetic nervous system, which encourages the flushing of adrenaline through the body. To maintain a calm state of mind, focusing on slow exhaling is a simple, practical, and effective method (van der Kolk, 2015, p. 88ff.). Van der Kolk mentioned emotional regulation as a crucial issue in managing the negative impacts of neglect and trauma, which could have important impacts on the field of education, such as through providing self-management techniques (Van der Kolk, 2015, p. 248). As Goleman (1995) described in his book, emotional intelligence is a better indicator than an IQ test for a person’s success in life and career. Emotional intelligence is defined as an individual’s ability to name, feel, and acknowledge their emotions, accompanied by the ability to change emotions to reduce the risks caused by them (Goleman, 1995). However, although emotions are helpful, there are other factors to consider such as the chosen profession (see Grant, 2021).

Relationships are an important factor in therapy and in dealing with trauma. Recovering from trauma happens in the context of relationships. These relationships include family, loved ones, and meetings with groups and organizations that help people cope, such as anonymous alcoholics meetings, religious communities, and professional therapy. Dealing with trauma without support from others can lead to further isolation, addictions, despair, and other

negative outcomes (Van der Kolk, 2015, p. 251f). Membership in a group, on the other hand, can offer possibilities for collective healing. Van der Kolk described witnessing a group of women who were rape survivors in a township outside of Johannesburg change their sad and frozen appearances through chanting and engaging together in dancing (Van der Kolk, 2015, p. 256). In his book, the author addressed research on group activities that found that communal activities helped people deal with their experiences and improved their general emotional state (Van der Kolk, 2015, pp. 397-416). Taking action is another option for coping with trauma. People secrete stress hormones in extreme experiences, and people who use stress hormones to actively take action in a threatening situation, such as rescuing someone, have a much lower risk of being traumatized. In contrast, helplessness and immobilization prevent people from using their stress hormones; those hormones are, however, still being flushed into the body, but the active use of them is prevented. This could lead to inappropriate fight, flight, or freeze responses (Van der Kolk, 2015, p. 260). As van der Kolk stated, *“Poverty, unemployment, inferior schools, social isolation, widespread availability of guns and substandard housing all are breeding grounds for trauma”* (Van der Kolk, 2015, p. 419).

Refugee camps presumably impose daily stressful situations on refugees and are often linked to insecurities. Refugees can have limited possibilities for releasing and using the stress hormones in a productive manner such that the whole situation is experienced as stressful; moreover, the aftermath of a refugee camp could be greatly harmful to mental health. Refugee camps should give individuals the option to be active. Perhaps within a community of individuals who have had similar experiences, understanding and empathy for trauma is stronger than in a new society. Therefore, an intermediate step in transition and migration could be implemented – especially in cases where there are higher risks for trauma within the population. Communities should offer opportunities to develop meaningful and supportive relationships. Emotional intelligence could directly or indirectly provide access to children’s and adults’ emotional pain and lead them towards a path of healing from the past and fearing for the future, thereby reducing the negative impacts of refugee camps (especially on child development).

Communities should offer possibilities for recovering from danger and reducing stress hormones through activities that reduce potentially harmful psychological symptoms for individuals and the population. If no options for recovery are given, the body cannot stabilize what might fuel conflicts and further dangers within the community itself. When tensions

become unbearable, fights within the community can emerge. What happens if Europe cages people and forces their dependency on the European hosts? What if Europe robs a refugee's chance to become in charge of themselves? Communities should help refugees to (1) find ways to be calm and focused, (2) learn to remain calm through triggers, (3) be alive in the present, and (4) not have to keep secrets from themselves. Moreover, possibilities to take action and create relationships should be given.

2.2 Trauma and meaning – the danger of self-definition through historical trauma

This chapter discusses the role of meaning in trauma therapy. Victor Frankl (1959) presented an approach in his book *Man's Search For Meaning*, recalling his experiences in concentration camps during the Holocaust. Frankl described how suffering became part of the inmate's identity and shielded them from negative thoughts. Frankl (1959) further described his emotional states during his internment and incarnation, leading him to his approach in psychology called logotherapy (Frankl, 1959).

Hirschberger (2018) further analysed the significance of meaning in the field of collective trauma: *"Collective trauma is a cataclysmic event that shatters the basic fabric of society"* (Hirschberger, 2018, p. 1). With a collective trauma comes a crisis of meaning. It needs to transform to lead towards a meaning that gives space for the redefinition of a group – a redefinition of where they go and who they are (Hirschberger, 2018, p. 1). In his article about collective trauma, Hirschberger defined collective trauma as *"the psychological reactions to a traumatic event that affect an entire society; it does not merely reflect an historical fact, the recollection of a terrible event that happened to a group of people. It suggests that the tragedy is represented in the collective memory of the group, and like all forms of memory it comprises not only a reproduction of the events, but also an ongoing reconstruction of the trauma in an attempt to make sense of it. Collective memory of trauma is different from individual memory because collective memory persists beyond the lives of the direct survivors of the events, and is remembered by group members that may be far removed from the traumatic events in time and space."* (Hirschberger, 2018, p. 1). The generations that follow and that never witnessed the traumatic experience itself could remember the occurrences differently (from the information they received) compared with the survivors of the traumatic experience, thus taking on different shapes moving from generation to generation. This could provide the path for the chosen trauma debate that shows the

intertwined relationships between memory, trauma, and ontological security (Volkan, 1997 as cited by Hirschberger, 2018, p .1).

Ontological security, as described by Mitzen (2006), is a basic need similar to the desire for physical security. Ontological security helps assess and understand the stability of social relationships, conflictual or cooperative, through establishing routines in which actors behave differently. While some repeat routines, others react more reflexively. According to the author, *“Ontological security is security not of the body but of the self, the subjective sense of who one is, which enables and motivates action and choice.”* (Mitzen, 2006, p 344). This means that individuals require a relatively stable definition of themselves, although self-understanding can change over time. This is an important step in learning and personal development, supported by the individuals’ actions, which help to maintain self-image over time, while from identity the action emerges in reverse (Mitzen, 2006, p 343f) (reminiscent of the SOC concept discussed earlier).

In collective trauma, most literature has addressed the Holocaust, although its uniqueness is problematic for any comparison. Nonetheless, it can provide valuable insights into the field of collective trauma. Hirschberger showed the formation of meaning for victims of collective trauma. Meaning is established by *“passing down culturally-derived teachings and traditions about threat that promote group preservation”*; *“these traditions of threat amplify existential concerns and increase the motivation to embed the trauma into a symbolic system of meaning”*; *“trauma fosters the sense of a collective self that is transgenerational thereby promoting a sense of meaning and mitigating existential threat”*; *“the sense of an historic collective self also increases group cohesion and group identification that function to create meaning and alleviate existential concerns”*; *“the profound sense of meaning that is borne out of collective trauma perpetuates the memory of the trauma and the reluctance to close the door on the past”*; *“Over time collective trauma becomes the epicenter of group identity, and the lens through which group members understand their social environment.”* (Hirschberger, 2018, p .2). According Hirschberger, the role of collective trauma is even more complex since it evolves into a hazy area in which the distinction between victim and perpetrators becomes less evident through highlighting sacrifices and downplaying the crimes that were committed (Bilewicz et al., 2014; Hirschberger et al., 2016b, as cited by Hirschberger, 2018). Those roles become a competition of who the real victims are. Trauma can play a crucial role in the construction of meaning in a collective and can inherit positive improvements that can help to keep trauma alive. Hirschberger argued for alternative ways

to remember collective trauma that do not re-enact the past compulsively with its defensive mechanisms and that reduce risks for intergroup tension (Hirschberger, 2018, p. 2). Hirschberger (2018) stressed the role of meaning and trauma from a social perspective in which trauma establishes a connection in a collective. Further, he stated that trauma by the perpetrator group requires the establishment of a morally elevated position, while it could contribute to the creation of national narratives and identity. Through the society's processing of its history, a usable past can be created that further maintains social identity and worth within a positive image that could be threatened by a collective trauma that negatively impacts collective identity (Hirschberger, 2018, p. 3). Collective trauma can also be a fruitful ground for creating shared cultural narratives, such as after massacres, which can establish a feeling of shared fate and destiny within the affected collective; in the aftermath, these shared narratives can promote meaning and social identity. Trauma can help co-construct meaning in a collective that shares destiny and identity and tries to gain control and self-worth; it encourages the search for meaning among groups of suffering people. Hirschberger (2018) used the case of tsunamis, showing that societies with previous experiences with tsunamis passed down oral traditions that instructed people to seek high ground when the water falls back; these groups had a significantly lower death rate compared with a relatively similar event, where the population had little or no previous experience and no shared oral traditions. In this case, collective memory of disasters prevented future deaths (Hirschberger, 2018, p. 4).

One example of a population that keeps the memory of its trauma alive is the Jewish population, which still sees Germany as a potential threat due to the traumatic experiences of the Holocaust, while Germany's neighbours might perceive Germany as essentially a new country. The author further described the potentially destructive powers of a posttraumatic worldview that can distort the messages due to pronounced vigilance that can cause anxiety on an individual level and from a collective view led to distrust and enhanced self-reliance (Hirschberger, 2018, p. 5). This posttraumatic worldview might negatively impact the individuals and collectives instead of protecting them, which is one of the evolutionary arguments for the collective trauma perspective. Within collectives, meaning emerges with suffering that can create a feeling of immortality within the group; as Hirschberger noted, suicide bombers with their sacrifice live up to the immortal cause of their group and become something more than a mortal body. In contrast, individual lives can be seen as fragile compared with the collective identity. Individual desires for meaning, values, and identity

can, therefore, be satisfied within a group that is immortal compared with the individual body (Hirschberger, 2018, p. 6f). Societies with a traumatic past are continuously reconstructing the traumatic experience to make sense of the present, and the present can influence the way the trauma is viewed; likewise, the notions and remembrances of trauma can have different impacts on a society's perspective. For example, a welcoming culture for immigrants may be based on guilt stemming from prior colonialism that stands in contrast to the possible dangers of mixing cultures. In summary, perception is shaped by the collective's view on history that can convey various messages (Hirschberger, 2018, p. 7).

Perpetrators, on the other hand, tend to isolate themselves from the crimes committed by their group or ancestors to protect a positive social identity that aligns with their self-image and protects the morality of their group. The alternative – high identification – can lead to defensive behaviour when confronted with the group's historical role and crimes. The defensive mechanism can increase to a point where the group denies that the event ever took place, which grants the perpetrators innocence and can even lead to the victim becoming the aggressor from the perpetrators' point of view. Blaming the victim, which is common in sexual cases, can in collective traumas be countered due to the larger group of witnesses and greater amount of evidence (although, with time, the witnesses decrease in number, which may make it more difficult to sustain the counterforce). Hirschberger (2018) has noted the difficulties in perpetrators' collaborations, such as when Poland and Hungary collaborated with the Nazi regime while also being victims of that regime. Today, the topic of collaboration is taboo up to diplomatic levels, and some policies protect the Polish society (for example, from being referred to as collaborators). The emotional scale of the trauma and the possibility of having played the role of a perpetrator shows how difficult it can be to take the adverse role. This is a luxury discussion on guilt which first hand perpetrators do not have (Hirschberger, 2018, p. 8 f.). An uneasy discussion emerges when Germans no longer feel ashamed of the crimes of their ancestors. Jews, in contrast, might see the Holocaust as something that shall never be forgiven, and this stance further encourages the victim's tendency to hold on to the trauma (Hirschberger, 2018, p. 10.) Hirschberger concluded that collective trauma impacts subsequent generations with ongoing consequences (Hirschberger, 2018, p. 11.).

Collective trauma impacts generations, and when faced with the dualism of perpetrators and victims, the groups in between have a tendency to see themselves as victims. Perpetrators, on the other hand, can accept their role or adopt a defensive mode, which stands in stark

contrast to the victim's tendency to keep the trauma alive. While keeping memories of a traumatic event alive allows groups to learn and remember in the future, traumatization can cause populations to develop negative psychological symptoms.

2.3 Self-Efficacy – Mastering oneself

This chapter aims to elaborate on the topic of self-efficacy, a term Li et al. (2016) have referred to as an important factor in trauma treatment and one that affects a person's ability to deal with the negative symptoms caused by traumatic experiences.

Heslin and Klehe (2006) described self-efficacy with the words of Albert Bandura (1997) – as an individual's belief and ability to successfully perform a certain task; this can be a significant motivational indicator of how well a person will perform their task. Self-efficacy can differ among various tasks. An individual with experience in their field might have a greater self-efficacy in that area but could lack self-efficacy in different or new fields. The term self-efficacy (compared with the term self-confidence, which refers to confidence in situations) or self-esteem (liking oneself) is a better predictor of success in achieving a task. Self-efficacy not only impacts performance but it can also positively impact well-being. While self-efficacy can lead to successful work motivation, it can also protect individuals from setbacks. In other words, self-efficacy can maintain motivation after setbacks, can lead to people improving their approaches to tasks, and can improve problem-solving processes. Moreover, higher self-efficacy makes individuals more open to negative feedback, which can result in better decision-making processes in the future (Heslin & Klehe, 2006, p. 1). With high self-efficacy, individuals can protect themselves from negative thoughts, such as fear of being unable to solve a task, thereby helping to prevent anxious or depressed feelings. In contrast, low self-efficacy can cause anxieties and feelings of hopelessness, since the individual perceives themselves as unable to cope with a task. Nonetheless, self-efficacy is task-specific and, therefore, no standardized measure exists. The authors emphasize the three most important sources of self-efficacy: enactive self-mastery, role-modelling, and verbal persuasion. Enactive self-mastery relates to the experience of successfully achieving at least some part of the task, which convinces the person that they have the resources to deal with the task. Individuals can best achieve self-efficacy if they break down big tasks into little goals which are more easily dealt with, and the task difficulty can progress with the individual. One example is in building up skills in difficult areas, such as flying an airplane. The pilots first learn simple fragments of the task and develop skills that, in combination,

give them the mastery to fly the airplane. Role-modelling, on the other hand, refers to the situation in which an individual can observe someone else performing the task that the individual is aiming to do. In this process, the observer can start visualizing successfully completing the task, and they can obtain ideas on how to solve the task, which can be inspiring. Effective role models see new tasks as opportunities to learn new skills and knowledge rather than as a test of talent. The best role models for creating self-efficacy are people with whom the observer can identify. In addition, verbal persuasion creates self-efficacy, such as when a respected manager encourages and praises an individual for their skill and where that efficacy-raising feedback goes beyond peer comparison and emphasizes the effort toward improvement (Heslin & Klehe, 2006, p. 2). While acknowledging the skill, it is important to reinforce self-efficacy by providing more challenging tasks. On the other hand, self-efficacy can be decreased if individuals have low abilities, if they are assigned unchallenging tasks, or if they are praised for mediocre performance or treated with indifference for poor performance. This causes harm since it undermines the individual's motivation for exploration and experimentation to find out what they can do. However, the authors conclude that if self-efficacy becomes too high, it can lead to unbalanced risk-taking or dysfunctional persistence (Heslin & Klehe, 2006, p. 3).

In the context of refugee communities, if a person observes someone who is similar to them performing a task well, the person can form a belief that they, too, can solve the task. Within communities, tasks that are achievable should be distributed to promote self-efficacy. If, for instance, a refugee speaks a certain language that might be beneficial for individual job-seeking, such as English, the individual could conduct introductory English classes with the support of facilitators for refugees that do not speak English. Methods could be adapted by facilitators or professional teachers within the community. Skills could be shared, enhanced, and tailored to promote self-efficacy, and this might benefit individuals' sense of coherence and esteem needs; if other refugees participate in English or other classes, perhaps more people would become interested in joining.

2.4. Reality and Perspective – clashing reality definitions

“As I have already said, the belief that one's own view of reality is the only reality – is the most dangerous of all delusions. It becomes still more dangerous if it is coupled with the missionary zeal to enlighten the rest of the world, whether the rest of the world wishes to be enlightened or not. To refuse to embrace wholeheartedly a particular a definition of reality,

to dare to see the world differently can become a 'think crime' in a truly Orwellian sense as we get steadily closer to 1984." (Watzlawick, n.d.).

According to Watzlawick (1976), people face different realities. In his book *Wie wirklich ist die Wirklichkeit?* ("How Real Is Reality?"), Watzlawick argued for the coexistence of various realities within two persons (Watzlawick, 1976). Watzlawick contended that confusion emerges in communication, which signifies failed communication and leaves the recipient in a sense of uncertainty and misunderstanding, which in turn disrupts the assimilation of realities. This can cause confusion as well as acute anxiety due to the person's dependency on their environment (Watzlawick, 1976, p. 13). For example, if a person from Latin America and a person from North America walk towards one another to engage in a conversation, the perceived appropriate distance between them is closer for the person from Latin America, while the person from North America might (culturally) desire a greater distance for communication. This is because the person from North America is attempting to create more distance from the person from Latin America, while that person steps closer to reduce the distance (Watzlawick, 1976, p. 17f.). In particular, language translation can cause confusion that might even provoke conflicts (Watzlawick, 1976, p. 17ff.). Watzlawick (1976) further addressed the role of paradox communication, which can cause tremendous problems within a person's identity and perception of the environment. Firstly, someone who is blamed by a person who is vitally important in their life (for instance, when a child is blamed by the parents) can begin to mistrust their own feelings. Secondly, when someone is compelled, by a vital person, to feel differently than they do may feel guilty for not having the right feelings. Thirdly, someone who receives, from vital persons, a conduct statement (behavioural statement) with required and prohibited behaviour can become involved in a paradoxical situation in which they can only obey through disobedience. This can be the case when parents expect their child to obey law and order but also take risks out of the norm (i.e. being dare devilish) (Watzlawick, 1976, p. 29 f.).

Watzlawick has often referred to *interpunktion* (punctuation) within communication. This refers to the individual's tendency to give reality a specific order and to make the world less of a place of chaos, unpredictability, and threat. According to Watzlawick, punctuation is a tool to organise the world within the course of events according to the creation of different realities. Watzlawick provided the example of a mother who perceives herself as the bridge between the father and the child and who argues that the father has no relationship with the child, while from the perspective of the father, the mother hinders him from having a good

relationship with the child (Watzlawick, 1976, p. 72f.). Watzlawick further referenced a study conducted during the last phase of World War 2 about the dating behaviour between American soldiers and British women in Great Britain. This showed that, due to cultural differences, the behavioural steps leading up to sexual intercourse were quite different, resulting in misunderstanding on both sides, with American men and British women perceiving their counterpart's behaviour as inappropriate. For instance, kissing is something Americans engage in earlier, while for the British it is something rather intimate that should only follow a few steps later in the dating process (Watzlawick, 1976, p. 74f.). According to Watzlawick, if therapy seems difficult for patients, the therapist can aim to construct additional perspectives in the patient's narrative to give new ways of interpretation a chance to emerge aside from the potentially harmful narrative the patient has already established (Watzlawick & Nardone, 1999, p. 131 ff.).

The realities of people fleeing for various reasons can differ greatly from one to another, while some reality clusters emerge through similar cultural backgrounds. Moreover, the realities of the host society's population might differ as well from the refugee population, which could impact reality assimilation. Most importantly, the reality of host countries, communities, and institutions will differ from each other as well, since every potential host country has its unique realities such as cultural norms and values. This could cause confusion and distress for the refugees and host countries. Shaping an environment of understanding and empathy could help assimilate realities or help understanding different realities of the people who are forced to stay within a camp together. Realities should be communicated within the community and with hosts to reduce the risk of confusion. The punctuation might become an important factor in setting life in a community as a transition to the next stages of life that happen in a new environment by stating clearly that a community is a temporary step for gathering skills, health and migrate on to a country that need ones support. Communities could offer courses for specific countries and cultures, which might improve reality assimilation but could spark interest for specific host nations.

2.5. Sociotherapy – facing the treatment gap

This chapter addresses sociotherapy as a means to counter the treatment gap that is exemplified by the post-genocide treatment in the Rwandan population.

After the genocide in Rwanda, a large amount of the population became traumatized. The Rwandan genocide of 1994 was a historic failure of the global community in developing the

right mechanism to prevent the world's most efficient genocide from occurring. The carnage lasted for 100 days, during which approximately 800,000 people, mostly Tutsi, were slaughtered by Hutu extremists (targeting the Tutsi minority) who dominated the country. A slaughter often conducted by the own neighbours (BBC, 2019). In Rwanda in 2005, a sociotherapy programme was attempted, which principles, and applications the article by Richters, Dekker and Scholte (2008) aim to derive in relation to its application in post-war and post-genocide Rwanda. The goal of the sociotherapeutical program was to support people in regaining feelings of safety, dignity, and reduced social distress in an environment in which people were still affected by the war and genocide (Richters et al., 2008, p. 100).

The sociotherapy approach views the community as the doctor (Bierenbroodspot, 1960 cited by Richters et al., 2008, p. 101.). The principles of sociotherapy are “(*democracy, non-directivity, equality, a focus on reality, and an orientation to the future*)” (Bierenbroodspot, 1960 cited by Richters et al., 2008, p. 101.). The practical–technical guidelines are 1) two-way communication at all levels; this communication is a precondition so that everyone is informed about what happens in the group and can use that information in decision-making; 2) decision-making at all levels; this promotes sympathy in the group as a whole and in individual members; 3) shared leadership; this means democracy, the sharing of power and responsibility; 4) consensus in decision-making; when the group cannot come to an agreement, no decision is forced, and the discussion continues until consensus is reached; and 5) social learning by social interaction here-and-now; this learning benefits group participants in their social interaction in the wider society (Bierenbroodspot, 1960 cited by Richters et al., 2008, p. 101.).

Sociotherapy aims to help individuals confront the outside world, while psychotherapy aims to help the patient confront their internal self (Bierenbroodspot, 1960 cited by Richters et al., 2008, p. 101.). One risk factor of applied sociotherapy is the sensitivity of cultural, social, and political factors regarding mental health in different societies, to which it must be adapted for the survivors. Facilitators help to guide the patients through difficult confrontations in the group. During the ethnic cleansing in the 1994 genocide in Rwanda, Byumba also suffered a massacre. The war began in 1990 and culminated in the genocide which left the community traumatized due to the killings, torture, sexual violence, destruction of property, social rejection, and robbery. The survivors were often physically disabled and had lost family members. Richters and his fellow authors quoted one of the representatives of the community whom they had consulted when proposing the

sociotherapy programme: *“there is a general feeling of insecurity, powerlessness and desperation among the population. Many people do not care about themselves any more. People lost their interest in dignity and do not care about the future. Some have become aggressive in reaction to everything, whether good or bad. Others are aimlessly wandering around without courage or a plan to survive.”* (Richters et al., 2008, p. 102). Reintegration was also found to be difficult to achieve (Richters et al., 2008, p. 102). This quotation could also fit in the context of refugees who fled from war and where the symptoms might align with the definitions of PTSD and depression.

Sociotherapy works in a therapeutic community and has been implemented in situations in which trauma has affected the well-being of a large group of individuals suffering from shock and weakened coping mechanisms and where the legitimacy of institutions that once helped to cope with social chaos was lost. The social life was turned upside down with a *“rupture of social bonds, disconnectedness, distrust in people and in institutions, and destruction of previous sources of support.”* (Richters et al., 2008, p. 104f). Rwandans faced a great feeling of insecurity with a damaged legal system in which it was almost impossible to persecute every perpetrator of the war and genocide, resulting in a continuous confrontation of perpetrators and victims. Whereas conducting psychotherapy for such a large population of traumatized people would not be practical, a community-based approach could promote the creation of human capital and self-supporting capacities (Richters et al., 2008, p. 104f). Indeed, this recalls Van der Kolk (2015) and his experiences among the women who gave each other strength through social connection by singing and dancing together.

Facilitators who guided the sociotherapy received training over a period of eight weeks and came from various backgrounds; most had a secondary school education, but some had received higher education and previously worked as preachers or teachers. The facilitator observes the group and listens to what the group’s members say (and refrain from saying) in order to gradually discuss daily social norms that can limit the participants. The facilitator helps handle social relationships (Richters et al., 2008, p. 105f).

The principles of the sociotherapeutical approach are *“safety, trust, care, respect, rules and memories,”* and these were introduced in Byumba. Richters and his colleagues described the training phases of trainers and groups, who were also victims of the war and genocide. Regarding safety, the goal was to create an environment in which the participants felt safe while a connection among the group could be developed (Richters et al., 2008, p. 105f).

The program aims to rebuild trust with cognitive and social–emotional attention as well as to foster care for the individual. The facilitator should observe the establishment of trust within the group and its proceedings. To address the principle of care, which includes care for others, self-care, and being cared for, the facilitators aim for mutual recognition, which grows from the sympathies that emerge for and among group members. In this phase, the facilitator aims to observe how the group handles new dynamics such as tensions, values, norms, positive and negative experiences, and expectations. One method used in this phase is role play, and the principles included in care were practiced in the group which has been followed by the exploration of the emotions that come with experiencing neglect, rejection, and care (bringing to mind Goleman’s concept of emotional intelligence).

Regarding respect, the facilitator should know about the type of violence the group members have faced and observe the respect that group members give each other after stories were shared (Richters et al., 2008, p. 107). Self-respect and respect for the group were both deeply impacted by the mass killings and humiliation in the Rwandan war and genocide since the killers came in various shapes and often had been trusted individuals. The groups and facilitators next begin to question the rules that guide social systems in order to achieve an enhanced feeling of autonomy and future perspective. Special attention is drawn to the decision-making processes and rules within groups such as families or schools to which the individuals belong. Regarding memories, the facilitator aims to help the individuals process and deal with the emotions that come with the traumatic experiences; however, a different type of therapy could be needed to fully process the emotions associated with a traumatic event. Integration is the final goal of the training, in which trainees learn to integrate the previous steps (Richters et al., 2008, p. 108). The groups typically included 10 participants with two trainers each, with up to 15 weekly meetings, after which new participants could join. Often participants stayed together after the sessions were completed, and after the 15 weeks of sessions, farewell often seemed difficult due to the established connection within the group. Trainers received follow-up training sessions and examinations with a certification that aims to support the steps to a higher education degree to establish future perspectives for the trainers in the field of socioterapy (Richters et al., 2008, p. 110).

The programme received positive feedback from all stakeholders, and in order to determine what makes the programme work, a qualitative and quantitative study with sociotherapists, psychologists, and university students was carried out to evaluate the improvements in mental health, social functioning, and social capital. The studies had a participation rate of

87.5%, with a general appreciation of the programme among the 3,700 people who participated (Richters et al., 2008, p. 111). The participants shared their experiences at home, which could mean that the programme had an even greater impact on the population in general. Positive factors mentioned by participants included forming social contacts after isolation, finding people who view one another on eye level, and sharing thoughts and processing them collectively. Facilitators who worked voluntarily with little incentive, such as food and travel fees, acknowledged the potential for sociotherapy in helping Rwanda in its healing process (Richters et al., 2008, p. 112). The donors also appreciated the programme, and in particular the programme's approach to providing good care to a large group of recipients over a limited time period. Concerns arose regarding the therapy since there were questions arising to extend the 15 sessions as well as requests for after-care for the participants, more help with income-generating activities, and additional forms of therapy (which exceeded the programme's capacities). Sociotherapy could be used as a primary health care intervention, and for the moment cannot do more than this due to its limitations and inability to meet all of the needs that emerge after collective trauma (Richters et al., 2008, p. 114). Sociotherapy is an approach that is applicable in various given circumstances and, in the case of the region of Byumba in Rwanda, could help restore a sense of dignity in the population (Richters et al., 2008, p. 114).

In summary, the "why" is answered by providing treatment for a greater population in a social context to re-establish a connection with the external world; the "what" and "how" are answered by two facilities that use tools such as role play to support a group of 15 to help themselves in the collective. In addition, Jansen et al. (2015) saw in sociotherapy an approach to counter the treatment gap in the Rwandan collective trauma.

The treatment gap is an important factor in the discussion of psychology or mental health in general since it refers to the *"difference that exists between the number of people who need care and those who receive care."* This concept finds strong support from the WHO and is often used in the context of low- and middle-income countries. An article by Jansen et al. (2015) argued that the evidence base for mental health treatment is not applicable in a global context, while communities could provide a tool to support mental well-being, as could be the case in Rwanda. Sociotherapy has existed in Rwanda for the past 10 years and shows how communities can support the individual's well-being. The authors state that around 7.4% of the burden caused by disease is attributed to mental health or neurologic or abusive disorders (Whiteford et al., 2013, cited by Jansen, et al., 2015, p. 1). The greatest proportion

of diagnoses for mental health disorders is located in high-income nations, while a large group of patients does not receive the needed support (around 85%) (Jansen et al., 2015, p. 1). Low- and middle-income states are prone to an underestimation of mental health issues whilst the WHO aims to develop better accessibility to mental health within these states. Critics see the treatment gap as a superficial treatment that does not allow more specific treatment choices; however, social determinants are gaining in popularity regarding the individual suffering that can be attributed to war or poverty (Tol et al., 2014; Whitley, 2015, cited by Jansen et al., 2015, p. 2). In addition, research suggests that spirituality and religion can promote the coping capabilities of individuals suffering from mental illness and lessen the burden of their suffering (Jansen et al., 2015, p. 2). Furthermore, working with communities could make it possible to reach individuals more easily, while communities could grow in strength and resources for mental well-being that could be of particular value in societies disrupted by war.

The ongoing conflict in Ukraine undoubtedly leaves a mark on the heart of every Ukrainian citizen. A feeling no one could ever fully understand whose nation has not been at war on their own soil and, even then, experiences can never be fully understood or compared. Nonetheless, collective trauma is a relevant topic, as is the treatment gap. There might be a danger that when people flee to safety, host nations not only are confronted with individual traumatic experiences and realities but also with whole populations that might be impacted by the traumatic physiological and psychological experiences of war. In addition, a treatment gap arises due to the great masses of people fleeing for which a sociotherapeutic approach might provide additional psychological support through a first aid intervention. Sociotherapy could provide mental first aid while re-establishing social connections and relationships which are crucial for the treatment of mental health issues. Within the sociotherapeutic approach, one not only finds hints towards individual trauma (Van der Kolk, 2015) and emotional intelligence (Goleman, 1995) but also the need and ways to reconnect a disrupted population.

2.6. Summary – From the Amygdala over the Prefrontal Cortex and its stimulation

This chapter aims to summarize the findings of the thesis regarding the neuropsychological argumentation and the frontal cortex stimulation. In chapter 5, the frontal cortex stimulation through choice architecture and behavioural design will be defined. Previously, possibilities were found that link the brain regions' significance in trauma treatment as well as in the field

of reality-perceiving and sociotherapy. Self-efficacy and a sense of coherence are factors that could positively impact mental health.

The prefrontal cortex is associated with logical thinking, while the amygdala represents the emotional brain, which can take charge over an individual's body when they feel anxious or suffer mental health issues such as PTSD. The following section presents an overview of prefrontal cortex stimulation and its impact on anxieties. It assumes that prefrontal cortex stimulation through the environment or other processes that involve this area of the brain could help to reduce the negative impacts of psychological burdens. Shin, Rauch and Pitman (2006) stated that PTSD is associated with an increased reaction in the amygdala and a reduced activity in the medial prefrontal cortex as well as a reduced relationship between both regions. Numerous questions remain unanswered in this area of research, such as potential developmental changes in brain chemistry and structure (Shin et al., 2006, p. 73). Domenech and Koechlin (2014) addressed the role of the prefrontal cortex in executive control and decision-making. The authors stated the role of the frontal cortex regarding evaluating behavioural rules within society, that for instance relate to learning and switching between different environments with different rules. The authors found research that outlines the involvement of the prefrontal cortex (Domenech & Koechlin, 2014, p. 106). The impact of prefrontal cortex stimulation on amygdala response in people who suffer from trait anxiety has been studied in a randomized clinical trial. Trait anxiety, as defined by Spielberger and Rickman (1988), is described as *"the tendency to see the world as a threatening"* as well as by *"a proneness to experience state anxiety."* (Spielberg & Rickman, 1988, p. 20). In the field of psychiatry, Ironside et al. (2019) stated the importance of the prefrontal cortex in depression treatment, where prefrontal cortex stimulation is currently under clinical investigation, while the underlining actions and mechanisms are unclear. There is no direct evidence for humans regarding the amygdala and prefrontal cortex relationship that was shown in animals. In animals, higher prefrontal cortex stimulation could reduce the amygdala's reaction to threats. For another trial, 18 women between 18 and 45 years of age were chosen who scored high in trait anxiety measures. The participants were treated with prefrontal cortex stimulation (tDCS), and after the treatment they underwent brain scans and attentional tasks. The researchers found that the prefrontal cortex stimulation significantly reduced amygdala threat reactivity while simultaneously activating brain regions that are associated with attentional control. The tasks were fulfilled more accurately after tDCS treatment (Ironside et al., 2018, p.1). The researchers concluded that prefrontal cortex

stimulation can reduce the response of the amygdala to threat-related distractors. However, the study was limited by a single-session treatment, female participants, and people with high trait anxiety scores. However, tDCS seems relevant for depression and anxiety treatment. The authors closed with their statement that *“this study offers, to our knowledge, the first causal evidence among humans of an association among the prefrontal cortex, attentional control networks, and the amygdala in regulating threat processing in individuals with trait anxiety.”* (Ironside et al., 2018, p. 6f).

In this study, the prefrontal cortex was stimulated with tDCS – a method that would not be applicable to a larger population. As previously stated, the prefrontal cortex is associated with decision-making and logical thinking. Perhaps there is a way to develop an environment for a larger population aiming to activate the prefrontal cortex through decision-making, therefore reducing the threat responsibility of the amygdala.

2.7. Hierarchy of needs – From necessities to Self-development

The following chapter shows possible ways in which camps could be restructured to reduce negative environmental impacts on mental health in conjunction with frontal cortex stimulation using Maslow’s hierarchy of needs. This notion was later transformed into the motivation model (the expanded hierarchy of needs), as defined by Maslow, to structure the design approach regarding the urgency of necessities and needs. The same approach was adapted by Sirolli (1999) in his work and philosophy of aid and support. Maslow’s pyramid, as depicted in Figure 7, shows the eight stages of needs, starting at the bottom with the most crucial needs and presenting the individual needs at the top (McLeod, 2022).

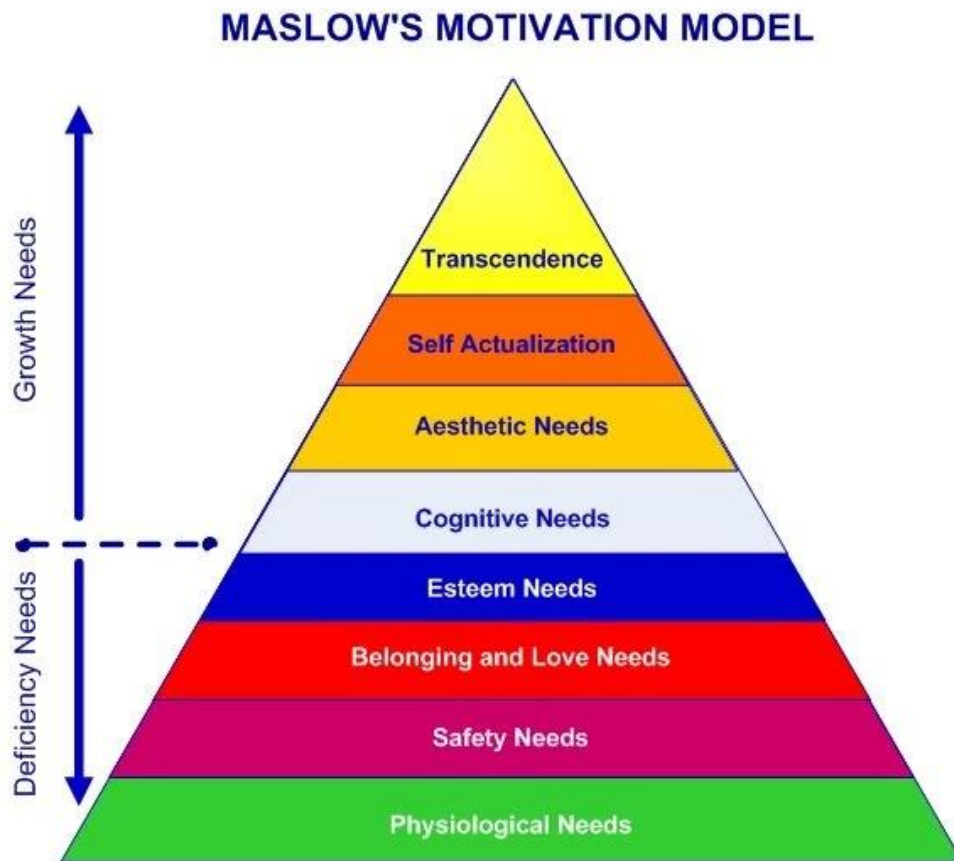


Figure 8: Maslow, Hierarchy of Needs (McLeod, 2022)

1. Physiological needs - these are biological requirements for human survival, such as air, food, drink, shelter, clothing, warmth, sex, and sleep. If these needs are not satisfied, the human body cannot function optimally. Maslow considered physiological needs as the most important, as all the other needs are secondary until these needs are met.
2. *“Safety needs – protection from elements, security, order, law, stability, freedom from fear.”* (McLeod, 2022).
3. *“Love and belongingness needs – the third level of human needs is social and involves feelings of belongingness. The need for interpersonal relationships motivates behavior. Examples include friendship, intimacy, trust, and acceptance, receiving and giving affection and love. Affiliating, being part of a group (family, friends, work).”* (McLeod, 2007).
4. *“Esteem needs – Maslow classifies into two categories: (i) esteem for oneself (dignity, achievement, mastery, independence) and (ii) the desire for reputation or respect from others (e.g., status, prestige).”* (McLeod, 2022).

Maslow indicated that the need for respect or reputation is most important for children and adolescents and precedes real self-esteem or dignity.

5. *“Cognitive needs: knowledge and understanding, curiosity, exploration, need for meaning and predictability.”* (McLeod, 2022).
6. *“Aesthetic needs: appreciation and search for beauty, balance, form, etc.”* (McLeod, 2007).
7. *“Self-actualization needs – realizing personal potential, self-fulfilment, seeking personal growth and peak experiences. A desire ‘to become everything one is capable of becoming.’”* (Maslow, 1987, p. 64, as cited by McLeod, 2022).
8. *Transcendence needs: A person is motivated by values which transcend beyond the personal self (e.g., mystical experiences and certain experiences with nature, aesthetic experiences, sexual experiences, service to others, the pursuit of science, religious faith, etc.).*” (McLeod, 2022).

With regard to the topic of the thesis, if a vulnerable population depends on a host nation, the physiological needs (= the fundament of this pyramid) must be provided in a sustainable way by the host. If these basic needs are not met, one can simply not exist and live in an environment for which other needs within the pyramid could become secondary. The following steps of the pyramid can be supported via an environment in which individuals are guided towards love and belonging and esteem needs, cognitive needs, aesthetic needs. However, self-actualization and transcendence might be something that cannot be achieved in a community. Freedoms greater than the defined community could be needed. A community could offer perspectives and an intermediate step where one could learn skills and abilities that might guide a person further to self-actualization or transcendence.

2.8. Improving match quality – allocating people to countries and work where needed to reduce distress and uncertainty

In the following chapter, the thesis aims to give an outlook of design decisions that move beyond the community. Within Maslow’s pyramid, transcendence and self-actualization are important motivational factors (needs). While communities could foster skills for individuals to achieve their uniquely defined goals, support might be needed in communication between individual needs and needs of potential hosts, upon which the thesis will elaborate according to the match quality approach.

Match quality in economics refers to the degree to which the individual characteristics and abilities of a person match with their work. The process of matching an individual with their characteristics and abilities, such as hard or soft skills, to a suitable work that matches the person results in a successful work relationship (Epstein, 2019, p. 128ff.). Match quality can improve individual well-being and sustainable partnerships for employment that reach beyond first aid and could provide an important step towards sustainable inclusion.

In the context of the thesis, match quality refers to the process of matching people seeking refuge to a country in the European Union – for instance, matching them to positions where people are needed. In Germany, a large workforce for MINT (mathematics, informatics, natural science, technology) professions is needed (Bundesministerium für Wirtschaft und Klimaschutz, n.d.), while there is a refugee population around the European borders that might support the economically driven need for workforce. Amongst those people, various candidates may exist who would be interested in receiving specific training in required professions, perhaps with previous experience. The main barrier might be **communication**. The thesis assumes that refugee management to date has no system that ensures that refugees can present or articulate their skills and interest in working in a certain field, and there is no information provided to refugees where workforce is needed. This lack of communication between a refugee population and host countries suggests a great loss of potential on both sides – external states that require workforce and refugees that desire work.

The individual skills need to be recognized, used, and fostered in order to promote a good life. Communities should increase the match quality between refugees and long-term hosts through clear communication skills and requirements. Trainings and courses could provide important skills and motivate individuals and countries for a successful partnership for which communities could provide first assessments and trainings to reduce uncertainties and improve match quality².

² One may further consider the principal agent model:

- *“The principal-agent problem is a conflict in priorities between the owner of an asset and the person to whom control of the asset has been delegated.*
- *The problem can occur in many situations, from the relationship between a client and a lawyer to the relationship between stockholders and a CEO.*
- *The risk that the agent will act in a way that is contrary to the principal’s best interest can be defined as agency costs.*
- *Resolving a principal-agent problem may require changing the system of rewards in order to align priorities or improving the flow of information, or both.”* (James & Costagliola, 2021).

3. Liberal Paternalism – Crafting an Environment

The following section introduces the concepts of liberal paternalism, nudges, and choice architecture. The section will assess flaws in human decision-making and how environmental constructions can impact individuals' choices and decision-making processes as well as impact flaws in logic and thinking. The use of heuristics and default settings will be utilised along with explanations and examples. Ethical discussions will be left aside since they would exceed the scope of this work.

From the perspective of most individuals, human behaviour seems rational; however, there is evidence to prove that humans are anything but rational beings. Humans often behave according to their given environment. For instance, individuals might choose products faster that lie on shelves that match their height, since it is more convenient compared to kneeling down to reach potentially less expensive products that lie close to the bottom. One could estimate the average size of a person and place the product at a convenient distance to the average person's hand to increase sales through a change in the environment of a customer.

For example, if friends or family in a person's environment are smokers, that person is more likely to start smoking as well (Schoffield, Pattison, Hill, & Borland, 2001); if a person's colleagues are stressed, that person is more likely to become stressed as well since stress is contagious (Bonnesen, Pihl-Thingvad, & Winter, 2022). What if an environment suffers from mental illness? The answer seems to be "yes." Studies such as one conducted by Kellermann (2001) suggest that trauma can be passed among generations, such as in the case of Holocaust survivors (Kellermann, 2001) and subsequent generations after the Rwandan genocide (Basabose, 2017). The phenomenon of passing trauma to the next generation refers to the term trans-generational trauma and explains psychological symptoms that have been passed on among generations by survivors (DeAngelis, 2019).

In summary, trauma is contagious. Early intervention could reduce the negative impacts psychological symptoms can have and further reduce negative impacts such as passing on traumatization. This thesis aims to develop a behavioural design approach for collective trauma treatment, through which the concepts underlying behavioural design will be defined in greater detail.

Behavioural design is conducted through assessing the rationality of individuals under the economic assumption that humans behave like the *homo economicus*. However, every person faces bounded rationality. The concept refers to the incomplete competence humans

have in making truly rational decisions. To a certain degree, the environment's design can define the decision process and favour one choice over another (Newell & Simon, 1972, p.172ff). *Nudge* by Thaler and Sunstein (2009) is seen as the fundament of this approach and defines design architecture as well as design and environmental impacts that align with the nature of human thinking (Thaler & Sunstein, 2009).

The goal of this thesis is to use the behavioural design approach to create an environment for a vulnerable group of people to help them reduce the negative impacts of psychological symptoms resulting from previous experiences and migration itself to lead them towards successful integration and a life as free as possible from negative psychological symptoms. Recognizing the potential psychological dangers and threats in refugee camps that are not assessed according to the behavioural design this thesis assumes, camps without a behavioural design approach can do harm to the mental health of their residents. For that purpose, the thesis shifts the definition of a camp towards defining healing communities that impact individual well-being and promote future development, wherever migration will lead them to. This work assumes that all humans live in a world where they are forced to make incomplete and sometimes poorly informed decisions, sometimes for good and sometimes for worse, which can be improved in an environment that prioritizes the individual's well-being. The debate of what is right and wrong, what is a desirable and what is an undesirable behaviour, from an ethical point of view could be difficult to observe, while sometimes making decisions itself as a process is important. However, the discussion about right-versus-wrong will not be part of this thesis since it would exceed the scope of this work, but it still gives the reader the opportunity to reflect on this thesis and its potential ethical implications. Choice architecture in general can be defined as the environmental construction in which an individual makes choices. The choice architect *"has the responsibility for organizing the context in which people make decisions."* (Thaler, Sunstein, & Balz, 2012, p. 1). Choice architects could help to shape communities and positively impact standards of migration procedures.

What would happen if a government decided that every citizen, from the outset, is enrolled for a vaccination appointment, and anyone not attending the appointment would be fined? If someone wishes not to get the vaccine, they can hand in a 10-page paper on why they do not want to get vaccinated and acknowledging that, in case of an emergency, they can lose their right to a ventilator to a vaccinated person. While one could assume that an opt-out system such as this one would increase vaccination rates, one could also feel unease by this rather

immersive approach when it comes to the health decisions of the population. But do individuals make good (where the term “good “could always be questioned) decisions on their own behalf? Plenty of people consume tobacco and alcohol – both drugs that have proven to be significantly harmful for humans. Alcohol itself is rated the world’s most dangerous drug, with great harm to individuals and society (The Economist, 2019). Although the harmful effects of alcohol consumption are known, it still feels normal for plenty of adults to drink a glass of wine or a beer, not being fully aware of the health and social risks. Statistically, 5.3% of all deaths annually (3 million deaths) are caused by the harmful results of alcohol consumption (WHO, 2022). An example to reduce alcohol consumption within the population through behavioural design would involve highly visible posters and advertisements about the harmful effects so that, over time, people might become more aware of the dangers of alcohol consumption. In this example, governments aim to increase the **availability**. Another example is to increase the price of alcohol, to reduce alcohol consumption out of monetary concerns. Additionally, one could provide and promote alternative, less harmful alternatives to alcohol consumption to fulfil people’s desire for the related effects but reduce the negative consequences by providing a better alternative. Another type of **nudge** would be the pictures on packs of cigarettes that aim to inform consumers and potential consumers of the risks associated with smoking. Libertarian paternalism, nudge, choice architecture, and other specific terms will be addressed throughout this work, and all three of these concepts are stated in the stories above.

This section will address the key concepts and present some basic mechanisms of behavioural design and insights on practicable implementation in real life as well as provide scenarios to develop a concept to reduce negative psychological symptoms among a vulnerable population.

3.1. Nudging and Choice Architecture –following the course of least resistance

The following chapter introduces the roots of the libertarian paternalism approach. Libertarian paternalism is a concept that developed through the years but has its fundament in Sunstein’s and Thaler’s book *Nudge* (2008). The approach is defined by creating an environment that softly steers individuals to make good decisions or choices for themselves, such as regarding mental health. Fast decisions are made without real assessment, and the environment can have a great impact on the quality of a decision. The book introduces the concept and illustrates its impact on real-life situations, such as the environment and

behaviour in a supermarket. Humans often tend to choose the path of least resistance, saving energy to make decisions, so the path that comes with comfortability is the one individuals choose most often (Thaler & Sunstein, 2008). The path of least resistance could become a healing path in communities or a path of lethargy; choice architecture could play a crucial role in defining environments, such as when refugees can do nothing but wait or become active during periods of transition.

Sunstein and Thaler (2008) have defined libertarian paternalism as a concept that probably draws criticism through the wording, which is somewhat contradictory. Libertarianism and paternalism are two opposing concepts, and the authors clarify their understanding with the perspective that with proper understanding those concepts can depict rationality. Policy implementations that are libertarian, as the authors emphasized, refer to policies that are defined by the freedom of individuals to choose what they desire, while paternalism complements and preserves the libertarian approach by leaving open the door that grants the freedom to choose. The authors argued that with choice architecture, constructed by choice architects that aim to help individuals make better choices for their health, life expectancy, and well-being, have a right of existence. Institutions such as governments can steer people's choices to improve their living by paternalistic means. Choice architecture aims to influence decisions for choosers that will improve their situation and decision-making capacities, instead of encouraging them to make decisions that unknowingly harm the individual but are taken without guidance. The authors stressed that social scientists have proven that individuals often tend to make poor decisions on their own, selecting choices with poor knowledge, limited cognitive abilities, and incomplete self-control. Sunstein and Thaler (2008) view libertarian paternalism as a soft method to steer individuals to make better choices (Thaler & Sunstein, 2008, p.4ff). For this thesis, it is important to understand that choice architecture defines the environment in which individuals live and make decisions, while their ability to do so can be limited, free of restriction, or guided.

The thesis next assesses how the environment can be defined to give more opportunities to choose and the potential positive impacts on mental health. Important brain regions and their functions, such as where emotions (amygdala) and logical thinking (frontal cortex) play an important role, have been defined in section 2. Now the thesis will develop an understanding of how shaping the environment could work, while in the final section, the behavioural design approach will be practically applied in the context of mental health in refugee communities. The concept of nudges considers libertarian paternalism as an approach where

a choice architect can try to impact decisions made in society to help individuals make good (or better) decisions for their health. The thesis will develop such an approach focusing on mental health. In addition to Sunstein and Thaler (2008), Beck (2014) considered the concept further, adding that libertarian paternalism is rooted in the idea of using behavioural economics as a measure to steer societies' behaviour in a certain direction without compulsion (Beck, 2014, p. 372). For example, an architecture that promotes healthy eating, which the architect defines as eating more fruit, would implement barriers to unhealthier foods. These barriers could, for instance, be erected through higher taxation for alternatives. What if an individual has a fruit allergy? The system would make alternative foods inconvenient to obtain by increasing taxes or other means such as placing healthier food simply in more convenient reach for the customers. This could boost healthy food consumption simply due to rearranging the order of how food is represented by making the easiest option the healthier one (where "easier" means choosing an apple that is presented at a convenient height compared to choosing chocolate for which one needs a ladder). Of course, the concept of libertarian paternalism can be implemented in soft ways but also in hard ways that might make a truly free decision essentially impossible (Thaler & Sunstein, 2008).

The tendency to choose the course of least resistance refers to the individual's tendency to choose a behaviour that initially comes easily instead of a behaviour that might come with immediate difficulties but that could be beneficial in the long term (Thaler & Sunstein, 2008). Humans have a tendency to "go with the flow" rather than acting contrary to established norms. Often, thinking and reflection (frontal cortex) is needed to change a behaviour and choose the less expensive products that are on the bottom shelf instead of the expensive ones that are readily in sight.

Considering the example of vaccination, if an individual wishes to opt out of the vaccination system (where everyone, at the outset of a pandemic, is designated for vaccination unless they opt out), it might make a difference whether the opt-out process is defined by a simple marking of a "no" on a sheet of paper or by a more uncomfortable process, such as navigating significant bureaucratic boundaries, to clarify the desire not to be vaccinated. Limiting those barriers is an important discussion that would extend this work. While these examples are intentionally over-exemplified, they are instructive of this approach.

3.2. Behavioural Economics – Where are products located in the supermarket?

The thesis next aims to take a closer look into the field of behavioural economics to understand not only how the *homo economicus* fails to exist but also how individuals in general make decisions. The field of behavioural economics is closely linked to the concepts of Thaler and Sunstein (2008) and provides further basic assumptions to define the role of the environment with which the *homo economicus* interacts.

Homo economicus is one of the key concepts and assumptions in the field of classical economics and is defined as an individual who acts (thinks and behaves) completely rationally, is driven by maximizing their own utility, is free from emotions, and does not make any mistakes in gathering and assessing information. With these almost inhuman abilities, the *homo economicus*³ possesses unlimited rationality (no cognitive boundaries and no weak decisions), unlimited force of will (no emotions and no problem of self-control), and ultimately unlimited selfishness (the utility of oneself is the only thing that matters; no sense of fairness or punishment applies). These assumptions make the human adequate for mathematical modulations, but the reality draws quite a different picture of human behaviour. Humans face their realities with dissonances, such as bounded rationality (humans' inability to gather complete information and assess it), limited force of will (humans smoke and drink, or do not care about important decisions for the future, such as managing their pension), and limited selfishness (most humans are not fully egotistic) (Beck, 2014, p.1 ff.). The classical assumption of the *homo economicus* eradicates the emotions from the formula. The classic *homo economicus* does not have emotions that impact decision-making processes. This assumption was created since considering human emotions would make the model increasingly unpredictable. Due to their unpredictability, economists tend to neglect emotions in their models. As Beck summarizes, emotions can be either

³ “KEY TAKEAWAYS

- *Homo economicus is a theoretical abstraction that some economists use to describe a rational human being.*
- *In certain neoclassical economic theories, people are portrayed this way: as ideal decision-makers with complete rationality, perfect access to information, and consistent, self-interested goals.*
- *Modern behavioral economists and those who study neuroeconomics, however, have demonstrated that human beings are, in fact, not rational in their decision-making.*
- *The origins of the homo economicus lie in an essay about the political economy by the English civil servant, philosopher, and political economist John Stuart Mill in 1836.*
- *Rationality should dictate that the rational business person should use profits from their business to live a fairly frugal existence but that is not always the case.” (Chen, 2021).*

independent from objects or meaning. An individual, for instance, is always anxious, or connected to an object such as the individual's supervisor, meaning that when the object appears, the individual becomes shy. In addition, emotions come with changes in physiognomy, such as different expressions of mind or tendencies of reactions. Beck summarizes various types of emotions: social emotions, such as anger, guilt, hate, or shame; emotions about something that could have happened, such as disappointment, regret, or relief; emotions about what could happen, such as anxiety or hope; emotions about what happened, such as joy or sorrow; and emotions about the ownership of others, such as envy, jealousy, or gloating. In addition, there are other emotions, such as romantic feelings, satisfaction, or disgust (Beck, 2014, p.285 ff.).

Throughout this thesis, the topics of emotions and emotional intelligence (see Goleman, 1995; Van der Kolk, 2015) have been addressed regarding their neuropsychological roles and impacts. In the context of a community, especially one that has suffered from trauma, emotions must be included in the formula; professionals can prevent emotions from hijacking individuals' minds with training and a favourable environment. Goleman (1995) discussed how emotions can control body mechanisms and activate fight or flight reactions while reducing individuals' abilities to think clearly. He further stated that emotional intelligence (the ability to understand, feel, and manipulate one's own emotions) is a better indicator for life success than the traditional IQ methods (Goleman, 1995), and Van der Kolk (2015) emphasized the neuropsychological factors and the suffering of traumatized individuals (Van der Kolk, 2015).

Regarding consumption, Ernste and Hüther (2011) stated that, although wealth can contribute to life satisfaction, it does not necessarily infinitely do so. The total amount of wealth is not as important regarding life satisfaction, as shown in first world nations with increasing wealth but stagnating life satisfaction; instead, life satisfaction is impacted by the relation of individuals' wealth compared with the wealth of the people surrounding them. Desiring to keep up with the portrayed wealth of the people in a person's environment, individuals often receive "credits" for displaying consumption, which can cause negative long-term consequences (Ernste & Hüther, 2011, p. 27f.). Regarding wealth and satisfaction, the perspective of Ernste and Hüther reflects the perspective of Jackson's *Prosperity Without Growth*, emphasizing that wealth alone does not guarantee life satisfaction (Jackson, 2009).

Communities have the unique potential to bring people together and create values for individuals to manage mental health and migration as well as successful economic

integration in new host nations. Money alone might not solve the underlying issues of refugees, but economic security plays an important factor in mental health. Communities should provide opportunities to work towards wages as well as mental health since both factors are complementary and could sustainably create possibilities for individuals and communities.

3.3. The Choice Architect's Toolbox – examples of how to create an Environment

The thesis aims to point out some of the fundamental tools that choice architects can use to define and create an environment, or rather a choice environment, that focuses on a favourable behaviour for mental health. The following chapter introduces the various definitions the thesis uses in the final section about communities to define and establish an environment that protects and promotes individual mental health.

Default options: One fundamental approach is the creation of defaults. Defaults should focus on the path of least resistance, comprising a design that integrates naturally with an individual's behaviour rather than a design that feels unnatural or makes an individual struggle to attain a desirable outcome. Thaler and Sunstein (2008) emphasized that individuals tend to use the path that comes with the least effort or resistance (Thaler & Sunstein, 2008, p. 85). In the case of communities, default settings could be automatic enrollment in activities or voluntary questionnaires provided right from the first contact for new members.

Facing biases: Reasons for human biases originate from various angles. Examples of human thinking distorted by biases can be drawn from the book *Thinking Fast and Slow* by Kahneman (2011). Kahneman assessed two paths of human thinking: System 1 works automatically and quickly, without effort or willpower. System 2 focuses on effortful thinking, which requires complex computing and comes with a feeling of agency, willpower, and concentration (Kahneman, 2011, p. 33). In his book, Kahneman (2011) stated that humans have a tendency to make intuitive decisions or draw conclusions with incomplete knowledge, blind to the quality or quantity of the information. In short, he called this WYSIATI (what you see is all there is) (Kahneman, 2011, p. 113). This adds to Thaler and Sunstein's (2008) default options and path of least resistance concepts; in particular, System 1 plays an important role in making fast decisions, while both systems can be impacted through availability. Concerning communities, important biases and incomplete knowledge

can emerge regarding refugees' rights and possibilities within communities. There are, however, ways to improve decisions by increasing the availability of information.

Availability: When it comes to making decisions and psychology, availability heuristics plays an important role. Availability heuristics has been defined as the process by which individuals judge frequency based on the ease with which related information that complements the choice can be retrieved from the mind (Kahneman, 2011, p. 164). It has also been defined by how cognitively easy it is to retrieve examples or information about a certain issue (Kahneman, 2011, p. 167). For example, people tend to believe that they are riding their bicycle less frequently when they can only remember a few occasions in which they took the bicycle (Kahneman, 2011, p. 169). Availability can largely define how a person interprets the environment. For instance, about 80% of participants in a study believed that dying in an accident is more likely than dying from a stroke, whereas statistics tell us that strokes cause more deaths than all accidents combined (Kahneman, 2011, p. 174). Another example expressed by Kahneman is terrorism. Gruesome pictures of terrorist attacks, such as the one from September 11, 2001, create powerful images that are easy to retrieve and can impact a person's perspective on the world, causing people to rate terrorist attacks as significantly more likely than they actually are (Kahneman, 2011, p. 181).

Along with such pictures, emotions can increase the impact on an individual's emotional state. Therefore, the question arises, What happens to the availability heuristic of the general public if the media presents crimes committed by refugees? Most likely, listeners and viewers will assume that more crimes are being committed by refugees, although this might not be the truth and misrepresents the actual data. Over-representative media representation of crimes committed by refugees could cause the availability heuristics of the public to shift towards rating crimes by refugees far more likely to be committed than they are, promoting negative opinions of refugees and migrants.

Community posters, such as advertisements within healing communities, could help to shape the availability heuristics of the population. For instance, advertisements could promote trainings, spaces for work, and other activities, so that when individuals feel the urge to become active, they know where to search. Within the community, various boards could be standing in easily accessible public places – one board for each field of activity. Moreover, information about what kinds of workforces are needed, either in the community or abroad, could motivate individuals to search for education in specific sectors, such as caretaking (greatly needed in Germany). Information becomes more available physically and

psychologically if advertisements promote information and individuals observe other people becoming active.

Status Quo Bias: Biases that drive individuals to make bad choices exist in various forms. In Dobelli's book *The Art of Thinking Clearly* (2013), there are over 250 listed examples of false paths individuals follow when thinking about a topic. This thesis cannot explore and address all biases, but with the status quo bias it aims to give the reader a first impression of how to actively implement bias-based design changes. The status quo bias refers to the fact that people tend to stick with their current situation. Individuals, for instance, accept free subscriptions and end up with subsequent monthly payments for magazines that can last for a longer term, where the individual does not take action to change the situation that emerges since individuals do not pay enough attention. Default options are a powerful tool that often make people stick with it rather than change the situation, which might be related to the concept of loss aversion (Kahneman 2011; Thaler & Sunstein, 2008, p. 35f).

In the context of communities, the status quo bias could be used by enrolling people automatically (similar to the default settings) in trainings, courses, sports, or other activities. Instead of giving a simple default, the status quo bias might support that people stick with their current enrolment in courses or activities and encourage them to be actively participating since they might fear losing their position and opportunity to do something active. It further expresses the need for data to set individual defaults that are as positive as possible for each individual.

Motivational Biases have been defined by Ernste and Hüther (2011) as the difficulty for individuals to fully assess the short- and long-term positive and negative consequences of their actions. For instance, smoking might have a positive effect on stress reduction but can cause long-term negative consequences such as cancer. It requires self-control to manage one's behaviour in order to reduce the reliance on short-term benefits, such as smoking, in favour of a long-term benefit or harm reduction (Ernste & Hüther, 2011, p.25f).

Motivational biases in the community and by hosts could cause tremendous harm; however, the choice architecture or behavioural environment can inform about possibilities that drive motivation. For instance, if caretakers are crucially needed in Germany, then communicating those needs in communities could motivate people to educate themselves in the field of caretaking to go to Germany, work, and start a new life there, in the process setting long-term motivations and creating options.

3.4. Bad Designs – Cheap cigarettes and harmful environments

This section illustrates the potential for implementing bad designs that may harm individuals due to their promotion of bad choices. It, therefore, supports the thesis' critical reflection on a given environment and suggests a broader discussion of environmental designs in general. The discussion of current designs in refugee camps or other environments cannot be assessed since it would exceed the limits of this work, but hopefully with the discussion of the concept of behavioural design and creating environments, a foundation towards current designs can be established.

If an individual's behaviour can be shaped through the environment in which they live, then there will always be one environment that shapes behaviour and decision-making for the better and one for the worse, with variations in between. In all societies, norms and values can impact lives, and there cannot be an individual without an environment in which they have to choose from either one thing or another – meaning that the individual tendencies to spend money will further be defined by the environment, given the advertisements, social norms and values, and other factors. This signifies that those bad designs exist that have potentially hazardous outcomes. For instance, there is scientific evidence that with the popularity and use of social media, rates of depression and anxiety have risen (Woods & Scott, 2016).

If these types of broadly used media can have a negative impact on individuals, they might also have an impact on the great part of society which further activates scale effects. With the definition of choice architecture, there will always be a design that guides individual behaviour, and often it can favour bad choices. Social media, for instance, has gained in popularity despite the significant harmful effects, and people still use it and increase its popularity, which further produces pressure to use such media. A behavioural design in our society gives us easy access to affordable smartphones and internet providers, cheap contracts for mobile internet, and makes social media easy to access without boundaries, while legal regulations (especially those regarding content) are scarce and can create a void in which individuals can barely see what happens underneath. Camp management also imposes a certain choice architecture and design on individuals which, in some cases, can be harmful for the individual and their future development. The thesis argues that this process should be managed and done thoughtfully. Future research could observe camps' choice architecture and the consequences. While designs are more difficult to be classified as "good" or "bad," perhaps the designs can be classified as "harmful" or "less harmful," or

as “traumatizing” or “less traumatizing.” However, the individuals themselves set the meter for their mental health. Individual well-being could, therefore, be assessed more easily. The type of environment the individual lives in could be an important factor. Numerous contradictions exist: seeing people on their phones and recognizing the popularity of social media while individuals feel socially disconnected, rising rates of mental illness while individuals have more luxuries and consumption than previous generations, individuals’ desire to invest money in risky assets for the future due to falling interest rates, putting old people in nursing homes far from societies’ sight while individuals desire to keep looking young, and the dying out of sight while individuals avoid death at all costs. Additional examples include a standardized educational system for the general public while students need to fight for recognition, 9-to-5 jobs under good and under bad conditions, more and better education with worsening wages, driving cars instead of public transportation and flying from Vienna to Cologne for 15 euros on Ryanair instead of paying more than 100 euros for a 10-hour train ride with an additional two hours’ delay. Could these be seen as design challenges and questions of our modern society? If an individual pays more for a more inconvenient but perhaps environmentally friendlier journey, flying might still bear an attractive option to choose for. If it would be the other way round, with, for instance, higher taxes on air travel and lower taxes on environmentally friendly solutions (leading to 10 euro train tickets and 100 euro flights), more people out of economic concerns would behave in a more environmentally friendly fashion. A more humane and more sustainable design is possible in modern society, for which this thesis, aside from its main topic, aims to create an awareness.

Regarding collective trauma, the environment in which potentially traumatized people find themselves, especially in the case of refugees, is defined and designed by hosts that take on their responsibility to protect and accommodate refugees. However, especially in the case of trauma, an environment can either retraumatize or assist individuals coping with their symptoms, for which the environment should be carefully assessed and designed to improve and protect individuals who are already in jeopardy to be further harmed by potentially traumatizing experiences.

In the following section this thesis will point out how a behavioural design to improve mental health could look like, how to stimulate the frontal cortex, and how an environment can be defined regarding to its cause, in this case aiming for people that already suffer to suffer less.

3.5. Economics, Design, and Psychology

In this brief chapter, the thesis presents the relationship between economics, design, and psychology, leading to the final section which is dedicated to developing a practicable design for creating healing communities.

Schumacher's (1973) approach explained how, with simple means, economic activity in rural areas could become possible and is necessary for development in terms of individuals' and a community's well-being. Intermediate technologies, which are inexpensive to acquire, could further help to transcend from previous production towards greater output (Schumacher, 1973). Sirolli (1999) created a facilitation approach to help Schumacher's vision and theories become reality, with success stories in various communities where facilitators helped to bring people together under one production or market cause (Sirolli, 1999). In his book *Small is Beautiful*, Schumacher (1973) presented his idea of economic development with an approach that could work in regions with few assets and limited capital. Schumacher argued, for instance, that the right technology, defined as technology that is easy enough to be used with little training and not too expensive to acquire, should be used in a way that is inexpensive enough to be accessible for everyone and can be used on a small-scale application and is compatible with its user's creativity (Schumacher, 1973, p. 21). In a productive and output-oriented manner, Schumacher suggested intermediate technologies that have a price range from traditional technologies (\$1 technologies), which are less productive, to modern \$2,000 machines, which are more difficult to handle. Advanced technologies ranging to \$1,000 would be easier to operate and function as a bridge towards more advanced technologies, while they can still greatly increase the community's production. Schumacher's idea was to find technologies that match the population's abilities, as well as to procure raw materials that are accessible in the local environment. Such intermediate technologies are easier to use and represent less vulnerability regarding unforeseen consequences (Schumacher, 1973, p. 149f.). In addition, Schumacher conceptualized employment as a precondition for everything else, where even a poorly equipped person can contribute to the overall output (Schumacher, 1973, p. 152f.). Poorer populations require things such as building materials, household goods, clothing, and agricultural requirements for production as well as adequate facilities. Communication is needed to implement intermediate technologies to make them accessible and usable, while failed communication hinders that development (Schumacher, 1973, p. 152f.).

Based on this assumption, Sirotli (1999) developed a concept relating especially to the communication of skills to offset productive work which, according to his words, has been significantly impacted by Schumacher's book (Sirotli, 1999). In *Ripples From the Zambezi*, Sirotli (1999) discussed his approach to rural development as he envisioned it through applying Schumacher's ideas. Sirotli experienced the unnecessary waste of resources due to failed communication in Africa when working with an Italian agency that had technical cooperation with various African countries. Operating in Zambia close to the Zambezi River, one project aimed to plant Italian tomatoes. Due to the lack of interest of the locals to plant any crops, the Italians paid them to do so, resulting in the Italian tomatoes growing extremely well due to the nutritious soil of the river. The group was unable to retrieve the harvest, however, since hippopotamuses from the river came ashore and ate the tomatoes, resulting in a failed project and wasted assets (Sirotli, 1999). From Schumacher, Sirotli employed his idea to change his perspective on local development, resulting in two main rules:

1. *"If people don't ask for help, leave them alone."*
2. *"There is no good or bad technology to carry out a task – only an appropriate or an inappropriate one. Something big, modern, and expensive is not necessarily the best option/choice; it all depends on the circumstances."* (Sirotli, 1999, pp. 7-11)

Facilitators help people to establish businesses by utilising the "management trinity," which consists of three basic factors that should be met in order to start a venture. The management trinity consists of the following:

- *"The technical skills necessary to produce the goods or services one wishes to sell (whether they be shoes or packaged tours)."*
- *"The ability to market one's goods or services."*
- *"The ability to financially manage one's affairs."* (Sirotli, 1999, p. 92)

One of the facilitator's key roles is to find and assemble the team members who will work together on the venture (Sirotli, 1999, p.93f.); networking can also provide support, but it is most desirable to find people locally who can – and want to – join the venture (Sirotli, 1999, p. 96f) and to develop a business plan (Sirotli, 1999, p. 98). Schumacher and Sirotli showed that economic development and ventures even in rural areas are possible, and facilitators can help to find team members internally within the community.

One infamous example of a refugee camp where refugees established an economy is the Buduburam camp. Refugees managed to develop independently and create an internal

market (which, however, became too expansive to save money without regulations). Toilets and water, as well as education, became too costly for market participants, while external remittances from family members played a significant role in supporting the people in the camp (Omata, 2017). In the end, Buduburam failed but showed that it is possible to create a market and an economy in refugee camps, although with additional support of facilitators, the economy could have become more sustainable and successful in promoting individual possibilities for education and saving (Omata, 2017). The thesis assumes that with the support of facilitators and protection from over-liberalization (by, for instance, keeping necessities and basic needs freely available), Buduburam could have achieved a better result. Communities should bring people together, and outdated technologies from host nations can be donated or inexpensively acquired, to increase a community's productivity, and the market should be protected from over-liberalization through various means such as the provision and protection of free basic needs.

4. Healing Communities – What is the purpose and how to design them?

In this final section and with the knowledge gathered in previous sections, the thesis aims to focus on the possibilities and motivations for transforming refugee camps into healing communities to reduce psychological distress and promote individual development. This thesis has assessed and summarized basic knowledge about behavioural design, neuropsychology, and trauma, as well as their relevance among refugee populations and vulnerable populations in general. The thesis found evidence that, within European refugee camps, studies measuring PTSD symptoms within a population demonstrated that refugees scored significantly higher than the average population, and that children and adolescents in particular suffered from the traumatic experiences before and during their arrival in the camps. In addition, this thesis considers camps as a potential Petri dish that nurtures trauma and other psychological disorders, as the thesis found various factors that can cause distress, such as the inability to actively use stress hormones, a lack in a sense of coherence, a potential lack of relationships, and compromised self-efficacy. Behavioural design not only is something environmental or choice architects can actively implement but also is something that evolves and controls the environment, with plenty of possibilities to develop and adapt. This thesis argues that every society establishes an environment or a behavioural design that tends to promote certain behaviours. Maybe one takes a loan to buy a house, maybe one spends more time on social media instead of physical social interactions, or maybe one gets educated in a system that offers standardized education to masses instead of individuals. Does not every society have its own behavioural design? This thesis now aims to bring together the previous findings to establish a behavioural design that aims at reducing negative psychological symptoms among a vulnerable population.

The community's purpose is to build a bridge between a refugee's previous life and the life that is yet to come by supporting their needs to develop without becoming overcome by traumatic experiences, while individual perspectives and development are fostered for future growth and possibilities. Communities aim to reduce distress as well as negative psychological symptoms caused by previous traumatic experiences that occurred during migration – and from migration itself. Individuals should be given opportunities to choose interests and professions while receiving support in their development. Learning, work, and meaningful relationships should become a natural part of the community which should continuously develop towards self-administration to reduce externalities and take ownership

of its own development while being guided through a behavioural design with facilitators to support internal processes.

Ultimately, there is no single recipe but rather an ongoing experiment, and readers should be reminded of their own freedoms and the cages they might face no matter where they come from. Integrating people into new lives is always a challenge, but it might be worth loosening the desire for control to see what humans in a population can come up with when they are supported by facilitators.

Although the concept requires experimentation, aspects such as financing could not be assessed given the limitations of this work. However, the idea is not only for people to acquire skills but also to further reduce the costs of camp management by taking responsibility and ownership within the community. Perhaps costs can be dramatically reduced once a refugee population can manage itself with or without facilitators and once skills are acquired or have been made visible, and with the opportunity of work, individual and community chances for development could rise.

4.1. Shifting Designs – from camp to community

Camps should shift towards stress-reducing design decisions that align with the approach of creating a healing community, which means that people need space to isolate as well as space to socialize. A camp with borders is a camp that can become overcrowded and, therefore, create additional stressors that could retraumatize refugees. In the neuropsychology literature, the thesis came across the role of stress hormones in trauma and PTSD. It became evident that people need the opportunity to actively use their stress hormones in order to reduce negative psychological symptoms caused by distress, depression, or trauma. The host country is to be understood as the legal entity of government that guards and faces the responsibility of caring for a vulnerable group of people.

Therefore, hosts should answer questions such as the following:

Does the camp provide basic needs in adequate quantity and quality?

Does the camp meet the geographical requirements for a community design without borders?

Is the political (government); economic (financier of the community, such as UNHCR); social (local population); technologic (infrastructure and required connections, such as power and water); ecologic (fruitful ground and safe environments); and legal (access to legal institutions as well as access and empowerment of rights) environment provided for the approach, or is it able to adapt?

Individuals secrete powerful stress hormones during traumatic events and even after the event has passed (van der Kolk 2015). Van der Kolk (2015) demonstrated that individuals who actively used their stress hormones were able to cope better than individuals who did not use their stress hormones. Camps that have barriers and limited opportunities to use stress hormones could potentially enhance the traumatic experiences by providing no way to release the stress hormones and manage the high arousal level. This could enhance the possibilities for conflict since aggressiveness can be a symptom of PTSD. Camps themselves could cause trauma due to the situation within the camp, such as poor economic and social conditions. Camps could and should help refugees cope with traumatic experiences of conflict, persecution, or the migration journey itself. Especially during conflicts, the group of refugees, as heterogenous as they might be, share traumatic experiences of the conflict, and this offers a tremendous advantage for them to heal each other through shared empathy and the desire to make sense of the situation while searching for meaning. Refugees can have a unique advantage regarding compassion, which the host societies might not have due to their lack of understanding or experience

For this reason, this thesis argues that camps should be transformed into communities. Sports activities, such as football, could be implemented to actively reduce stress hormones and decrease the internal conflict potential while promoting the creation of meaningful relationships. The positive role of football has been described by Rawlence (2016).

Refugee camps should create a design that, from the beginning, encourages individuals to be active instead of applying the classic wait-and-see approach in which individuals must

pass an uncertain waiting period before asylum procedures permit them to pass. Camps should assess previous settings and ask pertinent questions to assess their development towards becoming a community.

Hosts should answer questions such as the following:

Do we have camp data about skills and professions existing within the population?

Do we understand the internal needs of the population and how those are communicated?

What activities do we offer that match the population's interests?

Is there an employment option that aligns with the population's skills and their financial and cognitive needs?

Do we communicate effectively with the refugees about the camp's meaning and their role within it?

Can refugees take an active role in the camp's development?

Are processes internalized? If not, why not?

Can we define processes to be internalized and external requirements?

Do we have sufficient data about the population?

Designs could be suited to individual populations and communities if organizers have the relevant data.

From the beginning, organizers should assess individual skills (hard and soft) to understand what individuals in a community are capable of, either self-managed or with the support of facilitators. Right from the start, when a person enters a new community, completing a questionnaire could help to assess professional skills and risks for developing trauma or other psychological symptoms that could hinder individual development. Obtaining this type of data about the population could facilitate community development that supports individual growth and reduces risks for trauma or re-traumatization by carefully identifying people who might require more intensive care.

Camps should answer questions such as the following:

Do we have data about the population regarding ...

- Age
- Skills (hard and soft)
- Previous professions
- Education
- Desired destination
- Desired profession
- Motivators

As depicted in the sociotherapy literature (or within Sirolli's (1999) book), facilitators could benefit from having a pool of data with which to assess the community and shape a design as well as to support ideas created within the community. An overview could provide information on the strengths, weaknesses, opportunities, and threats that exist or could exist within the group. For instance, it could be important to be aware of two different groups that have different views on culture, politics, or religion, since those differences could create tension and cause distress. This is something that could be treated in sociotherapy and community sessions to spread awareness and empathy. Facilitators could help to achieve goals within the community instead of actively managing what could increase the community's independence, sense of coherence, and self-efficacy by, for instance, bringing groups together under one goal or venture (Sirolli, 1999).

Camps should answer questions such as the following:

Can we provide facilitators who ...

- Support refugees in creating a governance system
- Provide support for internalization
- Provide sociotherapy sessions
- Bring together teams under one goal (work, activity, other projects)
- Communicate internal and externally

Camps further could assess their potential regarding self-efficacy and sense of coherence.

In conclusion, camps could assess their internal and external willingness for change and transformation towards a refugee-centred approach. Although the process might be difficult, a transformation could increase individuals' and the population's well-being while reducing externalities' costs (such as costs associated with camp management) for the host nations.

The internalizing process could bring tremendous benefits to the community and to the individuals.

Camps should answer questions regarding the following:

Sense of coherence:

- Can refugees actively shape and impact their environment?
- Do refugees have the possibility to make decisions within the environment?

Self-Efficacy:

- Do refugees get recognized for their skills?
- Do refugees have tasks to fulfill?
- Do the tasks increase in intensity and difficulty?

Every population of vulnerable people will most likely develop individually, and there is no single approach that fits all. The population should be involved in its own creation of a community that fits their needs and provides long-term opportunities.

4.2. Assigning possibilities and Internalization – A Neuropsychological perspective

A very strong nudge towards activity could include signing people up for activities for which they have the option to opt out, implementing a libertarian approach that nevertheless aims to encourage activity within the community. Such activities and groups could be created for sport, work, learning, and other activities in the community such as social or community-specific activities. Facilitators could immediately try to counter lethargy by assigning activities and giving the individual the option to choose, thereby creating strong defaults. For example, facilitators could create various sports groups from which the individual can choose. Through the defaults that are created, individuals are nudged towards activities that are associated with better psychological well-being and that encourage the active usage of stress hormones. Social activities could consist of caretaking work or camp-related management (organizational, supporting groups, etc.). The communities themselves could develop ideas and activities that, with the help of facilitators or internals, could be implemented. The community would need space to develop various groups that match different fields of interest. The idea is to utilise activities to make use of stress hormones, create a sense of coherence and self-efficacy, and reduce the dependency on others while

reducing the negative psychological impacts that migration, war, conflict, and PTSD can have.

Figure 9, the circle of internalization, shows how facilitators and members of the community can derive potentials of internalization.

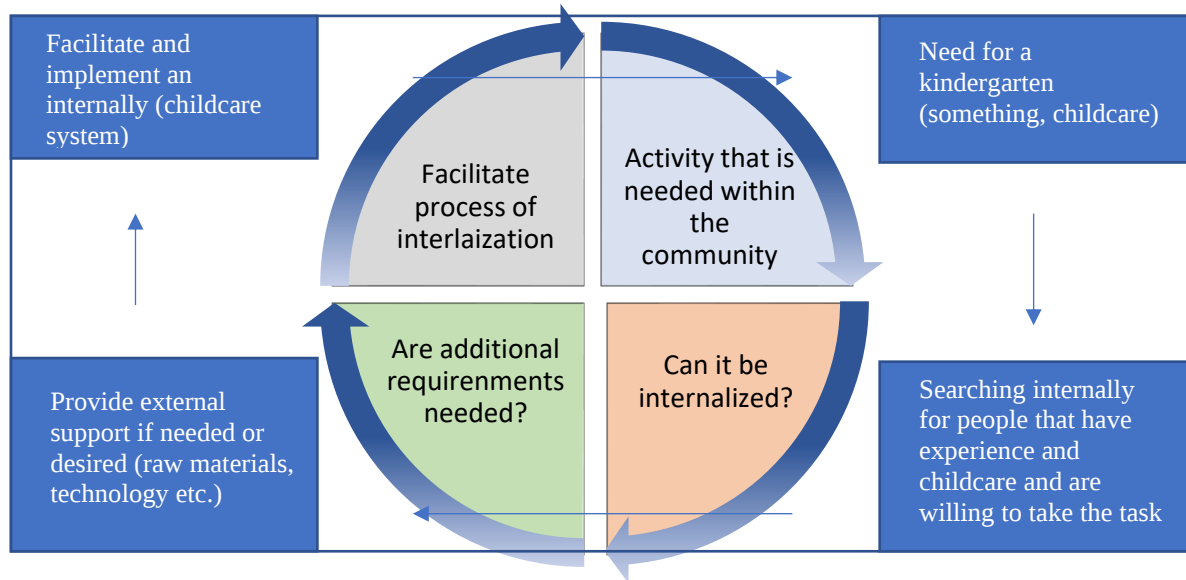


Figure 9: Circle of internationalization

Using the prefrontal cortex will be an important factor in such activities due to its relevance to coping with trauma, emotional intelligence, and mental health. All activities (sports, working, learning, and social activities) ultimately activate a person's frontal cortex – the logical/thinking part of the brain. This part's relevance is undoubtedly significant in treating psychological symptoms, and its stimulation can be crucial in developing coping skills and improving a person's inclusion process in future communities; it also impacts future perspectives in dealing with stressors such as jobs and making new social contacts. Solving problems is crucially involved in using the frontal cortex. If the community has the ability to manage and administer itself, the frontal cortexes of the population could be utilised through managing community-related businesses as well as individual tasks related to activation activities. The thesis previously reported evidence that solving tasks that become increasingly challenging can positively impact self-efficacy and, therefore, reduce negative impacts of trauma. This could promote scale effects in stress reduction by forcing people to think about difficult tasks that can bring joy, a feeling of self-efficacy, and a sense of coherence. Sociotherapy sessions could work as a starting point to create an understanding

of the community and develop empathy and meaningful thoughts regarding how individuals can positively impact their community.

Amygdala awareness could also become an important issue. As stated in section 2, the amygdala plays an important role in how a person deals with emotions, and whenever a person feels anxious about something that is not actually an immediate threat (such as stress at work) compared to a real threat (such as a snake). The amygdala however can overflow the body with unnecessary stress hormones for harmless reasons, and a person can become trapped in their emotions (also referred to as amygdala hijack; see Goleman, 1995), which nonetheless can be countered through emotional awareness and emotional intelligence (Goleman, 1995). An environment which is empathetic towards individuals and promotes interpersonal relationships could further benefit the treatment. Sociotherapy sessions could help to develop an understanding of the individual emotions a person can encounter and how to deal with them once they arise. Community designs should help people to talk about their anxieties, experiences, and general topics in a group that, together, can create awareness and reduce emotional distress (as the concept of sociotherapy embraces). A strong nudge and appropriate design could, with an opt-out option, assign sociotherapy groups to people with similar experiences who might be able to support one another with great empathy, therefore improving coping capacities by improving individuals' internal and external perspectives. Another strong default could be especially useful – if data was gathered to assess persons who might have special needs and require closer attention due to high vulnerability; for instance, those who come from regions that were recently under attack in times of war.

4.3. Using Heuristics – creating awareness and making information visible

In section 2, the thesis addressed some findings from the field of psychology and mentioned the role of heuristics in making decisions and defining the environment and thinking.

The availability heuristic stresses the role of information that is easily retrievable in a person's memories in making decisions. One way to actively use the availability heuristic in achieving a behavioural design to promote activity and usage of stress hormones could be visual and auditory reminders; these would remind individuals that there are opportunities for activities and could include advertisements for work, learning groups, or sports clubs. Posters could promote football clubs or other competitions, work opportunities, or courses given by other refugees. By surrounding people with the information that there are opportunities to become active, those opportunities might be used more frequently and, when used, could benefit psychological health. Moreover, the heuristics could impact individuals who share experiences in social contacts. For instance, if someone had a good experience in their activity, such as a sports club, and they talk about it, the interest in, and awareness of, this activity might rise. This could have been the case in the City of Thorns, where football became one of the important social fundamentals in the refugee camp. Social contacts can be made while mental health is improved through social relationships, usage of the frontal cortex due to sports and activities, physical activity, and ultimately stress reduction. Team sports not only provide an active use of stress hormones but can also create a sense of community and belonging and further facilitate the creation of strong relationships. Opportunities need to be available, information needs to be spread, and good activities will thrive while the ones that do not receive support fail. Therefore, shifting in opportunities could become the norm. Moreover, the heuristics could work from the perspective of external hosts as well. With a clear exchange of information and support to develop, individuals could show off potential talents, which increases pull factors and makes long-term hosting or integrating refugees potentially more attractive. When states see that people acquire skills in fields such as IT or craftsmanship, the vision for successful employment might flourish on the refugees' side as well as on the host's side.

Sharing and communicating information between host and community will be an important task for either refugee representatives or facilitators.

4.4. Independent Self-Administration - strengthening Self-Efficacy and Sense of Coherence by giving the opportunity for participation in community development

As noted in chapter 2, self-efficacy and sense of coherence represent the healing potential and capacities of individuals prone to developing symptoms of PTSD and other psychological disorders such as anxiety and depression.

To recall, sense of coherence refers to the individual's ability to act and interact with the internal and external environment, while self-efficacy is defined as the belief and ability of individuals to perform a certain task. Managing oneself and a new life could be one of the most challenging tasks ever conducted, and individuals should receive support in personal development. Communities could help individuals tackle some of the greatest challenges in life after fleeing from economic poverty or war, namely self-management. A community could work as a democratic union in which all representative parties have a word in gatherings to ensure voices are heard and shared. The needs of the people should be exchanged and perhaps external facilitators could promote their achievement through external communication or internal consulting. Instead of managing the camps or communities, host nations could support the communities in their individual development with facilitators and take over a supportive function rather than a controlling or managing one. By doing so, communities themselves could develop and communicate what they need on a community level and an individual one. To increase the sense of coherence among residents, communities should find ways to bring together individuals' internal and external worlds by explaining the role of the community and the role of the individual, enhancing the understanding of the environment and what they can expect from it. To increase self-efficacy, communities should give tasks to everyone to create a feeling of achievement within the community as part of the healing process; in this scenario, tasks can become increasingly difficult to enhance a person's belief in their individual capacities. Management itself is associated with abstract thought and thinking that could activate the frontal cortex, such that while the community manages itself, the frontal cortexes are working and perhaps reducing the negative psychological symptoms caused by amygdala responses.

Activities such as sports could play an important role in the sense of creating community, distractions, and opportunities to use stress hormones. As Rawlence pointed out in *City of Thorns* (Rawlence, 2016), which is a book about real stories of people living in the world's biggest refugee camp, football played a significant role in the camp. The teams played

against each other, and they watched the games of international leagues together in social gatherings.

Work and learning can further help to use stress hormones, promote self-efficacy through solving tasks, impact the sense of coherence, and create a perspective for future development, as suggested by the sociotherapy literature. Emotional intelligence and coping strategies that are taught in groups of individuals, while emphasizing empathy, could help to develop coping strategies and acceptance. This might help after integration into a new country, which is associated with many stressful situations for people coming from different cultural backgrounds. Moreover, capacities to cope with trauma and stress or anxieties can be developed to help individuals achieve their social and economic goals. Work should be part of the discussion. Not only could the opportunity to work in the community help to actively use stress hormones and reduce the financial burden but it can also develop in individuals a perspective for the future and promote self-efficacy and a sense of coherence (instead of being fully reliant on a foreign institution or remittances). A system in which one can work and learn right from the start is a system where it could be more difficult to take away these benefits and thus might additionally provide learning and working incentives for a life after the community. Communities should offer opportunities to work and earn wages, and with facilitators and statistical analysis one could retrieve the information needed to assess which skills exist in the camp that could be used economically or socially. Money and economic fears such as not having enough to eat can cause psychological symptoms that could end in a spiral that continuously becomes more difficult to emerge from. After all, learning, working, and productivity (self-managed or with the support of facilitators) could help to use stress hormones and decrease potential tensions between members of the community who might be suffering from anxiety.

Regarding economics, Omata (2017) assessed self-reliance within the Buduburam camp, finding a failure of self-reliance mainly in the need for remittances to sustain life, even though the camp had created an economic system of its own. Nonetheless, the camp was somewhat over-liberalized, resulting in an environment where basic needs such as toilets and education had to be purchased. This could have greatly harmed the internal economic capacities of individuals (Omata, 2017). What would have happened if facilitators and externalities supported the camp, resulting in the provision of free basic needs? Perhaps the camp could have developed differently. However, it was remarkable that despite the failure of the camp (which was eradicated in 2021) (Bonney, 2021), refugees without clear

assistance were able to create an economic environment and a functioning market, although it was not able to offer opportunities for savings and future investment (Omata, 2017). With the support of the facilitators, the internal strengths could have been fostered. Economic sustainability and the ability to live a life without economic fears are crucial for mental health and are concerns that impact all individuals. Rawlence also discussed the need for money and the poor job opportunities in the City of Thorns (Rawlence, 2016). The community design should, therefore, support economic activities. A method was introduced by Sirolli in *Ripples from the Zambezi* (1999). Sirolli (1999) suggested that instead of telling people what to do, facilitators should be used to bring people together to achieve economic goals such as business ideas. His concept was tested and could help local rural communities to create sustainable businesses (Sirolli, 1999). Economic and financial necessities need to be included in the behavioural design to create perspectives and foster sustainable mental health for the community members. For example, the design could form think tanks that aim to find teams to work and produce goods together or share knowledge that could be beneficial to others. As Schumacher stated in his book *Small is Beautiful*, even rural communities can start a production, such as by using older technologies that are too inefficient for developed nations but that can still improve production compared with less efficient technologies. Older technologies from industrialized nations might be obsolete in some contexts since they are less efficient and perhaps worthless for industrial nations, but they are still sufficient to initiate a production, especially for populations that depend on starting a production (Schumacher, 1973). For instance, old machinery for shoe making, now worthless in industrialized nations, could be a way to start off a means of production within a population that has limited means of production. Such old technologies could be identified when the need arises within the community by facilitators who try to acquire such production needs for the camp. Due to the outdated nature of the technologies, the production technologies and resources could be more affordable or perhaps even donated to camps. Old machinery in agriculture, cloth making, or technology itself could be used for teaching and production. For instance, old computers rapidly lose their value in industrialized nations with continuous innovation; however, an old notebook might still be good enough to teach the basics of Microsoft programs or coding (skills that are useful in plenty of ways when it comes to job searches). With the start of production and learning, the camp could start to generate money for the individuals and the community. The individual and community potential for economic activity should not be wasted during the waiting and healing processes until a host-country is found.

4.5. What a Behavioural Design approach for collective trauma treatment and development looks like

Upon admission to the community, a questionnaire gathers data on skills and hobbies. Defaults will be chosen for individuals regarding community sessions such as sociotherapy, sports, work, and learning.



Work and education on intermediate technology to gain experience is fostered.



Learning languages or other professions is part of the routine.

Individuals have the chance to switch activities but should be motivated to enrol in them.



Facilitators help and support during activities and community sessions, and they answer individual questions to ensure that the groups and individuals have what they need.

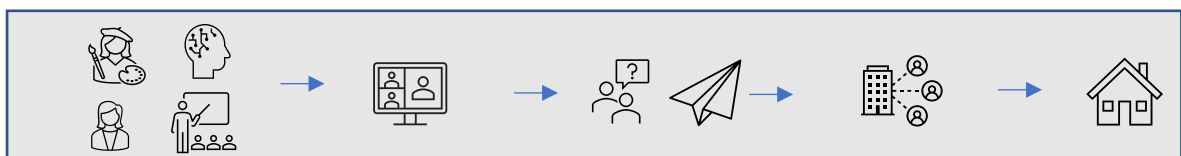


Facilitators offer opportunities for work and try to gather teams to manage a project together, such as in Sirolli's approach.

Work, financial income, and education should be offered with or without intermediate technologies as suggested by Schumacher, to keep costs low and learning fast, efficient, and short. Individuals can choose their own path within the community.



Matching quality assessments with potential host nations could help to find a better fit for refugees and nations. Workforces are needed in plenty of fields, so enhanced communication is needed to find a perfect fit between a refugee's needs and the needs of a host country. If, for instance, caretakers are needed, countries could offer incentives to refugees to work in this field.



4.6. Suggestions for design decisions – Structured by Maslow's needs

A behavioural design approach could be clustered according to the models of Maslow (see McLeod, 2007), with the goal of creating a behavioural design to reduce negative psychological symptoms in refugee populations. To structure the approach, Maslow's pyramid could be used to classify needs that the design must fulfil and needs that should be fulfilled in accordance with urgency.

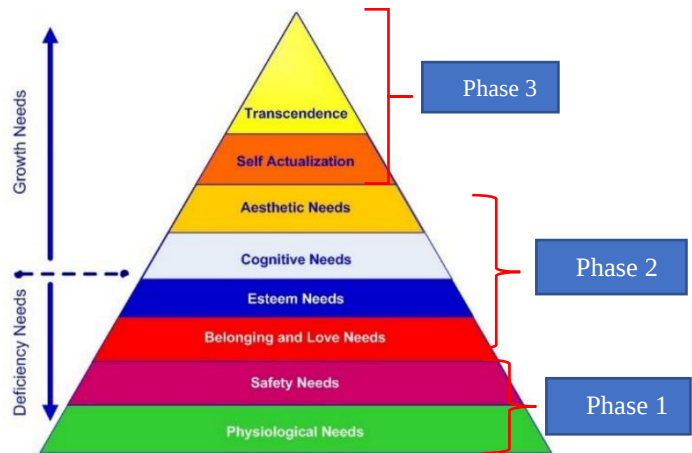


Figure 10: Hierarchy of Needs (McLeod, 2007).

Phase 1 is concerned with providing the basic human needs; without these, other design discussions in many cases will be displaced. **Phase 2** follows after basic needs are met and is concerned with needs that go beyond those but still greatly impact well-being, such as esteem and cognitive tasks. In moving to Phase 2, behavioural design becomes particularly impactful. **Phase 3** is highly individualized and greatly depends on the internalization of the individual's needs. Phases 1 and (especially) 2 should provide preconditions for the individual to move on to Phase 3.

First: Provide for physiological and safety needs. These include needs that are necessary for a human's existence; when one is concerned with having enough food, mental health needs are rather secondary.

Provide: Food, water, shelter, medication, etc.

Second: Create an environment and opportunities for love, belonging, and esteem, and one that meets cognitive and aesthetic needs. The prefrontal cortex can play an important role in all of these steps of the pyramid. After basic needs are met, and during the process of supplying them, let design decisions help individuals to shape their community and supply facilitators. This helps the community to develop and communicate with externalities such as hosts, organisations, and NGOs 'such as the International Red Cross. An effective design would address the amygdala and frontal cortex.

Behavioural design approach:

- Platforms for dating and friendship.
- Space for families and friends with activities.

- Group or team activities such as team sports.
- Supportive groups, learning, and work opportunities.
- Tools and space to create and perform art and other activities.
- Tools, instruments, paint, teachers, workers, artists, etc. found within the population.
- Facilitators scan the population for people that desire to learn or can teach something.
- Communicate host and individual needs, and give platforms for communication such as boxes for recommendations and wishes that can be discussed.

Third: Give opportunities through design for self-actualization and transcendence. Consider migration and create individual, long-term possibilities when migrating and finding a permanent place to stay and build a life.

- The environment in a community might not be sufficient to reach the top of the pyramid. The design can, and should, help individuals, especially regarding long-term perspectives.
- Create an environment that helps individuals find their callings and their desires for transcendence. Foster and promote individual strengths, such as with training, education, and opportunities to work.
- Teach valuable skills, either directly or through sociotherapy, such as emotional intelligence, coping techniques, and self-love to help persons to develop through their challenges.
- The community could offer, within sociotherapy, teachings in emotional intelligence, self-reflection, and additional ways that help individuals to live successful lives (for which emotional intelligence was found to be a good indicator, according to Goleman (1995)).
- A match quality approach to migration of refugees could further guide them towards a successful life and a permanent home.
- Communication between host nations and refugees regarding skills and professions could become an important task for facilitators and could reduce uncertainty for refugees.
- Find nations that require employees in particular fields, and communicate these requirements with the refugees; find the ones that would be interested in obtaining these to obtain a good match between refugee and host requirements and desires.

- For example, if Germany needs caretakers, facilitators can find people in the community who have experience in this field or who would like to gain knowledge and experience working in Germany as caretakers.

As illustrated in Figure 11, Maslow's pyramid could be transitioned in the following way

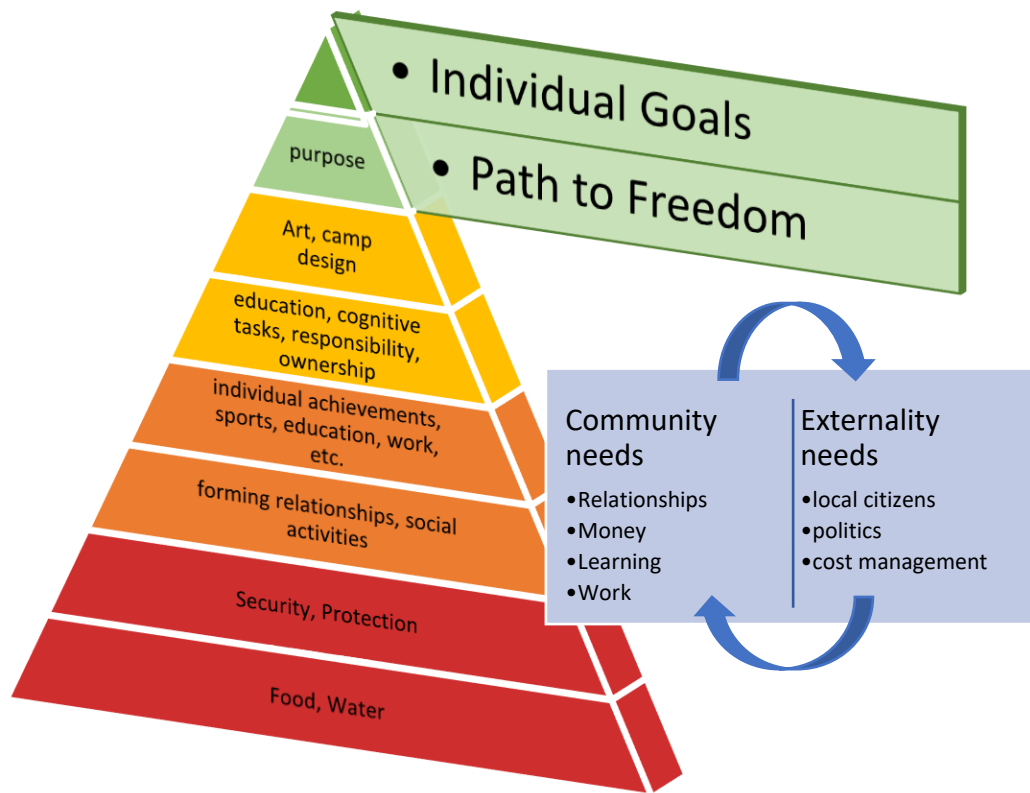


Figure 11: The Pyramid of Behavioural Design needs

In the following, some nudging examples are identified in accordance with the pyramid:

Desired Outcome: (needs to meet in BD)	Behavioural Design approach (Defaults):
Belonging and Love needs:	- Socioterapy sessions - Social events (music, parties, movies) - Sports clubs and other group-related activities - Dating venues - Spaces for cultural exchange regarding a group's needs - Provide: space, dates for fixed events, facilitate planning

Esteem Needs	- Teaching/Education (work skills, emotional intelligence) - Assessment of skills and motivation - Work and experiences of achievement - Tests and ownership - Space for creative freedom and expression - Tasks for the community (cleaning, caretaking) - Tasks that are typically associated with gender-specific roles should be distributed among all genders to provide equal opportunities for every individual within the community - Provide: facilitators to help assess and develop community esteem needs
Cognitive needs	- Working/learning opportunities within the camp - Learning opportunities for every gender and age group (languages, hard and soft skills, MINT classes) - Community management and related tasks (forming the committee) - Developing internal projects supported by facilitators or consultants - Provide: space and machines (intermediate technologies), and find teachers for education and work (internally, externally)
Aesthetic Needs	- Clean conditions in the community camp (clean accommodations, clean paths, clean public spaces) - Free spaces to gather and practice art - Music lessons - Art and exhibitions - Appropriate housing and improvements (colours, clean, gardens/parks) - Possibility to develop projects - Provide: space and material, clean conditions

4.7. Liberal Paternalistic Self-Administration in a Nutshell - Conclusion

In this final chapter, the concept of liberal paternalistic self-administration will be briefly summarized. The approach aims to give refugees the ability to manage themselves on an individual and community level, while host nations can still fulfill their responsibility to protect a vulnerable group. Liberal Paternalistic Self-Administration (short, LPSA) could reduce the costs of camp management in terms of psychological costs, reduce the responsibilities of host nations, and provide a more sustainable approach to refugee management or to migration management in general.

The thesis started by aiming to intervene in the endless regression (see Hofstadter) that is found in various environments and that emerges when someone who is forced to flee becomes successfully and fully included in a new and safe environment; the thesis acknowledges the endless regression of someone who potentially became traumatized towards becoming fully included in a new host nation. It might become an endless journey towards healing; however, with the right environment and support in developing a sense of self, future generations could be protected from becoming traumatized through historical occurrences while individuals learn to reduce their own suffering. In the end, *Gödel Escher and Bach* by Hofstadter did not rate the endless regression as “good” or “bad”; it is simply and factually there and always will be found. At the beginning, this thesis aimed to intervene and break the regression, but it will end in acknowledging and working with it, aiming to guide individuals in a vulnerable population towards a self-managed and potentially happy life.

The host defines the environment in which people seeking refuge find themselves, which might not match with the individuals’ needs. Hosts could give more opportunities to develop the environment together with people seeking refuge. With defaults, availability heuristics, and more tools, the host can develop an environment in which the community itself plays an active part in its creation and growth. Communities and their members might understand their needs best, and in the case of trauma treatment, guided or facilitated self-administration of communities could increase the frontal cortex use and perhaps reduce negative impacts that a trauma could impose on an individual while giving refugees the management and agency for their lives – something crucial for humans but perhaps lost due to the necessities of migration.

Why self-administration? Sense of coherence and self-efficacy (and, perhaps, Watzlawick's theories about individual realities) are just two factors that play a role in every individual's ability to develop in any society. Decreasing dependency on foreign hosts while lifting up individuals' independence could become an important step in enhancing self-awareness through a healthy behavioural design that gives options to choose from as well as possibilities for individual ideas to develop. Independence and self-efficacy could lift people up in difficult moments and help them remain strong in times of rapid change. After reviewing the basic approaches of behavioural design, neuropsychology, and the literature about trauma and psychological illness in refugees, an approach was crafted on how a behavioural design for increased self-administration could benefit individual well-being and refugees' communities in their development. While giving individuals the opportunity for development, the behavioural design and the communities' facilitators represent the host's caring responsibility towards the refugees in a paternalistic manner rather than a patronizing approach. Creativity from communities, hosts, other externalities, and facilitators will be required. In the end, even creativity itself could activate the frontal cortex and reduce symptoms of trauma. Creativity will be needed. There can be great creativity applied in developing nudges, and there will be an organic transformation in communities that change and develop, but perhaps a huge door opens not only regarding independence and agency but also regarding migration in general. Using individuals' and communities' strengths and knowledge to manage themselves, while communication internally and externally is facilitated, could lead towards a more sustainable inclusion of refugees in a new society. The concept's core principles are the following:

Liberalism: People within the community have freedoms to design and impact their environment and opportunities. They can actively play a role within the community and are provided options to choose from that aim to promote their individual development and possibilities for the future.

Paternalistic: The paternalistic approach protects the host's responsibility and refugees' requirements through the implementation of facilitators that support the communities' development and the choice architecture in which refugees are introduced. As long as basic needs cannot be internally met, the host will play a role in providing those.

Self: Every individual matters and plays a role within the community. Skills (hard and soft) will be assessed, and work and education opportunities will be provided. The individual can

choose activities and gets a chance to develop in an individually chosen path, perhaps finding their unique calling in a profession needed in a potential host nation.

Administration: The community will be guided to administer itself through organizational structures such as committees.⁴ Responsibilities can be shared within the communities while facilitators search for internalization opportunities to increase the self-administration within the community.

LPSA aims to change the way refugee needs are perceived and met. It aims to acknowledge needs apart from the ones that a refugee has, including the needs an ordinary person has in a society free from disruption. Freedom to go one's own path might be crucial in developing a sustainable self-definition to achieve a good life as free as possible from psychological pain. Desires for financial independence, work, social life, meaning, and purpose go far beyond traditional camp management and the meeting of basic needs. While security and survival always form the basis of the pyramid, current and future needs might be left outside the perspective of traditional camp management, and while externalities potentially face a lack of knowledge about the refugee population within a camp, the population might understand itself the best – its needs and possibilities, requirements, and perspectives. To acknowledge this fact means to acknowledge the responsibility to step back from patronizing, moving on in a paternalistic manner and facilitating community development. A refugee's needs are human needs and perhaps, once the basics are provided, do not differ much from the needs of one who lives in a secure environment. Host nations should consider an LPSA approach for using the internal strengths that a population brings with it. External management might not fully achieve individual potentials that need to be identified and fostered. Moreover, the LPSA approach aims to nudge individuals towards independence and self-management while helping the population to live with potentially developing and already existing trauma. Future generations will be protected from the contagious impact of trauma and its negative psychological symptoms. Future generations could be traumatized even though they have not experienced or witnessed the traumatic situation directly; nevertheless, they can still develop the negative symptoms of being traumatized by being traumatized through the generation that witnessed the traumatic experience first-hand. This

⁴ See appendix for a summary of the Austrian SKKM guidelines for crisis management (BMI, no date)

signifies that the reason for trauma is no longer associated with the historical event but through other factors.

To conclude, the beginning of this thesis presented pictures of Escher that show endless loops. If one traumatized person has children and passes the trauma on to one of the children, the population of traumatized people grows. If 10 traumatized people infect only one person, the general population of traumatized people increases to 11. The probability of contagious traumatization increases by 1.1, *ceteris paribus*. Eleven people, *ceteris paribus*, infect 1.1 people. The general traumatized population increases by 12. Mathematically speaking, population $X = X (y - z)$, where y (rate of infection) > 0 , where z = rate of healing or deceasing in the population. In general, as long as $y > z$, the traumatized population will grow continuously. It seems obvious but has been greatly simplified. Traumatization caused by the population as represented by y should be kept as low as possible to keep the general traumatized population as low as possible and to avoid scale effects and an exponential increase of traumatization where the base cause is not the reason for the traumatizing impacts that cause harm to subsequent generations. The graphs and data below simulate the regression of a traumatized population, where for 10 people an additional person is traumatized, *ceteris paribus*; not counting deaths or healed members, one can observe continuous growth as long as $y > z$. Although the impacts might be little at first, with a 10% infection rate of trauma the numbers will eventually reach exponential growth. One finds an endless regression almost like in one of Hofstadter's examples in GEB. The question that remains is how much time will pass until growth rates erode.

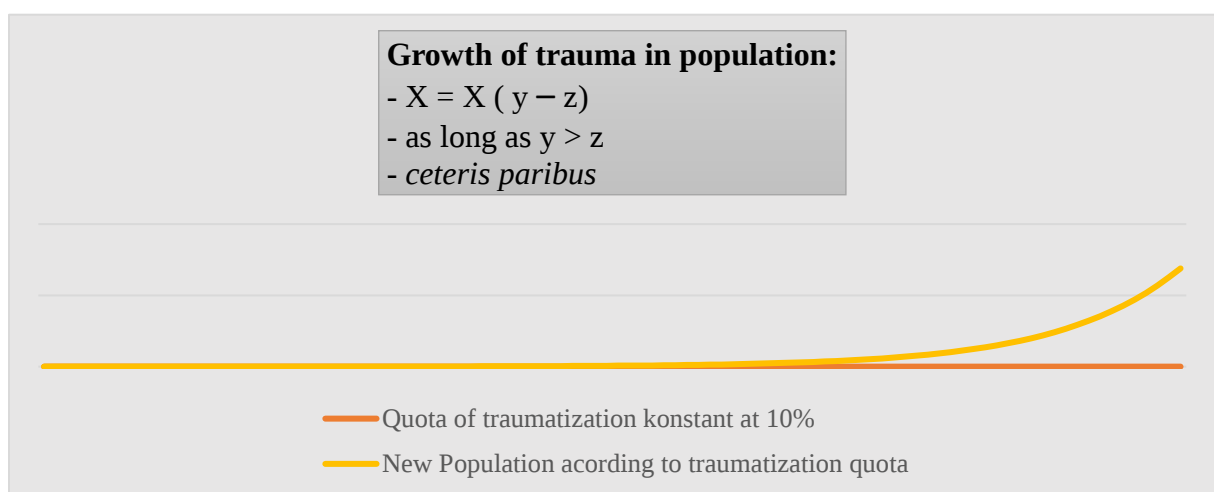


Figure 12: Trauma in population? if $X = X (x - y)$ with $x > y$

The previous chapters and the appendix aimed to give practical approaches and suggestions for community development and facilitation to reduce negative psychological symptoms for generations that witnessed traumatic situations directly, reducing risks for future generations to become traumatized from previous generations. The literature analysis showed that there is a potential to intervene in the process of traumatizing generations by compassion, empathy, and activity. Camps could become healing communities, reduce risks for traumatization, and drive migration towards sustainable inclusion. Further tests will be needed to understand and rate the impacts of the behavioural design approach; however, the literature of psychology and sociotherapy seems to support the approach for now. Further nudges and design ideas could be established within communities that are tested, facilitated, and that offer additional knowledge of the theory of liberal paternalistic self-administration. The default methods in refugee management could, and perhaps should, be questioned, and individuals should be motivated to question their own defaults and those of their society. People, and therefore cultures and community, will always be different and will always require adapted approaches. In the LPSA approach, nothing is fixed except perhaps one premise:

Every individual's time is precious, and time should never be wasted hoping for better days. Forcing people with dreams and abilities to apatheia and nothingness is a true social crime as seen from the eye of an individual's conscious mind.

It is a hurtful paradox that lengthens suffering.

To free people from their internal boundaries, hosts should consider setting them free from external boundaries. Research showed that cognitive tasks can do great work in benefiting the psychological health of people, and that being managed by externalities might deprive individuals of one of our greatest desires, to **do something**. In the end, refugees might find themselves in an endless loop in which they strive for a peaceful and joyful life. Such a life, however, requires opportunities, and to create them perhaps giving freedom to the individuals might aid in setting them free from the chains that once required them to seek refuge – the bondage of externalities.

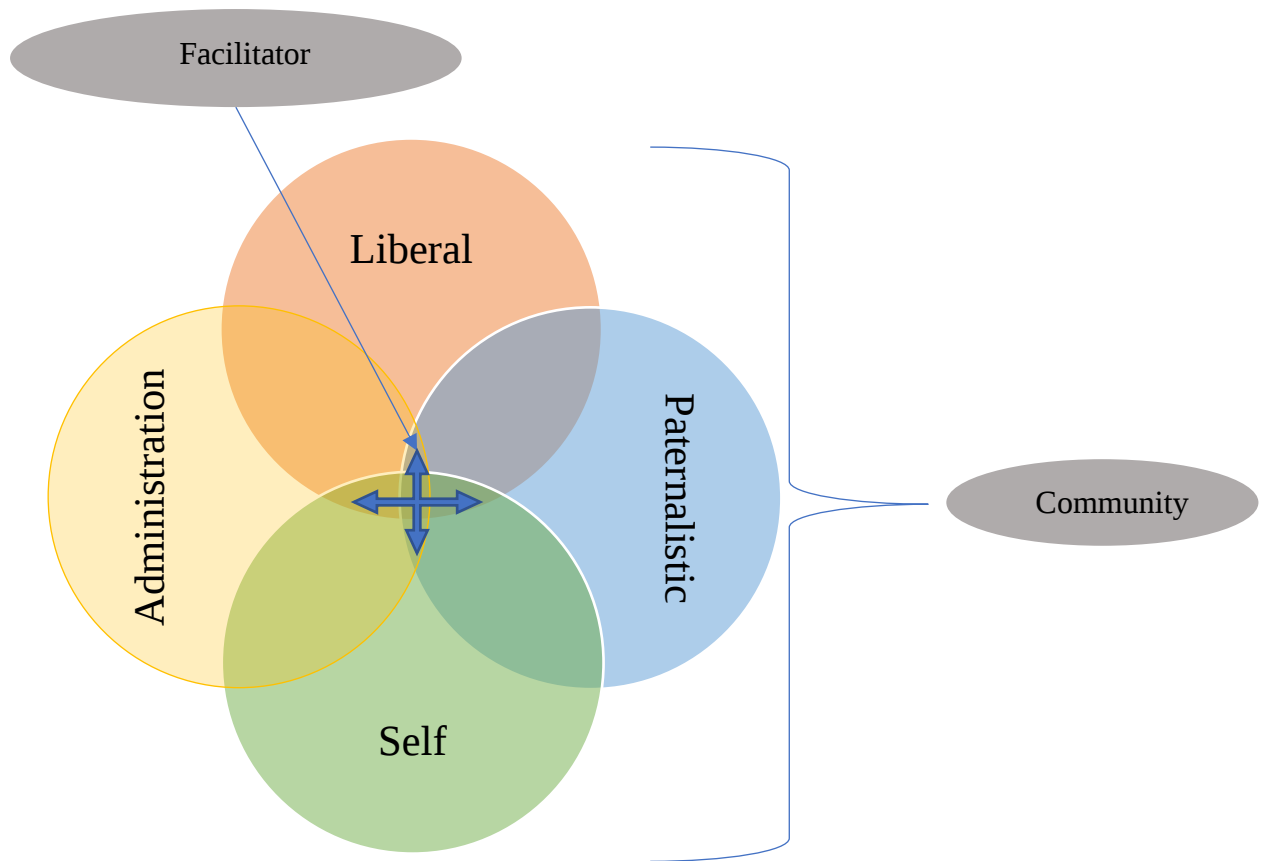


Figure 13: LPSA

5. APPENDIX

General Guidelines for Liberal Paternalistic Self-Administration in communities

This section establishes guidelines that could help creating and transforming communities towards a liberal paternalistic self-administration. This thesis faces the problem of negative psychological symptoms caused by trauma and other factors surrounding the process of migration. One could start to assess the environment and its important requirements in order to develop a concept and then implement it.

Political requirements:

The political environment, or the host, needs to give the camp development its political legitimacy – not trying to instrumentalize or hinder the camp's development. The community should be shielded from external political factors since these might manipulate the internal development. For the implementation, one could state the experimental and developing approach and the ability to intervene if necessary.

Possible indicators:

- Internal political systems could be developed with the support of facilitators
- Communication between internal and external political systems
- Political independence from externalities

Economic requirements (capital and internal economy):

Capital requirements need to be assessed in order to meet basic needs first. Next, capital will be needed to develop an infrastructure in which the community can develop, such as one based on raw materials.

Materials can probably be acquired more inexpensively if the community itself processes them. For instance, housing could be built more affordably if the community has craftsmen who know how to build houses. Working processes could be internalized, reducing costs while providing meaningful activities. For the implementation of an economy, one needs the ability and freedom to create an internal market, which, however, does not liberalise or capitalise basic needs such as food, water, and sanitary facilities. The example of Buduburam shows that refugees are able to build an economy (although it could not survive due to its over-liberalization, causing basic needs to cost more than the market could provide) (Omata, 2017). Raw materials are needed, while intermediate technologies could accelerate the

processing of materials in ways that are already known or could be envisioned. The population's individuals should not rely on external funding such as remittances, which were found to be crucial for sustaining life by Omata (2017) in Buduburam. The creation of an internal economy supported by facilitators and externalities might reduce financial anxieties. Continuous market observation and analysis could help to see whether individuals actually earn or lose money while addressing uprising issues. Individuals and the community itself should have the possibility to earn wages and create capital for further investments on their behalf.

Possible indicators:

- Existence of and developing internal market
- Return of investments from market is a surplus and not needed to cover basic needs
- Possibilities to engage in new market activities such as production of goods or production/sharing of knowledge
- Infrastructure exists
- Market requirements can be communicated and supported

Social requirements:

The community itself might be a heterogenous group. Internally managed sociotherapy sessions could help to increase social awareness and empathy to increase acceptance. Externalities should help to build a functioning committee consisting of members of the community. One simple and quick method could be found in the Austrian SKKM guidelines for crisis management.

Possible indicators:

- Social connections through activities such as sports, arts, etc.
- Cultural activities
- Sociotherapy, open space to meet others

Technological requirements:

As Schumacher stated, intermediate technology could be of use when it comes to starting a production. Old machinery could be donated or inexpensively acquired for community purposes in order to start and improve production capacities, either for the domestic or external market. Starting a production could not only boost self-reliance and decrease dependency but also boost the communities' financial capital for individual or community

investment. In addition, adequate work could promote the use of the frontal cortex, by which negative symptoms of trauma could be reduced. Raw materials need to be supplied externally or, once a market emerges, purchased from externalities by internal means.

Possible indicators:

- Accessibility of intermediate technologies
- Training opportunities for intermediate technologies
- Possibility to communicate technological needs internally and externally

Environmental requirements:

The environment in which the community evolves will require space. Hyams (2021) stated that on Lesbos, locals were generally ready to help refugees; however, when the camp expanded and the olive trees of local communities were destroyed, this resulted in a hostile environment (Hyams, 2021, pp. 123- 129). Communities need space to breathe and develop. If one, for instance, wants to have a football court, by definition the community cannot be limited within its gates. Space is crucial.

Possible indicators:

- Space to freely develop with limited restrictions
- Fulfilment of basic needs
- Possibility to develop and realize environmental capacities

Legal requirements:

Policies should protect the community's ability to act. Policies should protect basic human needs as well as the right to work and produce. Policies that hinder such development or require strict bureaucracy can be great boundaries.

- Policies that align with the community's purpose
- Possibilities and infrastructure for external and internal legal communication
- Protection of rights with reduced bureaucracy

Facilitators:

Facilitators should help the community internally and with external communication. Facilitators can operate as a support if required or desired in community development. Facilitators could search for relevant skills and help offset production and work. They should aim to utilise existing knowledge within the population. Through gathering data, facilitators

could find people in the population who can teach their specific skills to others in order to make productive use of them, which could not only benefit the teacher but also the ones who are taught. One could further ask, “Who can teach what?” and “Who can, or wants to, work where?” and then offer incentives and opportunities for developing ideas. Some might fail and others might have success, but in the end, the whole process should represent an opportunity to be active and take control over one’s life and faith for the good of one’s mental health.

Facilitators can:

- Bring people together to start and develop a community project
- Communicate with externalities regarding internal requirements
- Help the community to create an internal committee
- Help manage sociotherapy sessions
- Assess internal possibilities through statistical analysis of the community data and look for potential in production and learning, etc.
- Analyse and assess the community’s development (security of basic needs, markets, return of investments, etc.)
- Assess the behavioural design and develop it through testing and assessing strengths and weaknesses
- Find further ideas for community projects
- Inform and motivate the community to be active and provide support if problems arise

Community Internalization of PESTEL processes - Circle of Internalization

Increase community internalization and ownership by letting the community carry out as many tasks as can be internalized while still providing protection.

Changes from previous models:

Another important aspect will be transitioning between concepts. Previous approaches to camp management might not fit in a behavioural design approach of self-administration. Ex-ante observations and assessments as well as gathering statistical data about the population could help to design a first concept based on a community’s uniqueness. No two communities will be the same, and the behavioural design approach could ensure individual self-administration approaches for individual communities with unique capacities.

Experiment and develop unique approaches for different communities:

Finally, the behavioural design is a living concept that shapes the environment in which people in the community operate. The BD approach is a living organism that can develop through testing and adapting methods according to the outcomes. Some approaches can work and others can fail, and facilitators will observe and smooth changes in order to achieve sustainable outcomes.

“We are not disturbed by what happens to us, but by our thoughts about what happens to us.” - Epictetus

Maybe one should try to build a new narrative for those who were forced to flee and create a new narrative for their lives through creating an environment for development and self-agency. Creating an environment that is based on individual decision-making and activity could positively shape the thoughts and perspectives of refugees regarding their current position. By encouraging individuals to earn money as soon as possible under adequate conditions with a perspective for the future instead of promoting their dependency, one could create a perspective of self-reliance and a better future. It is the host's responsibility at first to shape and communicate a clear reality by defining the community and the individuals' roles, and this task should be handed over to the community itself as soon as possible. People deprived of their home country who are seeking refuge in a foreign nation, city, or community give themselves up to the mercy of the host – a host that defines their new reality and defines the refugee's new environment in which individuals are bound to live and develop within this externally dictated environment. Individual ideas for community or individual development could be difficult to define in an externally created environment, but perhaps if the individuals and communities are given the opportunity to develop an environment for themselves, together with the host in a productive and collaborative partnership and protected by facilitators, individual means and needs can be met more adequately.

The Hosts – Realizing potential for refugees and hosts with a lived match-quality approach:

The hosts can benefit from this approach as well. With increasing independency and a functioning market and production while basic needs are met, external costs for hosts could be reduced while internal capital rises. In addition, when knowledge is gathered, and desirables of other nations are communicated, educated and motivated workforces can be gathered from the camps and given a return of investment for potential hosts.

One example:

If Germany requires caretakers, it can communicate this need to the community and offer courses in language and caretaking, while additionally the community could be scanned for previous experiences in relevant fields. These courses could start in the community or in Germany and promote a career path in caretaking for refugees while providing Germany the crucially needed workforce in specific sectors.

The approach could be structured as follows:

1. Communicate required workforce between potential hosts and community
2. Scan for already existing experiences
3. Provide courses in language and work
4. Offer opportunities to engage for refugees and communicate such opportunities within the community
5. Support transition to host nation to further integrate in a career path

Monetary necessities:

Earning wages through work and/or education should be considered a must-have in every community as long as the individual desires to do so. There should be opportunities within and outside of the community that can promote either existing work or the development of new concepts.

Children:

Children benefit from social support and are at high risk to develop psychological symptoms throughout their time in the community. Using a buddy programme by which an adult is assigned to a child could perhaps reduce insecurities, while guidance leads to a stronger SOC. Schools could also promote better development and resilience.

Clear communication and clear messages:

What will be the individuals' responsibility in the community, and what are the procedures? As stated by Watzlawick (Quelle fehlt), various realities emerge within the confusion in communication. Creating clear messages of how the community operates and how everyone plays a role in it might reduce confusion and promote a stabilizing awareness of the situation (for instance, according to the SOC). Further, it helps reduce uncertainty, distress, and anxiety.

Information asymmetries:

Information asymmetries emerge among the community members and in the external communication with hosts. Facilitators could help to reduce asymmetries. Internalization could provide the community with possibilities that hosts could not realize due to the limited understanding of the internal factors of the community (such as human resources).

Relationships

Loneliness should be actively assessed. Some possibilities include developing platforms for dating, finding friends, and engaging in sports and other activities. Such activities should be considered normal in the community, and with the help of facilitators, the community could develop its own methods that suit the unique community needs.

Sense of Coherence

Internalize plenty of work and activities that are associated with camp management. This might support individuals' sense of coherence by stressing the ability to impact the environment rather than being managed by a third party.

Self-Efficacy

Distribute tasks among the population, such as within economic (work), social (taking care of the community, sociotherapy) or cultural aspects (performing, creating culture and art). Accept, encourage, and praise internal skills while internalizing.

Human capital

Refugees who have knowledge in a specific area could pass on their knowledge to other refugees who could benefit from it. For instance, refugees speaking certain languages could teach this language independently or with the support of facilitators to others. An active design can start with setting proactive defaults. If people enter the population, they could be assessed and guided towards a path to use their stress hormones, such as default participation in sociotherapy sessions, sports, work, or other relevant activities for the individual or the community.

Work

Work opportunities can promote self-efficacy and independence and can provide skills that can be valuable post-migration. Having several options and tools to produce can be important, and people could be asked to choose one of the provided workplaces, increasing the capital in the camp and establishing an economy.

Find opportunities to work. Skills in the population could be considered for working and teaching.

Time:

Individuals should stay as short as possible and as long as required within the community to reduce potential risks for causing further distress.

Culture

Locations for cultural gatherings could be provided that are assigned to certain groups that feel close to one another. Such houses could be used for all culturally related activities, from praying to creating music and art, and if locations are able to be separated, this could reduce risks of negative clashes. At this time, sociotherapy sessions could be a first start to understand and prevent clashes. The community itself might find ways to address issues that it understands best. Cultural representatives could work out goals that prevent clashes from happening. **Hosts, however, will always have the responsibility for the individuals and the community's well-being.**

Independence

The design could provide group independence and autonomy by giving the population the choice to vote for their representation. Meetings to assess necessities in the camp population could reduce distress.

Education and Teaching

Through sociotherapy and other measures, children and adults can be thought of as having emotional intelligence. Teaching and education can be internalized if the existing human capital provides individuals who have certain teachable skills that could be beneficial for other group members.

Decision-making

Freedom to choose how to contribute to oneself or the community should be implemented in everyday life; at the same time, people should get nudged towards activity.

Groups for Sociotherapy

The treatment gap in a group that is so greatly prone to PTSD and other psychological problems (such as forcibly displaced persons) could be a great burden for the people. While

sociotherapy cannot resolve critical cases, it could be a first aid tool to counter negative impacts on the psychology of the population.

Policies to protect mental health

Policies that ensure that camps can restructure themselves and develop will be needed and might become a great burden to overcome. For instance, employment, space, and aid are often regulated by policies of the host countries, which might limit the possibilities in supporting migration, providing help to those who need it, and offering skills to support integration in a new host country.

Offering incentives – Use existing potentials

Facilitating businesses and opportunities is needed to allow residents to earn a wage. This could be an opportunity for learning, self-efficacy, decreased dependency, and stress reduction. One could find specific experiences and skills in most populations that can be used to start a production with intermediate technologies, as Schumacher (Quelle fehlt) has described.

Communication – Facilitators, Communities, and Externalities

As the concept of sociotherapy illustrates, communication and empathy in populations that suffer from trauma can help to reduce the negative psychological impacts and damage that trauma can cause. However, communication could, and should, go further, and facilitators could help to steer productive discussions about what a population or community needs and how to solve the problems that arise. Perhaps with the implementation of facilitators, as in the concepts of Sirolli and sociotherapy, those facilitators can help the community to develop according to their own means through an approach of constructive nudging and steering through discussions guided by the questions, What do individuals need in our community? What are the urgent topics? What are the fears? **What are our community's and individual SWOTs (strengths, weaknesses, opportunities, and threats)?** There will be various ways communication is needed. One should communicate between individuals, communities, and facilitators. Facilitators, on their part, could ensure communication to externalities and thus reduce the potential loss of information as they form a bridge between host and community.

Shaping a clear reality

People deprived of their home countries seeking refuge in a foreign nation, city, or community give themselves up to the mercy of the host – a host that defines their new reality

and the refugee's new environment, in which individuals are bound to live and develop within this externally managed environment. Individual ideas for community or individual development could be difficult to be defined in an externally created environment, but perhaps if the individuals and communities are given the opportunity to develop an environment for themselves, together with the host in a productive and collaborative partnership and protected by facilitators, individual means and needs can be met more adequately.

Constructing meaning and a guiding reality

From Watzlawick's (Quelle) approaches to reality, one could see an opportunity that lies within the construction of a healthy reality for individuals. One could promote a guiding construction of reality by clarifying the situation and elucidating what is going to happen in the processes of migration.

The following concepts could assist in those efforts:

- Clear communication about the process of living in a community
- Clear communication about how the process of migration will continue (i.e. the match quality approach)
- Clear definition of the environment, what will happen, what one can do while waiting for a match, and what initiatives one can take

Not understanding the environment and the new reality people find themselves in could cause distress, mental health issues, or even (re-) traumatization. The construction of the new reality will be the responsibility of the host, the facilitators, or those people who understand the environment.

Status quo:

Once people are assigned to activities, although they have the option to change, they might stick to the assigned activity due to the status quo bias, which means not only that people stay active but also that the assigned activity should align with the individual's motivations, goals, and possibilities in order to achieve a good fit.

Ontological security

Organizers should acknowledge individuals' past and skills while shaping an environment that lets them discover themselves or foster their previously held identities. Ontological security could reduce anxiety and positively impact negative psychological symptoms.

Apatheia and Nothingness

Whenever there is an individual in the community without a task or goal, the facilitators and the community itself should develop routines that actively push people towards activities. Once individuals discontinue their defaults, new ways of engagement should be found, and often the individual can provide important insight about their motivations.

Setting up an internal organization

Various guidelines exist that could help to set up a first committee, such as those in the Austrian SKKM (BMI, no date). Facilitators should support the process where the general goal is to set up an internal committee that communicates and develops the community with support.

Free speech and participation

The community could adapt a system in which important decisions are undertaken by posting questions for the public to review. For instance, questionnaires (online or offline) could help to make important community decisions.

Gender

Variations and insecurities regarding sex and gender might cause cultural disparities between hosts and communities. Facilitators need to take part in the discussion and communicate between community and host since cultural fit will depend on gender roles as well.

When healing communities fail

Communities can fail due to a variety of options. Poor governance and facilitation or inadequate assessments could all lead to community failure. If a community does not work, various steps could be undertaken:

- Split the community into smaller parts.
- Redefine the governance system and committees.
- Post open discussions and questions to assess what went wrong.
- If cultural disparities cause distress, local separation might be a solution, where one community is split. The sub-communities, however, need individual space and guidance as well as governance independent from the other communities. Local separation is important.

- Switch to external guidance until a new model emerges, while active assessments aim to understand the failure. When the failure is better understood, a new community model can be established.
- Failure should always be assessed and addressed (for instance, within sociotherapy sessions).
- Failure should be seen as a chance to learn and understand what factors cause healing communities to fail.

Stepping Back

Hosts still have the main responsibility to secure safety for the community; however, with the exception of facilitators, stepping back and observing is important in giving people the opportunity to act and actively use their stress hormones and motivations to shape the environment they are currently in and shape the future they aim for. Instead of patronizing the community, hosts should aim for a paternalistic, guiding, and protecting approach.

Stepping Forward

There are various reasons for hosts to step forward to protect the individuals within a community.

- Economic necessities such as financial burden
- Protection of basic needs and security
- Community failures
- Needs that the community cannot fulfil but that are needed
- Danger and threats to the psychological and physical well-being of individuals

Treatment Gap

LPSA is a first aid approach to reach a large group of individuals and encourage them to help themselves. While it aims to acknowledge and address the treatment gap, individuals who need more direct psychological support might be left out and unable to benefit. Those individuals, if found, should receive individual treatment or should have the option for more individualized approaches to take care of their needs.

How-To: Implementation of Crisis Management – implementing a community committee according to the SKKM (Austria)

An internally staffed and built team, as structured in the SKKM guidelines for crisis management, could ease the implementation processes and guide community development together with facilitators. The SKKM approach is an uncomplicated approach to crisis management; once data has been gathered about the community or the community comes to understand itself a little, the approach could help the community to observe its functioning. Internal volunteers could staff the crisis committee, or in our context, the community committee, to observe and assess the development of the community, and each of them will fulfil a staff function.

The functions of the committee in general can be summarized as the following:

Head of Committee:

S1: human resources, organization of personnel

S2: observation and assessment of the overall external situation

S3: operation, responsible for planning and execution of the targets of the committee

S4: supply, infrastructure, finances, medicine, etc.

S5: public relations, press and media work

S6: communication infrastructure within the committee

Assistance team:

Internal/External consultants:

Committee functions will be staffed with one or more persons. All committee members should receive basic training regarding their functions and the functions of the committee (Staatsliches Krisen- und Katastrophenschutzmanagement, n.d.).

Literature

- American Psychiatric Association. (n.d.). What is posttraumatic stress disorder? Retrieved on July 18, 2022, from <https://www.psychiatry.org/patients-families/ptsd/what-is-ptsd>
- Antonovsky, A. (1987). *Unraveling the mystery of health: How people manage stress and stay well*. San Francisco, CA: Jossey-bass.
- Bandura, A. (1997). *Self-efficacy: The exercise of control*. New York, NY: Freeman.
- Basabose, J. D. D. (2017). Coping with trans-generational trauma: A key feature of peacebuilding work in Rwanda. Retrieved from <https://reliefweb.int/report/rwanda/coping-trans-generational-trauma-key-feature-peacebuilding-work-rwanda>
- BBC. (2019). *Rwanda genocide: 100 days of slaughter*. Retrieved from <https://www.bbc.com/news/world-africa-26875506>
- Beck, H. (2014). *Behavioural economics*. Wiesbaden, Germany: Springer.
- Bonnesen, L., Pihl-Thingvad, S., & Winter, V. (2022). The contagious leader: A panel study on occupational stress transfer in a large danish municipality. *BMC Public Health*, 22(1), 1874.
- Bonney, E. (2021). Gomoa Buduburam goes down tomorrow — DCE. Retrieved 16 August 2022 from <https://www.graphic.com.gh/news/general-news/gomoa-buduburam-goes-down-tomorrow-dce.html>
- Braun-Lewensohn, O., & Al-Sayed, K. (2018). Syrian adolescent refugees: How do they cope during their stay in refugee camps? *Frontiers in Psychology*, 9(1), 1258.
- Bundesministerium für Wirtschaft und Klimaschutz. (n.d.). Fachkräfte für Deutschland. Retrieved on July 18, 2022 from <https://www.bmwk.de/Redaktion/DE/Dossier/fachkraeftesicherung.html>
- Chen, J. (2021). Homo Economicus. Retrieved 31 August 2022, from <https://www.investopedia.com/terms/h/homoeconomicus.asp>
- Collins dictionary. (n.d.). Isomorphism. Retrieved 18 July 2022, from <https://www.collinsdictionary.com/de/worterbuch/englisch/isomorphism>
- DeAngelis, T. (2019). The legacy of trauma. *American Psychological Association*, 50(2).

- Dobelli, R. (2013). *The art of thinking clearly: Better thinking, better decisions*. NY, NY: Harper Paperbacks..
- Domenech, P., & Koechlin, E. (2014). Executive control and decision-making in the prefrontal cortex. *Current Opinion in Behavioral Sciences*, 1(1), 101-106.
- Epstein, D. J. (2019). *Range: Why generalists triumph in a specialized world*. N, NY: Riverhead Books.
- Ernste, D. H., & Hüther, M. (2011). *Verhaltensökonomik und Ordnungspolitik: Zur Psychologie der Freiheit*. Retrieved from https://www.iwkoeln.de/fileadmin/user_upload/Studien/IW-Analysen/PDF/Positionen/Positionen_50.pdf
- Frankl, V. E.. (1959). *Man's Search For Meaning: The classic tribute to hope from the Holocaust*. Random House Children's Books
- Goessling, K. P. (2019). Youth participatory action research, trauma, and the arts: Designing youthspaces for equity and healing. *International Journal of Qualitative Studies in Education*, 33(1), 12-31.
- Goleman, D. (1995). *Emotional intelligence* (10th ed.). NY, NY: Bantam Books.
- Grant, A. (2021). *Think again: The power of knowing what you don't know*. NY, NY: Penguin Random House.
- Herbling, D. (2021). World bank: 86 million Africans at risk of climate migration. Retrieved 20 July 2022, from <https://time.com/6110836/african-climate-migration-world-bank/>
- Heslin, P. A., & Klehe, U. C. (2006). Self-efficacy. In S. G. Rogelberg (Ed.), *Encyclopedia Of Industrial and Organizational Psychology* (pp. 705-708). Thousand Oaks, CA: Sage.
- Hirschberger, G. (2018). Collective trauma and the social construction of meaning. *Frontiers in Psychology*, 9(1), 1441.
- Hofstadter, D. R. (2006). *Gödel, Escher, Bach: Ein endloses geflochtenes band*. Stuttgart, Germany: Klett-Cotta.

- Hollifield, M., Warner, T. D., Lian, N., Krakow, B., Jenkins, J. H., Kesler, J., ... & Westermeyer, J. (2002). Measuring trauma and health status in refugees: a critical review. *Jama*, 288(5), 611-621.
- Hyams, H. (2021). *Denk ich an Moria: Ein Winter auf Lesbos* (1. Aufl.). Berenberg Verlag GmbH.
- International Organization for Migration. (2019). *World Migration Report 2020*. Retrieved from https://publications.iom.int/system/files/pdf/wmr_2020.pdf
- Ironside, M., Browning, M., Ansari, T. L., Harvey, C. J., Sekyi-Djan, M. N., Bishop, S. J., ... & O'Shea, J. (2019). Effect of prefrontal cortex stimulation on regulation of amygdala response to threat in individuals with trait anxiety: A randomized clinical trial. *JAMA Psychiatry*, 76(1), 71-78.
- Jackson, T. (2009). *Prosperity without growth? The transition to a sustainable economy*. Retrieved from https://www.sd-commission.org.uk/data/files/publications/prosperity_without_growth_report.pdf
- James, M., & Costagliola, D. (2021). Principal-agent problem, causes, solutions and examples explained. Retrieved 30 August 2022, from <https://www.investopedia.com/terms/p/principal-agent-problem.asp>
- Jansen, S., White, R., Hogwood, J., Jansen, A., Gishoma, D., Mukamana, D., & Richters, A. (2015). The “treatment gap” in global mental health reconsidered: sociotherapy for collective trauma in Rwanda. *European Journal of Psychotraumatology*, 6(1), 28706.
- Jumah, F. R., & Dossani, R. H. (2022). Neuroanatomy, Cingulate Cortex. Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK537077/>
- Kahneman, D. (2011). *Thinking, fast and slow*. NY, NY: Farrar, Straus and Giroux.
- Kellermann, N. P. (2001). Transmission of Holocaust trauma: An integrative view. *Psychiatry*, 64(3), 256-267.
- Li, S. S., Liddell, B. J., & Nickerson, A. (2016). The relationship between post-migration stress and psychological disorders in refugees and asylum seekers. *Current Psychiatry Reports*, 18(9), 1-9.
- McLeod, S. (2022). Maslow's hierarchy of needs. Retrieved from <https://www.simplypsychology.org/maslow.html>

- Mittelmark, M. B., Bauer, G. F., Vaandrager, L., Pelikan, J. M., Sagy, S., Eriksson, M., ... & Meier Magistretti, C. (2022). *The handbook of salutogenesis*. Cham, Switzerland: Springer.
- Mitzen, J. (2006). Ontological security in world politics: State identity and the security dilemma. *European Journal of International Relations*, 12(3), 341-370.
- National Institute of Mental Health. (n.d.). Post-Traumatic Stress Disorder. Retrieved from <https://www.nimh.nih.gov/health/statistics/post-traumatic-stress-disorder-ptsd>
- Newell, A., & Simon, H. A. (1972). *Human problem solving*. Englewood Cliffs, NJ: Prentice-hall.
- Omata, N. (2017). *The myth of self-reliance: Economic lives inside a Liberian refugee camp*. Oxford, NY: Berghahn Books.
- Perry, B. D., & Szalavitz, M. (2006). *The boy who was raised as a dog*. New York, NY: Basic Books.
- Rawlence, B. (2016). *City of thorns: Nine lives in the world's largest refugee camp*. London, UK: Picador.
- Richters, A., Dekker, C., & Scholte, W. F. (2008). Community based sociotherapy in Byumba, Rwanda. *Intervention*, 6(2), 100-116.
- Schoffield, P. E., Pattison, P. E., Hill, D. J., & Borland, R. (2001). The influence of group identification on the adoption of peer group smoking norms. *Psychology & Health*, 16(1), 1-16.
- Schumacher, E. F. (1973). *Small is beautiful: A study of economics as if people mattered*. New York, NY: Random House.
- Shin, L. M., Rauch, S. L., & Pitman, R. K. (2006). Amygdala, medial prefrontal cortex, and hippocampal function in PTSD. *Annals of the New York Academy of Sciences*, 1071(1), 67-79.
- Sirolli, E. (1999). *Ripples from the Zambezi: Passion, entrepreneurship, and the rebirth of local economies*. Gabriola, Canada: New Society Publishers.
- Spielberger, C. D., & Rickman, R. L. (1988). Assessment of state and trait anxiety. In N. Sartorius, V. M. Andreoli, G. Cassano, L. Eisenberg, & P. Kielholz (Eds.), *Anxiety*:

- Psychobiological and clinical perspectives* (pp. 69-84). London, UK: Taylor & Francis.
- Staatsliches Krisen- und Katastrophenschutzmanagement. (n.d.). *Zivilschutz in Österreich*. Retrieved from <https://www.bmi.gv.at/204/skkm/start.aspx>
- Thaler, R. H., & Sunstein, C. R. (2009). *Nudge*. New York, NY: Penguin.
- Thaler, R. H., Sunstein, C. R., & Balz, J. P. (2012). *Choice architecture*. Princeton, NJ: Princeton University Press.
- Torres, F. (2020). *What is Posttraumatic Stress Disorder (PTSD)?* Retrieved from <https://www.psychiatry.org/patients-families/ptsd/what-is-ptsd>
- UNHCR. (1951). *Convention and protocol relating to the status of refugees*. Retrieved from <https://www.unhcr.org/3b66c2aa10>
- UNHCR. (2021). *Global trends in forced displacement in 2020*. Retrieved from <https://www.unhcr.org/60b638e37/unhcr-global-trends-2020>
- UNHCR. (2022a). Refugee definition. Retrieved on July 20, 2022, from <https://emergency.unhcr.org/entry/55772/refugee-definition>
- UNHCR. (2022). *What is a refugee?* Retrieved from <https://www.unhcr.org/what-is-a-refugee.html>
- Van der Kolk, B. (2015). *The body keeps the score: Brain, mind, and body in the healing of trauma*. New York, NY: Penguin.
- Watzlawick, P. (1976). *Wie wirklich ist die Wirklichkeit? Wahn, Täuschung, Verstehen*. Munchen, Germany: Piper Taschenbuch.
- Watzlawick, P. (n.d.). Ausgewählte Zitate. Retrieved from <https://www.paulwatzlawick-institut.at/zitate/>
- Watzlawick, P., & Nardone, G. (Eds.). (1999). *Kurzzeittherapie und Wirklichkeit: Eine Einführung*. Munchen, Germany: Piper ebooks.
- The Economist, (2019) *What is the most dangerous drug?* Retrieved from <https://www.economist.com/graphic-detail/2019/06/25/what-is-the-most-dangerous-drug>

- Woods, H. C., & Scott, H. (2016). #Sleepyteens: Social media use in adolescence is associated with poor sleep quality, anxiety, depression and low self-esteem. *Journal of Adolescence*, 51(1) 41-49.
- World Health Organization. (2021). Depression. Retrieved from <https://www.who.int/news-room/fact-sheets/detail/depression>
- World Health Organization. (2022). Alcohol. Retrieved 15 July 2022, from <https://www.who.int/news-room/fact-sheets/detail/alcohol>

Author's final remark

I hesitated to include a private final note, but perhaps it helps to reduce the reader's risk of falling into the author's biases. Hopefully, it smooths the curve of potentially unobjective claims and views that readers might criticise, for which some private note might be necessary to explain potential shortcomings.

As a child, I was always nervous playing the drums as hard as I could. For five years now, I continuously developed a depression up to the point where the simple existence of me and my mind and body was hurtful and overwhelming. Shortly after I started writing my thesis, I received my diagnosis of depression and PTSD. Today, it's almost like having a flu; in our industrialised nations we all, yes you too, know at least someone who has been there, and society's answer so often is the feared tool "antidepressants."

A 180 degree turn was needed when things got worse. Before I started to write this work, I was notoriously trying to solve everything myself (maybe that's the reason why I am working as a consultant in change management [for now]). When things got worse, I started reading a lot, developing some self-motivated (you can call it narcissistic) interest in reading about psychology. Unable to live within my own shell, I turned towards great questions and discussions, always searching for new explanations and approaches. An egocentric approach motivated me for some education, but it was no real help. Within my two Master programmes, I found some relief, keeping myself busy with studying, reading, and my passion for music. However, only after I decided to seek professional help did my mind start to improve. I am going to therapy; yes, I am taking antidepressants, and although I harshly question society's desire to prescribe antidepressants to make one "suitable," I slowly started to be able to live with myself once again, whereas I will always hope that what I have learned I will never forget.